# The Wisconsin farmer, and north-western cultivator; devoted to agriculture, horticulture, the mechanic arts, and rural economy. Volume XIII 1861 

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## THE

## WISCONSIN FARMER,

Agriculture, Horticulture, the Mechanic Arts, and Rural Economy.

Efmbellished de gllustrated uxith fiumerous etngraings.

VOLUME XIII.
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EDITED BY J. W. HOYT,
SECRETARY WISOONSIN STATE AGRICULTURAL SOCIETY

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# THE WISCONSIN FARMER. 

## THE OLD YEAR AND THE NEW, AND WHAT THEY SUGGEST.

Twelve months soon fill up their varied record and complete a year. When past it seems but a short stage from its commencement to its close, set how many items and incidents diversify its fleeting days and checker its path for each and all of us. Each human has a history, although but few are ever written for publication; and that few, perchance, comprise many more than are worth the paper and printing.

But the history of 1860 will constitute a somewhat eventful page in Western Ag riculture. Such a remarkable season for out-door work, good roads, and general locomotion; such a general absence of rain, sufficient to fill up the streams and wells, and yet just right to perfect and mature the finest crops of almost every kind, that this or any other country has ever seen. A singularity in itself that the oldest inhabitants, perhaps, never saw before, and that the youngest may never see again. To harvest their crops the farmers pitched in with a will, and worked long and hard before it was done. This work was done with greater zest because of the bright promise of fair if not high prices. All felt that the good times had come indeed, and were bound to make themost of them. Times never looked more promising than during the autumn, for a general and substantial revival of every branch of business. Those who were in debt planned to pay up (although many did not quite get to it) and those that were not in debt and
wanted new things planned to buy them. Merchants bought goods, and probably in many cases too large stocks; new schemes of business were projected, and old ones revived; all in all everything promised well indeed, and was doubly enjoyed because of the hard times that had preceded.

But alas ! how uncertain are all human appearances ! The Presidential election excitement passed over the country like a whirlwind; the vietorious shouted, and the vanquished groaned; and when the smoke and dust cleared away, and revealed the final result, the fire-brands of the South were stirred up to a blaze, threatening secession, dissolution, and destruction generally; so much so, as to unsettle the value of southern stocks, and to depreciate them to such a degree, as caused our banking currency founded npon them, to shrink in alarm and to withdraw itself in a good degree from circulation.

This sudden retirement of the paper blood of commerce, caused and is causing a shivering not only in the trunk, but through every extremity of the country. Like an ague chill it racks with unnumbered pains already, and begets a thousand fears of new and unheard of terrors not exactly understood or comprehended. Prices have gone down to the lowest point, and money and exchange up to the highest. How long this state of things will continue, depends upon a score of circumstances, nearly or quite beyond the comprehension of even the wisest.
Meantime the New Year dawns upon
us, and what are the duties and lessons taught us by the past, for profitable application to the present and future. The first and principal lesson taught,is applicable at all times; and that is that all human calculations are decidedly uncertain, especially unless circumsoribed by great prudence and moderation. Nothing appears more common than for over-sanguine people (and their name is legion) to plan too largely, and to expect too much; and that one common error, how many it plunges into difficulties untold, and unending. The desire to do too much, thus involving in debt, anxiety and over exertion.
Who can be much in debt and be happy? or feel safe that they can pay and thus avoid sacrifice, loss and perohance disgrace and ruin ? All things considered, snug and careful sailing is the best in the end, and the most likely to bring safely into port. Every human life may be likened to a voyage, a continued venture, surrounded with storms and perils, in proportion to the risks and hazards taken.
Farmers annually embark on a new voyage, and winter is the time for plans and preparation, therefore let each one as he enters upon the present New Year, cast early and seasonably about him to determine what his freight and cargo shall consist of. What is to be done with each field is probably already determined, and the plowing and manuring done and being done accordingly. What building or repairing is to be done, and what stock to be sold, bought or exchanged; what seed to be used, and how much help to be employed; what machinery if any to be bought new, and what repaired; what, if any, is out in the storm, and what snugly under shelter: all these matters and many more should early address themselves to the attention of the farmer, and be as well and early settled as possible. Much is gained by being in season in all main calculations. This and that thing wanted is often advantageously picked up when thought of in season. In a word, calculation ahead is everything, and doubly so if sound and wise.

Here and there we find a farmer who always plans elose and careful; who never exceeds his income or his means, but always comes out a little ahead. True we
sometimes hear them called old fogies, but that does not hurt them, neither do the hard times hurt them. Such managers are always ready for any times, good or bad; it is nearly or quite the same to them. Let all who would be fast, and " make haste to be rich," stady such examples, and profit by the lessons they teach. To be prepared for all times and circumstances, or as nearly so as may be, is the part of true wisdom and the soundest practical philosophy. Therefore let all, both young and old, as they ent:rupon another year, study this great life lesson, and profit to the utmost from its teachings.

## COMMON SCHOOL STATISIICS.

Through the courtesy of Hon. J. L. Prokard, Superintendent of pablic instraction, we have been permitted to copy the following statistics from bis forthcoming annual report upon the condition of the common schools of this State:
The number of school districts is 3,898 ; the number of parts of districts is 1,829 . Reckoning $2 \ddagger$ parts of districts as equal to a whole aistrict, we bave 4,210 distriets in the State. Number of male children of school;age in the State, 150,013 ; of female children, 188,889. These figures are a little, curious, showing a large excess of males. The whole number of children between"the ages of 4 and 20 years of age attending schools during the past year is 194,384. Nearly one-third have not attended school. The whole number onder four years attending is 2,272 , while 2,826 persons over 20 years of age have attended. The averege number of months children of schoel age have attended is $4 \frac{9}{\text { Pe }} .-$ Average number of months schools have been taught by male teachers $8 \frac{7}{7}$; by female teachers 4. Average number of months schools have been tanght, 6 I 1 . Average monthly wages of male teachers, \$24.20; ditto female teaohers \$14.84. Total amount pald for teachers' wages $\$ 367$,003.21 . The spm of $\$ 139,807,65$ has been expended on Sohool Honses. The total amount of money received from the State for Sehool parposes, is $\$ 171,418,74$; from taxes, \$402,765,23; aggregate receipts for School parposes $\$ 574,183,97$. There are in the State $1,405 \log$ School Horses,

2,296 frame, 177 briek, and 166 stonetotal 4,044. Of these 3,436 occupy tites containing less than an acre, and 3,376 are aninclosed. 3,562 are without outline maps, and 942 without blaekboards. The highest valuation of School Honje is \$32,000. This is the Janesville School House. The lowest valuation is in Outagamie, the value of the structure being estimated, in round numbers, at two cents. The aver'age valuation is $\$ 325$, total valuation $\$ 4,314,386,09$. There are 1,175 District libraries in the State. The aggregate number of volumes is 35,939 ; the number taken out for reading during the year is 32 ,645, of which about one fourth were taken from the Racine Oity School Library.Amount of money raised for District libraries, \$2,003,91.

There are also in the State 161 select and private schools, other than incorporated academies, which are attended by 7,825 papils.

## ESTIMATE OF EXPENSES AND HESOURGES OF THE STATE FOR THE YEAR 1861.

[From the fortheoming Annual Report of Hon. L. P. Harvey, Secretary of State.]

Herewith is submitted an estimate, in detail, of the expenses to be detrayed frum the General fund for the ensuing year, showing each object thereof, as far as they are within the knowledge of this de-partment-and distinguishing batween those which are provided for by perma. nant appropriation, and such as require Legislative action at the next annual seq-sion-also showing the resources which are applicable to defray such expenditures.

## ESTIMATE OF EXPENSES.

## I.-Salaries and Permanent Appropriations.



1I.-Legislative Expenses.
Per diem of Members, for a setsion of eighty days, .................. 825,40000 Mileage, (estimated)........... 5,00000 Officers and Clerks, $\qquad$ 11,50000 Postage, same as session of

Stationery, (estimated). ..... 3,000 00 Newspapers (estimated)....... 4,000 00 Printing in Rnglish language,
including reports $1860, \ldots .15,00000$
Printing in foreign languages, 4,000 00
III-State Prison and Charitable tutions.
State Prison... ................ $\$ 25,00000$ Hospital for Insane, indebt's, 25,000 00 Hospital for Insane, exp'ses, 20,00000 Blind Asylam, ................. 12,500 00 $\begin{array}{lll}\text { Deaf and Dumb Asylum, .... } & 12,50000 \\ \text { State Reform School,........ } & \mathbf{1 0 , 0 0 0} 00\end{array}$ $\$ 105,000.00$

## IV.-Miscellaneous Expenses.



## RESOUROES.

The resources applicable to defray the foregoing liabilities to acorue against the Treasury for the ensuing year, are as follows:

State Tax of 1860 $\qquad$ $\$ 150,00000$ Two-fifths mill tax, direeted by acts of 1857 and 1858 ,. Town Library tax of 1860,.. Bank tax,
Railroad Companies license,
(same as 1860),
Plank Road Co's. do do
Insurance $\mathrm{O}_{\mathrm{o}}$ 's license fees,
(same as 1860), …........
United States, for boarding
convicts, (estimated),.....
Tax on suits,
Hawkers and Pedlars,
cense feez, ..................
Telegraph Companies, for
taxeg, . .......................
Arrearages due from coun-
ties, as per schedule $\mathbf{A}, \ldots$
Due from State University,
loaned from the General
Fund, in 1859,...............
Balanee in the Treasury,

## 73,625 00

18,406 25
86,15543
23,555 96
19158
10,759 21
3,000
6,000
27000
14700
50,175 15

10,00000
39,04546

Liabilities, as Before Estimated.
I.-Salaries and permanent appropriations, ..................... 880,70625 II.-Legislative Expenses,... 71,564 45 III.-Benevolent Institutions,
and State Prison, .......105,000 00
IV.-Miscellaneous Expendi-
tures, .....................103,471 70 8360,74240
Balance, ............................ $\$ 108,58864$
The foregoing estimates are carefully, and, it is believed, liberally made. Should they prove to be correct, the resources of the State for the fiscal year ending September 30th, 1861, will yield in excess of its expenditures, the sum of one hundred and eight thousand five hundred and eigh-ty-eight dollars and sixty-four cents.

The deficiency of E. H. Janssen, former State Treasurer, is, as will be observed, omitted from the foregoing estimate of the resources of the State. The amount is, as given in each annual report from this office since the detalcation was ascertained, $\$ 31,81854$; bat there appears so little prospect of realizing anything therefrom, that it seems idle to count this among the resoorces available for the current expenses of the ensuing year.

Taxation.- The exhibit of receipts and expenditures for the year 1860, presented in the foregoing report of transactions on account of the General Fand-and the estimates submitted, of the resources and liabilities of the same fund for the year 1861, appear to demonstrate that an Annual State Tax of One Hundred and Fiftx Thotanand Dollare, in addition to the other means and reventies provided by law, is ample to defray all ordinary and legitimate expenses of the State Government. The prospective excess of income over current expenses for the next ensuing year, appears, moreover, to justify a moderate appropriation for some work of permanent improvement, should the legislature deem such appropriation called for, without imposing additional taxation therefor upon the people.

The Extension of the Capitol.-In regard of the urgent public necessity demanding further improvements and greater conveniences in the capitol building, a condition of the finances of the State, which warrants resuming this work, without increasing the very light State tax levied by the last two legislatares, is cited with peculiar satisfaction.

The undersigned does not deem it ex. coeding the line of suggestions pertinent to his official report, to urge upon the attention of the Legislature the need existing for a more suitable and healthy room in the capitol building for the accommodation of the Land Department-and to ask their consideration of the totally in-e adequate provision at present practioable for the safe keeping of the school fund se-
curities and fies in the Secretary's office -and the books and records of the Sohool Land office. In respect to the latter, there is no pretence of providing vanlts or safes for their security. The old capitol building, in which they are kept, is not ordinarily safe against fire. The risk is great, and of incalculable importance to the State; and to all persons interested in land titles derived from the State. No careful citizen would expose the books and papers of an extended private business to equal hazard. Few of the older counties have failed to make better provision for the protection of their moneys, accounts and records, than the State has done for the safe keeping of the funds and securities in its Treasury-the securities in which its immense trust funds are invest-ed-and the voluminous records of its land office. The responsibility in this regard, devolved with the duties of the Secretary's office, prompts the suggestion that the matter of the capitol enlargement, so far at least as to provide fire proof rooms and vanlts. and necessary office rooms in the building, should cease to be regarded in the light of a local claim against the State; but as of the first interest and importance to the State at large.

Abrbaragres. - It shoald not fail to be observed that the foregoing estimates and calculations are made in anticipation that all taxes levied and arrearages due will be promptly paid. Particular attention is invited to the table of "Balances due from Counties" (Schedule A). The amount ( $\$ 50,17515$ ) is important to the revenues of the State. Besides, it is grossly unjust to those counties who pay their assessments promptly, that others are permitted to withhold any considerable part of their proportion of the taxes necessary to defray the expenses of the State Governmeut. Some plan should be devised to effect the settlement of existing arrearages, and for the fature, to render taxes levied by direction of the Legislatare more certainly and promptly available.
Appropriations-It is respectfully urged that in every act of the Legislature directing labor to be employed for the State, or authorizing purchases to be made in behalf of the State, provision be made for paymest, by appropriation to be drawn from the treasnry on the warrant ot the Secretary of State, whenever the claim or account is audited. And, further, that the Legislature authorize no extraordinary expenditure of money, whether in the erection of buildings or for other objects, without at the same time providing means, by direct tax when ne. cessary, for defraying the cost. The prompt payment of all dues and deınands against the State Treasury, so recently es-
tablished as a general practice in conducting the business of the State, has aided materially in the reduction of its current expenses. The experience of past years, when the expenses of the State ran a year, at least, in advance of its revenues-when the bulk of miscellaneons accounts esch year were postponed for settlement by the Legislature, and when claims, and even warrants, against the Treasury, were at a large disconnt from cash-and the experience, as well, of very many towns, cities and counties of the State where the "order" system now prevails-abundantly admonishes that the credit system in managing government expenses, tends, in numerous ways, to increase the bardens of taxation.

## YALE AGRICULTURAL LECTURES.

The public will be gratified to learn that the novel experiment of the Yale Agricultural Lectures of last winter was so successful as to induce its repetition this winter on a more complete scale. This course will commence Feb. 5th, and continue through the month. These lectures are given under the auspices of the Yale Scientific School, or Scirntific Department of Yale College, as a supplement to its newly instituted course of practical collegiate education, and for the benefit of the public at large. A new and important feature of this course will be its complete illustration by specimens, drawings, models and animals. Life-sized paintings of groups from celebrated herds, will be included in these illustrations. The lectures on training and breaking horses are to be accompanied by practical illustrations. The lecturers of last year will take part in the course, and other eminent names, with a variety of new subjects will be added to the list.

The expenses of the course will be met in part by voluntary contribution. The lectures are under the direction of Prof. John A. Porter.

Prestrivine Hams.-Take slacked lime, say a peck or half bushel, (according to the number of hams, mix the lime with water and boil in an iron vessel, the same as you would for white washing; let it boil as thick as for whitewashing, and when cold, have your hams laid with the skin down upon planks; then take a brush, (the same as for whitewashing) and lay a good coat on the part unprotected by the skin; let this dry, hang up your meat, and you have sweet hams, free from bugs and akippers, if done in time.

## THE PROPER TEMIPERATURE OF OREAM FOR CHURNING.

The temperature of milk or cream has a much greater influence upon the quantity and quality of butter thanis generally conceded. Dr. Anderson, the celebrated Scotch chemist, says: "If the heat of the milk-house be too great, the milk suddenly coagulates, without admitting of any separation of the cream; or it is so quickly turned sour as to greatly mar the operation. If, on the other hand, the milk be exposed to too cold a temperature, the cream separates from it slowly and with difficulty; it acquires a bitter and disagreeable taste; the butter can soarcely be made to come at all; and when it is come, it is so pale in the color, so small in the quantity, and of so little value in all respects, as to bring a very low price in the market, compared to what it would have brought had it been preserved in a proper degree of heat." This is good, sound logic; but still it does not answer the important query, what is the proper temperature of cream for churning? The following experiments, made by Dr. Barclay and Mr. Alexander, will throw a little light upon the subject. The table exhibits the mean temperature of the cream, the time occupied in the different churnings, the quantity of butter obtained from one gallon of cream in each experiment, the gravity of one gallon of the churned milk produced in each process, and the comparative qualities of the different specimens of butter:


The butter produced in the first experiment was of the very best quality, rieh, firm, and well-tasted; the second was not perceptibly inferior to the former; the third was good, but of inferior consistency; the fourth was soft and spongy; and the fifth inferior in every respect to any of the preceding.

There are several interesting facts connected with the above, which deserve special notice. One is, that cream should not be kept at too high a temperature. The cream churned at the lowest temperature produced the largest quantity and the finest quality of butter. As the temperature was raised, both quantity and quality was affected. The reporters say that "the specific gravity of the churned milk was fuund to diminish as the temperature increased; thus showing, that at the
lower temperatures the butter, which is composed of the lighter parts of the cream, is more completely collected than at the higher temperatares, in which the churned milk is of greater specific gravity." The conclusion arrived at by the experimenters was, "that the most proper temperature to commence the operation of churning butter is from $50^{\circ}$ to $55^{\circ}$, and that no time in the operation ought it to exceed $65^{\circ}$; while, on the contrary, if at any time the cream should be under $50^{\circ}$ of temperature, the labor will be much increased, without any proportionate advantage being obtained; and a temperature above $65^{\circ}$ will be injurious to the quantity as well as to the quality of the butter."

## SMOKE HOUSES.

It is not generally understood how much the excellence of bacon depends on the manner in which it may be smoked. Indeed, we look upon this part of the process as more important than a good receipt for pickling. A ham that is well pickled may be spoiled in smoking it, and then no skill in cookery will take away its dark color, and strong, rancid taste. As this is the time of year when such things must be attended to, I will offer a few practical suggestions on the construction, \&c., of smoke-houses. In building a smoke-house the farmer is more apt to regard external appearances than the object for which it is intended. It may be very strong and neat, but if it be built on wrong principles it will never give satisfaction, and the good wife will always be wondering how it is that her bacon is not equal to that which she eats away from home. Now, there is no bacon in this country superior to that produced in Maryland, where the smoke-houses are certainly rather primitive in their construction. They are usually made of $\log$ s, rudely plastered with clay on the outside, and thatched with straw. The hams are hung upon hooks driven into the rafters. The fire of chips -covered with saw-dust in order to prevent a blaze-is in the middle of the floor -ground floor, generally; and the smoke, after having done its duty, escapes through the innumerable cracks and openings in the wall and thatoh. Such a building is not very ornamental, but it is much more effioient than those we frequently see constructed of brick or stone, with tight roof. a close-fitting door, and but one small aperture for the escape of the smoke. The great secret in the art of smoking hams is to dry them by smoke, and not by heat. When they are kept in close proximity to the fire, they invariably acquire a disagreeable flavor, if not becoming soft and
greasy. The smoke should not be allowed to reach them until nearly or quite cool, and to effect this some farmers have the fire outside of the building, perhaps twenty or thirty feet distant, and conduct the smoke to the interior through a narrow covered trench. By its passage through the trench, it is cooled and purified, and there is no dunger of its giving an unpleasant taste to the meat. A still better plan is practiced by the people of Westphalia, which, as all the world knows, is celebrated for its bacon. The smoking is performed in extensive chambers in the uppermost stories of high buildings. Some are four or five stories above the ground, and the smoke is conveyed to them by tubes from pipes in the cellars. The vapor is condensed, and the heat absorbed by the tubes, so that the smoke is both dry and cool when it comes, in contact with the meat. Many of the farm houses in Pennsylvania have a somewhat similar arrangement. A room is partitioned off in the garret, next to the kitchen chimney, and the hams are hung from the rafters overhead. Near the floor is a small opening in the chimney by which the smoke enters the apartment; and instead of returning to the flue, it finds its way into the open air through the innumerable crevices in the roof. The meat is thus kept perfectly dry, and it will be found to have a color and flavor unknown in that treated in the common method.

A smoke-house can hardly be too open; where the walls and roof are tight, or nearly so, the smoke condenses on the bacon, rendering it flabby and ill-colored. To be sure, when there is good ventilation it takes much longer to complete the process, but this delay we believe to be rather beneficial than otherwise. Some people have the fault of always bsing in a hurry, and their bacon is never well smoked. It should be cured gradually and slowly, and this is another reason why the Germans are so successful in the business. In Virginia, two months is not considered a long time for the operation, and hams of that State aro but little inferior to those of Delaware.

Green sugar-maple chips are the best for the fire, and after maple are ranked hickory, sweet birch, and white ash or beech. Some think well-dried corn cobs superior to everything else; and they certainly furnish a sweet, penetrating smoke. Saw-dust from hard wood is also excellent for the purpose. In damp weather it is advisable to suspend operations, for the moisture that then settles on the hams is very injurious. They should never be allowed to touch each other, or to rest against any flat surface, and it is quite important that they hang with the small
ends downwards, in order to prevent the escape of rich juices by dripping. As a security against flies, some persons are in the habit of throwing a few red peppers on the fire, as often as once a week, which gives the rind or skin a sharp, bitter taste, that is particularly disagreeable to all kinds of insects. Where the smoke-house is so situated as not to be mueh affected by the heat of summer, it is a capital place to keep the bacon after the operation of smoking is perfected. Flies will shun a dark room, and any that gain entrance may be rendered harmless by burning a red pepper or two. If the smoke-house be constructed on the Pennsylvania plan, the daily smoke that comes from the kitchen will be an additional protection.

Washingtonian.
Washington Co., O., 1860.
[From the Rural American.]
BICH PRAIRIE SOIL OF IHLINOIS.
A very general impression prevailed in the early settlement of Illinois, that the soil of the Prairies was so rieh that it never conld be exhausted by cropping, that it would never need enrichment, by the use of manures, that cultivation without cessation, for centuries, even, would not render it any the less fertile. When I first visited this State, which was 1838, nearly every settler entertained this idea. They saw that the prairies were thickly clothed with sweet native grasses, as tall as a common man, with which was thickly intermingled a great variety of the most beautiful wild flowers. They were vociferous in denominating this state "Great Nature's Flower Garden." They almost believed that the black oily muck of our sloughs was so abundant in fatness that pancakes could be fried in it. They frequently talked about the great inconvenience to which they would unavoidably be subjected in the removal of their stables and barns, in order to get rid of the mountain piles of manure with which their buildings were surrounded. They did not even think in necessary to enrich their gardens. They feared that plants of every description would so run to vines as to spoil the fruit.
It is true, the lands of our State are very productive. I am aequainted with many fields which have been either planted or sowed without rest for the space of fifteen or twenty consecutive years, without anp apparent diminution of crops. Such a degree of productiveness was never known in the Eastern States, where the depth of the soil is only from three to six inches. It is common in Illinois to find the upper productive stratum of the earth from one to four feet in depth; hence, its high degree of inexhaustibleness.

But a great change has come over the minds of the inhabitants of this State, since its first settlement. They now find it more convenient to move their piles of manure than their barns, and much more profitable. They have learned by experience that there is not a foot of their lands but what may be improved by the application of some fertilizing substance. Manure applied to any of our lands enlivens and warms them. Seeds will sooner germinate in them when artificially enriched. They will send forth a stronger and more thrifty shoot. It is true, however, that our farms will yield better crops of small grains, for a number of the first years, without any top-dressing. But the soil cannot be made too rich for growing corn. Farmers, move your manures, instead of your barns; for in so doing you will gather up gold dust, with much more certainty than by going to Pike's Peak or California.

Andrew Pingree.
Pingree Grove, Kane Co., Ill.
Why Don't They Use the Roller.Why don't our farmers use the roller more frequently? Is it because they are not willing to incur the expense of the purchase ? Is it because they are not disposed to bestow an extra amount of labor involved in rolling their fields, or is it because they do not understand its uses and benefits ? Do they not know that the roller is almost indirpensible on light soils, because it presses the earth closer around small seeds-that it is equally useful on heavy soils, because it crushes the clods, and brings the pulverized earth in direet contact with the seed-that it is good on grass fields, because it presses smali stones, bones, etc., which would otherwise injure the knives of the mowers, into the earth, and out of the way, and that it also levels ant and mole hills-that it is useful upon wheat fields in the spring, pressing the plants which have been thrown out by the frost, into the earth again-that it exercises a most happy influence upon oats if used after the plants have attained a height of three or four inches; in a word, that it is good almost everywhere, and ranks very properly with the most important implements on the farm?
It is astonishing that while we are making progress in every other direction, we have done so little towards the general introduction of the roller. My own experience with it har been so entirely satisfactory that I cannot forbear urging its importance upon every farmer who has thus far not tried it.-Farmer \& Gardener.
让 We have the authority of Professor Agassiz for the assertion that a grasshopper's organs for hearing are in his legs. Who cares ?

Wound.-A true woman, one who dresses as becomes a lady, seldom meets with any but the most courteous treatment any where or at any time. But she who plays the flirt or coquette, or is bold and brazen faced, of loud laugh, and noisy conversation, in short, she who forgets the delicacy of her sex, displaying this both in the style of her dress and in her general behavior, whether in the street or the car, should remember that character, like a book, is judged by its index. A true observer seldom fails to read character aright as it comes under his critical notice, though it be mantled with a fair reputation. Many a vile character is clad with a good reputation. Purity, virtue, and integrity, alone will stand the test of time and chance which happen alike unto all men and women. He that would be thought righteous, should really be what he would pass for; and she who would enjoy a true woman's perogative, should be clothed in the vestments of modesty and purity; being thus clad, like a Sister of Charity, or an Angel of Mercy, she may go anywhere on errands of good will, with utter impunity, and return unharmed.

Managembnt of Creak in Cold Weather.-For some reason not yet known, cream skimmed from milk in cold weather, does not come to butter, when churned, so quickly as that from the same cow, in warm weather. Perhaps the pellicles, which form the little sacs of butter in the cream, are thicker and tougher. There are two methods of obviating this trouble in a great degree. One is to set the pan of milk on the stove, or in some warm place, as soon as strained, and let it remain until quite warm-some say until a bubble or two rises, or until a skim of cream begins to form on the surface. Another mode recommended, is to add a table-spoonful of salt to a quart of cream when it is skimmed. Cream thus prepared, will generally come to butter in a few minutes when churned. It is thought the ealt aets upon the coating of the butter globules and makes them tender, so that they break readily when beaten by churn-ing.-Maine Farmer.

The Winans Strambr.-The Baltimore papers state that few people are aware of the amount of capital lying behind the "segar shaped steamer enterprise," started some time ago by Mr . Winans of Baltimore. Mr. Winsns holds property of the value of $\$ 12,000,000$, the whole of which will be held in readiness, though of course not necossary, for the farther prosecation of his manla. His recent contract calls for a steamer six hundred feet in length, proportioned to correspond, and finished so as to cross the Atlantic Ocean in fire days' runnin e. Goit!

## HORTICULTURAL.

## INCREASED INTEREST IN ORCHARD PLANTIMG.

We are glad to discover that a much larger number than usual are planning to plant out apple orchards next spring. Some who have hitherto had no faith, seem now quite zealous in the matter.

The remarkably flne show of fruit, and apples in particular, at the late State Fair, coupled with the general fact that orchard trees usually bore so well last season, has undoubtedly wrought this happy change. The present feeling is right, and it is what we have always advised. We have known, or at least believed, for years, that the main causes of misearriage and failure arose from a want of knowledge and care in selecting and planting.

Nine-tenths of the men who planted the earlier orchards in the State knew little or nothing as to the varieties best suited to our climate; they either bought what they had known most aboat east or south, or more usually, what they knew nothing about, except that they got a long whip stock of an apple tree of some kiud. They usually planted just as unwisely as they bought. Not unfrequently upon some flat, rich, and maybe damp prairie, with a hard unloosened subsoil; or maybe upon a southern hillside, where it was supposed to be nice and warm, a great mistake, as experience has at length pretty satisfactorily taught. And what was worse still these badly selected and badly planted orchards were often left to be browsed and rubbed against by cattle, grazed and barked by plows and whiffletrees, and most likely back-furrowed up to until they were twice or thrice as deeply planted as they should have been.

Now who does not know that all the foregoing and much more has often been true of Western planted orchards? and being thus true, who wonders that no better success has been attained? The only trees that have done well are those that happened to be of the right varieties, and that happened to have no other bad luck. But the experience that has been gained
by this foolish mode of tree planting is perhaps worth all that it has cost. Some of our observant nurserymen have thoroughly studied the subject, and confirmed their opinions by the careful examination of hundreds of orchards, thus learning just what varieties thrive, which partly fail, and which fail entirely; also what locations are most favorable to growth, fruitfulness and endurance.

This study and experience has thoroughly established at least two facts: 1st, That there are a dozen or twenty perfectly hardy varieties of apples, that will grow and thrive in any part of southern or central Wisconsin. 2d, That elevated and northerly aspects are by far the best for orchards. These two simple but important facts enable any farmer whose land is elevated and dry, to grow a good orchard if he will. No mistake about it, it can be done even here in Wisconsin.
Who then that cares anything for his family, farm, or country, will not make the effort? Not at some future and distant day, but next spring. Let no more precious time be lost if you already are, or can get ready. The cost of 50,100 , or even 500 trees to start with, is but a trifle; with any kind of care and good luck they will double annually in value, and much more than that in size. And after they come into bearing no one could buy them of you for twenty times their cost, even though now and then one of them does die.

Then farmers everyone of you plan for doing something in this line next spring, and above all things determine not to buy trees that you do not know anything about, or of the men that sell them to you. Don't order trees of non-resident strangers and thus repeat the folly of all past years. Buy of parties you know, and take written warrantees that the trees are the varieties represented. That is the way, and the only safe one to pursue. Don't order eastern or southern trees either, while you can get better and safer at home, in almost every county. Buy low grown trees and no other, but be sure and buy and plant and cultivate and grow an orehard for yourself and for posterity. How many will begin another spring?

Eviry Day Absurditirs:-
To tell your own secrets and believe other people will keep them.
to expect to make people honest by hardening them in jail, and afterwards sending them adrift without the means of getting work.

To keep a dog or cat on short allowance and complain of its being a thief.

To expect your tradespeople will give you a long credit if they generally see you in a shabby condition.

To arrive at the age of fifty aad be surprised at any vice, folly or absurdity, your fellow-creatures may be guilty of.

Yeast.-To make good yeast, boil two ounces of the best hops in a gallon of water for half an hour: strain it and let it cool down to the heat of new milk; then put in a small handful of salt and a pound of moist sugar; beat up one pound of the best flour with some of the liquor, and then mix all well together. Two days after add three lbs. of potatoes, boiled and then mashed, to stand for four and twenty hours, then put into bottles and it will be ready for use. Stir it frequently while making, and keep it warm. Before using shake the bottle well up. It will keep in a cool place for two months.
ON THE CULTURE OF THE CAMELLTA IN THE PARLOR OR DRAWING ROOM.

I thad three tables made, about five feet long and three feet three inches wide, with stripes around the edges, so as to be about a third of an inch above the margins all around, and then common (sawed) laths cut into short pieces, and about two inches apart on the top surface of the tables, so that the water which ran from the flower-pots could pass from one part of the tables to another, crossways or lengthways, and pass out at a notch in the edging spoken of above; by which means the pots would not stand in the water which runs from them. Those tables I placed far enough from the windows and walls to allow a person to pass all round them, and to water and syringe the plants, which made a space of about one and a half or two feet in front and at the ends. The tables should be of a height in proportion to the windows, which windows should be let down at the top, by that means the plants can have air let in upon them, without a strong current passing through them. This I consider a very important matter, as a strong draught or current of air is very injurious.

Plants in rooms should be watered more frequently than in greenhouses, and they should be syringed over the tops every evening about sunset, in dry weather, and twice or thrice a week in wet weather. The syringing will not injure a carpet upon
the floor, if the water is wiped off immediately after the drip ceases to fall from the leaves.

Those that I would recommend as the best to flower in parlors are the semidouble, and that have a green calyx; also all the single varieties. The plants should have air, by letting down the top sash whenever the weather is mild, or when there is no frost in the atmosphere, for a short time, though it may be cool. Camellias require a great quantity of air; they will bloom in a room where the heat varies from ${ }^{\circ} 85$ to ${ }^{\circ} 50$; but will bear a much greater heat and bloom well, and on some occasions they will flower, even though the earth on the top of the pot has been slightly frozen; but extremes, either of heat or cold, do not suit them.
I have had Camellias bloom finely on tables as above, where the sun did not shine on them; but, in such cases, they should have a great quantity of light.

I generally use soft water for my plants, both winter and summer, and it is better if warmed to the same temperature of the room in winter. As to general watering, I think it best, whenever the top soil begins to get dry, to water well and freely, so that the water may pass to the bottom roots, and to repeat the watering when the surface begins to get dry again; when Camellias are bloeming or growing, they require more watering than at ather times.
[We extract the above from the London Floricultural Cabinet, as it is excellent advice. The writer concludes by rules for summer management, which are not adapted to our climate. We therefore add, that in May, after all danger of frost is over, they should be removed to the open air, and placed in a situation where they will be shaded all through the summer from the hot mid-day sun. They will about finish their growth at that season, and will not require so much water.] -Gardener's Monthly.

## DELAWARE GRAPE.

J. E. Mottier, Chairman of the Committee on Grapes of the Cincinnati Horticultural Society, gives seven reasons why he places the Delaware at the head of the hardy grapes, viz:

1st. Its superior quality for table use.
2d. It produces finer and richer wine.
8d. The vine stands the winter freezing better than the Catawba.
4th. It stands the spring frosts better.
5 th. The grapes never rot.
6 th. There is no falling off of the lesves till the grapes are fully ripe.

7th. The certainty of their growing and the general hardiness and healthiness of the vine.

He adds that he has already planted 1200 Delaware vines with such success that he is preparing the ground for 1200 more in the spring.

This is certainly a strong beginning, but is in the righthands, for we do not believe anything will suffer from prejudice in the hands of such men as Mr. M. appears to be, and the exhibition of such grapes as he makes, clearly shows that he knows how to treat the vines. It is just such testimony as this we want from fruit grower3 in the West. Is there a man in the State who has fruited the Delaware ? if so let us hear from him; and if not fruited it, who has wintered the vine successfully, or otherwise, for the last two or three winters. It is time Wisconsin was heard upon the subject of a grape wkich was pronounced three years since, at the East, as the "King of the Natives." The editor of the Horticulturist winds up his leader upon this vine and fruit, in the following spirited manner. After "adopting it as the standard of excellence by which to judge all new comers," he says:
"Its excellence has certainty been lauded in exalted terms, and we must confess that we delight to sing its praises. It carries us a long way up the classic mount, and makes us familiar with such food as the Olypians may be supposed to have delighted in. With it we can be content till another shall give us a taste of something more celestial." Who will not say Amen.
W.

## TREE PLANTING.

For several years past tree planting has been thought of and talked of more as a matter of poetry, to serve as a passtime; or because our fathers did theirs with the hope or even the expectation of ever being remunerated thereby. Prior to the years '56 and '57, millions of trees had been sold throughout the Northwest, and this State had the reputation of being a good fruit growing locality. Antecedent to that period many good erops of peaches had been raised, and in some localities the enthusiasm for orchard planting indueed many to embark largely in orchards, not excepting
the favorite peach. At that time nurseries were not abundant, and most of the trees planted were brought from the East and South, and the nurserymen being mostly from these sections, brought with them the experience gained in their respective native localities in trees and varieties. The consequence has been well timed, and marked with its blessings to the State at large, although individuals have been, in many cases, sadly disappointed. We have learned by this bit of experience that the North must produce its own trees, or in other words, each locality unlike in soil and climate, will grow trees better suited to their immediate vicinity than those of soil and climate entirely dissimilar. This fact has been settled, and we might say established, in some of the States. The Illinois Horticultural Society make three divisions of the State,and give each its list of fruits as adapted to the several districts. Now if this is essential to a single State's limits, how much more necessary that we look to our own adopted list of fruits. The question whether we can raise fruit has been so often and long discussed that it seems waste of paper and ink to say more. That we can raise certain good varieties of apples was very forcibly impressed upon our minds on receiving specimens of Golden Russets and others from the orchard of Mr. McBride, who informed us that he planted his orchard of fifty trees in $\mathbf{~} 55$, and lost about one-half of them from bad selections of varieties, and from the remainder this year raised 50 bushels of as fine fruit as he (or we) ever saw. This is an instructive instance, and shows that with proper selections and care, we shall be remunerated. He intends planting largely another season.

Another great cause of the fruit growers failure is in the planting. "Everybody knows how to plant trees!" Of course they do, and to attempt to teach them, too often, is like preaching to dead men. "We dig deep holes, and tread the dirt tight to the tree," just as a nurseryman would plant the posts about his orchard and not the trees in it. About the same trouble and time is required to plant one as the other by most people, while the one is alive and the other dead; the one planted
to progress in beauty and usefulness, the other to remain as planted a post, and never anything but a post.
But we have not room to enlarge upon this subjeet this month, but may give directions in season for planting; meanwhile let those who anticipate setting orchards next spring, think well of the theory of posts vs. trees.

O. S. WILLEY.

## PLANTING TREES FOR POSTERITY.

"He who plants trees upon his paternal estate, thinning them and pruning them judioiously, repays a debt to his posterity, which he owes to his ancestors. A gentleman whose lands were more extensive than fertile, used to plant one thousand trees on the birth of every daughter, upon his waste ground, which were worth on an average f 1 each, upon her coming to age, thus enabling him to give her a fortune of $£ 1000$, without any extraordinary economy on his part, the regular thinning of the trees every year with barking, \&o., paying off all current exponses besides yielding him a small rent for the land. In the year 1758 ninety-two fir-trees were transplanted upon a piece of ground about three quarters of an acre in extent. The land was waste and poor; no extra expense was incurred, and no further attention was paid to the young trees. In 1813 they were cut down and yielded ninety tons of timber, then worth $£ 4$ per ton, giving s round sum of $£ 360$, which was equal to a rent of $£ 610 \mathrm{~s}$ during the intervening fiftyfive years. Oan a more convincing proof be given of the facility with which a man may give his grandchildren a fortune."
The above we quote from an English journal, and though timber is not scarce or valuable here now, as in England, the day is coming when it will be, unless some method is adopted whereby the wholesale destruction of it, now going on, shall be stopped. Several of our correspondrnts have, within the past two or three months adverted to this subject, directing attention to the best methods of supplying the waste which has been permitted. The extract given above, very forcibly demonstrates the correctness of their views. Not a doubt can be entertained, that within fifty miles of Philadelphia, there are tens of thousands of acres of waste land which might be turned to profitable account fifty years hence, by planting it now with tim-ber-producing trees; and the wonder is, that some of our farmers, who are proverbially prudent and shrewd, have not taken the subject in hand long since. The day will come, and some who read this article, will perhaps live to see it, when an acte of
timber land within fifty miles of Philadelphia or New York will be worth twenty times the price it would now command.Farmer \& Gardener.

## PLANTING FRUIT TREES.

Mr. Editor:-One of the great comforts of a home is the fruit grown on every homestead. We hear of persons almost everywhere mourning the want of fruitparticularly this and last season, in this section of country, and in many other places, as if there was no remedy. But how came the east and north so supplied with it? gid the trees grow of their own accord? Verily, nay; but those who went before us labored to secure fruit for themselves and their posterity. Our orchards are shamefully neglected. We have a fertile virgin soil, well adapted to the harder kinds of fruit, such as apples, pears, plums, and cherries. But to have them speedily we must plant them speedily-reflect and go to work. We need not wait until we can plant out a large orchard, but get a few trees, if no more, and set them out with great care, for the time spent in planting a tree well is not lost, and the next year get a few more, and so on, year after year, as each is able, and soon we may successfully compete with our neighbors at the national fruit fairs. There are many reasons why we should begin at once. Let not next spring pass without a large addition to the fruit trees of our State. "Who plants an apple tree," says one entitled to be heard on the subject, "makes a permanent investment that may be expected to increase from year to year until its original value is a hundred fold. Who plants an apple tree makes prudent provision against life's rainy days, against loss of health, misfortune in business, and old age. The planted fruit tree will be a faithful minister to its owner's profit, improvement, health and happiness. It will stand sentinel over his dwelling, through winds of adversity, when summer friends have fled. While its master is sleeping the tree will be growing. It will be industrious for him through all seasons, converting air, and earth, and water into shadow for his foptsteps, perfume for his parlor, food for his table, fuel for his hearth, and timber for his use. It will serve him contentedly through life, and minister to his wants when its life is ended."

As there are so many kinds brought to this market, and not every one is worth buying or setting out, care is needed in selecting. Many kinds that flourish well in other places will perish here, exposed to our severe climate. Select the hardier kinds from nurseries located as far north as you can get them. Get good fruit, though you get but few trees; set them
with care and use proper efforts to have them protected from cattle, rats, mice and rabbits, and you may speedily have your bin of apples for yourself and your friends. Farmer \& Gardener.

## STOCK REGISTER.

DISCESSION ABOUT SHEEP, AT THE NEW YORX STATE FAIR.
[Reported for the Tribune, by Solon Robinson.]
Mr. John Wade, of Canada, was asked to state what kind of sheep he raises for mutton. He said that he preferred the long wool sorts, because they are more hardy. The mutton sells readily, and the wool, though not worth so much per pound as the fine wool sorts, produces so much more that the value of the fleece is equal. We don't grow much corn, but we feed a great many roots, and feed well. It is foolish to try to keep any animal on low diet. We feed anything that sheep eat best, and I fatten principally upon turnips and hay, with a little meal. The long wool sheep are better adapted to Canada than the fine wool. We shear eight pounds of clear wool per head. The Cotswold variety are preferred; they are stronger constitutions than the Leicester sheep.

Mr. Pettibone, of Vermont-If a man keeps but few sheep, he should keep a mutton breed. If he keeps a large flock, or say 200 or 300 , he should keep fine wool sorts. The trouble in sheep-breeding is in letting them run down in October. I winter 300 head, and 100 ewes will give 100 lambs. I use 400 acres, but many of them are on the mountain, and valued at only $\$ 7$ an acre. I do not let all my ewes breed. I keep my sheep in very close winter quarters, on hay. I feed breeding ewes one peek of corn a day to 100 head. In eleven years I have not had a lamb die, and they are kept without grain, but always with watered salt by them. There is a material difference in the value of the fleece, according to the way sheep are kept. I prefer always to have my sheep fat. In January I select my ewes, and never sell the choice ones. I have an owe that has produced eighteen lambs, and shears four pounds of good wool. I do not select the most gummy sheep for my use; they are much more tender than those less gummy. Still, you must have greasy wool if you have fine wool. I feed generally twice a day-sometimes only once.
Mr. Baker, of Steuben Co., N. Y.-I commence in October, after hard frosts, to feed grain to the lambs, and when winter commences I put them in yards and feed hay twice a day in board racks. I never kept coarse wool sheep. My flock averages 4 to $4 \frac{1 \mathrm{l}}{\mathrm{l}} \mathrm{lb}$. per fleece-not of the
gummy sort. I stable my sheep in winter. I have 400 head, divided into three flocks, by two partitions. The gross sales average about $\$ 2$ a head for wool and sales of sheep. I feed very regularly as to time and quantity. I feed grain sometimes, but not all the time. 1 recommend the increase of our flocks, as they greatly improve our farms. I feed roots to ewes 20 days before lambing. I have kept about 800 sheep a year on less than 200 acres in the farm, both summer and winter feed. I have raised 120 bushels of corn on an acre of sheep manured land. The water on my farm is limestone.

Gen. Hammon, of Monroe Co., N. Y.I commenced with fine wool-sheep, 40 years ago. I then tried Leicestershire, and then came back to Merinos. I have less than 200 acres, and grow 30 or 40 acres of wheat every year; the land improves by sheep. My average lot of fleece is 5 lbs . I keep 330 head, and get over $\$ 700$ a year for wool and increase. I stable 50 sheep in a room $14 \times 40$ feet, without change in the winter. I wash my sheep clean and let them run six or eight days, and then shear. I don't breed from gummy sheep. I feed in board racks, with straight sticks, so the sheep can put in their heads. There is about twenty-fice acres of reclaimed land on my farm that will keep sheep alive, but won't fat them. My farm is limestone, and I prefer fine wool sheep to any other for profit; and I consider sheep twice as profitable as cattle upon any grain farm. I never breed from ewes less than three years old. I don't like the cross of Leicester bucks upon fine ewes. I have sold of wool and sheep over $\$ 900$ a year.
Lewis F. Allen; of Black Roek-I have kept sheep twenty-five years upon a clay loam, natural to sweet grasses, limestone formation, on the Niagara River. There is no general rule as to the profit of keeping sheep. All depends upon circumstances. In Canada I have seen the best long wool sheep I ever saw, bat the sheep are too fat for eating. You might as well dine off a cake of tallow as such meat. Such sheep may be profitable in Canada. With me, those sheep require good shelter. They are not kept warm by their long fleeces. My sheep sheared 5 to 8 lbs . of wool. I don't approve of feeding many roots except to breeding ewes. They are likely to scour sheep, at leapt they do mine.

Mr. Bowen, of Orleans Co., N. Y.-I have bred both coarse and fine sheep. I have yearling coarse wool sheep that weighed 150 lbs . each at one year old. I find the coarse-wool breed the most profitable. My sheep average 6 pounds of wool, that
sells at 31 cents per lb. My sheep are a cross of Cotswold, and are close wooled and hardy. I live on a gravelly loam, wheat soil, and I think it desirable to increase the stock of sheep in this State. A field of olover fed off by sheep, will yield more wheat than if not fed off.
Lewis F. Allen-On some soils it may be best to plow in olover; on other soils it is not. As to mutton sheep, I have fed Southdowns, and the cheapest way that I can make mutton, is upon grass, and wethers of 150 pounds bring ${ }^{5}$ cents a pound gross at Buffalo. I would keep mutton sheep if I had a good farm on a railroad. I can always sell my lambs at \$2. My Southdown fleeces bring $\$ 1.50$ average. Southdown mutton is the best we have, and the sheep always sell well for mutton. The ine-wool sheep matton is apt to taste of the greasy wool. The merino sheep are a hardy race of sheep, but they are not a good breed to keep, where mutton is the main object, and I would not keep a breed for mutton that produce carcases all fat, like some of the long-wool sorts.

Solon Robinson, of N. Y., was called upon to state what sort of sheep sell the best in the New York market, which he has long reported for the Tribune. He stated in substance as follows: Southdown sheep always outsell every other variety in New York to our first-class butchers, but they are not appreciated by the wholesale butchers, who are mostly Irish and Jews. There is always a good demand for choice Southdowns, particularly lambs, and the half-blood ones bring about as high prices as full-blood ones would, if brought in early in first rate condition. Samuel Thorne of Dutchess county, buys good common ewes every year, and breeds them to his full-blood Southdown bucks, and gets early lambs, which sell at $\$ 4$ or $\$ 5$ a head. He clips the ewes, and fattens and sells them, and the sales of lambs, fleeces and ewes average about $\$ 7$ a head over the first eost. This makes a very pleasant and profitable stock business, and should be largely increased, as the market is good now, and improving every year for such choice lambs and fat sheep. The next most profitable breed for the New York market is the long-wooled, heary-carcass sheep. This sort always sells well by the pound; it does not matter that the carcasses are loaded with fat; the mass of mutton eaters in the city are not such as appreciate the finest sorts of meat. Sheep generally sell by the head, and those which are the heaviest, not the best, bring the most money. Early lambs will average $\$ 4$ a head, the later ones $\$ 3$, if fat for the butcher.

Wonders of tee Flower World.Take one of those little flowers known as the Daisy, (Bellis perennis.) Look at it well, for by its appearance 1 am sure you will be surprised when I say that this flower, which is so small and delicate, is really composed of between two and three hundred other flowers, all of them perfeet; that is, each having its corolla, germ, pistil, stamens and seed; in a word, as perfect as the flower of the lily. Every one of those leaves, which form a kind of crwn to the flower, appearing like so many petals, is in reality so many true flowers, and every one of those tiny things in the centre like stamens, is a real flower. If your fingers were already exercised in botanical dissections, and armed with the necessary apparatus and plenty of patience, I might convince you of this.

Fine fheerp.-P. M. Pritchard, Esq., of Fitchburg, in this county, recently purchased a flock of twenty-five first class Merino sheep, at Whitewater, and of the Matchless (or Hemenway) stock, at a cost as we understood, of about $\$ 6$ per head. This would seem a high price, but we have no doubt they will pay even better than low priced ones, if they have good care and escape dogs.
Wm. R. Taylor, Esq., of Cottage Grove, also purchased a very fine Buck of the same popular stock. Good luck to them.

## THE HAY PANIC IN MAINE.

There seems to be a Hay Panic at this time in some parts of our State, judging from the high prices which those who have the article to sell obtain for it, and judging also from the fears expressed by some who are more apt to look upon the dark than the bright side.

That our hay crop was not so large by about one-fourth or one-third as that of last year, is very evident, but that there will be any very hard pinch on account of it seems exceedingly doubtful. We always recommend economy in fodder, whether there be a great or a small supply of forage. By economy of fodder we do not mean a penurious mode of feeding, but one that is judicious and not wasteful. Cattle and other stock should have enough to eat; but it is quite a science to feed stock just right-to so mingle the good and the poor qualities together as to satisfy the appetite and keep the animal fed, strong and thrifty. Some people will do this with half the forage that others will.
We not long since had an article upon this subject, and refer to it now, merely to
excite the attention of farmers to it. As the autumn has thus far been mild, the foddering season has been postponed a corresponding length of time, and thereby much hay saved. Last year at the date of this writing, we had snow upon the ground and were, therefore, obliged to put our catqle up and feed them.
We recommended, not long ago, for every man who had stock to feed and wished to make his rough fodder go as far as possible, to procure a good hay cutter, and if he had a horse-power to propel it, so much the better. By such an apparatus, he would be enabled to prepare fodder in a shape which would not otherwise be eaten.
We know of a liverv stable keeper in a neighboring county who has a large number of heavy horses. He cuts all his hay and wets it with meal in a trough. Indian meal is used pretty liberally, and he states that he heeps his largest horses in excellent order with only fifteen pounds of hay each. This he does by the aid of his hay cutter.

Meal, or provender of different kinds, is this year cheaper than hay, and it will be economy for those who are a little skort of hay, and propose to buy; to purchase grain largely, and hay sparingly. The stomachs of farm stock are so constituted that they will require some fibrous material to give them distension and afford a cud for them to "ruminate" upon while they are resting. This may be done with the coarser and cheaper kinds of forage and the animal kept in good store order, provided nevertheless a sufficient quantity of nutriment of a more concentrated nature be mingled with it.

This you see was done by the stable keeper before named. It is true his horses did not "chew their cud," but they nevertheless required a little of something to distend their stomach which was sufficiently done by the fifteen pounds of hay per day.

In addition to meal, roots may be advantageously used, and also apples, and such other coarser and cheaper articles of the kind as may be at hand, and with a little care and a little judgment a great saving may be made in fodder.

There is another important mode of saving fodder in winter, and that is in keeping your stock warm. A part of the food taken into the stomach seems to be expended in getting up animal heat. We do not yet well understand how this is done, but we know it is done. We know from our own feelings that we can withstand cold weather much better on a full stomach than an empty one.
Captain Perry, we think it is, says somewhere in his account of his polar expeditions, that when their provisions fail-
ed, the cold seemed to increase, and when very hungry the winds seemed to cut right through them, although the thermometer indicated no change in the temperature.
So it is with all animals. Feed them well and the increase of animal heat within is abundantly manifest. It is economy in fodder, as well as the dietates of kindness and meroy to have warm stables for your stock. If you have not the means to build up tight and elegant barns or stables, make them warm some other waybatten them with bark or slabs, or bank them up, Lapland fashion, with sods or boughs or earth, or anything that will keep out the cold. Never mind the looks, if thereby you keep them comfortable.Maine Farmer.

Cashmere Goats in Kentucey.-R. W. Scott of Kentucky, informs the Ohio Cultivator that F. W. Ogden, of Fayette county, has a flock of Oashmere goats, grades and full bloods, male and female. He was astonished to "how rapidly the short-haired scrub is transformed into the fine wool-bearing Cashmere-four or five crosses appearing to make them in all respects equal to pure bred animals from imported stock.'

## WINTERING YOUNG STOCK.

As it is known we Northerners call this the feeding season, during the wintering process great care should be taken particlarly with the young and growing cattle and horses of the farm and barn-yard. It is a universal practice, even among our best farmers, to feed their should-be growing stock too scanty. Seemingly the only policy at stake being to economise their store of feed in the winter instead of summer. This is very bad policy. Honesty is the best policy. "But," says one, "is it not honest to feed savingly?" Is it honest to slipaway half of the colt's breakfast and give it to another? Is it honest to take eight or ten pounds of hay from one steer to give it to some other? Let us see. I bought some yearling steers last April; they were badly wintered and could not grow much during winter, small at a year old. The same winter I fed well some of the same age; a marked difference was discovered. When turned out to pasture, those well wintered continued growing as they had, while the poorly wintered ones gave no evidence of growth or improvement in flesh until about the first of August, when they began to show symptoms of improvement, but too late in the season to catch up with the others, all having equal chance through the summer. Thus, you see, you lose half the summer's
growth of your stock by scanty feeding through the winter. Give plenty of food to your young stook, and in return they will give you plenty of cash. This subject needs a more ample discussion, but I stop, intending to enlarge hereafter. This is an important theme. Think of it, you who have stoek to winter.-Dollar Newspaper.
Watre on Stock Farms.-Mr. Strawn, the great Illinois farmer, gives the following method in the Farmer's Advocate for keeping water on a stook farm: Dig a ba$\sin$ five or ten rods square and ten feet deep, upon a high knoll. Feed corn in the basin to your hogs and cattle until it is well puddled by the tramping of their feet, which will make it almost water-tight. He says the rains of a single winter sufficed to accommodate several hundred head of cattle, and that it had been dry but once in twelve years.

## WEIGHT OF HAY FOR SHEEP.

The question is often asked, How much hay do sheep or cattle require per day? In reference to sheep of a given size, this question is well answered in a letter of the noted sheep-breeder, Alex. Speek Von Sternburg, of Lutzchena, Saxony, to Hon. Jos. A. Wright, American Minister at Berlin. He says:
"One-thirteenth of the weight of the live animal in good hay is considered necessary per day for its sustenance. According to the quality of the fodder, and its abundance or scarcity, this may be increased to one-twentieth part; but less tban one thirtieth part ought not to be given. Taking good meadow hay as the fodder standard, a ram should receive 3 lbs. per day, an ewe about $2 \mathrm{l} \frac{\mathrm{l}}{\mathrm{lbs}}$. per day, yearlings, \&e., in that proportion-taking the average of a full grown ram at 110 lbs ., of an ewe at 82 lbs ., the weight of each varying, according to age, size and condition, between 105 and 125 lbs., as regards the full grown rams, and from 70 to 85 lbs. as regards the ewes. The weight of 3 wether varies between 80 lbs . in lean condition, and 110 and 115 lbs . if strong and fat for the butcher. One lb. of good meadow hay is considered equivalent to $1 \frac{1}{8} \mathrm{lbs}$. of oat, pea, wheat, or barley straw, four lbs. of turnips, or two lbs. of grains in the wet state, as daily delivered from the brewery in the winter. When the time for stabling for winter arrives, the sheep master has his supplies of straw, hay and turnips, allotted to him on the basis of the above calculation, and he is bound to make them serve out the proper time, under feeding being as much guarded against as over feeding and waste. ${ }^{\text {" }}$-Boston Cultivator.

## ECONOMY OF FOOD IN STALL FEEDING.

How to fatten cheapest? that is the question. Fitting an animal for the butcher, is an art that can only be learned by study and practice. Fifteen, twenty, twenty-five per cent. in the value of food may be saved by the man who knows hov. The question of economical fattening includes several others: the quantity of food to be given at a time; variety of food; regularity of feeding; cooking food; warmth and quiet of the stalls, and other items. Multitudes who have had animals to fatten, have never conducted any experiments to satisfy themselves upon these points, and have no access to reliable information. So each man feeds what is most conveni ent, and in the manner most convenient, and never can tell whether he has gained or lost by the animal he sells to the butcher. To answer several inquiries we offer some hints upon these topics.

The preparation of food is a matter of very great importance. Stalks, hay, roots, grain, ete, do not impart all their nutritive qualities unless they are artificially prepared. Much is fouled so that the animal will not eat it, and much more is imperfectly masticated so that it is not digested and assimilated. It should be so prepared that the animal can have all the nourishment with the least expenditure of muscular energy. The less trouble fattening animals have, the better for their thrift. The ox, in a poor pasture, will not thrive as in a stall upon green, cut grass, though he consume, in each case, the same quantity of food. The sheep will not thrive upon whole roots and grain, as when they are cut and ground. The pig does better upon meal, than upon corn, and better still if the meal be softened and swelled by cooking. All food should be given to fattening animals in such a state that they may fill their stomachs and give themselves up to rest, and rumination, if they belong to the ruminants. If a farmer is to fatten animals, it will pay him abundantly to in. vest in cutting machines for hay, stalks and roots, and in a boiler and steam box.

Stalks and rough corn fodder are generally more than half wasted, as usually fed. Run them through ascutter, and steam them an hnur or two, with a little meal, and they will be eaten up clean. Straw, roots and meal are much better after steaming, and more highly relished.

Full Feeding is another item of great importance in fattening. The object is not to get labor or milk, but the greatest amount of flesh and fat possible for the quantity of food consumed. The animal, therefore, should have all the food he will eat up clean, and be stimulated to eat at frequent intervals, from three to five times
a day, according to circumstances. The bullock that is stuffed one day and starved the next, may have the desired streak of fat and lean, but he will be a vary expensive animal.

A variety of food is essential to keep up the appetite under full feeding. Even the pig will tire of but one thing. In fattening, we want both bulk and aliment in the folder. If there be stalks, straw and hay, there should also be meal. If we have roots, we should also have both hay and meal. Perhaps there is nothing better than roots to keep up the appetite. They assist digestion and keep the bowels epen. The beef and muton of England are very largely made of turnips, beets and mangel wurtzels. A change in some one of the items of food should be made as often as once a week. If we have steamed stalks and meal with sliced turnips one week, change the turnips to carrots or beets the next. The neal and roots being the same Indian meal may be changed for linseed oil meal, or for any kiod of grain meal convenient to feed.

Regular hours of feeding is another element of success in fattening stock. This may seem a small matter, but really more depends upon it than on almost anything else. The most economical pork maker we ever knew, was a blacksmith who always fed his pigs at meal time, and his meals were regulated by the clock. Everybody admired his knack at making fat pigs, but everybody did not know his se-cret-feeding by the clock. It is surprising to see how readily an animal forms regular habits. The bullock, the pig, the sheep, looks for the stated allowance as regularly as the clock strikes, and if his wants are systematically met, an improvement in condition is soon manifest. If fed irregularly, they may consume the same amount of food, but they become restless and uneasy. The animal of regular habits, rests or ruminates immediately after eating, and the food is perfectly digested and turned to flesh and fat.

Quiet should be secured as far as possible, especially during feeding hours. For this reason, stall feeding, where each animal is confined to a small enclosure, is much better than pasturage, or large open yards, where cattle worry each other, and may be intruded upon at any time by dogs or noisy men and boys. All animals fatten better in the dark than in the open light, a fact difficult to account for, except that they are more quiet in a dark, secluded place.

With these preliminary hints as to the manner of giving lood, we come now to the food itself. What shall be given so that the butcher may not be cheated, and we get our pay for fodder consumed? A.
farmer must not expect to get the market price for what he feeds to the fatling. If he gets seventy-five per cent., he will make money by the manure, if he knows how to save it. This is the great advantage of stall feeding cattle for the butcher, and if a man has not a use for the manure upon his own land, we doubt if the business can be made to pay. It is considered more than an average thrift, if an ox gains two pounds a day, worth not to exceed sixteen cents. The feed must be less in value than this per day, or the farmer will lose his time and make nothing by the operation. An ox will eat from twenty to thirty pounds of hay, worth half as many cents, or its equivalent in other kinds of provender. An ox would readily eat eight quarts of meal a day, and this alone, in the old States, would bs worth the two pounds of beef. It is quite manifest, then, that the manure making is the only thing that will make stall feeding pay in the North and East.

Our climate and soil are so genial, that we have a large list of feeding stuffs which can be grown upon every farm. At the head of these we place Indian corn for fattening purposes. Then we have oats, buckwheat and rye, the several grasses, apples among the fruits, cabbages, turnips, parsnips, carrots, beets and potatoes. Then if we purchase, we have linseed and cotton seed oil cake, ground into meal, both excellent articles. The following table shows the amount of nutritive matters contained in 1000 parts of several vegetable substances examined in the green state. Wheat 955 , barley 920 , oati 743 , rye 792, beans 570 , potatoes 260 to 200, linseed cake 151 , red beet 148 , white beet 136, parsnips 99, carrots 99 , cabbage 73 , Swedish turnip 64, common turnip 42.
This list places potatoes at the head of the roots for feeding purposes, but it is only where potatoes have no ready market as human food, that a farmer can afford to feed them to stock. They will hardly pay for this purpose, at a higher price than twenty cents a bushel. The other roots can be raised at a cost of from six to twelve cents a bushel, and at this price it will do to feed them. It is quite manifest from these hints that stall feeding is a science as well as an art. No recipe can be given for fattening an ox or cow. The feeder must rely upon his own judgment, and then, quite likely, it will be years before he will make money by stall, feeding. -American Agriculturist.

Cure for Scours in Calves.-Take skimmed milk and scald it; let it cool and skim again; put a table spoonful of powdered resin for a dose three umes a

A Horse Advertisement.-A man in Wisconsin advertises his horse for sale, and thus discourses:
Thou canst trust thy labor to him, because his strength is great.

Thou canst bind him with bands in the furrow; he will harrow the valleys after thee.

He will gather thy seed into the barn.
His strength is terrible, in which he rejoiceth.

The glory of his nostrils is his pride; his neek is clothed with thunder.

He paweth in the valley, and waxeth proud in his speed.

He mocketh at fear; neither turneth he his back from the hobgoblin.
Lo, now he moveth his tail like a cedar; his sinews are as cables.

His bones are like a strong piece of brass; yea, like bars of iron.
He eateth grass like an ox; behold he drinketh up a river, and trusteth that he can draw up Jordan in his mouth.
I will not conceal his parts nor his power, nor his comely proportions.
"He is gentle, he is kind,
And his tail sticks out behind,"
And I want to sell him for something I can pay my debts with - Valley Farmer.

Manufactures in Manceiester, N. H - Manchester, N. H., built at the Amoskeag Falls, in the Merrimac river, is one of the cities of New England which have had a marvelous growth, rising from feebleness and insignificance to places of great business and industrial importance in a few years. In 1840, Manchester had a population of 3,223 ; in $1850,13,932$; in 1854, 18,897, and in 1860, about $25,000$. Its growth began in 1838, at which time there were within the limits of the city proper not more than fifty persons. We have before us a chart of the statistics of Manchester manufactures for 1860 , from which we learn that the capital stock of the manufacturing companies is $\$ 6,840$,000 , which run 6,154 looms and 229,132 spindles. Number of female operatives, 4,890; male operatives, 2,940; consumption of cotton per week, $1,133,500$; yards printed per annum, $17,500,000 ; 2,300,000$ sesmleas bags per annum are woven here. The monthly pay roll is $\$ 139,200$. Besides the manufacture of fabrics, steam fire engines, locomotives, and all kinds of mill machinery are made here; all kinds of axes, adzes, hatchets, \&e., book and newspaper, castings, \&c. Notwithatanding the large number of mills already in operation, it is said that not more than half the water power of Manchester has been brought into requisition, and that some operations will be developed ere long which will greatly increase the population of the city, -W orld.

## MISCELLANEOUS.

## THE DEVIL'S CANON IN CALIFORNIA.

[The Rev. T. Starr King, in the Boston Transcript, gives the following description of the Geysers of California, in a ravine called "The Devil's Canon:"]
"The Geysers are situated in a ravine called, not inappropriately, 'The Devil's Canon,' which is a vast trench, a quarter of a mile long, cut out of anuther ravine nearly fifteen hundred feet deep. We hurried by many of the lesser wonders in order to reach the great steamboat spring, on the right-hand wall of the canon. This is the spout whose loud wheezing we heard, nearly a mile off, while descending into the larger ravine on horseback. Around it is a huge pile of slags and frightful clinkers, over which rises the continual roar of escaping steam from an orifice two feet in diameter, and impulsations precisely like those of a huge engine hard at work. Each beat sends the vapor up visibly fifty to a hundred feet; but in the early morning, when the air was cool, I saw a column five hundred feet high, and widened to a cloud above, belched from the strange boiler that relieves its wrath through the mountain side. Often, a little after sunrise, too, a rainbow can be seen on the steam cloud, spanning the whole length of the awful trench with hues as if they were refracted in pure water drops, and not in sulphurous vapors fresh from Hades.
"To describe all the strange substances and gases that lie along the floor, or issue from the crevices of the canon, would overload your columns and repel your readers. How a chemist would revel in noxious and mephitic vapors that puff or whistle out of the leached, hot walls! Here he would turn up a patch of brown, crumbly soil, and find a clay that looks like blue vitriol; nearly under a shelving ledge is a brisk, bubbling pool, overhung with verdigris incrustings; a few feet oif spirts a beadedjet of hot water, which sheds a dismal brown casting over the surrounding earth; a little way farther still, is a spring that looks like pure hot ink; then we discover a rock of alum that weighs two or three hundred pounds; then a small fountain of epsom salts; not far off, again, a basin apparenty of boiling soap suds: then iron springs, white, red, and black sulphur springs; and soon a foul Stygian sluice, close to the wall, from which a steam exhales that covers the overhanging earth with a slimy deposit which eats your clothes, if you touch it; it bites you as ravenously as aqua fortis. Whether the origin of the eats and vapors is rolcanic; or simply
chemical, is not decided yet I believe, by the scientific gentlemen who have visited the ravine. If it is volcanic, Satan's medicine shop must not be very far below the line of the Pluton Creek.
"After leaving the canon we tried a bath in the Holam, which is conducted at blood heat to a bath-house an eighth of a mile distant. It was refreshing, as a bath ought to be when the water is medicated with every kind of drug and vapor that separately is accounted serviceable to the human frame. One ablution in such a tide ought to save a man from the possibility of rheumatism for life. And more grateful than the bath was the breathing of pure air, and the sight of healthful bloom after two hours' ranibling over the hot ashes and through the Tartarean streams. How delightful that so little of visible nature is a laboratory in which we see her chemical processes raw ! The more wonderful chemistry is that which is sheathed in beauty. There is more violent appeal to the senses in the column of steam that roars through the crevice of clinkers, and mounts a hundred feet to melt away; but there is greater power and more cunning handling of the chemical forces in the driving of water two hundred feet through the tree vines, to be arrested in the substance of leaf and twig, and in the sorcery that converts its drops into the hard column of the tree trunk that will stand five hundred years. In the 'Devil's Canon' we see nature analytic and critical, her work is mostly death. In the flowers, and groves, and hillsides lined with beauty, just outside the sulphurous gorge, and in the blue air and noiseless light, we see Nature synthetic and creative, wrapping her acids in sweetness, vailing her noisome vapors in perfume, transforming her fires into bloom, harnessing her deadly gases to the work of adorning the earth and serving man. And we will ride away from the Geysers, grateful that we have seen its marvelous terrors, and the more grateful that the Creator hides from us by so much ever-renewing loveliness on the bosom of the world the awful fact, which the 'Professor' has concisely stated, that we live on a globe which has a "crust of fossils and heart of fire."

In California, sewing machines are exempt from seizure, the same as mechanics tools and farmers implements.-Prairie Farmer.

The same in Wisconsin. Will not Illinois enact the same liberal protection for this household God.

Experiments are being made in the city of Paris with electric light, as a means of lighting the streets.

TESTIMONY IN FAVOR OF SORGHUM.
Eds. Prairiz Farmer:-In yeply to your inquiry of the 22 d inst., with regard to the Sorghum Cane, I would take pleasure in saying to your readers that I have this year manufactured for myself and my neighbors six hundred gallons of the sorghum syrup.

I have used Cook's Evaporator No. 2, which is a small size. The entire expense of rigging an Evaporator and Mill, was about one hundred and five dollars.

We manufactured from the cane from 20 to 40 gallons per day, working only during the day time.

The reason why we manufuctured so much more some days than others, was from the fact that our evaporator was not protected by any shed or building, and when the wind blew hard it seemed to cool the pan nearly as fast as we could heat it, so that the evaporation necessarily progressed more slowly. The evaporator should stand within an enclosed building.

The color of the syrup which I manufactured was not quite as light as honey strained from new comb, but about that of honey strained from old comb. That made from cane cut before it was perfectly ripe, was of a dark color, about like ordinary N. O. Molasses; while that which was manufactured at just the right time (which is just before frost) was the color of new honey. If the frost bites the cane and it is manufactured soon after, it is not injured; but if it be allowed to lay a week or two, it gives the syrup an unpleasant flavor.
That which I worked yielded from 200 to 240 gallons per acre.
There is no danger of burning the syrup unless you let the pan get nearly empty, which is unnecessary. In faet I do not think it would be possible to burn it with a wood fire.
The flavor of the syrup made from ripe cane, has been pronounced by all who have tested it to be, in commercial language, A No. 1.

With regard to what our old friend of the Ohio Farmer has seen, or perhaps more truly has not seen, of the raising of Sorghum in the Northwest, I have only to say, that the probabilities are that he has not traveled in our section of the country; for mine is only one of a large number of mills that have been operating this season within the circle of my observation. Although interested politicians, and superficial observers, may croak long and loud, that the raising of their own sugar by the farmers of the North is a failure, still I am satisfied from the little experience and observation I have had in the business, that the introduction of Sorghum to our
soil and climate is an entire success. And I would say to my brother farmers of the Northwest, who earn the bread for themselves and families by honest hands, "Don't pay 80 cents per gallon for imported molast es when you can make a better article for 25 cents."

> Yours, Hopkins shivers.

Toulon, Nov. 27th, 1860.
Chinesr Sugar Oank.-Dr. Benjamin Easton, of McHenry Co., has this moment left our office. We have been talking with him about the Chinese Sugar Cane. During the first two years of its culture in that part of the State, there were no proper or adequate appliances for its manufacture. Good syrup was not made. The culture of Sorghum became, comparatively, discontinued. But not satisfied with the tests made, he last spring planted again, and sent for a Cook's Evaporator and other appliances, and has made for himself and his neignbors 10 or 12 barrels of excellent syrup, which sells readily at 50 cents per gallon, and is preferred at that price to any of the Southern syrups or molasses. So signal has been his success, that he intends to plant much more. A complete reversion of opinion, with regard to it, has taken place aurong his neighbors, and they are going to plant largely. He will enlarge his fachlities for manufacturing, and work up the cane in the neighborhood.
He says it supplants the Southern syrups entirely in the kitchen, and, indeed, is suibstituted for sugar in the manufacture of pie, cake, etc.,-being preferred by house-wives. Mr. Easton is a man whose opinion or statement of facts can be relied on. We, therefore, ask some of our wise, doubting cotemporaries down East, what they are going to do about it?

And, by the way, here is some Minnesota testimony, from very close to the line (North or South) of $45^{\circ}$ North latitude, which we find in the Minnesota Farmer:
"The Hon. D. T. Watson, of Lakeland, has sent us a sample of very fine syrup, which he has manufactured with one of Cook's Evaporators. It is, in our opinion, quite as good an article as we Minnesotians need, being much better than ordinary molasses, and nearly equal to the best golden syrup. The color resembles that of honey, and with us the greenish taste is not an objection. Indeed, were we the Governor of this great State, we would ask for no better syrup than the sample sent us by Mr. Watson; and whether we ever get to be Governor or not, we shall encourage home industry, home manufacture, and home-made syrup. Not a dollar should go out of Minnesota for molasses or syrup, and we hope next season a thousand Evaporators will be in-
troduced by our farmers, and that half a million of dollars will be saved to our State."

We are not much posted as to the results of Sorghum in this State the past season. A very small amount was planted owing to the scarcity of good seed and the ill-success of the previous year. Some good specimens were grown, however, and we doubt not well manufactured. Experience proves that nothing is easier than to be fooled on the seed. We know of parties that bought bad seed last spring, and lost largely in consequence of it. We would recommend to all to plant none but seed that they have some pretty sure guartee as to its quality. Experience shows that some varieties are much earlier than others; probably it varies as much as different varieties of corn, We ought to plant early varieties to be safe.
We still continue of the opinion that varieties will be found, and ways found out of manufacturing it, that will be highly economical, if not profitable. When the matter is better understood it will probably be but a small job for each farmer either to manufacture for himself, or hire others, his one or two hundred gallons of good syrup if not sugar also. We hope and expect to see it done despito of all rebuffs and discouragements thus far. Quite a good many of Cook's Evaporators have been introduced into our State the last season, and thus far we have not heard of a party that is not pleased with them. Many, remarkably so. We should be pleased to hear from our Sorghum makers. What is their experience and opinions upon the matter? whether they have any good seed, \&c. Let the public have the benefit of it whether favorable or unfavor-able.-Ed. Faruer.

A man in Ross county, Ohio, states that he had made last season, from watermelons grown on one acre of ground, 18 barrels of syrup, which sold for 80 cents a gallon, giving $\$ 460$ for the acre of land and the labor. The process is as follows: Take only the soft part of the melon, rub it through a wire sive into a barrel, then strain out the juicein a copper kettle, just as you would cider or maple sugar water, and be careful not to scorch it when nearly done.-Rural American.

This beats Sorghum.

## A FEW RELIABLE METHODS

of preparing the boil yor, and sowing the seeds of consumption.
"Dance all night 'till broad daylight," and go home with the beaux "in the morning, " insufficiently wrapped, in open sleighs.

When you receive guests, be particular to make a valedictory communication in the cold hall or open doorway.

Wash elothes in steaming suds, and if the wind is blowing like "forty" hang them to dry in the yard without an extra wrapper about your person.

Eschew woolen under-garments of any sort; and if much exposed to the weather avoid thick boots or shoes.
If you accidentally step into a puddle of water, let your shoes and stoekings dry on your feet; and if caught in a shower with a market basket on one arm, and a bandbox in the other, so that it is impossible to keep your skirts held above the ground, don't think of changing them.
If you have been out "sparking" until the small hours of the night, and have a powerful presentiment that father will give you a gratuitous caning if you crawl in the window over the shed, lie out in the piazza or summer house; or if your home is devoid of those architectural luxuries, repose for a few hours upon the "lap of earth," with the stars above, growing pale while peeping at you.
Use hot water in shaving, and ride six miles in the face of a nor-easter with uncovered jaws.
On retiring for the night, let your boots and hose be the first articles of clothing removed, and have ever-so-many errands about the unheated room.
Sleep in unventilated apartments, and if seized with a hygienic fit on awakening, spring from your warm feather-bed, throw up the window-sash, and with your head out, and mouth wide open, inhale long draughts of frosty air to chill your heated lungs.
In short, to use Mr. Micawber's phraseology, "chesk prespiration as frequently as possible."
The above methods may not be adapted to persons in every condition of life, but we doubt not they eontain sufficient hints for reflective minds to devise rules for their peculiar cases.

Col. G. C. Quick, now in London, has purchased a live Hippopotamus for \$20,000 , and is about to bring it to the United States. If successful in bringing it across the Atlantic, it will be the first arrival of the kind.


BEEBE'S CORN SEPARATOR.

## BEEBE'S CORN SEPARATOR

We give above a cut of Beebe's Corn Separator, which we advertise elgewhere in our columns. Nearly every farmer in Illinois and Iowa are under the necessity of owning a corn sheller of some kind. Many buy the small hand shellers, but when they have a large crop of corn they are obliged to have a machine that will do the work quicker. We know it is to the interest of the purchaser to have machinery that is well made, and that will do in a satisfactory manner the work it is rec $>m$ mended to perform. Knowing these facts, we have made it a rule to recommend no machine that we did not think was just what the farmer wanted. Having carefully examined the above machines, we can recommend them to all who wish to purchase a good corn thresher and separator. It possesses advantages that are combined in no other machine that we have ever seen. It cleans the corn perfectly, making it just what it should be to go into market, without any further trouble of cleaning through a fanning mill. Mr. Beebe is a gentleman, and all who deal with him will be honorably dealt by.-Farmer's Advocate.

Note.-The above machine is probably just the thing for millers, warehousemen, and corn dealers, as well as large farmers. It cleans as well as shells, a very important thing for milling or shipment. Corn as ordinarily taken to mill to grind is full of dust and dirt, all of which is eaten in the bread and pudding. We hope the
millers who make our corn meal will get one and put it into use.-Ed. Farmer.

Extension of McCormick's Ten Pat-ents.-Application has been made to the Commissioner of Patents to extend the ten patents of Mr. Cyrus H. MeCormick, of Chicago, Illinois, for improvements in harvesting machines. A patent was granted to Mr. McCormick on the 23d of October, 1847, which was surrendered and re-issued on May 24th, 1853, again on the 21st of December, 1858, and then again on the 20th of September. 1859, when it was reissued: divided into ten patents, numbered respectively from 816 up to 825 , inclusive. The expiration of the original patent term will take place on the 23d of October, 1861. The testimony in this case will be closed on the 28th of January next, and the day of hearing before the Commissioner is set down for the 11th of next February, at $120^{\prime}$ clock.-Scientific American.

This is one of the patents that we hope will not be renewed. McCormick has levied tribute eaough out of Western farmers. He is probably already one of the very richest men in the West, and made so by the exhorbitant profits on his Reapers. We hope he will not buy nor fool the Department into any renewals.

British Tax on Horses. - The number of horses taxed in Great Britain last year was 288,706 riding horses, and 1,499 race horses. The revenue raised amounted to $\$ 2,000,000$.

## DRILLING VS. BROADCAST SOWING OF WHEAT.

There is, perhaps, no grain crop in the United States in which greater improvement has been made in its cultivation than in wheat, particularly in the great Westand the reason of this is obvious. Until within a few years our Western farmers were without the benefit of railroads and consequently without a market for their surplus wheat, hence there was no motive to increase the crop by extra care and cultivation beyond the wants of the family or neighborhood. But in more modern times, since the opening of the markets of the world to western farmers, wheat has become one of the most profitable crops in a large section of country, and hense our progressive farmers have found it to their interest to prepare their lands better and to make such other improvements in wheat culture as might be brought about with more and better implements for cultivation. Among these the plow, the roller, the harrow, and the drill, have been added or greatly improved, and yet we are far behind the best farmers of Western New York and those of England in the perfection of wheat growing. Among the improved implements that have been introduced there are none more important than the wheat drill; a large portion of the wheat that is sown is made to follow immediately after corn where the drill cannot be used to advantage owing to the interference of the corn stubble and weeds, that are left on the land after harvest. But where wheat is sown on fallow land or after clean crops, the benefits of the drill have been enumerated again and again by those who have used them, and we do not know of an instance where the drill has been introduced that the farmer is willing to discontinue its use where the natura of the preceding crop will admit of its operation: and it is only necessary for the careful observer to witness the crops growing together at any stage of their growth that have been pot in by the two methods, to be fully convinced of the advantages of the drill system.

A prolific writer, and constant contributor to one of our most popular agricultural periodicals, has labored through several columns in two consecutive numbers of the work, with the promise of "further consideration of the subject, when other facts and inferences will be adduced in illustration of the subject," to prove that drilling wheat has no advantage over the old method of scattering the seed promiscuously over the surface, to take its chance for being covered at sufficient depth to insure vegetation, or to remain on the surface liable to be devoured bv the birds.

It is but a short tince since the same
writer labored ardently to prove that in transplanting trees from the nursery with their roots mutilated and half destroyed, as is too often the case in digging them, it was better to plant them with their entire tops than to cut them back in proportion to the loss which their roots had sustained; and in a later number of the same work, the writer labors with equal industry to prove mulching newly set trees is equally inadmissable. Now, all experience, common observation, and the least knowledge of vegetable physiology, as well as common sense go to prove the absolute necessity of the one and the importance and advantage of the other of these processes; but the writer seems to have a mania for taking the opposite sides of all popular questions of the day that have a bearing upon improvements in agriculture. With all intelligent readers his teachings are not calculated to do any material harm. But there are some who may receive his arguments as law, and practice after them inasmuch as they appear without dissent or comment by the editors of one of the foremost papers in the country. It is the giving publicity to the false teachings of such eccentric minds, that too frequently creates the objection to "Book Farming," particularly when they appear in such works as we have alluded to. We are pleased to see all important matters discussed, so long as argument is likely to throw light upon the subject, with the prospect of improvement, but when the writer has no other object but to appear in print, and attempts to overthrow established principles by false reasoning, it is better for the public that he should remain silent.—Valley Farmer.

## RECIPES.

Unbolted Wheat Bread,-Wet with hot water pure, unbolted wheat meal, stir it with a stick or spoon as it cools, knead a little with the hands, make it into buscuit or rolls, rub them over well with dry flour, prick with a fork, and bake in a hot oven. This bread should begin to bake with a brisk heat,

To Use Stale Bread.- Slice the loaf thinly, and make a batter as for pancakes, only thinner; dip the slices in the batter, and fry them brown in hot butter or lard.

Crisped Potatoes.-Boil potatoes until about half done, then peel and bake them in a hot oven. This is superior to the ordinary way of baking.

To Cleanse White Fur.-Rub it with wheat flour and a flannel cloth, and then with a clean flannel. Rub against the grain.

## CHE STATE AND COUNTY AGRICULTURAL

 SOCIETIES.For the Wiscousin Farmer.
D. J. Powers, Esq.,-Dear Sir:-I was much pleased with your remarks in the November number of the Farmer, relating to the Wisconsin State Agricultural Society. The laudable disposition which has prompted our Legislature from time to time to sustain this Society, by its liberal appropriations, shows that there was an expectation that the money thus appropriated should be expended so as to be of a general benefit to the State, in promoting agriculture and manufactures as its leading industrial interests.
The money so appropriated to agricultural societies, both State and county, is from the General Fund, provided by the common revenues of the State; and the citizens of every portion of our wide domain, are equally entitled to the benefits arising from the expenditure.

The question, Do the State and county agricultural societies as at present organized and managed accomplish this object ? is what is most proper to be discussed, as involving the practical points of interest to the whole State. This main question, however, I shall pass over with the remark that the published proceedings of the State Society show that it is managed entirely by a few individuals, representing but a circumscribed locality, as compared with the whole State, and the chief benefits dispensed by it are confined to those individuals. Or in other words, the money appropriated by the State and coming into the Society from other sources, is expended in providing for the State Fair and awarded as premiums for animals, farm and horticultural products, manufactured articles and machinery, and there are very few individuals outside of the Society proper, that are at all benefitted by any knowledge thus originated and diffused.
The absolute leading interests of the State are agriculture and domestic manufactures; next comes mining, and domes. tic and foreign commerce. These pursuits comprise the whole laudable business of the State. Commerce, both domestic and foreign, depends chiefly upon agriculture and manufactures. Now, whatever is done
by the State effectually to foster, promote, and improve these leading interests, is well expended, and returns to the people with accumulated profit.
There can be no organization better calculated to collect, diffuse and disseminate facts involving improvements in these branches of business, than a judiciously organized and well regulated State Agricultural and Manufacturing Board. It should be composed, not of politicians, but of practical men, sufficiently versed in Science to decide correctly upon the practicability of adopting any measures that may be brought before it.
In order to represent the interests of the whole State, let it be composed as you suggest. Let this Board offer premiums or rewards for practical treatises upon practical subjects. Let such of these treatises as may be valuable, be published in connection with the proceedings of the Board, and let this volume of proceedings ard treatises be furnished to the Common School libraries among the different districts in the State.
It is an old axiom "That Knowledge is Power." By this means knowledge would be disseminated and furnished as a fitting pabulum to nourish youthful minds and fit them for usefulness when they arrive at vigorous manhood.
The history of older countries than Wisconsin show that we have much to learn in order to preserve the fidelity of our virgin soil. Other countries of greater natural fertility than ours have been abandoned in consequence of the exhausting system of cropping that its agriculturists have pursued, and wherever this old exhausting system is or may be practised like results will always follow.

I think it may be safely said that nine-teen-twentieths of the pretended farmers of our State are now on this down-hill course, and are steadily pursuing it because, forsooth, they know not what else to do. The habits formed in accordance with the principles instilled into the minds of peopie when young, have so strong a hold, and the knowledge of science among our farmers, as applied to their business, is so limited, that in all human probability complaints of the barrenness of our soil, and of our ungenial elimate, will be nu-
merous and loud before the knowledge necessary to change this state of things will become general.

If our Legislature about to assemble should in their wisdom find that the Wisconsin State and County Agricultural Societies as now organized and managed, are doing all that can be done to promote these vital interests of the community, then let it inaugurate no change, but rather extend to them such further encouragement as may be in its power to do.

That our leading industrial interests need the fostering aid of legislation every intelligent person will not hesitate to admit. Next to our educational system as applied to common schools, none need it more. Indeed the healthy and vigorous advancement of the State is so intimately connected with both that we may almost say that legislative aid should be extended to them equally. The policy in agriculture as pursued at present in every portion of our State is to abstract from the soil its grain-producing properties, and send it out of the country to sustain mechanics and manufacturers abroad. Our exports, or such as are derived from agriculture, consist chiefly of wheat, while our wearing apparel, including the raw material of which it is composed, is chiefly of foreign production, and a large proportion of our dome-tic implements are manufactured in other and older Sta es.

The tribute we thus pay to other countries is fully equal to seven-eights of the entire agricultural surplus produce of our State, and the elementary grain principle is thus carried off never to return. This constantly carrying off must of course soon impoverish our soil and render it unproductive.

I have no doubt but our State Agricultural Society has been the means of introducing improvements into the State to a limited extent, but then the knowledge of these improvements is confined to a favored few. To be sure the Society publishes its proceedings, which makes when tastefally bound a very pretty volume for a farmer's library, but probably not one in fifty of our agricultural tax payers have any idea of the existence of such a book.

The knowledge of improvements, so as
to benefit the masses, must be dissemina ted. The majority of our farmers have but a limited conception of science as applied even to their own pursuits, and need to be instructed in elementary principles.

Let the State then change the application of her appropriations "for the encouragement of agriculture," and provide for supplying our common school libraries with such works as will be useful when read, and of practical application to our country, soil and climate. Such elementary instruction in scientific principles, constantly presented to the young, and incorporated with their common school attainments, and in this manner introduced into the families of our rural population, cannot fail to produce beneficial effects.

The youthful mind can be just as effectually trained to delight in pursuits after knowledge, as to be suffered to run in the paths of folly and dissipation, and when the difference which exists between the industrious, prudent and thrifty citizen, as compared with the brawling loafer and inebriate, is taken into account, all will admit that any reasonable amount of money that may be expended so ss to usefully occupy what would be otherwise intellectual waste places, will be profitably appropriated.
Premiums as usually awarded and obtained at agricultural and mechanical fairs are of very little general benefit. The desire and design of nine-tenths who join such societies is to obtain a larger sum of money for a small one, irrespective of any practical good that may be connected with it, save that of "lining their own purse," and where such a disposition exists, there is no wonder that charges of favoritism and partiality, and a misapplication of money should be made.
Should our Legislature this winter determine to change the organization from "The Agricultural Society" to that of a "State Agricultural Board," as far as possible provisions should be made to secure its management to such individuals as would look faithfully to the public good.

> Yours truly, L. B. Brainard.

Waupaca, Dec. 17th, 1860.
倍 The quickest way to make "eyewater" is to run your nose against a post.

## RECIPES FOR ECONOMIZING.

## PARTICULARLY APPLICABLE TO HARD TIMES.

For Ladies - Keep off Broadway when "great bargains" and "extraordinary reductions" are advertised.

Leave your purse in the bureau-drawer at home, it necessity compels you to pass a "cheap store!"
If you catch yourself thinking how "nice" it would be if you could have a new carpet, just transfer the adjective to another subject, and reflect how "nice" the old one still looks.
If you see anything going at a 'ruinous sacrifice"-let it go !

Dont subscribe to that doctrine of economy which buys a shilling calico "to save," and then pays a dressmaker three times the value of the fabric to make it up.
Settle in your mind just what you can afford to buy, before you can go to market, and don't allow yourself to be tempted by any "surprisingly cheap" luxury.
Have your purse big enough to hold the pennies, and keep 'hem there.
Don't feel mortified because your neigh bor sneers at the darn in your pockethandkerchief, or the mended place in your gloves; the time will probably come when all the needles and thread in Christendom will be insufficient to mend her broken fortunes.

Remember that your expenditures must be regulated by your own circumstances, not the "say so" of Mrs. Grundy. "Let every woman judge for herself" is a capi-
tal motto.

And, above all, never allow ycurself to forget that money goes faster after cheap things than expensive ones. And that, as the wife can not earn money, it is her duty to save it.

For Gentlemen.-Get a port-monaie with a good rheumatic clasp to it-these purses that are easily opened are easily
emptied.

Don't carry bank bills about with you, unless you want to use them immediately; leave your money at home with your wife, and it will be a great deal easier to say "No" to those borrowing friends who er repaying." the Scripture clause of "never repaying."
If you feel inclined to smoke a six-cent Havana, just put a good rye-straw between your teeth instead, and "chaw it" at your leisure. It is astonishing how superior you will find the flavor.
Don't get into a car or omnibus to ride half-a-dozen blocks, but walk, and set your sluggish blood into brisk circulation. Thereby you will save two things-your fare and your doctor's bill.
Remember how superior water is to
sherry-cobblers and brandy-smashes on all
occasions.
Let no day pass without laying by something for cloudy weather. Half a dime is better than nothing. If you can't save something out of the smallest salary, you may safely consider yourself en route for the poor-house!
Don't think how long you have had that old coat of yours-think, rather, how much longer you can make it last.

Send two dollars for a year's subscription to Life Illustrated. You will find at the end of the year that the money has been well invested.-Mrs. George W Ashington Wylls, in Life Illustrated.
For the two dollars we will send both Life Illustrated and the Wisconsin Farmer. Who will do better than that?

## COAL OIL.

When bituminous coal is placed in a retort and heated, it undergoes destructive distillation; that is to say, the elements of which it is composed are separated from each other, so that the substance is no longer coal, but is transformed into a number of other substances, twenty of which have been already separated and examined. Of these twenty, three are oils-benzole, toluol and cumol.

Benzole possesses peculiar properties which render it valuable for many purposes in the arts. It is a powerful solveat of gums, resins and fats, which property, besides rendering it useful when solutions of these substances are required, makes $i$ a very efficient detergent for cleaning cloth, leather, carpets, \&c., from spots of grease, resin and tar. It causes no, njury to the color, and leaves no odor in the fabric. Benzole is the lighest and most volatile of the oils obtained from coal, its boiling point being $186^{\circ}$.

The coal oils of commerce which are employed for lubricating and lightning purposes are principally mixtures of toluol and cumol, generally containing impurities; the heavier oils containing a large proportion of cumol, and the lighter a larger proportion of toluol. A camparison of the boiling point and composition of these three oils is shown in the following
table:

|  | Boiling poin | Composi |
| :---: | :---: | :---: |
| Benzo | 186\% | C12 $\mathrm{H}_{6}$ |
| Toluol | 2370 | C14 |
| Cumol | $314.5{ }^{\circ}$ | C18 H |

It will be seen that they are all composed of carbon and hydrogen. As there is a large class of organic products which differ from each other in composition by the amount of two atoms of carbon and two of hydrogen, and as the existence of another oil between the cumol and toluol, with the composition of $\mathbf{C}^{12} \mathrm{H}^{23}$, would
cause the series of coal oils to vary from each other, according to this law, it is sup. posed that there is probably such an oil which has never been separated.
In the distillation of the coal, the lighter and more volatile oile come over at the lowest temperature, and as the temperature rises those which are heavier and less volatile are obtained. If the retort is too highly heated, the coal is mostly decomposed into permanent gas, which cannot be condensed into liquid oils. The products obtained by the destructive distillation of oil vary very much with the temperature of the retort, and one of the principal objects of using a retorting retort is to keep all of its contents at the same temperature.
Coal oil is far superior to any other for lighting purposes; it produces the whitest and most perfect of all artificial lights. It is also unobjectionable on the score of cleanliness; if lamp oil is dropped upon a carpet, it makes a dingy spot, but coal oil, on the contrary, makes the carpet cleaner. Nearly all organic substances absorb oxygen and decay; lard oil, whale oil, butter, \&e., become rancid by the absorption of oxygen; but as pure coal oil does not absorb oxygen, it never becomes rancid nor decays. As this oil contains no oxygen, it is a perfect protection of any metal immersed in it from rust, and hence it is particularly adapted for oiling cutlery, \&o. As the community beeomes more familiar with its peeuliar properties, the number of its uses is constantly increasing, and consequently the demand for $i t$ is being steadily enlarged.
It is probable that many substances will be derived from coal besides those at present known, and that the applications of this most valuable commodity will be largely increased.-Scientific American.

Notr.-We have been using Kerosene (coal oil) for the last few months, and find it much the best article for light that we have ever used, as well as the cheapest Fluid and candles are nowhere compared with it. We can heartily recommend to all to try it. Banish fluid if you use it, and all dangers of explosion with it.
Fluid lamps can be altered for Kerosene at fifty ents each. Kerosene is much cheaper than fluid, and we think it is bound to supercede all other lighting materials just as fast as known.-Ed. Fary.

Remedy for $a$ Cough.-Two tea cups cider vinegar, four do. loaf-sugar, six do. water; stew a few minutes, and when cool, bottle for use.

Anotier.-Dissolve a fresh unbroken
egg in the juice of four fresh limes or lemons, then add two tablespoonfuls pulverized loaf-sugar, frisk all until light, and it is fit for use.

For an Ordinary Cold on the Chest. -Sew half a dozen onions (white ones if possible, as their odor is not so strong as the red, ) in an old piece of white muslin; pound them with a hammer until all are crushed, and the muslin moist with the juice. Wear on the chest all night and avoid exposure next day.

## THE PANIC.

Are we actually passing through a "financial crisis ?" It is difficult to realize the fact, as long as wealth rises up around us in brown-stone palaces, and ladies promenade our thoroughfares in costumes that might equal an empress's robes for splendor. There is no judging by appearances, is there? But when the storm does burst upon us, what are we going to do? What will the men do, who cannot live within their salaries, even in prosperous times? what will become of the women who have been taught to consider that it is vulgar to go into their own kitchens, and put their own shoulder to the domestic wheel? Of all specimens of the tribe female, your American woman is least fitted to face a reverse of fortune. "She can not work, to beg she is asham-ed"-consequently she can only indulge in vain repinings and piteous complaints, which are about as soothing to the feelings of the unfortunate individual yoked to her for life as oil upon a raging fire. How many of the men who are daily 'itemized' in the papers as having jumped off the dock and taken arsenic, could trace their troubles back to a gloomy home and a whining wife? More, we fear, than would be creditable to the sex. Men and women are educated for wealth and prosperitywhy have they never been educated for a panic? One thing is as likely to happen as the other in this not-to-be-depended on country. We know of some individuals who live in a perpetual panic-who are always "suspending payment"-who take you confidentially aside to solicit in whispered terms the loan of any sum, from ten cents to five dollars. We know of some women who never can make both ends of their purses meet, and whose reckless purchases of silks and laces are continually creating "panics" in the rest of their household fnnds-who starve their families one day and surfeit them the next. To such people, a financial squeeze, more or less, in the course of a few years, does not make much difference. Would that it mattered as little to the rest of the world. -Life Illustrated.

## EDITOR'S TABLE.

## The Press of the state-Acknowledgements.

During the past year as in times before, has extended to us a kind and helping hand in the way of frequent complimentary notices and kindly courtesies; for all of which we feel very grateful, and only regret that we have no efficient and ample mode of payment by reciprocity.

But our editorial brethren may rest assured that their kind favors are duly realized, and will be repaid to them or their children should opportunity ever present.

## Our Agricultural Exchanges,

Are all coming to us bright and promising for the new year, presenting an array of talent and interest hardly found in any other department of journalism.

The agricultural press has grown to a high degree of importance within the last few years, and in all probability has only begun to be appreciated at its true value. True many who call themselves farmers are yet unable to realize its importance, and still find much more in some political or general news sheet to interest them; but this is accounted for from the fact that their tastes are not agricultural, and that they are probably only farmers from accident. Such farmers will usually in the end be found to be accidental in their operations and results.
To offset the latter class a much larger one will be found, who are beginning to learn that accident is not the true system for farming, and that those who would attain to any creditable success must advance in their calling and keep well posted in all its details; not merely in what they can find out from their own observation, but in all that can be learned from the experience and knowledge of others. And this latter can only be done through the medium of the agricultural press.
A good editor continually collects and spreads all important facts, ideas and items occurring, before his readers from week to week and month to month, besides holding his columns open for additional enquiry on each and every topic. What more efficient means could well be devised for the purpose of extending gen-
eral instruction in all that is known in the great art of arts? The agricultural press is bound to be appreciated, and grow in magnitude and importance to an unlimited extent.

## Great Premiums for Subscribers !An experience of sixteen years with the

 Ohio Cultivator, has convinced us that the system of offering sensational premiums, indulged in by many of our contemporaries, is deceptive in character and vicious in practice. We shall put the value into our papers, and make them the attraction, instead of hiring people to take them, by the offer of silly sugar plums. We are down on all shams, and this practice is becoming one of the greatest shams of the age.-Ohio Cultivator.The foregoing expresses our views exaetly, and the most shocking sight we see in connection with the agricultural press is the blazing offers of great premiums. They particularly abound the present year, and though usually connected with the boast on the part of the publishers that their circulation is already immense and rapidly increasing, still we are led to believe that such spasmodic efforts usually indicate just the reverse, as the true condition of things. The idea of offering anywhere from fifty to five hundred dollars for the largest list of subscribers at the lowest club rates, (usually not paying a penny of profit) is simply absurd, if honest, and worse yet if a cheat. A good paper and an appreciative set of readers ought to sustain each other, without any such mock auction or gambling devices, and when they do not, then it would be better for all parties to stop than to thus attempt to keep on. If anything finally runs the agricultural press into the ground, it will be this meretricious mode of doing things. Another modern practice equally insulting to all good taste, is that of erowding in all the flashy, trashy, pictures from every old book publisher in the country, and calling them splendid illustrations. What do they usually illustrate? Gammon.

## Cook's Evaporator.

So far as we have heard has given the highest satisfaction to all who have used it. We think they will be considerably used in the making of maple sugar the ${ }^{*}$ coming spring.

What of the Times.
The dull snug times have stood about as stationary for the last month as if stereotyped. The drop in prices put things on the bottom shelf at once, and there they heve steadily remained. The derangement and depression in money matters appears to be the main cause of the difficulty so far at least as the West is concerned.
If the state stocks on which our Western banks are founded should improve again in value, and promise some degree of stability, our money handlers would again aequire confidence in proportion, and farnish circulation for buying and handling the yet remaining large bulk of produce in the country.

The momentous national questions that are agitating the country lay at the bottom of the whole difficulty, and until they are disposed of or seek out their own salvation in some way sufficient at least to pretty clearly indicate what the final consummation of them will be, we can hardly look for any material improvement or change for the better; and perhaps have no considerable reason to look for a further depression. Still the same causes that have borne us down to our present condition, might, if aggravated by any additional unhappy circumstances, still send us down to a lower depth, much lower even than we have seen during the entire run of the hard times. That the times have been hard enough, commonly speaking,for some years past, all will admit we feel sure, still we should not forget that much worse times have been seen by out fathers and grandfathers in the olden times; of all of which we have heard and read in the chronicles of those days.

This generation of Americans have sailed so long upon smooth, quiet and prosperous waters, that even little squalls and small waves seem like a big storm, and to send our fair weather business prospects kiting in all directions. Perhaps it is well enough for all of us to reflect upon these things, and in some measure to realize the changes and chances that are always possible to arise sooner or later even among the most quiet and orderly communities.

Mankind have grown somewhat wiser
than of old, no doubt. Still it may not be well to flatter ourselves too much in that direction, and forget that we are still imbued with the same passions and in almost the same degree as have hitherto, through all ages, actuated poor humanity. Who of us can tell how much provocation it would require to develope the war spirit within us ? how much chafing and excitement to arouse the tiger in our natures and to send us thirsting for the blood of our enemies.

If distant, protending evils derange and block the wheels of all legitimate business so badly, what would be the results of ac: tual revolution and warfare? Suppose, (what is possible but hardly probable) that this great nation should actually get by the ears, and turn their reapers an $\alpha$ mowers into baggage wagons and war chariots, their cott in gins into flying artillery, and their negroes into pack horses; should tnrn their wheat, corn and cottgn fields into 'field of battle for a few campaigns; when our young men by the million would be drafted into the armies, and our maidens left to single blessedness; suppose all this, we say, and all its consequent evils, and what kind of a lesson would it teach the present inexperienced generation, few or none of whom have ever seen any real trouble or hardships ? The present times, oppressing as they now seem, would in comparison with wars and desolations, brighten up to a covetable standard, beyond dispute.

We have not indulged in so much speculation because we really expect ever to see the American people so foolish as to dip into the follies and outrages of bloody war, still many stranger things have happened and may happen again, so it is well enough to think of such matters occasionally, if for no other reason than to realize from comparison our true condition in the present. Deplorable however as such war consequences would be, we still deem them less disastrous in their effeets than would be an abandonment of principle in fundamental matters of government and civil liberty. A people who stand firm and unflinching for the right will in the end come out right, while those who bend to every hreeze will usually come out about where they happen to. Let us all do the
right thing, and keep doing, and trust to God and Providence for the results. The times will come right when they get ready.

A farmer in Watertown, Conn., has been fined for letting Canada thistles go to seed on his own land.-Exchange.
Served him right, of course, as the seed would surely tlow and scatter all over the neighborhood. We ought to have such a law in every State in the North-West, and heavy penalties attached to it. When Canada thistles once get fairly into our soil, all the power of our State and the people cannot get them out again; while the keeping them out in the first place is perfectly easy. Clearly a case where an ounce of prevention is worth not a pound but a ton of cure. Woe to them who either scatter or allow thistles to grow in the West!

Pine Apple Chrese.-Mr. Norton, of Goshen, Ct , manufactures this form of cheese quite extensively. The Homestead thus describes the process: "The curd of about three hundred cows is bought and daily brought to the factory to be made into pine apple cheese. These weigh about six and one-third pounds each, and about six hundred and fifty are made every week in the best of the season. They are pressed in smooth moulds, the marks upon the surface being made by softening them in hot water, and hanging them in nets made for the purpose. Here they hang till fully cured and fit to send to market! The whole number made this year is about ten thousand. They are carefully boxed and sent to market in the neatest order, and being made hard and firm, they improve with age, enduring any climate, and are in steady demand for shipping."

## Peach Blow Potatoes.

How have those potatoes that were recommended so highly last spring proved in quality, \&c.? We would like to learn from those who tried them. Ours were planted very late and were late in maturing. Did not have a fair chance, hence do not prove anything extraordinary.

## Items from Winnebago County.

D. J. Powers \& Co.:-Please find enclosed one dollar for the Farmer for 1861.
Your plan of a reorganization of our State Society meets with general favor in this vicinity. I hope the time is not far distant when something of that kind may be done to make our State Society a true exponent of the agricultural interests of this great State.
Our ex-Assemblyman, Geo. S. Barnum, after using all the arts which politicians know so well how to use, failed to secure a renomination, so he run as stump candidate, and after being adopted by the Demoerats received only about one third of the vote of the district, his own town giving him only 76 Republican votes out of 300 . A first rate example to servants who assume to be masters.

Respectfully yours,
H.
Winnebago Co., Dec. 3, '60.

## The Kirby Reaper and Mower.

We would like to hear from those who used it in the State last season. All we have met speak in high terms of it, particularly to use on uneven ground.
The Kirby principle patented, or one of the most important of them, is the independent action of the cutter bar; not being governed in its height by the driving wheel, but having an entirely independent action, admitting of being raised or lowered at pleasure.
This peculiarity is claimed to adapt it to running on rougher ground, either in reaping or mowing, than any oilher machine going; especially on wet and boggy mashes, where many mowers would not run at all, it is said to do good work,
We would like to hear from disinterested persons who have given it a fair trial, as we are constantly enquired of in relation to it, and wish to be able to give reliable answers to enquirers. Furthermore we have engaged to assist the manufacturers in getting up a good and reliable corps of agents for selling it in Wisconsin, for all of which reasons we wish to learn all we can about it, and especially if it proves as superior as claimed for it. Those who will have the kindness to post us on the subject may benefit both themselves and the publie.

## Madison Mutual Insurance Company-Its An-

 nual Meeting.This company holds its annual meeting and election on the 7 th of January, at 2 P. M., at their office in this city.

We hope to see as many of the members present as can make it convenient to attend. The company's business and affairs are in a sound and prosperous condition; all losses paid up without any assessments since 1858 , and no prospect of them at present.

This company is demonstrating in fact, what is claimed theoretically for mutual companies: and that is, that they can insure for much less than is charged by stock companies. Insurance in this company for the years of 1859 and 1860, has not cost on five year policies over from seventeen to twenty cents on the hundred dollars, or from a fifth to a sixth of one per cent per annum. This will certainly be called cheap insurance for the West.

We have the last annual report of the old Vermont Mutual, in which they show that their insurance on farm property has not cost over about one seventh of one per cent per annum as an average for the last fourteen years. On the contrary we know of no stock company that insures for less than one half to three fourths of one per cent. Hence well conducted stock com panies make vast amounts of money out of such farm insurance; and what they make the farmers lose.

Stock companies make vast sums of money annually out of our State, not only on farm property but on business property of all kinds. We ought to have a good Mutual Company for insuring commercial and business property. If once well started and properly conducted, stores, merchandize, mills, and all ordinarily good business property could be insured for one half what it now is by eastern stock companies; then the State would save the other half and it would be a large sum, indeed.

We hope that members will come in from all quarters, and look up and through all the affairs of the Madison Mutual; the better they understand it the better we presume they will think of it.

## California Wheat-

Who has it for sale? We hear inquiries for it.

## Postal Reform.

Postmaster General Holt has done a good thing in his Annual Report, just given to Congress. He proposed to reduce the postage on seeds and cuttings sent by mail, in packages of not more than eight ounces, to one cent an ounce, instead of rating them at six cents an ounce, as at present. We hope the present Congress will enact the same into a law. It will be of more service to the country than the free distribution of the Patent Office.

This is a reform that ought to be made and a privilege that ought to be enjoyed. We have paid piles of postage that this would have saved us, and that we could illy afford to pay.

## Willow Fences.

D. J. Powers \& Co.,-Dear Sirs:For your notice in the Nov. No. of the Farmer I would thank you, and would say further if you or any friends you have, should be at Ripon this fall or winter, perhaps you would like to see what a willow fence looks like, and what the reasonable prospect is of its being a permanent fence. I have just finished layering about 6 rods, and shall finish about 30 rods more if I have time next spring. It will give a better idea of my meaning and prospects, than pages of description by me.

Yours truly,
J. Limbert.

Milwaukee, Nov. 14th, 1860.

## Sorghum Seed-

We would like to enquire if anybody grew any ripe Sorghum seed last season, and if they have quantities to spare?

We are beginning to be enquired of in relation to it, and do not know what arswer to make. That there is a great difference in the early maturity and ripening of different varieties of seed we are sure, probably just as much as with the different kinds of corn. It is the early kinds that we need for this climate and latitude.

We hope those who have information upon the subject will enlighten us all they can both as to good seed and where it can be got, for another years planting.

To Agents and Friends of the Farmer:
Friends, we again renew our call upon you to do what you can in your respective localities for the circulation of the Farmer for the year of 1861, and in doing so are unable to hold out to you any very extraordinary inducements in the way of large premiums or other compensation.

We simply ask our friends to work for us as they have hitherto done, on the same principle that we publish the Farmer for the good that we hope to do and effectuate through its instrumentality. We have never counted on any pecuniary gain personally from the publication of the Farmer, but have found much higher incentives for our continued labors. The same must animate all who take a look beyond the present.

That our State owes something of its rapid progress in agricultural and business development to the labors of the Farmer, and the band of friends who have steadfastly labored for it, cannot well be doubted, and that we still owe a duty in the same direction is equally certain.

Let all then, who still think as we do, continue to lend a helping hand to this home enterprise, and trust to time and the future for the results, they cannot well fail in the end.

That the Farmer has hitherto mainly owed its prosperity to the favor and industry of its friends is fully realized and acknowledged. And a continuation of the same kind favor is confidently hoped for and counted upon. Look up our old patrons and friends in all the localities, and put them on the course for 1861, the earlier the better. All favors of this kind will be duly appreciated and rewarded to the fallest extent, as often as opportunity occurs. Let us hear from you then friends one and all as early as practicable, and as largely and fully as possible.

## The Legislative Session

Convenes early this month. What or how much important business is likely to come before it we do not know; much perhaps depends upon the disturbing movements of the country. Should matters in this direction get worse, it might materially augment legislation, not only in relation to currency and collections, but per-
haps in the way of arming and providing the requisites of military strength to sustain and vindicate the character of the State. Provisions may have to be made for training not only Wide-A wakes but Young Americans and Douglas Guards into soldiers, real soldiers, not holiday ornaments.

We think the new apportionment will be made in season to enable the present session to re-district the State. If times turn up better instead of worse, which we hope at least, then we not see what will call for a long session, or even justify it.
Fowl Meadow Grass Seed.
A gentleman to whom we forwarded some of this seed last spring, informs us that it turned out to be bogus in the highest degree, being composed of every vile article.

This being the only case we have heard from, we are led to inquire how it was with others who tried it? If we were humbugged generally by those who forwarded it to us as a genuine article, we will look the matter up, and prevent if we can, their fooling others.

We should be glad to hear from all who tried it.

For Grove Planting.-A Wisconsin correspondent recommends sowing chestnuts for groves, or rails, in rows, 20 feet apart; the next best is Yellow Locust, plant same as Chestnut; fit the land as for corn, and plant the seed fresh.-Geneses Farmer.

We doubt if the Chestnut will grow and stand our climate. We have seen a few trees that grew to bearing, but few indeed. They seem to require a peculiar soil, as suitable climate. It may be well enough to experiment with them, when the outlay is small.

The Yellow Locust has been extensively planted all over the State, and a good deal of dependence been placed upon it for groves and timber. It may do very well for the former, but for the latter we think it is falling considerably short of expectations. It grows fast for a little time, but only attains a small size in many years; besides the borer is very apt to destroy it. We have mainly lost our faith in it, and don't believe it is going to answer.

Officers of County Agricultural Societies for 1861.

Waushara County.-The officers of this Society were elected at the annual meeting, Nov. 14, 1860, and are as follows:
President-Edward Saxe; Vice Presi-dents-Amaziah Strang; Jesse Poland, Huntress Ross, Asa B. Swain, Edward Wright, John Hockenbry, B. F. Frisbe, W. D. Carpenter, Nelson Nelson, Royse F. Sterens, Barney B. French, George Hawley, John L. Pope, Curtis Walker, Joseph Miliken, John Christie, John A. Dedrick, Seth Rowley; Secretary-Aug. P. Noyes; Treasurer-Alvah Nash; Executive Committec-Seth Rowley, Judson Luce, Geo. Smith, D. L. Bunn, J. H. Crocker.

Waukesha Countr.-The following named gentlemen were elected officers of the Waukesha Co. Agricultural Society, for the ensuing year, at their annual meeting Dee 10th:

President-W. D. Bacon; SeeretaryM. Sellers; Treasurer-R. B. Hammond; Executive Committee-0. S. Rathbun, Thomas P. Turner, and E. M. Danforth.

Waupaca County.-At the annual meeting of the Waupaca county agricultural society for the election of officers for the ensuing year, held at the village of Weyauwega, Dec. 5th, the following individuals were chosen:
President-John M. Vaughn, of Waupaca; Vice Presidents-David Robinson, Weyauwega, and Thos. Pipe, Waupaca; Secretary-L. B. Brainard, Waupaca; Treasurer-L. L. Post, Weyauwega; Executive Committee-P, Mieklijohn, Weyauwega, J. K. Dunham, Farmington, S. C. Dow, Lind.

## Yours truly,

## L. B. Brainard, Secretary.

We will be obliged by Secretaries of County Societies for early lists of their official organizations, together with any other items of general interest in relation to their Societies, or in their respective localities. Will not parties who can, thus oblige us? Winter is the leisure season for friends to get upall sorts of interesting communications.

Best Time to Cut Timber-Poplar Rails better than Oak.
Messrs. Editors:-Observing in your paper a statement relative to the time when timber should be cut to make it durable, $I$ in answer to this question do hereby state that I can produce poplar rails made in the month of April in the year 1846 that are sound this day, free from rot, and better than any oak rail I have in my fence made at the same date. The trees being felled after the leaf had come out, and in splitting the trees the bark came off, and every rail being free from bark the timber seasoned at once, hence the durability.

Joseph Roberts.
Ridgeway, Iowa Co., Wis.


PUBLIC SPEAKERS AND SINGERS.
Few are aware of the importance of checking a Cough or "common cold" in its first stage; that which in the beginning would yield to a mild remedy, if neglected, soon attacks the Lungs. "Brown's Bronchal Troches," containing demulcent ingredients, allay Pulmonary and Bronchial Irritation.
"That trouble in my Throat, (for
which the "Troches" are a specific)
BROWN'S which the "Troches" are a specific) having, made me often a mere whisTROCHES perer."
N. P. W1LLIS.

BROWN'S
TROCHES
BROWN'S
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# THE <br> WISCONSIN FARMER. 

J. W, HOYT,

Editor
$\{$ M, CULLATON,
\{Publisher and Protr.

VOL. XIII.

MADISON, FEBRUARY $1,1861$.
NO. 2

## Important Wheat Questions.

That the Northwest bas beaten all other sections of the Union in the immensity of its wheat yield the past year, none will deny -not even if the estimates made in other portions of the country are taken as the basis of comparison.
According to the most reliable statistics, the crop of the entire country fell but little short of $240,000,000$ of bushels ; of which amount that section which properly constitutes the Northwest-viz : Northern Mlinois, Iowa, Wisconsin and Minnesota-yielded not less than one-fourth, though its popalation is scarcely more than one-ninth of that of all the wheat growing States. In other words we have more than doubled the individual average of the other States.

This is a result ot which we may well be proad, and although our financial embarrassments, as a people, have been such that much of this vast crop has been required for the liquidation of acenmulated debt, and hence been forced into the market at prices too low, still there is yet an immense surplus on hand, which can hardly fail to better remunerate the holders.

## If thise a prospect por bectier prices?

The wheat crop in Northern Europe was less than the average, and the weatherduring the autumn was so unpropitious that the next crop can hardly be better; if; indeed, it can possibly be as good. Moreover, the politieal upheavals and almost inévitable wars in Southern and Central Europe must greatly increase the demand, so that there
would seem to be every reason to expect en advance upon present prices.
The sarplus of the whole country will probably equal about eighty millions ; but even this vast amount will only feed sixteen millions of mouths, and, under the condition of things suggested, who can doubt that so many, at least, of the whole world of foreign moaths will require to be fed with American bread? One dollar per bushel on the surplus now on hand in the Northwest would bring ap the quantities already sold to remutuerative prices, and, unless we read the signs of the times very incorrectly, that price, at least will be realized by those who shall be able to hold their wheat antil the opening of navigation in the spring.
Having disposed of this question of more immediate practical interest, it becomes us, in the next place to investigate the basis of our expectations and plans as to future operations. And, first :
what is the great lebson tavght by thb
WHBAT CROP OF1860?
We answer, the great importance, nay. the necessity of deEp plowivo. We have heard farmers, since the last harvest, rejoicing in their renewed and firmly established eonvietion, that our soil is all right, and the weather the only element of fault. "Give us a favorable season," say they; "and our lands in Wisconsin will avorage twenty-five or event thirty bushels per acre every time. All this talk about exhaustion is sheer nonsense." And there is dangar that this fallacy may receive the indorsement of "good logic," from the majority: il

We do not deny the value of good weather. Season is an important element in the problem of good crops, but it is not the only one worthy of our solicitude as sound intelligent husbandmea. Had the season of ' 60 fallen in the year ' 59 there would have been no such yield as we boast of to-day; for it was the severe and protrateted drouth of the former year that sub. soiled our abused and surface-exhausted lands and thus temporarily restored them to a most astonishing fertility.

The explanation is easy and the conclusion inevitable: During long continued drouths, the surface moisture is necessarily exhausted by evaporation to a considerable depth, leaving the pores of the dry earth in the condition of a vacuum for the water further down, and thereby, endowing them, as it were, with new power to compel that water to rise to the surface, obedient to the law of capiliary attraction. But the action of the sun's heat makes sure the evaporation of this water in turn, thus again leaving a vacuum for more; and so the process goes on repeating itself so long as the drouth continues, each new supply of moisture from beneath bearing up with it fine particles of the soluble or but partially soluble minerals which belong to the subsoil, and depositing them near the surface on its escape into the atmosphere in vapor form.
We repeat it then, drouth is a most efficient subsoiler-hard in its immediate, but beneficent in its subsequent results.To it, to the favorableness of the season, and to the vast area of virgin lauds sown in the spring of 1860 we owe the almost fabulous yield referred to. The farmer furnished the muscular force, nothing more.
MAY WE BEASONABLY EXPECT A GOOD CROP the present year?
Should the next season be favorable, and the husbandman put in the seed no better than heretofore, the crop of 1861 will undoubtedly be a pretty good one, as the mineral elements brought up from below the surface have, probably, not all been consumed by the crop just garnered, but it were unreasonable to expect it to equal the erop of 1860. They who have been wise to learn this lesson of nature and have obeyed it in the deper plowing of their lands in
the autumn past, will fare best, but it is necessary that even more than this should be done, if the farmer would maintain the fertility of his soil.

Constant borrowing and never repaying must inevitably reduce our soils and all soils to poverty, earlier or later. We must return what we take, and the returning should be made to keep pace with the taking; no other plan is economical.

To such as have already done their plowing for wheat, it only remains for us to esy, Make good use of all available manures.Sled them out during the leisure months of winter and spread them upon your poerer lands; allow nothing to go to waste that may add to their fertility. Do this and seed early and well, and you may with propriety trust the rest to Providence. But another and yet more important question than any of the preceding is this:
ARE THE SOILS OF THE NORTHWEST REALLY ADAPTED TO THE PERMANENT PRODUCTION OF WHEAT?
To this question, however unpardonable the heresy may seem to Western farmers, we are compelled by undeniable facts to answer, No! Indeed, in the strictest sense, there is no such soil under the sun-none, we mean, that will perpetually yield good crops of wheat or any other crop without the aid of appropriate manures-probably rone, however well manured, that will economically produce any given crop for an indefinite length of time without proper fotation.

There are some soils, however, which are particularly adapted to wheat and with proper manuring will yield economical products of the best wheat for a long period.But unfortunately a large proportion of the soils of the Northwest are not of this class.

The best wheat soils are characterized by a decided predominance of clay; while the soils of Illinois, Iowa, Wisconsin and Minnesota present vegetable mold-with a greater or less admixture of sand and calcareous earth-sand, and sandy loam as predominant constituents.

True, in Northern Iowa, Southern, Minnesots and portions of Wisconsin there is a fair admixture of clay in either the surface or subsoil, or both, but their excess of silicious matter and deficiency of clay and
lime are too common as a general rule to entitle this whole region to rank as a permanent wheat-growing country. In the first place, therefore, their composition is faulty, and secondly, as a consequence, they are deficient in their physical properties, being especially subject to the unfavorable action of cold, heat, and driving winds.

For these important reasons winter wheat cannot be relied on, except in a few favored localities, and even spring wheat of the best quality cannot be long grown without rotation and manure.
The soils of Illinois are more especially ill-adapted to wheat-growing, because of the great disproportion of the straw-producing and grain producing constituents. Chemically speaking they have an excess of carbonaceous elements and a deficiency of the phosphates. And hence the poorest wheat that finds its way into market is grown in that State.

Wisconsin and Minnesota, so far as their prairies are concerned, present a case quite similar, but the openings and timbered lands conform more nearly to the characteristics of permanent wheat soils and some of them can hardly be surpassed. Some of the high untimbered table lands on the Upper Mississippi, and even the lesser streams, tributary to that river, are likewise well-adapted to wheat. Indeed, we have scarcely ever seen better winter wheat anywhere than some specimens grown in the St. Croix Valley and other localities of the character described. But, as said before, these districts are limited and exceptional rather than extensive and general.
The true habitat of the wheat plant in this country is undoubtedly limited by lines of latitude and geological formation which exclude the Northwest; and, if this be true, it is certainly important that the farmers of this region, be not so blinded and infatuated by an occasionally great crop of spring, wheat, as to lose sight of known and important facts and principles of wnich they cannot but be convinced in the end. The dsctrine here taught will very probably appear to many of our readers a very strange one to promulgate just at this time, but it is none the less true, and its enunciacion is all the more necessary be-
cause of the gross errors into which the success of the past year is liable to lead us.
Wheat, being one of the necessaries of life, will always find market at some price, and on new and fair land, within certain localities, and within reasonable distance of market, will usually bring renumerative returns for a time. On this account the pioneer farmers of the West devoted them. selves chiefly to its production, and the annual dimiuation of the yield per acre, up to the providential interference of the drouth in 1859, have been a most forcible demonstration of the folly of that reprehensible system of land skining of which either themselves or their successors have been guilty.
It was natural that our first farmers should have given their exclusive attention to wheat, but nothing could be more stupid than for us, at this stage of our development as a State, and with all the foregoing facts appealing to our reason and common sense, to persist in following their example.
The Northwest-Wisconsin and Minnesota in particular-is eminently adapted to a mixed husbandry,-its rich, level prairies to corn, grass, oats, roots and flax, and to the production of beef and pork; its highland prairies, oak openings, and heavily timbered lands to wheat, grass, barley, oats and rye, and to the production of mutton and wool. Let our practice conform to these plain adaptations, as also to the demonstrated truths of science, and our agriculture will soon come to be not on!y more sure and profitable in its immediate results, but a safe guaranty against that disgraceful and ruinous exhaustion which must inevitably follow the present narrow and onesided policy.

## Practical Suggestions for February.

The work of February is necessarily confined to fewer operations than that of spring and summer, but the near approach of the busiest season of the whole year contributes interest and importance. January has been a month of rest and enjoyment; but the time has now arrived when the farmer must rouse himself from his long and pleasant siesta and at least begin in earnest the work
of making ready for the stiring oceapations of another year.

## THE FARM.

Stormy days may be spent with profit in the house, making plans for the season, and studying the method of execution-in the cellar, assorting, for better proservation, all kinds of roots, vegetables and fruita-in the workshop, repairing and making such implements, \&c., as may be required-and in the barn, cleaning up grain and preparing it for market or mill, cutting feed in advance for stock, contribating in varions ways to the health, comfort and growth of the inmates of the stable, \&ce., \&cc.
The pleasant weather should be crowded full of active out-door work. We particularize some of the most important daties :
Horses.-Good hay, with roots and grain, properly apportioned and regularly fed, and with water three times a day, so that large quantities of the cold fluid shall not be taken into the stomach at one time, will not be sufficient. Your horses must also have clean and nicely bedded stalls, sufficient currying to keep the skin clean and healthy, and enough exercise to ensure nimbleness of the limbs and general health of the body. Brood mares, unless used daily, should be allowed to ran out, though with access to sheltered racks, and roots, provided they are never given to them ice-cold, may properly constitute a part of their diet.
Cattle.-This will be one of the most trying months of the winter. See that they have enough good clean fodder, pure water and salt to prevent their running down in health and flesh. Be on the look out for storms and provide the best means for their protection from cold rains, sleet and snow; humanity and economy unite in demanding this.
Racks for Fodder.-If these have not been provided, it will yet pay to make them. Nothing is more shiftess and wasteful than to feed upon the ground during the dirty weather of a late winter and spring. If fodder be short, eat hay or straw, sprinkled with meal or bran, or mixed with eut roots, will admirably help out.
Sheep.-Classify them according to age and condition; patting the bucks, (exoept those required for daty,) the progaant ewes, and the half-grown lambs, in separate
pens, when sheltered from the storm or when teeding in the yard. Give them roots cut fine with their hay, and a little grain, daily. Racke are as important for sheep as for cattle or horses; indeed they are more restless and inclined to run over their fodder than almost any other animal. Put their feed into racks from which it can be picked out with some effort, and they are all the better pleased, and will, hence, the better thrive.
Poultry.-Provide the hens, particularly, with warm and comfortable quarters, when they choose to occupy them; see that they have an abundance of animal food with their grain, occasional dishes ot chopped vegetables, and constant access to water, gravel and lime, and we will guarantee the egg-hunters will not return with empty baskets, even in February.
Wood.-Cat and haul before the snow goes off enough to last until winter again. Nothing will rejoice the "women folks" more, and you will yourselves be saved a thoosand annoying interruptions to your most important labors during the busy season of the jear.
Fences.-Now is the time to get ready to both build and repair, Rails and posts may be hauled to their places, for fences of this style, and logs may be got to the mill or lumber drawn from the market more economically than at any other time.
Gates.-Bars and slip-gaps are a nuisance, and much time is yearly wasted in taking down and patting ap. Spend a little of your leisure hours in making plain, substantial gates to take their places.
Manurs.-Save all you can, make all jou can, and get as much as possible upon the ground where wanted. Well prepared, fine compost, intended for the surface dressing of grass lands, may be spread upon the snow.

## the orchard and garden.

There is less to be done in this than in the Farm Department. Some things, however, require attention.
Labels, stakes, pea-sticks, bean-poles, \&c., should be made ready; seeds should be procured and carefully prepared, and all imple. ments put in the best possible condition.
Scions-May be cut at any time, when not frozen. Assort, tie up, label and bury in dry sand in cellar.

Hot-beds.-See article in Horticultural Department.
Protection from Rabbits and Mice.-If fraittrees are attacked by vermin, wrap with old newspapers and daub with tar, (the wrapping we mean, not the trees.)

## For the Wisconsin Farmer. <br> \section*{Potatoes.}

THE CARTER AND PEACH-BLOW.
Mr. Editor:-In answer to your inquiry about the Peach-blow Potatoe, I would say that I planted some on the 24th day of April, last, side by side with the Carter, both kinds being large potatoes, with one large one in each hill. Both varieties received the same caltivation, and were dug on the same day. The Carters averaged $3 \frac{1}{2} \mathrm{lbs}$. to the hill, and the Peach-blows $2 \frac{1}{2}$ lbs. to the hill. The Carters are also much the best potatoes, though the Peach-blows are not bad potatoes. Neither kind rotted, so I can give you no opinion on that point.

> JOHN TINKER.

Clinton, Jan. 14, 1861.
PEACH-BLOWS, BUCKEYES, PRINCE $4 L B E R T B$.
Editor of Wisconsin Farmer:-I notice in the January No. of the Farmer for 1861, an inquiry about those Peach-blow potatoes that were recommended so highly last spring. I will give you my experience with them, together with two other varieties, and you may make such use of this article as you like:

In the spring of 1859, Mr. Barrett, (one of my neighbors,) and myself, sent to New York city for a barrel of potatoes, to wit: Peach-blows, Prince Alberts and Buckeyes. The Buckeyes are an early variety; they arrived very late but we got a fair yield for the season. Last spring I planted about four acres of the three varieties and they have proved in every particular satisfactory. The Buckeyes are a white potatoe and white meated, and are an excellent early potatoe, and yield well. The Prince Alberts are a long shaped, smooth skinned, white colored, and white meated potatoe. They grew, many of them, the past season, to 12 inches long, and are a first rate table potatoe. The Peach-blow are a round, parti-colored potatoe, white meated, and as to their yielding qualities and as a table
potatoe, they stand with me No. 1 Extra.I raised sbout twelve hundred bushels, of the three varieties above named, the past season,

Respetfully yours,
J. M. SHERMAN.

## The Great Folly of Western Farming.

The following extract from an addzess by one of the oldest and wisest men of New Bn gland, Hon, Jobiar Quisor, Jr., contains some suggestions which we cannot too carefully consider :
"It is not the sterility of the soil that renders agrieultare unproduetive in Messechusetts; her home markets would be an offset to the expense of transportation from the West. It is that she is obliged to compete with those who diminish their capital for present profit.
"In the old countries there is no such competition. The amount of land is limited; the orop must be replaeed by an equivalent amount of fertilizing material. Every lease contains stipulations to effect this, and the proprietor leaves his estate as fertile as he received it.
" It is entirely different with our western neighbors; they believe that the fertility of their soil is inexhaustible. They rejoice that they shall this year send millions of bushels of grain to Europe. Did they realize that they were sending with it what nature intended to supply the waste of the exhausted soil-not the income of the present year, but the capiral on which they should depend for future productions-they would rejoice with trembling.
"With sueh a system no one can hope that his children will occupy the paternal deres. They will be foreed to emigrate. Fortunately there is, beyond the Mississippi, a sandy barrier that will say to the advancing tide of emigration, 'Thus far shalt thou go and no farther.' When this is reached and the current of population sets back towards the Bast. we may hope for an improved agriculture and competition on equal grounds.
"He who takes more from the soil than he returns to it in fertilizers, increases his income by reducing his capital, and yet the world at large is no loser. It improverishes the soil of Ameriea, but it enriches that of Europe !"

## Wheat-Causes of Winter Killing.

In an agricultural tract from the pen of Mr . Grozar Limpety of St. Louis, on "Bread Corn of the World," we find the following:
"The principal cause of the partial and total failure of the crop of winter wheat, which oceurs so frequently, is winter killing, and this results from different causes.
"The loss sustained by the farming interest from this canse alone, is much greater than in any other branch of the business. Consequently a remedy for the evil would be the greatest boon that could be conferred
upon the farmer. The chief causes of winter killing are:
"1st. Excessive moisture in and surface water upon the soil, during the winter and early spring.
"2d. Lack of moisture, known as the ' dry freeze, or blowing out.
"The latter was the chief cause of the extensive failure the last season in Oentral Illinois and Missouri.
"3d. By not having the soil well pulverized and pressed to the seed, so as to induce a healthy germination and vigorgus lateral growth of the plants.
"4th. By not having ribs or small ridges at short intervals; in other words, a corrugated surface to hold the snow and furnish a supply of aoil, which may from time to time, as it washes or blows, lodge around the roots of the plants, to proteot and notrish them."

The remedies recommended are underdraining, deep plowing, clovering and otherwise manuring, seeding early, and with good seed, and in such manner as to leave little furrows for surface drainage and the protection of the roots from sun and winds.

## Premium Field Crops of 1860.

At the late meeting of the Executive Committee of the Wisconsin State Agricultural Society, the following awards were made on the best and second best acres of the crops mentioned:

Best arre corn, More Spears, Black Earth,....... $\$ 15$
24 " 4 Eli Stilson, Oshkosh,............... 10
Best $1 / 4$ acre carrots, Eli Stilson, Oshkosh,....... 10
Reports were also made of excellentcrops of wheat, barley and potatoes, but their informality prevented the awards which would otherwise have been made.

Mr. Geo. P. Peffer, of Pewaukee, olaims to have grown 581 bushels of Club and 37 25-60 of Fife Wheat, $1922-7$ bushels of Purple Chili Potatoes, $58 \frac{1}{2}$ bushels of Barley, and 89 bushels of King Phillip Corn on one acre each.

And Mr. Jas. K: Carb, of Medina, Dane County, reports 42 bushels per acre of Canada Club Wheat, and 321 bushels, per quarter acre, of Carrots.

Below will be found the material portions of the reports which won the above prizes. They will be published entire and with accompanying affadavits in the transactions of the society.

CORN-STATEMENT OP MORE SPEARS.
The soil is a rich mellow, crumbling, sandy loam. The black mold of the same having been made from the high bluff which lies on the north side of the field.

The subsoil is a porous sandy loam, one half of the ground was plowed twice in the spring, but could see no benefit from the extra labor. Plowed in thirty loads of manure, dragged and marked the rows three feet a part each way. Planted on the 14th day of May with the Benton variety, three to four kernels in each hill; worked in the corn with a cultivator, and hoed it twice. On the 5th day of September the corn was ripe enough to be cut up.

There were 229 baskets of corn in the ear, which weighed, when dry enough to shell, 41 lbs . to the basket, making $9,389 \mathrm{lbs}$., or 184 bushels; 70 lbs . of the ears were shelled and sent to the mill, which made 36 lbs of shelled corn. .

COST OP THE CROP.


Blage Earth, Oct., 1860.
STATEMENT OF ELI STILSON.
The soil is a black loam and was manured with 16 loads of manure to the acre; the previous crop on the land was Wheat; the ground was plowed in the spring and planted in rows three feet four inches, north and south, by three feet eight inches, east and west, and cultivated with the cultivator and hoed twice. The kind of Corn raised is the Dutton, a portion of the product of the same field being exhibited at the State Fair, and drew the premium for Duttton Seed Corn. The product of the one acre was 181 bushels of ears of Corn by measure, or 901 bushels of Corn. A portion of said crop has since been sold by weight and found to overrun largely in weight.

EXPENSE OF CULTIVATION.

per bushel, exclusive of interest on land or value of manure.

ELI STILSON.
Oshkosh, Nov. 28th, 1860.

## CARROTG-STATEMENT OF ELI BTILBON.

The variety of soil on which the carrots were raised is a black loam, with a small amount of sand. The subsoil is clay. Mode of culture: The land was manured at the rate of about 16 two-horse loads of rotten manure to the acre, and plowed twice very deep and left in beds one rod wide. The land was then raked with an iron tooth rake to make it of very fine tilth, and sown with a hand drill in rows fourteen inches apart; time of sowing about the 15 th of May. Hoed twice in summer, and harvested about the 10th of November. The product of the onefourth of an acre was 421 bushels.

EXPENSE OT CULTIVATION.


## ELI STILSON.

Oshzosh, Nov. 28th, 1860.

## The Sugar Estates of Cuba

From a work on the Cuban sugar estates, by Charles Rebello, British vice-consul at Cardenas, it appears that there were in full operation in Cuba last season 1,365 sugar estates, which produce $1,127,348,750$ pounds, equal to 563,674 tons of sugar, worth 845 ;093,860 . Of these 1,365 plantations, 949 use steam-power in grinding the cane, 7 waterpower, and 409 ox-power, in the old primitive style. The extent of land planted with cane on these plantations is 691,917 acres, while the area on the estates used for other purposes, viz: cattle fields, fruit, vegetable garden, \&c., comprises 1,289,650 acres, or nearly double the quantity used for cane. The crop of sugar the present year is ex pected to yield 153,600 boxes more than last year.

## Smut in Wheat.

It has generally been admitted that smut in wheat is produced from the germ's or sporules of the previous crop of smutty grains, and hence the use of certain washes and the application of lime or plaster to dry as well as to aid in the process of destroying the germs of the disease adhering to the seed grain. These applications have evidently had the tendency, in a great measure, to prevent the disease in a future crop. But a writer from Kingston, Tenn., in the "Scientific American, ${ }^{3 /}$ advances a new theory in regard to the workings of blue-stone or other solutions generally used for steeping the seed grain in. He says, smut is caused by using seed thet is not fully matured, and this he says can be proved by taking a few bundles of No. 1 wheat in the early dough state and sowing it, when it will produce a glorious crop of smut; but take from the same wheat when fully ripened, and sew it either after oats, corn, or clover, and the wheat will be good. Defective grain is only able to produce a stalk and start the grain, but not to finish it. Put such grain into a solution of blue-stone, and in a few hours, he says, the germ is dead; good grain will resist the power of the acid for a day or two. The only benefit to be derived from sosking wheat in blue-stone is, it destroys the germ of such grain as were not fully ripened-as this correspondent says, these facts can be easily proved by making the experiment. In further proof of his theory he relates the circumstance of an old farmer in Tennessee, who was noted for having good seed wheat which all his neighbors were anxious to get. It was known under the name of "barrel wheat," and always yielded larger and better crops than any other kind of seed to be procured; but such was the demand for the old farmer's wheat that everybody wished to exchange with him, which finally gave him so much trouble that he told them that they could all have "barrel wheat" if they would take the trouble to produce it. The secret was, to take and strike the sheaves over the edge of a barrel, and what scattered off was "barrel wheat." The largest and most matured grains came out the easiest.

We have seen farmers select their seed wheat in a similar way by threshing the bundles over the edge of a plank in order to get out the plump, best ripened grains, believing in the true doctrine, that their crop would be like the seed sown-heavy, large grains. Whether the caustic solutions used for steeping seed grain, only have the tendency to destroy the vegetating principle of athe immature and weak grains, leaving only the best, sound grains; or, whether the smut has the power to perpetuate itself from its own germs, we are not prepared to decide, but we have ever urged the importance of selecting none but just suof arains, whether Wheat, corn or other variety, as the farmer wishes to raise, for the crop will generally be like the seed.- [Valley Farmer.

The above is sound doctrine and we would reiterate it with an emphasis.

## How to Grow Olover on Sendy Soils.

A letter of late date from Almon Holmes, of Oxford, Marquette Co., contains the following in relation to Clover and the other grasses:
"One thing which we most need in this section, is to know how to meke clover and the other grass seeds grow and thrive on our sandy knolls and hills, which form quite 2 proportion of our soil here. Now, if you or some one through the medium of the Farmer could give us this desirable information, you would confer a real favor on the farming commenity in this region of country."

Clover is one of the most valuable plants cultivated by the farmer, and we are glad to see theinterest manifested by the farmers of Marguette Connty, though not confident of being able to give them all the "sid and comfort" they require. The inquiry covers a wide field, and we shall therefore confine our present reply to the Clover plant, leaving "the other grasses" to subsequent numbers.

Our friends in Marquette are donbiless fully aware that Clover of all the ordinary grasses contains the largest per cent. of lime In order to its most successiful growth, therefore, it requires a stiff or tenacions loam with a considerable proportion of lime and clay in its composition-just the opposite of that described in the cummunication above.

In a moist climate, or even in a moderately dry climate if not subject to serious dronths, it will succeed tolerably well on sandy loams. Still, this is not the soil to which it is natural, and as all plants are imperative and uneompromising in their demands, always refusing to thrive except under circumstanees friendly to their constitutions and tastes, the only remedy, in case of ill-adapted soils, is to make them, as nearly as possible, what they onght to be.

If clay loam and lime are within reach and can be applied without too much expense, let them be added to the soil. The elay will peed to be applied but once, and the lime can be economically obtained, at almost any railroad station in the State in the form of plaster, which is sulphate of Time. Wood ashes also contain a portion of lime and the other mineral elements essential to Clover and moreover improve
the physical qualities of dry soils. Twenty or thirty bushels to the acre of unleached or three times the quantity, if leached, might be added with advantage. The quantity of each of the first named substances-clay and lime-will of course depend apon the degree of their deficiency in the soil to be improved. Sometimes a sandy soil is found resting on a clay basis, in which ease thorongh subsoilipg, with the subsequent use of lime in some form would fit it for luxuriant crops of Clover. Once established in the soil, and there is no crop in the world so happy in its influence upon land.
Feeding as it does so largely out of the atmosphere, manufacturing its gaseous elbments into reots which bear so large a proportion to the crop removed, and spreading its stalks and leaves over the thus shaded sarface to the exclusion and killing out of noxious weeds, it is at once a cleanser and fertilizer of the soil.
In a soil quite poor and sandy, we would recommend as a further means of preparation, the application of composted manures and a suecession of two or three crops favorable to an increased supply of organie matter in the soil. The adoption of this course would necessarily involve some delay, but it eertainly ought not to be complained of, if after a series of remunerative crops the soil can thus be brought up to a good Clover-growing condition.
Perbaps the following would prove as good a system as any we could suggest :

Having prepared the soil as indicated, by the application of mineral and organic manures plant it to corn. The second year sow it to oats, with 20 lbs . of clover per acre. Gut the first growth of elover about the first of June, and plow under the second growth early in Sept., and sow-with rye. If this orop winter well, let it matare ; if not, plow it ander in the spring and again plant to corn. By this time the soil will have gained much strength, and the erops will have paid for the labor of first improvement, so that you may seed it to elover again with prospect of success. If the cultivation of the corn shall have been after the "flat" system, the seed may be put in with a light harrow in the month of July. By the time it germinates and shows itselt the cotn will be large enough to shade it
from the hot rays of the sun, and it will be sufficiently established before winter to resist the cold. Cut off the corn stubs as soon as the ground is sufficiently frozen, and in the spring pat on the roller.

This method has been tried and approved, but if any of our readers know a better, let them speak.

## Agricultural Fairs and Premiums.

Agricultural fairs have now beeome established institutions in the United States. A1most every county holds its annual fair, with numerous district and State fairs, so that every farmer or manufacturer may avail himself of two or three of these annual shows within a reasonable distance of travel, at which he may exhibit, for the premiums offered, his stock, agricultural crops, or his maohines and merchandise. At these numerous fairs now held in the United States, many thousands of dollars, in some form or other, are annually paid in premiums to the exhibitors. It has been the custom of some of these societies to pay as promiums medals and diplomas ; others have established the rule of awarding articles of silver plate, varying in value according to the amount of the several premiums offered ; others offer chiefly cash premiums ; 'while a fow award, in addition to cash, sundry agricultural books and periodicals. To the award of medals and plate there are several objections, when compared to other forms of premiums, and we are glad to see that some of the societies who had formerly confined their awards to preminms of this character have become convinoed that they are less efficient, and esteemed of less importance by exhibitors than premiums of more useful and practical value. Silver is now less abundant than gold, and it seems like an entire misapplication of its use to convert it into articles of comparatively small practical utility, when premiums of the same cost of some other character might be rendered of the highest practical value to the farmer' and his household. Cash premiums we presume would be preferred by a majority of exhibitors, because this can be expended in the purchase of such articles as may be needed. But while most farmers would prefer the cash, the masses, no doubt, would be more benefitted by the award of such premi,ums as would have the tendency to improve the agriculture of the country generally.
Many farmers are slow to adopt new and improved implements, and more are unwilling to pay the cost of a single agricultural journal which would prove of lasting and perpetual value to them. Many farmers refuse to take an agricultural paper because of the prejudiee that once so strongly existed against book farming, and because they have had no opportunity to judge of their value, owing to these prejudices, but if awarded to them in the form of premiums they would not fail to estimate their value, and the general dissemination of the informatiou they contain would add materially to the individual and
genetal prosperity of the farming community.
As the season is approsehing for making up the lists of premiums by the various agriealtural associations, we would suggest that the subject of the oharacter of the awards be taken into consideration, and that agricultural implements, agricultural books and periodicals be substituted for plate and for the smaller cash premiums.

We need not here recount the value of agrienltural journals to the farming community, every officer of an agricultural society is perfectly aequainted with this. A single fint or suggestion, in a single agricultural paper, that would otherwise have escaped the attention of the reader, often proves of ten times the value of the cost of a whole year's subsocription. We hope, then, that for the coming year ten thousand copies, at least, of the agricultural papers of the country will be awarded as premiums. We think there are but few of the exhibitors to whom the award of small premiums will be made at the next season of fairs in Kentucky and Missouri, who would not at the end of the year value the "Valley Farmer" as a premium at ten times its actual cash cost ; and the same, we have no doubt, would be true of many similar journals in the country.- [Valley Farmer.

## STOCK REGISTER.

## The Great Live Stock Market of America.

From a' full tabular statement, published in the N. Y. "Tribune," of the number, \&o., of animals sold in that oity for slaughter, we glean a number of most interesting and surprising faets. We were aware that the American people were rapidly becoming moreéearnivorous, but were hardly prepared for such figures.
It appears that during the past seven years there were received in Gotham no less than $1,405,919$ head of beef cattle: which, with an average woight of 700 lbs . dressed, give the enormous amount of $984,148,300$ lbs. of beef, at an aggregate cost of over $\$ 91,000,000$. Add to this 319,732 calves, with an average of 75 lbs . per head; 3,522 ,084 sheep and lambs, with an sverage of 45 lbs . of meat each, and $2,480,382$ hogs, averaging 125 lbs. each, and we have the grand total of $7,728,827$ of slaughtered animals, yielding the aggregate amount of one billion, four hundred and seventy-six million, six hundred and sixty-five thousand, nine kundred and eighty pounds of butohers' meat, at a total cost of one hundred and forty seven million, six hundred and sixtyfive thousand, nine hundred and eighty dollars! Animals in sufficient number, if az-
ranged in solid column eight feet wide, to fill a road two thousand miles long!

Allowing an average of 100 head to each eattle-producing farm; and it would have required 77,283 farms to furnish this one market with meat!

Now let us see where this immense herd came from. The tables, in this particular, speak only for the eattle, and for the past three years. Arranged in the order of the largest number furnished in 1858, the several States and Territories are classified as follows:

|  | 1858. | 1859. | 1860. |
| :---: | :---: | :---: | :---: |
| Illinols | 52,318 | 35,171 | 62,561 |
| Ohio | 37,539 | 35,153 | 35,181 |
| New York | 30,930 | 42,035 | 28,219 |
| Indiana | 11,130 | 8,632 | 12,936 |
| Kentucky | 9,409 | 15,168 | 12,814 |
| Iowa | 2,724 | 3,997 | 11,478 |
| Michigan. | 1,654 | 5,334 | 2,979 |
| Pennsylvani | 1,664 | 3,297 | 2,703 |
| Texas. | 1,214 | 63 | 99 |
| New Jersey | 603 | 542 | 411 |
| Qonnecticut, ................... | 590 | 818 | 578 |
| Virginia. | 395 | 1,001 | 1,965 |
| Canada.. | 360 | 8,309 | 1,691 |
| Missouri | 129 | 1,074 | 7,713 |
| Chewkee Nation.............. | 128 | 62 | 64 |
| Massachusetts. | ... | 130 | 38 |
| Minnesota | ... | 45 | ...... |
| Kansas. |  | 34 |  |
| Winco |  | 30 | 156 |
| Nebraska | .... | ...... | 111 |

Thus it appears that Ilinois ranks first, and Wisconsin last of all the States that sell cattle in New York! Of course we understand that our neighbor is both older and better endowed by nature as a beef making State, but then the disparity is too great. While the sucker State is sending forward an average of 1,208 head of bullocks per week, the farmers of Badgerdom are shipping, for the same great market, 1561
The "Tribune" says:
"The largest monthly number from Illinois was in May, 8,825 head, and it is equally remarkable that a very large porportion of the Illinois stock ranks as good fair quality. One man in that State John T. Alexander, averages about 250 head a week, sent here in one continuous stream, and amounting in a year to nearly or quite three-quarters of a million of dollars."

And then, as if to tenderly treat and encourage the younger Western States, it remarks upon the significance of the "very largely increased supply of bullocks from Iows and Wisconsin, prophesies that, "this increase will not only continue, but will probably be largely augmented this year," and generously suggests that a "very large proportion of the stock exported from N. Y. comes into the State from the West, is fed a
few months and then credited as furnished by New York."

Let us hope that most of these thousands thus appropriated by the cattle feeders of New York had their origin in Wisconsin.

The whole number of animals slaughtered in New York city during the past year is stated at $1,116,181$ head; the average price per lb. about $8 \frac{1}{2}$ cents.

Farmers of Wisconsin! reyiew these figures and then re-read what has been urged in relation to a mixed husbandry. It is possible to flourish for a time in the practice of growing nothing but wheat, but the folly of such a system will prove itself in the end just as surely as one from one leaves nothing.

## The Influence of Food on the Growth of Wool

[From the Journal of the Bath and West of England Bociety for the Encouragement of Agricnlture Arts, Manufactures, and Commerce.]
The "Agricultural Gazette" thus diseusses the important question of the influence of food on the growth of wool :

Much attention has been given to the influence of food and shelter upon the production of meat, and it has become a tangible reality which comes under our calculation as a matter of course, but it is far too common for the important product of wool to be entirely omitted from onr calculations. An examination into the subject will show that the closest relationship exists between the two, and that they stand in the position of cause and effect.

The composition of wool shows it to be a highly nitrogenised body containing a large proportion of sulphur and phosphorus. It were impossible to select more valuable ingredients than these, and consequently in getting the necessary supplies for the formation of the wool the system is drawn upon for the most valuable nutritive elements of food. In the case of ill-fed stock the food cannot answer to the demand, for the addition it makes to the blood of the animal is deficient in the elements required for the wool; and hence the growth of the wool is carried on at the sacrifice of the less important portions of the body; and thus we have an additional drain upon the system of the low-conditioned and ill-fed sheep. This coat of wool, which is Natare's provison for protecting the body during winter, has very powerful clairas upon the animal economy, and takes precedence of many others; but stock which are in this low condition have not only less power to produce wool, but they have greater demands for it than others in higher
condition, and thas labor under a donble disadvantage.

To favor the production of wool, we must in the first place take care that we have present in the system of the animal the materials necessary for its formation.We may take wool as representing in a condensed form the conistituents of the en tire body. It contains phosphates, and chlorides-salts forming the skeleton of the body, and thus the wool apon analysis presents a great similarity to that of bone. We have also in the wool, partly in a state chemical combination, and partly in a condition of mechanical mixture, tatty bodies which correspond with other animal fats. Besides this we have in wool, after it has been divested of the former bodies, substances showing a composition almost identical with flesh or muscular matter.These are curious facts, but they have a value attached to them far beyond this, for they show in the most decisive manner what is necessary for the tormaticn of wool; so that in their absence we cannot have it properly formed, or in other words we cannot have good wool produced.

The growth of wool necessitates the presence of the various kinds of matter required for the general growth of the body. It requires a rich food to favor the production of wool; and when we consider the analogous composition already referred to, we shall be justified in stating that a liberal system of feeding, which is calculated to produce a growth of the body, is sure to be favorable to the production of wool. The nutritious ingredients of food are taken up into the blood, and when there the use to which they are applied must be regulated by the requirements of the system. Thus, at one time of the year, the same matter which is capable of being converted into wool may be formed into the flesh, fat, and bone ot the body, and cause an iucrease of growth, whilst at another time, the energies of the system being chiefly directed to the formation of wool, the nutritive matter in the blood woald be turned to this use in preference to the general development of the animal frame. The influence of cold upon the general growth of animals is rather unfavorable than otherwise, but this agency gives a tendency towards the formation of wool as a nataral protection against the severity of the winter. It is true the natural disposition for the formation of wool is very much under our control by the kind of management adopted and the system of breeding followed out, but it does not submit to our rule without indications of the natural periods of growth which we cannot overrale with safety to the health of the animal.

It is a very old opinion held by shepherds that when the dead time of the year is past a new life seems to animate the
flock, and it is by no means without good reason that this has been held, for we are all aware of the energy which is infused by the return of spring, when vigor and animation of body succeed to the torpor of the early winter months. It is believed by many that the first indication of this return ot vigorous growth is given by the wool, and that, for some weeks before we notice any, marked disposition for an increased rapidty of general growth, the wool is peculiarly disposed to make progress. It is by no means unlikely that the energy of the body is at first directed to meet the influence of cold with which the new year commences. The old proverb-
"As the day lengthens
So the cold atrong thens," -
is certainly accompanied and in some measure confirmed by the natural disposition of sheep to produce wool rapidly at this time. This disposition for the growth of wool should on no account be checked, but by every means be encouraged, for the experience ot sheepmasters is very clear upon this point, that the wool never regains the influpnce of inferior feeding in January and February, whilst liberal feeding is productive of a very marked improvement in the fleece. Whenever the functions of the animal body have a special disposition for the tormation of any product which we may require, we may always rely upon it being done then far more economically and satisfactorily than at any other time. This disposition we observe to be far more powerful during these months than at any other time, and the effects of neglect are as equally productive of bad results as attention and good management are sure to be followed by a remunerative growth. Liberal feeding will at all times encourage the growth of wool, but never in so great a degree as during the early months of the year.
The condition of wool may always be taken as an indication of the general condition of the animal, for disease and loss of flesh are as plainly observable by an examination of the wool as of the body. The softness of wool, which is always a sign of a thriving sheep, is mainly to be attributed to the presence of the yolk, which is an oily matter that has a powerful influence upon its growth, as well as upon its softness.Wool grown when the yolk is deficient is always more or less harsh and crisp in its nature, and difficult of growth. For this reason it becomes essential for encouraging the growth of wool that the yolk should be present in abundance. Even after wool has made its growth, if by any means the supply of yolk be checked, it at once loses quality, and as we see in soms diseases, when the cause cannot be speedily removed so that the yolk shall again return, the wool falls off from that portion of the body. The
yolk may be looked upon as the nourishment of the wool, wlthont whieh it cannot grow, and soon becomes easily separated from the skin. This is the cause of the wool being so easily pulled from the sheep which are either ill or in poor condition.

We therefore see that the encouragement of the growth of wool must be effected by keeping up the supply of yolk. This, as we have stated, is an oily matter, and it is found to exude through the vessels which convey the blood to the surface of the body. If the blood is rich from the presence of fatty matter, the healthy action of these vessels will keep ap the supply required by the wool ; but it is clear that its presence is primarily dependent upon the quality of the blood, and this can only gain its richness from the food the animal consumes. The connexion is very close indeed between the food of the animsl and the wool produced. In those cases in which the food may be inferior to that which the animal may have been previously accustom. ed to, the effect is equally indicated, and the consequence is an irregularity in the size of the wool, which produces an unsoundness of staple which is highly objectionable, and which detracts from its market value, because it is apt to break at these weaker porticns. This shows the importance of the food not only being good in quality but regalar in its supply of nourishment. This is a very common fault in much of our wool, and although shortness of keep will under the best management sometimes unavoidably arise, still, knowing as we do the effect upon the wool, this should be met by the addition of some other food to make up the deficiency. Its influence npon the body irrespective of the wool we do not now notice, bat the produc. tion of a good sample of wool is of itself sufficient cause for avoiding the deficiency in the supply of nourishment.

Nor are these the only condititions which have to be remembered, for the find the influence of cold and heat almost as great. When the skin becomes cold there is a natural tendency of its pores to close, and this produces a lessened nourishment for the wool, and consequently a smaller sized fiber is produced of less strength. Then, again, in the hot weather of summer the pores are more opened, and this causes a larger growth, but as sheep have a thicker coating of wool this effect is subdued.These considerations show us the importance of preserving shecp from the extremes of heat and cold, and hence the importance of moderating their action by means of shelter. The quality of wool, as determited by the evenness of the sample, makes a great difference in its value. We have the influence of these extremes very mach under our control, and they are perfectly distinet from any such modification of the
wool-producing character of sheep as may be established by variations of breeding.

## Host Profitable Kind of Sheep for Farmers.

At the meeting of the State Agricultural Society, held in Columbus, December 5th, the following question was discussed :-What is the most profitable kind of sheep for farmers?
Dr. Townshead, of Lorsin, said he was not prepared to settle this question. It was not settled in his own mind. My father's flock of sheep were formerly Leicesters, bat are now mosily Cotswolds. Of late, however, we are getting back to Leicesters again. Land with us is too high to devote to wooolgrowing, hence we raise meat and grain for market. Onr flock averages about six pounds of wool per head, and this sells at from twenty-five to forty cents per poandperhaps averages thirty-three cents. We sell our wethers at from two to three years old, and have received as much as $\$ 16$ per head or those that would dress forty pounds to the quarter, when it was worth ten cents per pound in New York. Frequently sell for from \$5 to \$10. The wool brings about as much per fleece as fine wool, Leicester sheep make excellent mutton. The Lincolns and Cotswolds are rather large and coarse-fleshed. My opinion is that for Northern Ohio, the Leicesters are better than any other. South-dowus give fine mutton, but less of it and less wool. No sheep keep well on hay alone, but all sheep pay for shelter and grain in winter.
Mr. Chester Palmer, of Geauga County, said he had an experience of twenty•seven years in wool-growing. He commenced with Spanish Merino Sheep, descended from the Wells and Dickinson flock, and goes on the principle of raising those sheep that will give the greatest yield of fine wool to the acre. I selected my first flock of ewes with partieular reference to their constitational vigor, and crossed them with pure Silesian bucks. The result was, they yielded mefour pounds and two ounces per head of elean wool. I raise no other. It is not feir to sell dirt for wool, and then say your sheep averaged so much wool. This year, I sheared four hundred sheep that yielded five pounds, worth fifty cents per pound. Large sheep cannot be herded in such numbers as small ones, without deterioriating in size. His experiments with the French Merino sheep have satisfied him that they are not the most profitable sheep. His Spanish and Silesian sheep gave twehty-five per cent. more profit than sheep raised from his largest ewes crossed with one of Mr. Bingham's best French Merino bucks. He is deeidedly in favor of the fine wool, and of a cross between Silesian and Spanish Merinos.

Mr. Chamberlain, of Clarke County, said he had been breeding Spanish Merinos for a number of years, and claims they have more constitution, will bear more exposure, and flock together better than any other breed. He had flocked the Longwools and the French Merinos with the Spanish, and found the latter always the best. His sixty head average six and three-fourth pounds per head. He sowed rye to pasture his ewes on at the season of lamping, and likes the practice.

Mr. Quinn, of Columbiana. Fine wool with him had proved a failure. Had kept the Spanish and the Cotswold breeds, and the latter took on three pounds of flesh to one for the former. They are very quiet, eat, and lie down, while the fine-wools roam about the fields to see what they can find, and thus work off their food. Gets about twice as mach for a Cotswold wether as for a Merino, and is not insulted when he takes them to market. At five months old, his long-wool lambs weigh more than fine-wool sheep ever weigh. Mr. Palmer asked if he can keep as many to the acre as of finewool, to which he replied in the affirmative.

Mr. Palmer thinks he can keep three finewool sheep where he could keep put one coarse wool.

Mr- Quinn thinks coarse wool worth more than farmers usually get for it- He usually sells his for 45 cents. Hs summed upi by expressing the opinion that coarse wool sheep are twice as profitable as the finc.

Mr. Easton, of Huron County, says that those who can make most by raising wool, should grow fine-wool sheep. Those who can make most by mutton should raise the coarse-wools. This depends partly on nearness to market, and partly on the character of the epuntry. On hilly land, fine-wool sheep do best; but he thinks in a level country the coarse-wools are preferable.

Dr. Townshend remarked that more finewool sheep could be kept on an acre, but the difference is not in proportion to their weight. A wether that weighs two hundred or three hundred pounds, will eat but little more than a small one. The Spanish Merino sheep is very active in its habits, runs about a great deal, apd thus requires more food than if it was quiet. The coarse breeds of sheep have good digestion, and hence convert a large portion of their food into fat, The Leicester has a splendid digestion. I think that three coarse-wool sheep will eat about the same as four of fine.

Quite a number of others participated in the discussion, but the above are the points elicited. A vote was taken to ascertain the voice of those present, which resulted as follows: Fine wool, 31; long wool, 22; mid. dle and cross, 4. Several who had no experience did pot vote at all.-[Ohio Farmer.

Hab There are 54,508 horses in Maine.

## Winter Care of Stook.

The following remarks, which we copy from a number of the "Irish Farmer's Gazette," are particularly appropriate to the season and worthy the attention of all who have the care of stock :

1st. Regularity. The stated hours of feeding must be carefally attended to, and no deviation ought to be allowed. Cattle very soon know the time they ought to receive their allowance of food; and if it passes without the expected supply, they get restless, and express their uneasiness by loud bellowings.

2d. Cleanliness. From an examination of cow houses or cattle-sheds in general, we would be led to imagine that cattle were naturally dirty, and that their owners, therefore, consider that the most profitable mode of keeping them, is to pay as little attontion to keeping them clean as possible. The cow-house ought to be cleaned out twice every day, and plenty of litter allowed for the cattle to lie upon. The troughs ought to be kept always sweet and clean; and, for this purpose, the feeder must remove all unconsumed food, whether turnips or straw, previous to giving a fresh supply, wiping out the troughs with a wisp of straw.

3d. Quiet. This is a most important point; and so much ought it to be attended to, that the cleaning of the houses should never be done whilst the cattle are eating their turnips; neither ought the curry-comb (which ought to be used on all feeding or milchcattle as on such as are constantly tied up) be applied whilst the animals are feedling; nor should they be disturbed after they have laid down, to undergo this process. Immediately after being fed, and before they lay down, is the best time to clean out the houses and curry the cattle; and whenever this is over, let the door be closed, and the cattle left to enjoy quiet until the next feeding time comes round.

4th. Ventilation. Warmth is essentially nedessary to the health of mileh cows and fattening cattle; but this must not be the stifling heat of an ill-ventilated byre. Many diseases are caused by want of attention to ventilation; and we believe that to this pleuro-pnetumonia owes its origin and fatality. At the same time cattle must not be exposed to a draft of cold air. The best ventilator is one rising two feet above the ridge of the roof, covered with slats, and having Venitian blinds in the four sides. The heated air will ascend to, and escape through this ventilator, a current, but not a draft being kept up by means of amall openings in the walls at the ground, sloping upwards, and covered with gratings. Young cattle in sheds, and having access to straw yards, of course, do not require ventilators; at least where the straw yards are protected by the surrounding honsess.

## HORTICULTURE.

For the Wisconsin Farmer.
Horticultural Preparations for Spring.
Mr. Edrror:-As little can be done at present in the fruit, or vegetable gardens, now would be a good time to plan and arrange for next season's horticultural operations:

The first thing to be done will be the making of hotbeds, in which to grow such things as early cabbage, cauliflowers, tomatoes, lettuce, \&c. The following hints will be of service to those that are not conversant with the mode of making hotbeds :

1st. Procure as many sash as you re-quire-three by five feet are a good convenient size, and two of these will be enough for an ordinary family.

2nd. Make a box that your sash will fit, with a bar between them to keep them in their places. The box should be higher at the back than the front, and slope towards the south.

3rd. Procure stable manure that is fermenting, and fill a hole three feet deep, and one foot wider than the box; press the manure as hard as possible, and, when finished, have the manure one foot higher than the surface of the ground, then put on your box and sash. In about a week it will be ready for the earth, which should be of a light porous nature and partially dry. Press the earth with the back of a spade and sow the seed you intended at once: cover oneveighth of an inch deep, and keep the frame close for a week or ten days; if the seed are good, they will be up in that time. Thin out the plants as they require it, and give air on all favorable occasions, to make the plants stocky.

If the above directions are followed, success will crown the efforts of those that undertake it.
The next thing to be considered is whether you have a plentiful sapply of fruit, shade, and ornamental trees, together with shrobs, and smaller fruits. If not, lose no time in making up lists of what you want and sending to some reliable nurseryman for them at once. Small fruits will usually pay for themselves the second year after planting. Nor should asparagus, rhubarb, seakale, and
the like be forgotten; they should have a prominent place in every well regulated garden.
I will be happy to furnish hints oceasionally, in the above line, if you think they would be worthy of a place in your paper.

Yours, \&c.,
HORTUS.

For the Wisconsin Farmer. Pyramidal Juniper.
At Columbus, Ohio, we found growing quite common a very pretty species of the Juniper, which was unlike anything we have met with in Wisconsin, and which we believe will be found a great acquisition.
Very upright and pyramidal in habit, some specimens as much so as a lombardy poplar, while others were slightly spreading and bushy. Of a delicate light silvery-green, feathery foliage, it retains its color well through winter, and is a charming variety among a collection of evergreens. The tallest specimens were perhaps eight to ten feet high, and only fifteen to twenty four inches in diameter.
This may prove identical with the Sweedish Juniper, which it somewhat resembles. All I could learn of its history is that Mr. Bateham, of the Columbus Nursery, found it growing there some fifteen years ago, in the hands of a German. Mr. B. thinks it is divecious, the most pyramidal specimens being the male plants.
I have no doubt this Juniper will prove hardy in Wisconsin; plants sent to Rochester several years ago are hardy there.

> A. G. HANFORD, Wankesha, Wis.

English Fruit.-I attended one of the largest fruit exhibitions in the conntry at the Crystral Palace in London. The apples were not worth looking st. Pears about middling. Plums and neetarines very fine. Hot-house grapes were remarkably good, and a few fair looking peaches grown under glass, also some things they call melons, which would do very well to feed the pigs with in America. The fruits in Englaud, this year, are not high flavored, but poor and insipid. The sun does not shine hot enough there to grow good-flavored fruit, but they are not troabled with worms in the fruit, as we are.-D. C. R:Cmyond, in Ohio Cultivalor.

## Relative Hardness of Seedlings and Grafts,

Mr. Editor:-I regret having to sày, that in my intercourse with farmers of this State a growing tendeney to the opinion that seedling trees are more hardy than engrafted ones, has been noticed. Such persons did not of course examine the fruits on the tables at our late State Fair. Had they done so, confering treely with the different exhibitors on this point, unless very selfconceited, they would not have returned home to again advocate the planting of seedling apple trees in preference to " g -afts." That the conviction is honestly entertained by many, especially in those sections of the State least adapted naturally to fruit-growing, cannot be doubted, and being thus entertained, I propose to meet it with facts, and arguments, not with censure and ridicule, although some persons who have been most instrumental in giving currency to the idea, because they had only seedlings to sell, deserve the latter course of treatment.

All apple tree grafts, as well as seedlings have their origin in the seed of the apple. The origin of the former lies back through one or more generations of trees. That of the latter does not. If then, seedlings are more hardy than grafts; either perpetuating a variety by grafting, tends to disease and consequent decay, or the seedlings producing the best fruit are by some unknown law of their nature, less hardy in constitution than those producing worthless or inferior fruit.

If the former of these two theories were true, a variety would be hardy or otherwise, just in proportion to the number of times it had been propagated, cutting backward through all its generations to its original seedling tree. That this is not true among many varieties now in mind I will name two, the Connecticut or Westfield Seeknofurther, a very old variety, generally admitted to be hardy, and the Rambo, which originated with David Rambo not more than forty-five years ago, generally admitted to be tender. That the latter theory is not true in fact, may be argued and proved by classing the two varieties, bearing equally choice frait, and many others, some of
which I wilt name. The Perry Russet, Pomme Gris, Fameuse, Late Strawberry, Red Canada and American Summer Pearmain, are known to be among our finest flavored flruits, and the trees among those which have stood our severe winters the best of any, including more than three-fourths of those grown direct from the seed. Did the space usually alloted to an occasional correspondent permit, the argament might be greatly extended, but this must suffice for the present. I wish, however, to state one more fact pertinent to the point under discassion. Seedling trees are not alike hardy. Every nursery man of any experience is well aware, that while a few prove very hardy in the nursery others are subject to slight injuries from the seasons, others to serious injuries, and others still do not survive the first severe cold weather to which they are subject. With grafts the care being very difficult. Those varieties classed as hardy being nearly uniform in their capacity to endure cold weather, and other vicissitudes of climate. This fact alone, gives the cultivator of these hardy varieties a decided advantage over the cultivator of a lot of promiscuous seedlings.
J. C. BAYTON.

Aztalay, Jan. 18, 1861.

## Culture of Trees.

The following extracts are from a late address by Marshall P. Wilder, President of the American Pomological Society. The author ranks high among the first promologists of this country and his opinions are entitled to great weight :

1. The healthful development of fruit trees, as of other living substances, depends on the regular reception of a certain quantity of appropriate food. This food, whether derived from the earth, air, water, or other natural elements, is conveyed through the medium of the atmosphere and the soil. While we have only an indirect and imperfect control of the atmosphere and other meteorological agents, the Great Arbiter of Nature has committed the soil directly to our care and treatment.
2. To this I may add the general sentiment in favor of thorough and perfect drainage, beneficial to all cultivators, bat indispensable to the fruit-grower.
3. Not less aniform is the experience of the salutary effects of a proper preparation
of the soil for fruittrees, both in the narsery and in the orchard.
These principles are settled in the minds of all intelligent fruit-growers; but they need to be often promalgated and enforced. It should be equally well understood that success depends upon the adaptation of the habits of the tree to the constituents of the soil, the location, and aspect or exposure. A disregard of this principle, and the fickleness of seasons, are ameng the most com mon causes of failure, not only among inexperienced cultivators, bat among profess ed pomologists.

More attention should be given not only to the location, but especially the aspect of trees. A common error is to disregard the time of ripening. We plant our early fruits in the warmest and most genial locations. There should be assigned to our latest varieties. For instance, we, at the north, have too often placed our late fall and winter pears, like Easter Beurre, or Bearre d'Aremberg, in northern aspects and exposed positions, where they are liable to injury by the gales and frosts of autumn, whereas we should have given them a southern aspeet, and our most fertile soils, to bring them to perfection. The most favorable locations are not so indispensable to our summer fruits, which mature early under the more direct rays of the sun, and in a much higher temperatare. This rule may require modification and even reversion to adapt it to the south or southwest portion of our country. And here I cannot refrain from expressing the earnest hope that our local catalogues may be framed with a wise reference to this principle, and that the day may not be dis. tant when the Society's Catalogne shall designate the particular locality, aspect, and soil, adapted to each variety ot fruit.

AFFINITIES.
I would here again recommend a more careful study of affinities between the stock and the grat. Whatever be the opinions in regard to the maniner and degree of inflaence which the scion has upon the stock, or the reverse, the fact of that influence is undeniable. For example, we have seen certain varieties of the pear, as the Cross, Collins, and others, which woald not readily assimilate with the stock, however vigorons. We have, in many instances, seen healthtul trees sicken and eventually die, by the insertion of these uncongenial grafts. So great was the want of congeniality, that we have seen the stocks throw out suceessive crops of suckers, and although these were frequently removed, yet the scion would refuse to receive and elaborate the sap in sufficient quantity fo nourish it, and the troes would finally die. In such instances, the ooly way to restore the health of the stock is to remove the graft for a scion of its own
or some other appropriate sort.
As I have formerly directed your attention to this topic, I have only space to embody a few general rules to guide practice.
In deciding upon affinity between the tree and graft, consider-
1st. The eharacter of the woods to be united, as whether of fine or coarse texture, of slender or gross growth.
2nd. The wood-buds, whether abundant or aparse, plump or lean, round or pointed.
3rd. The seasons of maturity, whether early, medium, or late.

These suggestions will suffice to indicate the direction of thought and the kind of investigation to be pursued. A better knowledge af the subject will, no doubt, hereafter be attained, and will reveal some of the inexplicable mysteries which now attend this branch of fruit culture.

From an article in Wisconsin State Ag. Trans., vol. 5. Suggestions to Wisconsin Frait Growers.

> BY PROF. J. P. EIRTLAND, M. D.

Pallas, in his Travels through the southern provinces of Russia, in the years 1793 and 1794, informs his readers that in Moscow, "in summer the most delicious species of cherries, apricots, peaches, pears and apples, nay, ananas (pine-apples) are common ly sold at a reasonable price." He further adds that "Horticulture has within these few years been brought to such perfection, that all kinds of vegetables are in supera-bundance-all these improvements are chiefly the effects of ind efatigable exertion."
Three important and interesting facts are furnished in these remarks :
1st. That such delicious fruits ean be produced at all, so far north as the 55th or 58 parallel of latitude.
2nd. That they can be produced in superabundanoe, and purchased at a reasonable price.
3rd. That this has been accomplished by indefatigable exertion.
A few years since, while investigating the Natural History of your State, due attention was paid to its capabilities for fruit-produoing. Its soil and geological formations are favorable for a luxuriant growth of wood, with most kinds of fruit trees, yet the severity and vicissitudes of its climate too frequently counteract this advantage.
The location of your State, in relation to Lake Michigan, is unfortunate, so far as fruit-growing is concerned. The mitigating influences of that deep and extensive body of water are distributed extensively over por-tions of Miehigan and Indiana by the previn: lent western and northern winds, while the State of Wisconsin receives the full impreesion of the sub-arotic blasts, sweeping down from the Rocky Mountains and the plains of Nebraska.
This view may discourage the indolent, buf on the energetio and perseverving it shoald produce a different effect. An objeet gained
by exertion is enhanced in value. Cobbett says: "In England, wherewatet-melonsare raised only under glass, and with great pains, the fruit is transported to market wrapped, like a delicate infant; in a napkin; while in the United States, where they are grown with little care, they are tipped by cart-loads upon the sidewalks like potatoes. ${ }^{\text {" }}$ A peach raised under the frowning skies of Moscow would command more value than fifty specimens from the sunny South. The above cited facts from Pallas should afford both instruction and stimulus to increased effort to fruit-growers in this country, who are now contending with several impediments to their pursuits.

If the inhospitable climate of Moscow, and especially if the stolidity of the Russians, as they were in the last century, could then be overcome by indefatigable industry, so far as to produce such results, may we not confidently anticipate that the active and intelligent population of your State, commanding the improvements of modern arts and sciences, will successfully triumph over the comparatively trivial contingency arising from your climate?
The same amount of indefatigable exertien, judiciously directed, would enable each of you to literally sit under his own vine and fig tree.
This desirable end may pe attained by
1st. Furnishing artificial protection to vines and fruit trees;
2nd. Selecting for eultivation the most hardy kinds; anu
3rd. Producing new varieties adapted to the soil and climate.

## [From the Oregon Parmer.] <br> Amencan Pomological Society-Hybridizing Grapes.

In the month of September last, the American Pomological Society held its annual meeting in Philadelphia, and the subjeet of hybridizing grapes was diseussed.Mr. J. J. Thomas, a distinguished horticalturist, made the following remarks and statements at one of the meetings of the Society. They will show to our farmer and horticultural readers, what scientific men are doing to create new and improved varieties of the grape.
Mr. Thomas said he believed that no country on earth is better adapted to the extepsive cultivation of the grape than the United States of America. This branch of fruit culture is yet in its incipient state, but it has progressed so far as to authorize the belief that the grape can be grown with success in almost every State and.Territory in the Union.
With the progress already made in raising new sorts, it is only a question of time when we shall have varieties adapted to almost every locality. Thousands of cultivators, scattered over our extended conntry, are each of them raising new varieties from seed, in expectation of success. While
some of them may be valuable, many must of necessity be failures, having been originated from $u$ IStural and accidental impregnstion, without any settled or philosophical plans. The laws of retproducing in this departnent, are the same as in other branches of the vegetable kingdom. For instance, in Northern latitudes, the great object should be to produce good kinds, which ripen early and are perfectly hardy. To procure these from the limited number of our native grapes, we: must resort to the art of hybridization, taking for the parents those sorts which contain the characteristics we desire to combine.
A gentlemany in my own vicinity, has taken, as the mother parent, the Vitus labrusco, a common native grape, and crossed these vines with the pollen of the Black Hamburg, and the White Ohasselas grapes. Of forty-five: seedlings, thisty-seven have borne fruit. All progeny of these have proved perfectly hardy, and have stood witbout protection for several winters, where the Isabella and Diana have been much injured. Of the seedlings produced by the impregnation of the Black Hamburgs most of them inherit, in a good degree, the color and characteristics of the male parent ; while those fertilized with the White Chaselas, all were of a reddish color, intermediate between the natural color of the parents.Thus we see the positive and powerful effect of the art of hybridization in the hands of scientific cultivators, who can, in a measure, control the process of re-production, and render it subservient to their purpose.

While it was formerly supposed that the peculiar, and to many, the disagreeable aroma of our common grapes disqualified them for ihe production of choice fruits and wines, it has been proved, we think, beyond a reasonable doubt, that the characteristic designated by the way of contempt, as the fox or pole-cat flavor, will hereafter constitute one of the chief excellencies of our new varieties, when; by the art of hybridization and civilization, it shall have been modified and changed, by alliance with other grapes of excellence that are desitute of this quality, and that thus improved it is destined to form a distinctive characteristic of an important class of American grapes, even to give them a marked superiority over such varieties as the Black Hamburg, Sweet- water, and such other foreign sorts as are destitute of any especial aroma. It may yet make our seedlinga rivals of the Muscats, the Frontignacs, and other highly flavored foreign grapes of the old world.

Hothousgs BY TBE AcRB is the newest idea started in England. It is proposed to cover whole vegetsble and fruit gardens, with glass, one single mammoth house, the roof to be on the ridge and furrow principle.

## MECHANICAL.

## Manufactures-The True Poliey of Wisconsin.

There are many reasons why Wisconsin should aspire to take rank with the manufacturing States of the Union.

In the first place, our State abounds in the raw material. We have rich mines of lead, copper and iron; forests of timber that can hardly be surpassed East or West ; the rich prairies adapted to the growth of flax and hemp, and the other products susceptible of manufacture, and the grasscovered hills on which to produce any amount of wool.

Secondly. We have an incomputable amonnt of the most economical motive power in the world-available water power sufficient to run machinery enough to supply all the Northwest for all time to come, with all fabrics, implements, and whatever else is necessary to the highest style of civilized life.

Thirdly. We have the requisite talent, energy, and enterprise to secure success, both in the production of the material and in its manufacture.

Fourthly. We are provided with the best channels of transportation, when our manufactures shall have been made ready fur shipment. And,

Lastly. We are admirably situated with reference to the great markets to be supplied.
The great Lakes connect us with the Atlantic Seaboard, and the Father of Waters and its several navigable tributaries open to us an easy and cheap communication with the Gulf States, the remote but rapidly growing regions of the far West, and even the newly opened settlements of British America.

Why, then, do we not only manufacture little or nothing for exportation, but even buy abroad almost everything we need for ourselves-our agricultural implementsour hardware of every description-our woolen, linen and cotton goods, and every kind of teatile fabrie we use-our boots and shoes-our cabinet ware-our other household furniture-and all else; we ask why this almost total neglect of one of our
most important State interests ? There is no man so blind as to imagine that it ts better for us to send all our raw material to the East for manufacture and then buy it back again, at an increased cost of the freight both ways and of all intermediate profits.
Something should be done,--all will agree to that poposition, but what shall it be?
In our opinion there are bat two remedies, either of which may be adequate, however, to the great work of practically correcting this important error in our domestic policy as a State-the reduction of legal rates of interest, and an exemption in whole or in part of capital invested in the manufacturing business.
The first remedy has already been sug. gested and ably urged by Governor Raxdall in his Message to the Legislature.In his late Message he says:
"A difficulty, in the way of the outlay of capital in manufactories, has existed in the large rate of interest authorized by law.While ten and twelve per cent. for the use of money can be realized, monfy will be constantly more or less withdrawn from any branch of business that produces wealth.Money loaned produces so wesith-adds nothing to the common stock. It simply draws to itself by a kind of accretive power. The farmer who can realize two or three per cent., after ali his toil and labor, on the value of his farni, must be tempted to sell his land and stop prodacing, when he discorers that on the money for which he sells, he can realize without labor, ten or twelve per cent. Capitalists will not-put their money into manufacturies, while they can realize without risk ten or twelve per cent., for the use of their money. I have twice before called the attention of the Legislature to this subject, and beg leave to refer again to the views expressed in my two last messages npon it."

The above reasoning is certainly sound, so far as it relates to the influence of a bona fide low rate of interest upon the manufactaring interests ; the only objection that can be raised to the feasibility of this plan is the slmost if not atter impossibility of framing a a law which may not be evaded, when there is so much to be gained by such evasion.

Money, like everything else that may be exchapged, has a variable value and will be subject to the same great law of sapply and demand. So long as capitalists can be sure of twelve per cent. in one kind of respectable business, it will not be easy to persuade
them to engage in another yielding but six per cent., just because the prosperity of the State is thought to demand it.
It is possible, however, to make such laws as shall favor an important class of interests that cannot be built up without the fostering aid of a wise and friendly legislation, and to us this seems the simplest and most rational method.
Laws of this character, aiming at the encouragement of our wool-growing and manufacturing interests would, within a very short period, work wonders for the young but nobly endowed State of Wisconsin.

## The Fertility of Inventors.

We published last week an illustration of the mode of spiking cannon, and it would surprise any one who has not come into actual contact with the inventive genius of the country, to learn the number of suggestions which have been made to us of improvements in this simple operation, both for spiking cannon and for restoring them again to usefulness. If the attention of our inventors is called to the need of any improvement, however difficult of accomplishment it may appear, it is surprising how promptly some meaus of effecting it will be devised. A few years since, an extensive worker of marble, in New Hampshire, offered, under special conditions, a reward of $\$ 10,000$ for a machine for sawing marble in a particular manner which it had been deemed impossible to effect by machinery, and the plans poured in upon him in such abundance, that he was not only embarrassed with scores of personal applications, but had so many letters upon the subject, that he was led to exclaim, "Hold, enough."
Very many of the operations which are now regularly performed by machinery, would have been regarded, a few years ago, as absolutely beyond the power of machinism. Who would have thought, for instance, that a peck of pins could be poured into a hopper, and that a machine would take them all by the heads and insert them in straight rows into papers, with a rapidity and regularity unapproachable by hand work? Here is a loom, driven by a powerful water wheel or steam engine, and running with great force, weaving with rapidity a very slender cotton thread into a web, and if the tender thread breaks, the loom instantly stops. A piston is moving back and fourth in a steam-tight cast-iron cylinder, and the varying pressure of the steam, throughout every portion of the stroke, upon each square inch of the inside of the ylinder, is accurately recorded by the en-
gine itself upon a sheet of paper with a lead pencil. What man can pronounce any mechanical or scientific achievement impossible who reads every day, in his morning paper, the news sent from all parts of the country by that perpetual wonder and miracle, the electric telegraph !
If any person perceives an opportunity in any art for an improvement which would be of unquestionable money value, or any operation which it would be profitable to have performed by machinism, however impossible it may seem to effect it, let him write a short note to the Scientific American, calling the attention of our readers to the matter, and we can almost insure him a speedy solution of the problem. Difficulties only stimulate the resolution and ingenuity of inventors. The more formidable the problem the greater the satisfaction in encountering and overcoming it. "Impossible?" said Napoleon, "never repeat to me that blockhead of a word."-[Scientific American.

## THE BEE KEEPER.

It is astonishing that so little attention should be given to the production of honey in this State. It is one of the best luxuries that can possibly be secured for the tables and is produced with very little expense, further than a few hives and one or two swarms of bees as a beginning. Our own experience has not been extensive, but sufficient to warrant the assertion that the mysteries of bee-keeping are cheifly in the imagination. There is really bnt little more difficulty in keeping bees than in raising sheep, and believing the matter to be one of sufficient importance to warrant frequent discussion of the various practieal details of the business, we have appropriated a "corner" of the Farmer to the general subject and cordially invite the familiar friends of the bee to fill it from month to month.

## Bees and Fruit Trees.

A writer in a literary journal of Paris states that the bees greatly improve the fructification of fruit trees. Orchards in which several hives are kept always produce more fruit than those in wbich there are none. In the Provinces on the Rhine, the fruits are more abundant and finer than in any other part of Germany, and there it is the custom to keep large quantities of bees, Plants, too, which bees visit, thrive better in the neighborhood of hives.

## Winter Care of Bees.

The best practical advice that can be given just at this season is :

First. See that your bees do not starve to death. If the supply of honey is gone or nearly consumed, make them a little candy with good molasses, clarified by the aid of white of egg and thickened with wheat flour, and leave it in the hive in some place convenient of access; or, what is still better, give them a mixture of honey itself, with desolved brown sugar, in the proportion of 1 to 2. This latter preparation, of the consistency of honey, may be poured upon dry comb and then exposed where it will be most accessible. If the bees do not incline to come out in search of the food thus tendered, the hive must be removed to a warmer place. We are aware that this recommendation as to food is quite too late, as a supply should have been looked to in the fall; but even yet it may save a few neglected swarms.

Second. Secure to them, as nearly as possible a uniformaty of temperature. They cannot do well if subject to extreme and sudden changes.

Third. Be sure that the hive is well ven. tilated. There should always be an opening of some sort in the top of the hive, so that the air within may be dry and pure; other wise the moisture of their breath will condense in the hive, chill the bees, and eventually kill them. To prevent annoyance from intruding insects, the opening may be protected by wire cloth, or something of that sort.

Fourth. Keep the hives well darkened, in order that the bees may not be tempted out on warm sunny days.

## Bees in California.

"The bees imported into California in such great numbers have now propagated emazingly and are set down by the Sacramento paper as an intolerable nuisance. They are in that section more troublesome than the house fly ; and to give them something to do, the cultivation of flowers will have to be attended to."
[The iden of bees becoming "troablesome," if only kept at work making honey, is too absurd. We'd like to see them at least thick enongh to ensure a plenty of

From the Morthwestern Farmer.

## Itallian Bees.

PROPAGATION-HOW PURE SWARMS ARE OB. TAINED BY THE USE OF A QUEEX ONLY.

Judge King of this city, who is largely engaged in the bee business, has presented us a few specimens of the Italian bee, preserved in alcohol. They appear a little larger than our native bee, and are very distinctly marked, with a golden spot upon the back, near the base of the wings. The Italian bee possessesone very important advantage over our native, in the greater length of mandible, which we are told, enables it to reach the nectar of red clover, and many other honey-producing plants, not available to our natives. A recent visit to Cleveland Ohio, has given the Judge an opportunity to inspect one or two of these Italian colonies. He has also engaged a Queen bee to be forwarded next spring, with which he will commence their propagation.
For the modus operandi of obtaining a pure Italian swarm of bees, by simply पsing a Queen, we refer to the following communication.
Ed. Northwestern Farmer:-When at Cleveland. Nov. last, I visited Mr. E. Y. Sturtevant, the gentlemanly Apiarian of East Cleveland, who had three stocks of Italian bees. All seemed to be doing well, Two of which, however, were mixtures of Italian and native. Mr. S. kindly permitted me to capture a dozen Italians, which I have preserved in alcohol.
The propagation of this beautiful bee is very simple. An impregnated Queen is conveyed to you by express, in a small wire cage, enclosed in a wooden box. The Queen from the native bee is removed, and the Queen cells destrojed. (This is easily performed in a "Langstroth moveable comb hive." The Italian Queen is then introduced into the native hive. In a few days she will commence laying eggs. The Italian is strongly marked by a bright goldan spot on the back, immediately behind the wings.In a short time you will observe the black bees gradually diminishing, and the others increasing, until you have a pare Italian hive. A Queen once impregnated, is ample for the residue of her life.
My impression is, that they are a hardy bee. When I visited Mr, Sturtevant and Dr. Kirtland, last fall, the weather was damp and chilly, and at both places, the only bees I saw flying, were the Italians.Of native bees those gentlemen have several hundred hives.-Jomi Kisg, Dubuque, Iono.
In relation to this interesting furriner, the "Country Gentleman" remarks:
"They are stronger, and much more active and industrious-and as they are at
work every morning before sun-rise, before other bees are "up," and continue their labors at night, after the latter have "gone to bed," they are probably much hardier. They do not sting so readily, but when they do, they make up in severity. The price has been ten dollars for a queen, (who will change a whole hive in one year to pure Italians,) but as they are becoming abundant, the price will probably be lower. Our correspondent will find the process of artificial swarming fully described in Lang. stroth's Bee Book. In relation to clustering bushes, Quinby says that a bunch of dry mullein tops answers a good purpose."

## New Style of Bee-House and Hive.

Mr. G. G. Woodruff, of Waupun, has furnished us with a new hive and plans for a bee-house, which seem to be constructed upon correct principles, and are at the same time ornamental, though not very expensive. It has not been patented, and, strange to say, he has no desire that it should be-prefering that the honey-loving public should enioy the benefits of his experience and mechanical ingenuity at the least possible cost. We hope to have good engravings of both for a subsequent No. of the Farmer, and hence defer a description until it may be illustrated by plates.

Persons interested can see the hive and the plans by calling at the State Agricultural Rooms.

## Horace Greeley on Agricultural Papers

There are at present some fifty or sixity periodicals published in our country. devoted to farming - as many, I presume, as in all the world beside. They have been built up at a great expense of talent, labor, and money; for when Col. Skinner started the first of them at Baltimore, some forty years ago, ihe idea of teaching farmers anything in that way was hooted by them as ridiculous, and he found it hardly possible to give his early numbers away. Hundreds of thousands of dollars have been spent on these publications; and they are this day, in my judgment, doing more to promote the true growth of the country, and the substantial, enduring welfare of our people, than Congress, the Army and Navy, tor the support of which they are taxed some forty millions per annum.

Why is a selfish friend like the letter P? Becanse, though the first in pity, he is the last in help.

## EDUCATIONAL.

## Farmers' Clubs-Libraries.

We rejoice to know that so many Clubs have been organized in all parts of the State. They are just exactly what our far mers need, and we earnestly hope that not one of the consilerable number now in operation will be discontinued for want of interest or for any other cause.

Getting together men of various experiences and habits of observation, they cannot fail to evolve practical truths of great value, and to induce the adoption of something like a system of investigation and experiment.

To those who have not already organized themselves into an association of this kind, we would say, Lose no time in doing so.Call a meeting, adopt the simplest form of a constitution, and begin at once the good work of enlightening and encouraging each other.
To such as are in successful operation, we would make a suggestion or two in relation to the best methods of keeping up the interest:
First. Report your proceedings to the Farmer. If concisely written, we will endeavor to publish in full. If not able to do this we will condense the most valuable portions for our columns, and so give the kernel of what those reports may contain.
Second. Set immediately about the work of collecting a library. By contributing small sums you may obtain the most important standard works on Agriculture, and your members in the Legislature and Congress will have pleasure in farnishing you with the public documents. We will endea: vor to provide you with the Transactions the State Agricultural Society, and whatever else it may be in our power to furnish.
Thin $k$ of this, farmers and friends of agriculture and the mechanic arts, and now while your members of the Assembly and Senate are in a condition to furnish you with a nucleus, begin the establishiment of such a library.

Such a collection of books as could thus be got together, in the course of time, without much expense, would itself serve as a nucleus for the Club, and very materially tend to its perpetuation,

## The Gov, of Michigan on the State Agricuitural College.

We are glad to see that this institution so decidedly the centre of agriculturaleducational interest in this country and so much-though unwittingly-abused by its friends, has, at last been emancipated from the control of the Board of Education and placed in the charge of a Board specially sppointed for the purpose. The Governor thus speaks of the college in his Annual Message:

*     *         *             * The law organizing the college required the purchase of a farm and site within ten miles of Lansing, at an expense of not exceeding fifteen dollars per acre. This was an unfortunate restriction upon the action of those upon whom devolved the duty of selecting the farm and site, as they were necessarily compelled to purchase wild, uncultivated land, the improvement of which has really cost the State more than an improved farm of like quantity and quality, would in the first instance. We ought not to expect much good from scientific and experimental cultivation, until the farm shall have been thoroughly subdued. Time alone can accomplish this. The mere chopping down and clearing off a heavy growth of timber, are only the first steps towards subduing land. Great improvements have, however, been made upon the farm within the past two years, in removing unsightly objects, and giving it a more farm-like and tidy appearance. There are other improvements necessary to be made. More land should be cleared; the old bridge across Cedar River, connect ing the different parts of the farm, and necessary to its use, should be rebuilt, and a barn should be built.

The Legislature of 1859 made an sppropriation of the sum of thirty-seven thousand five hundred dollars, "for the purpose of paying the liabilities of said institution; for the erection of farm barn and shed; for the repair of buildings; the payment of salaries of professors and teachers, and the payment of other necessary expenses to be incurred in the successful operation of said school during the years eighteen handred and fifty-nine and eighteen hundred and sixty." There was paid out of this appropriation during the year 1859, the sum of seventeen thousand six hundred and seven-ty-six dollars and forty-five cents, and during the year 1860, the sum of fourteen thousand two hundred and nineteen dollars and forty-three cents, leaving the balance nnexpended. It will require a further appropriation of twenty-five thousand dollars for the next two years, to make improvements contemplated by the Legislature of 1859, and make some other slight improve-
ment necessary to be made, as recommended by the officers of the institation; build a bridge across the Cedar River, and carry on the College for the next two years.

The Legisiature of 1858 passed a law authorizing the Agricultural College, for its own use and for the purpose of drainage and reclamation, to take immediate posses. sion of certain swamp lands belonging to the State, situated in the townships of Lansing and Meridian, in the county of Ingham, and De Witt and Bath, in the county of Clinton. The most of this land is in one body, situated about two and one-half miles north of the College buildings, and can be reclaimed at a triffing expense, and will then be of great value to the Institution for grazing purposes. There are some scattering lots that could be sold to advantage, and if sold and the avails applied toward reclaiming the balence, it would be far better than to let them remain in their present condition. I recommend that the fee of these lands be put into the hands of the officers of the College in trust, and that they be anthorized to sell such parts as will not be wanted for the use of the Institution, applying the avails thereof towards opening roads to, and improving the balance of these lands. There is no institution in our State that more strongly commends itself to the good wishes of the people than the "Agricultural College," and it should be the especial duty of the Legislature to cherish and watch over its infancy. The great mass of the people of Michigan are and always will be cultivators of the soil, and this institution is designed to elevate them in the mysteries of their calling. It may take years to put this institution upon a firm basis, but the time will come when the "Agricultaral College" will be the pride and boast of our State. Already has it passed its crisis, and soon the products of the farm will go far towards defraying its ordinary expenses. Suppose it shouid continue to be a bill of expense to the State? I ask what institution of learning have we that has not been and is not now a bill of expense to the State?

## Gov. Brown on Agrioultare.

In his late Message to the Leglslature of Georgia, Gov. Brown says:
"To the duty of making a Geological Survey of this State, should be added that of making chemical analysis of the different qualities of the soil in the different sections of the State; so as to afford the planters in each section, necessary information as to the kinds of productions to the raising of which each kind of soil is best adapted, and the kind of manures best suited to each different quality of soil. This, it is believed, would be of great value to
the planting interest. Certainly no class of our population has stronger claims upon the liberality and bounty of the Legislature; and none has been longer neglected. Every appopriation necessary to the advancement and encouragement of Agricul. ture, should be promptly and cheerfully made by the Legislature."

## THE HOME.

## The Snow-Fall.

BX MRS. Hoys.
Sitting stitching by my window, Half thelong and wintry day;
Sitting shiv'ring by my window,
From the cheerful fire away;
Sitting masing, half complaining, Long I noted not the sight
Of the beauteous snow descending, Of the brown earth, rob'd in white!

On the dimly outlin'd hill-tops, Sheeted lakes, and woodlands wide,
Far as faded out the vision,
Far as stretch'd from side to side;
From the zenith heights above $\mathrm{me}_{\text {, }}$ To the meanest nook below, swiftly, as a banner'd army, Swept the white-wing'd, muff'd snow.

Soon the winter's spoils were hidden; Crags and scars all folded up; Blighted nature meekly drinking
From her crystal-crusted cup.
On the new baptiz'd creation, Such a sense of beauty fell! On the new baptiz'd croation, Seem'd a hush of peace to dwell!

Sitting musing, by my window, Long I noted, then, the sight Of the beanteous snow descending,


Then my thoughts were lifted higher;
Then I left the world within; Then, from of my spirit'elyre, Swept the clouds had gather'd in:-

As I saw the wondrous meaning of the beauty mirror'd thereWhile I murmur do all ansing fair!

On the dimly outlin'd futureReal half, and half in dreamsFar as faded out the omen, All that is, and all that seems;

From the zenith heights above me,
From the world of better things,
Arm'd with strength, and crown'd with beauty, Came the love-enfolding wing.

Soon, the soil of life was hidden; Cares and sorrows folded up;
Murmuring muser meekly drinking, From her heaven-appointed cup.

On the newly baptix'd epirit, Such s sense of beauty fell!
In the newly baptiz'd spirit, Seem'd a fush of pence to dwell!

If: Sitting musing, by my window,
(6) Now the night enfoldeth all-

Still th ${ }^{2}$ besuteous, white-wing'd snow-flakes, Falling, falling, still they fall!

## Winter Bvenings.

The winter is of all seasons the most favorable to mental and social culture.Especially is this true of the country in distinction from the city.
During the spring, summer and autumn the time of the husbandman is so thoroughly occupied with the labors and cares of his occupation that there is really but little left for reading and social enjoyment. But, when the toils of the thronging season of harvest are over, and his fruits are in the cellar and garner, or, converted into money, have released him from the tormenting anxieties incident to debt, or are securely deposited in bank until required for the numerous improvements of home and farm with which he has wisely promised to enrich his possessions-then may the farmer, with propriety, give his many leisure hours to the higher cultivation of himself and his family. And if he be a father and husband, not merely in name but in reality, to those who sustain to him the sacred relations of wife and children, he will bless the long hours of these winter evenings as of priceless worth, and hence consecrate them to the highest mutual good of the household.

Let there be, then, a fixed system or order by which all the work necessary to the comfort of stock and the future operations of the farm shall be done within the busy hours of day, so that when the children have returned from school, and the supper has been disposed of, the whole family may gather about the cheerful hearth and happily pass the curtained hours of evening in reading, stady and conversation of a character calculated to enrich the common stock of knowledge, refine the manners, and strengthen and expand the noblest sentiments of the heart. So shall the Angel of Peace and Happiness not only abide with you in the sacred circle thus formed, but become the life-guardian of each child committed to your care.
Fireside scenes like these are the brightest pictures in our memory of the past, and as oft as they come up before us, with everdeepening emotions of gratitude and love, we bless the dear God for Father and Mother who realized the vast responsibili-
ties of the parental relation and were ever faithful to discharge them.

The farmer who is more mindful of the health and growth of his cattle and colts than of the intelleetual and moral development of his children is surely unworthy of them.

## Lamartine's Opinion of Women,

Woman, with weaker passion than man, is superior to him in soul. The Gauts attributed to her an additional sense-the divine sense. They were right. Nature has given women two painful heavenly gifts, which distinguish them, and often raise them above human nature-compassion and enthasiasm. By compassion they devote themselves; by enthusiasm they exalt themselves. What more does heroism require? They have more heart and more imagination also, than men. Enthusiasm springs from the imagination, and selfsacrifice from the heart. Women are there fore, more naturally heroic than men All nations have in their annals some of those miracles of patriotism, of which woman is the instrament in the hand of God. When all is desperate in a national cause, we need'not despair while ${ }^{\prime}$ there remains a spark of resistance in a woman's heart, whether she is called Judith, Clelia, Joan of Are, Victoria Colonna in Italy, or Charlotte Corday, in our awn day. God forbid that I compare those that I cite I Judith and Charlotte Corday sacrificed themselves, but their şacrifice did not recoil at orime. Their inspiration was horoic, bot their heroism mistook its aim ; it took the poignard of the assassin instead of the sword of the hero. Joan of Are used only the sword of defence; she was not merely inspired by heroism, she was inspired by God.

A Mas's purpose of Life should be like a river, which was born of a thousand little rills in the mountains; and when at last it has reached its manhood in the plain, thoogh, if you watch it, you shall see little eddies that seem as if they had changed their minds, and were going back again to the mountains, yet all its mighty current flows, chapgeless to the sea. If you build a dam across it, in a few hours it will go over it with a voice of victory. If tides check it at its mouth, it is only that when they ebb it can sweep on again to the ocean. So goes the Amazon or the Orinoco across the continent-never losing its way or changing its direction for the thousand streams that fall into it on the right hand and on the left, but only using them to increase its force, and bearing them onward in its resistless channel.-Beecher.

## HEALTH AND DISEASE.

Sure Cure por a Felon.-The Editor of the Buffalo "Advocate" vouches for the following from his own knowledge: "Take a quantity of common soap and stir in airslacked till it is of the consistency of glaziers' putty. Make a leathern thimble, fill it with this composition, and insert the finger therin, and a cure is certain."
Cure for Deafarss.- Sulphuric ether poured into the ear in daily doses of four to eight drops, has recently been declared by the medical faculty of Paris, a certain cure for deafness. Applications may be continued a long time, if necessary. The cure has not failed in any of the numerous cases in which it has been applied.
Cimate.-The effect of climate on the human constitution is strikingly shown by the people of Australia, who, in two or three generations lose the complexion of Englishmen, and become a tall, gaunt, rawboned race, like the inhabitants of our Southern States.
Simple Cure for Croup.-One of the simplest and surest remedies for this dangerous disease is ice cold water, suddenly and freely applied to the neek and chest with a sponge or cloth. The hard breathing will soon eease, and the child having been made to drink as soon and as much as poosible, may be wiped dry, covered up' warm and put to sleep.

## DOMRETIC ITEMIS.

To prevent Skippers in Hams.-Simply keep the smoke-house dark, and the fly that deposits the egg will never enter it. So say those who have tried it.

To Clean Parst--Smear a piece of flannel in common whiting mixed to consistency of paste in warm water. Rub the surface to be cleaned quite briskly, and wash off with cold water. This will leave a clean, bright surface.
To Boni a Turkey.-Remove the flesh from the bone with a sharp knife, scraping it downwards, being careful not to out it to pieces. Begin at the wings, and do not break or tear the akin loosen the flesh from the breast, back and thighs; ; raw the skeleton by the neck from the flesh, then stuff it with a dressing prepared in the same way as for roast turkey; if there are any broken places, sew them up;-bake it about three hours.

A Recipe worth One Thousand Dol-lars.-Take one pound of sal soda, and a half a pound of unslacked lime, put them in a gallon of water, boil twenty minutes, let it stand till cool, then drain off, and pat it in a stone jug or jar. Soak your dirty cloths over night, or until they are well wet through, then wring them out and rub on plenty of soap, and to one boiler of clothes, well covered with water, add one teasponful of washing flaied. Boil half an hour briskly , then wash them thoronghly through one suds, and rinse well with water, and your clothes will look better than the old way of washing twice before boiling. This is an invaluable receipe, and I do want every woman to try it. I think with a patent wash-tub to do the little rubbing, the washer woman might take the last, book and compose herself on the lounge, and let she washing do itself. The woman who can keep a secret has known this a year or two, but the husband told it while on an electioneering tour.
Sugar Ioing por Cake. - Beat two pounds of double refined sugar with two ounces of fine starch, sift the whole through a gauze sieve, then best the whites of five eggs with a knife upon a pewter dish for half an hour; beat in your sugar a little at a time, or it will make the eggs fail, and injure the color; when all the sugar is put in, beat it half an hour longer, and then lay on your almond icing, spreading it even with a knife. If put on as soon as the cake comes from the oven, it will be hardened by the time the cake is cold.

## YOUTH'S CORNER.

## Evening Amusements.

Once in a while the children of two or threce families will naturally get together and have a pleasant little frolie. It's right that they shonld, and the grown-ap foilks would do well to join in with them. We incline as a people to grow old too fast. A gay time with the children once in a while will do us good. We nsed to enjoy these jollifications with neighbor children twenty years ago, and they are now and then decidedly pleasant even yet.
At such little gatherings, plays must come in for their share of time, of course, and though not very well posted, perhaps, we will venture the description of one which we are quite sure will be new to some. It is this: Two of the children at least must nuderstand it, bat the rest must be kept in ignorance of the trick as long as possible. One of the two goes out of the room; the
other remains in to ask him the questions when he returns. Meantime all persons in the room agree upon some object which the one who is absent mast guess out on his return. He is now called in, and the boy or girl in the room who understands the play proceeds to ask him a great many questions as to what the object is that was, agreed upon, naming almost everything he can think of so that he does not name that object until he has first named one-an animal or thing, no matter what-that has four legs ; the four-legged object being mentioned last before the thing agreed upom by all the party. Accordingly, when the fourlegged object is named, the person who went out of the room knows that his friend will call out the right thing next, and so, in answer to the question, "Is it ——?" answers, "Yes!" very much to the surprise of all who do not discover the trick.
For example, suppose John and Mary understand the play-agreeing that a fourlegged thing shall be named next before the object agreed on by the party. John goes out, and Mary and the other persons in the room decide that the thing shall be Lake Michigan. John is then called in, and Mary proceeds to question him thas : Is it this room? John, of course answering, "No." Is it the wiadow ? "No." Is it the fire? "No." Is it Julia's dress ? and so on, until she finally mentions something with four legs, as a chair, table, horse, or something else. John being in the secret, now knows that the next thing named wil. be the right one, and so when Mary asks, Is it Lake Michigan 9 he says promptly, "Yes,1!"

## Keep your Hearts Pure.

The heart of youth is a wide prairie. Over it hang the clouds of heaven to watek it; the sun throws its broad sheets of light upon it, to wake it to life; out of its bosom spring, the long season through, flowers of a hundred names and hues, twining together their lovely forms, wafting to each other ${ }^{\text {a }}$ gratefal odor, and nodding each to each in the summer breeze. Such would man be would he hold that purity of heart which God gives him: Therefore, 0 youth, guard your heart-purity. Never lose it ; if it be gone, you have lost from the casket the most precious gift of God. The first purity of imagination, of thought, and of feeling, if soiled, can be cleansed by no fuller's soap; if lost, it cannot be found, though sought for carefully with tears. If a harp be broken, art may remedy it; if a light be quenched, the flame may re-kindle it ${ }_{i}$ but if a flower be crushed, what art can repair it ? If an odor be wafted away, who can collect or bring it back 2-[Raral N. Y.


Fancy Rabbits.
Here's something for the boys to look at, -beautiful blue rabbits, with their heads and breasts splashed with white, and ears as long as a mule's, though far from sticking up with the queer, stupid stiffness which marks the ears of that joke of the animalcreation ! So far are they from sticking up, indeed, that they loppingly hang down like the long soap-locks of some gawky fellows we have seen, who appeared to have learned nothing but the story of Samson and Delilah.
We presume every boy in Wisconsin has seen a good many of the grey "cotton-tails" that belong to this country and occasionally make their unfortunate way either into the great wooden traps which the bigger boys set for them in the fields, or into the remorselass jaws of roaming, hungry dogs.Even this common variety are beantiful, harmless creatures, and we remember very well, how we used to plead for their lives when ourselt a boy, and sometimes slyly let them out of their prison before they were found by our brother, But there are many other variefies of the Rabbit, some of them very queerly formed and fantastically colored.

The variety seen in the picture belongs to a class known as the "Ear lops,". of which there are several-the names varying according to the peculiar manner in which they carry their ears.

Thus there is the half-lop, with one ear stapding and the other hanging down; the
oar-lop, with the ears both trailing backward like the oars of a floating skiff, when resting in the row-locks; the horn-lop, with ears hanging downward and forward, like the horns of "our old crumple cows;" and the flat-lop. which differs from "horn-lop" only in the more sudden turn of the ears forward, directly from the crown of the head, as seen above.
The flat-lop is most esteemed and makes a very pretty pet. We know some little boys at Waukesha who take great pleasure in raising and petting several varieties of the Rabbit, and, if, when summer comes any of our little readers would like to get a pair we'll give them the fall address of the Georgie and .Edward who keep them to sell.

## How to Mend the World.

One day a philosopher came to Athens from a far country to learn the ways of the wonderful Greeks, and perhaps to teach them the great love he treasured in his heart. The wise men heard him, sought his company in the gardens; talked with him in private. The young men loved him.He passed for a wonder with that wonderloving people. Among those that followed him, was the son of Sophroniscus, an illfavored young man, a mechanic of humble rank. He was one of the few that understood the dark Oriental doctrines of the Sage, when he spoke of God, Man, Freedom, Goodness, of the Life that never dies. The young man saw these doctrines were pregnant with actions and would one day work a Revolation in the affairs of men. disinheriting many an ancient Sin now held legitimate.
So he said to himself, when he saw a man rich or famous-oh, that I also were rich and famous, I would move the world so soon. Here are sins to be plucked up
and truths to be planted. Oh! that I could do it all, I would mend the world right soon. Yet he did nothing but wait for Wealth and Fame. One day the Sage heard him complain with himself, and said, Young man, thou speakest as silly women. This Gospel of God is writ for all. Let him that would move the world first move himsele. He that would do good to men begins with the tools God gives him, and gets more as the world goes on. It asks neither Wealth not Fame to live out a noble life at the end of the lane in Athens. Make thy Light thy Life; thy Thought, Action; others will come round. Thou askest a place to stand on hereafter and move the world. Foolish young man, take it where thou standest and begin now. So the work shall go forward. Reform thy little self, and thou hast begun to reform the world. Fear not thy work shall die.
The youth took the hint; reformed himself of his coarsness, his sneers, of all meanness that was in him. His Idea became his Life; and that blameless and lovely. His Truth passed into the public mind as the sun-light into the air. His Acorn is the father of Forests. His influence passes like the morning from contin ent to continent, and the rich and the poor are blessed by the light and warmed by the life of Socrates, though they knew not his name, -Theodore Parker.

## Origin of names of Days of Week.

In the Museum at Berlin, in the hall devoted to northern antiquities, they have the representations of the idols from which the days of our week are derived. From the idol of the Sun comes Sunday. This idol is represented with his face like the sun, holding a burning wheel, with both hands on his breast, signitying his course round the world. The idol of the Moon, from which comes Monday, is habited in a short coat like a man, but holding the moon in his hands. Tuisco, from which comes Tuesday, was one of the most ancient ard popular gods of the Germans, and represented in his garments of skin, according to their peculiar manner of clothing; the third day of the week was dedicated to his worship. Woden, from which comes Wednesday, was a valiant prince among the Saxpns. His image was prayed to for victory. Thor, from whence Thursday, is seated in a bed, with twelve stars over his head, holding a scepter in his hand. Friga, from whence we have Friday, is represented with a drawn sword iu his right hand, and a bow in his left. Seater, trom which is Saturday, has the appearance of perfect wretchedness ; he is thin-visaged, longhaired, with a long beard. He carries a pail of water in his right hand, wherein are fruits and flowers.-[Country Gentleman.

## NEWS DEPARTMENT.

## the doinge of agriculivial SOCIETIES.

[A portion of the News Department of the Fambir will be regularly and specially deroted to the interests of the Agricultural Societies of the State and Union. It will be edited in our omlial capacity as Secretary of the State Agricultural Soclety, and all County Agricultural Societies, Town Olubs and like associations are cordially invited to give the acts of their several organizations publicity through this medium Election Reports should give the P. O. address, as well as nawes of afficers.]
The First Meeting of the Fxecutive Committee of the Wisconsin State Agricultural Society for the year 1861 will be commenced on the 5th of the present month (February.) It will be the duty of the Committee at this session to carefully exaraine all fiscal papers bearing date since January 1st, 1860 ; to mark out the general policy of the Society for the current year; to prepare a Premium List for the Fair of 1861, and to appoint Superintendents, Committees of Judges and other officers for the Exhibition. Every member of the Committee is anxious to do the best thing for the industrial interests of the State, and no effort will be spared to determine the right means for the attainment of that object.

The appointment of Juages will the last thing attended to, and the Officers of the County Societies will yet have time to report to the Secretary (J. W. Hoyt, Madison, ) suitable names for the several Committees. They are earnestly solicited to do so.
The Jackson County Agrioultubal Sociert, at the Annual Election of Officers on the 9th inst., elected the following persons for the year 1861:

> Hugh Douglas-President. James V. Wills-Ireasurer. W.T. Priee-Secretary.

## Vice Presidento

## D. J. Spaulding-Albion.

O. Winters-Manchester.
L. G. Merrill-Alma.
E. Wilcox-Northfield.
J. H. Burto-Hixton.

Levi Warren-Springfield. . youls
T. $0^{\prime}$ Hearn-Melrose.

J, F. Howell--Irviug.
D. J. Spaulding, See's.

## AGRICULIURAL

According to De Bow's Review, the eotton crop of the Soath for 1859 was 4,675 ,770 bales; of which $3,773,256$ were exported, and $1,956,086$ manufactured in this country, 185,522 bales in Virginis and South of Virgizia, and $1,770,564$ in the North.
-The "Oalifornia Farmer" congratulates the women of that State on the recent introduction of the Nonpareil Wheat, from the straw of which the famous Italian straw bonnets are made, known as Tuscan straw, and predicts that "tens of thousands of dollars now sent out of the State for straw bonnets will be given to our own women for labor."
-The Keokuk (Iowa) "Gate City" says that a Mr. McCoy, one year ago, bound himself to deliver to Mr. Duffield of Bloomfield, in December, 1860, 1000 hogs, not one of which was to weigh less than 250 pounds. He more than filled the contract by delivering over $1,300 \mathrm{hogs}$, average gross weight 302 pounds. Contract price $\$ 4,00$; amount $\$ 12,500$.

- The King of the Pumpkins for the year of grace 1860, was inaugurated at the Halle, in Paris, on the 24th ult. It measures ten feet four inches in circumference, and weighs 319 pounds! It was carried about the market with this inscription: "The King of the Pumpkins of 1860, born in Touraine, April 6th, gathered September 20th, 1860.
- O. P. Dow of Palmyra, Wis., during the past season, made for himself and neigh. bors, 10 barrels of sorghum molasses. He expresses confidence in the economy of this home manufacture and complains that the faith of the public is not stronger.
-An Iowa paper which has kept a record states, that next to railroad and steasmboat accidents, more people were killed by threshing machines daring the jear 1860 than by any other cause !
- There are in the State of Maine 45, 508 horses, 132,645 cows, $61,578,374,095$ sheep, and 45,923 swine.
-The average yield of wheat in New Hampshire is reported to have been thirty bashels per acre.
- The cotton crop of the United States for the year 1860 , is stated at $4,675,770$ bales ; amount consumed in the United States 878,043 .
- Beef at Charleston is quoted at thirtyfive cents per pound. Flour was twelve dollars per barrel, a week ago. Sickness begins to prevail already among the troops. - A Mr. Platter, of Page County, Iowa, recently sold a lot of 55 hoga, of which 24 exceeded 400 lbs each. Iowa is certainly great on hogs.


## SCIENTIFIC AND STATISTICAL.

Railroads of the World.-From the British Parliamentary Reports the following interesting facts have been gleaned concerning the relative cost and receipts per mile, of the Railroads of the World, also, the comparative loss of life:


COMPARATIVE LOSS OF LIFE.

| Great Britain. | passenger killed in | 6,680,324 |
| :---: | :---: | :---: |
| France | 1.....do........do...do | 1,703,123 |
| Bade | 1......do........do...do | 17,514,977 |
| Prussia | do...do | 2,144,488 |
| United States. | ..do...do | 188,000 |

- Acconding to the Chicago "Tribune" the exports of that city in flour, grain and provisions and other leading products, though about one-sixth less than they otherwise would have been because of high meight rates, nevertheless amount to over one-third more than ever before. Gross amount for past three years as follows :
Total value in 1858 , $\$ 19,988,49583$ Total value in 1859 $24,280,89047$ Total value in $1860 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ 85,737,48988 ~$ Among the heaviest items, we notice:


There is but one item, that of Liead, value $\$ 600,000$, that did not come as the result of farmers' toil.

- The total growth of Tobacco in the U . S. in 1860, to come into market in 1861, is estimated to be :

-The Boston "Journal" thinke the State of Massachusetts has not lost less than $\$ 200,000$ by the cattle disease.
- Eastern manufacturers arc importing large quantities of wool of the "middle class" from England-not enough wool of that diveription being grown in this country. This is a disgrace to American farmers.
- In Oregon, sheep are selling to the butchers at $\$ 5$ each; leaf lard retails in Portland at 25 cts. per lb . If sheep and hog-raising won't pay in that State where will they?
- At Stowe, Vt., there are five factories in which starch is made from potatoes.Each consume about 20,000 bushels per annum, and eight pounds of starch is the yield of each bushel.
- Linnaeus proved by actual experiment that the horse ate 262 and rejected 212 species of plants indigenous to Sweeden; cattle ate 276 species. and rejected 218 ; while sheep took readily 387 and refused ouly 141.
-During the year 1860 fifty one persons died in the United States at ages exceeding 100 years. The eldest of these was Milly Lamar, a slave, who died in Georgia at the age of 137. Twenty one were soldiers of the Revolution.
-The total number of passenger carried between Europe and the United States last year, in the Trans-Atlantic steamers, was about 74,000 , of whom 50,000 were bound westward. This is an increase of more than 13,000 in the aggregate, compared with the previous year.
-The gross receipts of the Western Railroads for the year were $\$ 1,881,350 \quad 72$; expenses $\$ 993,09630$; net receipts $\$ 880$,254 42. Compared with 1859 there was an increase of $\$ 114,28259$ in gross receipts, of $\$ 56,17618$ in expenses, and of $\$ 58$,19641 in net ineome.
-The United States census shows that 1 biladelphia is the largest city on the American continent, though it is behind New York in population. The rather curious fact is revealed by the returns that New York and its suburb Brooklyn have not as many dwellings as Philadelphia.New York has 54,338 and Brooklyn 30,523, in all 84,831 , while Philadelphia has 89,978 , or an excess of 5,118 .
- Farmers should understand the importance of uniformity in the color of corn sent to the Chicago market. The "Advocate says, that, either pure white or pure yellow brings in that market from one to three cents per bushel more than mixed colors-lhe Board of Trade having established grades of "pure white" and "pure
yellow."


## POLITICAI.

Legislative.-The Wis. Legislature convened on the 9th ult., and the two Houses were organized by the election of Gen. Amasa Cobb, Speaker of the Assembly, Col. Crane, Chief Clerk, and of Dr, Warren Chief Clerk of the Senate.
Both branches appear to be composed of sound and able men, and the prospect is good for a prompt dispatch of the important public business betore them.

The Governor's Message is an able document. By it the several Departments and Public Institutions appear to be in a prosperous condition, and the moderate State Tax will be ample to defray the expenses of the Government. It recommends an enlargement of the Capitol; reliet for the Farm Mortgagors : specie premiums of three to five-thousand dollars on Sorghum and Flax; a reduction of the rate of interest with a view to the encouragement of manufactures, \&c.; a more efficient organization of the Militia of the State; declares the right and propriety of Personal Liberty laws; denies the right of secession, an makes a patriotic appeal for the preservation, intact, of the Constitution and Union.

Several Bills have been introduced, but none of great importance have yet become laws.
The subject of the election of a U. S. Senator engrossed much of the attention of members while it was pending, but was finally settled on Wednesday, the 23rd ult., by the election of JudgeHowe, of Green Bay. The vote in Joint Convention, stood 92 to 34.
The Committees on Agriculture and Manufactures in both Honses embrace some of the best men in the Legislature and appear to have been fitly chosen.
Congeressionalu-Congress has thus far been chiefly occupied with the consideration and discussion of propositions for the preservation of the Union. Mr. Crittenden's proposition to amend the Constitution so far as to prohibit slavery in the territory north of $36^{\circ} 30^{\prime}$, and to recognize and protect it in the territories that we now have or may hereafter acquire south of that line, and to guarantee to the Southern States noninterference by the. Federal Government,
with Slavery therein; to so amend the Fugitive Act of ' 50 as to equalize the Commissioners' fees and make the Federal Government responsible for all loss accruing to the alleged owners by reason of a resitance to the execntion of the Act, has not yet been disposed of, though petitions are being received from several parts of the North on behalf of its adoption as a basis of settlement.
The Committee of 33 in the House, after numerous and protracted sittings finally made four reports. The majority Report by Mr. Corwid, Chairman, requests the States to revise their Personal Liberty Laws, and proposes an amendment to the Fugitive Acts of 1793 and 1850 , so as to require fagitives to be surrendered up by the Judge of the U.S. Court instead of the Executive of the State to which they have fled, and giving the fagitive trial by jury in the State claiming him;
The admission of New Mexico and Arizonia as a State "as soon as may be," with or without slavery ; and

An amendment to the Constitation forever prohibitiug any interference with slavery in the States.

The minority Report submitted by Messrs. Washburne of Wis., and Tappen of New Hampshire, opposses all concession as "wrong, untimely and inexpedient," and recommends the following resolation:

Resolred, That the provisions of the Constitution are ample for the preservation of the Union and the protection of all the material interests of the country. That it needs to be obeyed rather than amended, and our extrication from our present difficul. ties is to be lonked for in efforts to preserve and protect public property and euforce the laws, rather than in their guaranties for particalar interests, or compromises or consessions to unreasonable demands.

A second minority Report from the ultra Southerners on the Committee recommends the calling of a Convention of the States with a view to a peaceable separation, di vision of the public property and the settling of terms of fatare commercial intercourse.

Hon. Charles Francis Idams also made a Report on his own behalf, to the effect that he had lost all confidence in the disposition of the South to agree to any proposition which did not give them constitutional
guaranties for the protection and extension of slavery, "He could never give bis consent to their demands," and would not therefore give his sanction to formal propositions which had already been virtually rejectad.
Southern members of the Committee had refused assent to the indisputable proposition annunciated in his late resolution: "That peactful acquiescence in the election of a Chief Magistrate, accomplished in accordance with every legal and constitutional requirement, is a high and imperative duty of every good citizen of the United States," and it was useless to spend farfher time in neoessarily futile attempts at a reconciliation of irreconcilable differences.
Of all the speeches made thus far, those of Mr. Seward of N. Y. and Mr. Hunter of Va., are perhaps the most representative. The former retuses any compromises that would result in the extension of slavery into the territories, eloquently appeals to the patriotism of the American people, and insists on the integrity of the Government and the enforcement of the laws; the latter declares the Union already dissolved, and offers a radical and absurd plan of reconstruction.

National-Pbogress of Treason.Since the formal secession of S. Carolinia on Dec. 24th, five other States-Fla., Ga., Ala., Miss. and La.-have declared themselves out of the Union, and withdrawn their members from Congress. The Na tional Flag has been repeatedly insulted and even fired upon ; thirteen Forts, six U. S. Arsenals, one Navy-Yard and one Revenue Cutter hnve been forcibly seized by the Rebels! Other forts are invested by Southern troops and will probably have been taken before this goes to press.
At Georgetown, S. C., a Federal officer, Collector of the Port, has been arrested for Treason to the State, for allowing clearance to ships under the U. S. Flag; and at Vicksburgh, batteries have bcen erected to control the navigation of the Mississippi river.
From the "Evening Post," we quote a chronological table of the dates of the several seizures of military posts, arsenals, \&c., together with the attack upon the ship Star of the West-the whole forming a list
of the most important treasonable acts of the traitors:

Dec. 27. - Fort Moultrie and Castle Pinckney, at Charleston, seized.
Dec. 27-Revenue cutter William Aiken surrendered by her commander, and taken possesslon of by South Carolina.
Dec. 30. - United States Arsenal at Charleston seized.
Jan. 2.-Forts Pulaski and Jackson and the United States Arsenal at Savannah seized by Georgia troops.

Jan. 2.-Fort Macon and the United States Arsenal at Fayetteville seized by North Carolina.
Jan. 2.-Fort Morgan and the United States Arsenal at Mobile, seized by Alabama.
Jan. 3.-Forts Johnson and Caswell, at Smithville, seized by North Carolina.

Jan. 9.-The steamer Star of the West, bearing reinforcements for Major Andèrson, fired at in Charleston harbor.

Jan. 10.-Fort MeRae, at Pensacola, seized by Florida.

Jan. 10.-The steamer Marion seized by South Carolina; restored on the 11th.

Jan. 11.-The United States Arseval at Baton Rooge, and Forts Pike, St. Phillip and Jackson, seized by Lonisiana.

Jan. 12.-Fort Barrancas and the NavyYard at Pensacola, seized by Florida.
Accordinig to the Army List, the thirteen forts thas seized are pierced for an aggregate of 1,099 guns. The following table shows their location, cost, war garrison, and the number of guns in each:

## THE FORTB BEIzED.

|  | Cost | Men | Guns |
| :---: | :---: | :---: | :---: |
| Ft Macon, Beaufort, | 460,000 | 300 | 61 |
| Ft Johnson, Wilmington, N. C. | 5,000 | 60 | 1 |
| Ft Caswell, Oak Island, N. C... | 571,000 | 400 | 81 |
| Castle Pinckney, Chas'ton, 8. C. | 43,000 | 100 | 25 |
| Ft Moultrie, ............do.....do... | 75,000 | 300 | 0 |
| Ft Pulaski, Savannah, G | 923,000 | 000 | 0 |
| Ft Jackson ......do.......do | 80,000 | 70 | 14 |
| Ft Barrancas, Pensacola, | 315,000 | 850 |  |
| Ft McRea............do | 384,005 | 650 | 16 |
| Ft Morgan, Mubile, Ala...... | ,212,000 | 700 | 13 |
| Ft St. Philip, Mouth Mississippi | 143,000 317,000 |  | 12 |
| Tt Jackson ......do..........do...... | 317,000 | 600 |  |
| Ft Pike, Rigolets, La.......... | 472,000 | 300 |  |
| Yt Macomb, Chief Montear, La. | 447,000 | 0 |  |
| Tot |  | 430 | 1,090 |

It will be seen that the war garrisons required at three points amount to upward of five thousand men, althodgh, as in the case of Fort Sumter, they may be held with far less than the regulation complement. The aggregate cost of the püblic property thus seized is not far from $\$ 6,000,000$, to say nothing of the Navy Yards, the Arsenals, and the Revenue Cutter Aiken.

It seems to be the policy of some of the States favorable to secession to remain in the Union until the 4th of March, when Mr. Buchanan shall have handed over the reins of government to his successor; and for
the meantime a Southern Confederacy Convention is called to meet at Montgomery, Alabama, on the 14th of February.
The President still maintains a most "masterly inactivity," allowing the rebels to strengthen themselves and thus render impossible the enforcement of the laws without civil war. But for a gallant coup de main of Major Anderson, who, when threatened with starvation and certain ruin in Ft. Moultrie (a comparitively, weak'military fort in Charleston harbor) evacuated that fortress in the night and took possession of Ft . Sumpter, one of the strongest fortifications in the U. S., the Government would have been to-day in the yet more humiliating position of having possession of not even a single post of importance in the whole South. But the holding of this post for any considerable time, is, to say the least, problematical. Garrisoned with 300 well provisioned men the whole South could not take it; but, unhappily there are but about 70 efficient men, under the command of Maj. Anderson and these are without either fuel or proper food. The rebels under orders from Gov. Piokens are surrounding it with batteries, have cut off communication by sea, and are resolved either to starve the little garrison into a surrender or take it by storm. Meantime our model President is taking no steps for their relief !

The Cabinet officers have been in a constant jangle and more changes have occurred within the last few days-than ever before within the entire period of a single administration.
Mr. Cass, Secretary of State, has been succeeded by Mr. Black, late Attorney General.; Mr. Blace, by Mr, Stanton in the Department of Attorney General.; Mr. Floyd has been succeeded by Mr. Holr, late P. M. General, in the Department of War; Mr. Thompson, late Secretary of the Interior, by - ; and Mr. Cobs, late Treasurer, first by Mr. Thonas of Md., and secondly by Gen. DIx, of N. Y.
To add to the other embarrassments of the country, nearly a milliour of dollars in State Stocks, held as Indian Trust Funds, have been stolen ftom the Department of the Interior; anfl the publie having lost confidence in the Southern stocks, upon which Northern banks are so many of them based, the political has been succeeded by a financial panic. This last, however, has now hearly
passed and the usual facilities for business are being restored.

The President elect is reliably reported to have appointed Mr. Seward Secretary of State, and Edward Bates Attorney General. The other Cabinet appointments have not yet transpired. It is believed that secret plans are being perfected to prevent the inauguration of Mr. Lincoln, and Lt. Gen. Scott is taking prompt measures to protect the city of Washington and the public property of the nation against the projected invasion.

Foreign.-The war of the allied armies of France and England upon the Chinese Government for alleged violations of treaty has closed for the present-the allies having burnt the Palace of the Emperor, slaughtered a few of his people and thus "conquered a peace."

Italy is quietly preparing for the great campaign of 1861.

Austria still holds on to Venetia, but is making concessions to Hungary in order to prevent a general uprising of that long oppressed people.

Prussia has a new King by the death of King William IV., and Frederick William, who will henceforth bear the title of William V. on taking the throne declares his intention to preserve the established policy of the Government and to adopt the most efficient measures for its advancement in prosperity: glory and power.

Russia, grand old "semi-civilized" Russia, on the 12th day of January (New Year's Day, by her Calendar) consummated the sublime work of the emancipation of her twenty millions of Serfs, and to-day stands forth in her majesty, her national flag washed of the stain that has darkened its glory for three hundred years. Thus has this last and most gigantic relic of European Barbarism yielded before the march of a slowly but steadily advancing civilization. Mighty in the vastness of her Empire, which "stretches through three-quarters of the globe and over one-seventh of its habitable surface," mighty also in the grim and rugged strength and growing intelligence of her seventy millions of people, Russia is henceforth yet mightier through this newly-aequired moral force, and is surely destined to become the first Power of the Old World.

- The Oregon "Farmer" talks of quantities of apples still "on hand" in the upper country- 12,000 bushels in one county.


## NEWS KERNELS OF ALL SORTS.

- The next Illinois State Fair will probably be held at Chicago.
- The Iowa State Fair of 1861 will be held at Iowa City, commencing Sept 24.
- The report that Gen. Scott had accepted a challenge to fight a duel with Toombs of Ga., is false. He is too brave a man to be guilty of so cowardly a folly.
- The Charlestonians have recruiting agents in New York.
- Austria has just issued bank notes of the value of four cents each !
- Ohio, New York and Massacusetts have tendered their power to the President to maintain the federal laws.
- The estimated value of the expor from Milwankee, for 1860 , is $\$ 12,774,700$
- The public schools of the United States are attended by about $4,000,000$ children.
- The gold yield of the Pike's Peak region for the past year, is about 5,000 , 000.
- A sweet potatoe was raised last season at Oyster Creek, Texas, that weighed 29 pounds.
- Half a million of dollars is employed to monufacture beer and ale in the city of Milwaukee.
- The Fond du Lac (Wis.) jail is now empty, though the county contains twenty thousand inhabitants.
- There are now on deposit in the Savings Banks of New York more than fifty million dollars.
- A Kansas farmer recently took a load of hay 45 miles to Elwood to exchange it for something to eat.
- The number of militiain the free States is $1,226,513$, while that of the slave States is only 778,624 .
- Maine is about to prepare her military force, to be in readiness in case the Federal Government calls for aid.
- Georgis has appointed a Commissioner to go to Europe, with the intention of making financial and commercial arrangements.
- During the past week, four hundred and fifty thousand pounds of poultry were shipped by the Camden and Amboy Railroad for the N. Y. market.
-W. Jones, an Indiana farmer, for whom Mr. Lincoln split rails thirty years ago, is at Springfield, Ill., on a visit to his former hired hand.
- Pern is coming into the world as a Cotton grower. Fifteen hundred bales of her cotton have just been sent across the Isthmus, mostly to Burope.
- Seventy thousand persons are employed in connection with French railroads.


## EDITOR'S TABLE.

## Editorial Plans and Ideas.

Having assumed the entire editorial management of the Farmer, we are naturally no less anxious than formerly that it should be eminently worthy of the public favor. We believe that a familiar acquaintance with the principles of agriculture and all the operations of the farm, and a general knowledge, from personal inspection, of almost every section of the State, warrant the conviction that we know pretty nearly what kind of a paper the farmers of Wisconsin want.
This number, although gotten out in something of a hurry, owing to a press of duties connected with the preparation of the volume of Transactions of the State Agricultural Society for 1860 , will give the reader an idea of what we propose. The number of original contributions, independent of our own is small, for the reason that few have come into our possession. This is not as it should be, and we are authorized by numerous able and practical writers in various parts of the State, to assure our readers that it shall not be so in the future. The Farmer ought to be a sort of Farmers' Club, whereof all the friends of Agricnitural Improvement in the State, at least, should be mem-bers-the Editor being simply chairman of the monthly meetings. There is nothing like discussion to wake up the brain and elicit valuable thought and information.Accordingly we say, just here, and would say it loud enough and earnestly enough to be heard and heeded by every intelligent friend of Wisconsin Industry, if you are in possession of anything that would be of value to the readers of this journal let us have it -always as plainly, pointedly, briefly and in as good shape for the printer as possible, but whether in the most approved form or not, let us have it. Don't imitate the servant who hid his talent in the napkin.
It will be seen by an examination of this number, that some new departments have been introduced. We think they were needed, and believe they will be warmly approved. A great many patrons of the PARMER take no other paper, and therefore need a variety.
SCOPE OF THE DEPARTMENTE OF THE PARMER.
The "Agricultural Department $\%_{\text {, will }}$ not materially chapge. The artioles shall be solid, practical and reliable.

The "Hortioultural Department" will be enlarged to better correspond with the importance of the fruit-growing interests of the State. Many of the best practioal hortieulturists in the state have engaged to frequently contribute-among whom are Mr Hanford, of Waukesha; Mr. Brayton, of Aztalan; Messrs. Plumb \& Williny, of Madison; Dr. Townlè̀ of Moundville; Dr. Hoy, of Racine; Dr. Tinker, of Clinton; Mr. Gould, of Beaver Dam; and Mr. Budd, of Madison. We are in correspondence with several others and shall hope to announce them in the March number of the Farmar.
Ploriculture will have the special aid of a gentleman who has been foreman of some of the finest gardens in England and this country, and has a thorough practioal knowledge of this beautiful art. His "suggestions" will be published every month.
For the "Live Stook Department" we have the promise of contributions of interest and importanoe, touching the breeds, best methods of keeping, treatment of diseases, \&c., \&c.

The "Mechanical Department" will embrace a series of articles on the "Manufactories of Wisconsin," also a list of such patents issued the month previous as shall be deemed of importance to our readers.
"The Bee-Keeper" will urge the importance of this interesting branch and furnish the best information that can be gathered on the subject.
"The Home" will, as heretofore, embrace none but the choisest reading for the family, and such suggestions under the heads of "Domestic Economy," and "Heath and Disease" as shall be deemed most valuable. Mrs. Hoyt will resume the supervision of the department as soon as her health will permit.
The "News Department" will supply what so many have always felt to be a de-sideratum-furnishing at the latest date before going to press, a carefully prepared summary of the most important events of the month previous, and will also contain valuable statistical information that will scarely be found in any of the country newspapers. This is a wide-awake age, and the present are most eventful times. We shall keep our eyes both open, and if anything escapes us that the farmers of Wisconsin would be glad and ought to know, it will only be because we are compelled to work while we watch.

The political news shall be simply a record of what is and what promises, without party bias.

There, farmers, gardners and mechanies, of the Northwest, you have our ideas and our plans. If you approve of them and will give us your help, the Wisconsin Farmer shall be made as sound and as live an agricultural paper as is published in America.

## Valedictory.

In terminating our connection with the Wisconsin Farmer, our special pet and pastime for the last five years, and in so doing, detaching ourself professionally not only from the public, but from the host of steadfast and good friends that have labored so zealously and efficiently for the circulation of the Farmer, we feel called upon to say a word more than merely good-bye, we thank you.

Yes, in this last friendly greeting, for the present, we would amplify a little and acknowledge to all parties who have co-worked with us, in onr goodly enterprise of disseminating practical truth and useful information, how much pleasure we have found in the task. Though sometimes laborious and wearisome, yet always interesting and encouraging, in some direction if not in the way of dollars and cents.

To labor in some vocation is the lot of all, and an instinct of our nature, that must be satisfied it we would secure cheerfulness and comfort; and with us, especially, active employment of some sort, all the time, is indispensible. - A lack of meutal employment led us formerly to embark in the publication of the Farmer, and for a time it admirably auswered the end in view ; putting us in close connection on the one hand with many of the best agricultural and philosopical minds of the day; and on the other with hosts of the most valuable acquaintances and friends that one is often blessed with; many of whom, both male and female, we regret to say we have never yet personally met, but still hope to in the progress of things. We feel sure we shall know such at sight and from intuition, and shall wait with patience the opportunity of personal and heartfelt acknowledgment for their many kindly acts; hoping to ex-
press them often over a good cup of tea in their quiet Wisconsin homes.
Through the friendly aid referred to, and a tolerably diligent industry on our own part, we have usually carried the Farmer up to a good, and during the better times, to a large circulation; not usually very remunerative in dollars and cents, bnt on the whole satisfactory enough all things considered. In its labors we have found all we sought, an agreeable, and as we believe, in a humble sense, at, least, a useful employment; and one we would readily have continued for years to come, but for its interference with some new plans and projects, of which the public may or may not know more in time to come.

Meantime, in disposing of the Farmer, we have desired to put it in good hands, that it might not only be sustained, but kept improving and progressing with the general progress of other things around it. That such will be its course under its present ownership and editorial management we have no doubt. Prof. Hoyt's editorial acquaintance with its numerous readers and patrons, and with the interests and policy of the State and West, eminently qualify him for the latter post ; as is well known to many of our former readers.

That the Wisconsin Farmer may grow to be a star of the first magnitnde, in its own proper sphere and richly repay both publisher, editors and subscribers, is our hearty wish, aud that we (I) may often meet with and take our old Farmer friends by the hand during the remainder of our earthly pilgrimage is the tond hope and hearty wish of your most humble servant.
D. J. POWERS.
[We are certainly obliged to our friend and former associate for his good opinion of our fitness for the position we have so unexpectedly been called to fill, aud most sincerely hope he will find any new enterprises in which he may engage equally pleasant and far more remunerative than has been the publishing of the FARMER.]

The wbol crop of Wisconsin for the past year is estimated at one and a quarter million of pounds, the crop of 1859; ono million. Increase within one year, twentyfive per cent. So much for the Dog Law.Who so blind as to insist its repeal.

## County Ag. Societies, Clubs. \&o.

In another place we have invited all Ag. ricultural Societies and Clubs to forward condensed reports of their proceedings. We again call their attention to this important matter, and trust they will see the advantage to themselves of keeping the State and country posted as to their doings. As Secretary of the State Ag. Society, we frequently have occasion to correspond with the officers of County Societies, in particular, but find great embarrassment in doing so, because of not knowing the names and P. O. address. Will they not keep us better posted?

A word to Correspondents.-Give us ideas not words; express them as well as possible; write on but one side of the sheet as legibly and gramatically as you can; and, if designed to be in season, always dispatch your manusertpt so that it may reach us on the first to the tenth of the month previous to the month in which it should appear: the time may vary a little according to the Department for which it is intended. We said write as gramatically as you can, and yet we would have no one withold valuable information or fail to make an inquiry becaase of inability to write in accordance with rhetorical rules. Do the best you can-because our time is pre-cious-and we will guarantee that it shall appear in creditable shape.

## Condensed Correspondence,

Blooded Cattle in Green Co.-Mr. Editor: I am pleased to find in traveling over the Southern portion of Wisconsin, that Green Co. is beginning to do splendidly in the line of blooded cattle. Messrs. Fcnton \& Lawrence of Mt. Pleasant, have oue of the finest Devon three year old bulls that I have ever seen. He measures from the tip of the nose to the top of the head, 19 inches-from the top of the head to the root of the tail, 7 feet 6 inches- -2 feet from the hip bone to the root of the tail-31 inches round the arm of the fore limb- -25 inches round the top part of the hock joint, and girts 7 feet 11 inches, although low in flesh, and is as gentle as a lamb. It is certainly pleasing to see the farmers of Wisconsin shelling out their hard earned
money in these tough times for improved stock. Let the stock-growers throughout the State but be half as enterprising as a few of the Green Co. farmers, and it will not be long till the crooked-backed, illformed scrubs that are a disgrace to us in some quarters, will no longer be seen on the "thousand hills," of Wisconsin.
H. Fraicee, Janesville.

Querrigs conozrning the Buildina of Stone Houses.-Mr. Editor:-A reader of the Farmer would like to know the best method of building a stone houseof stone not of the first quality, perhaps about middling, taking into consideration durab:lity, looks and expense. It is supposed, to dress and fit such stone to make them show in real blocks, would be attended with considerable expense. Would it not be durable, look better and be less expensive to build the walls with out regard to blocks, and then plaster the walls on the outside and pencil them? It so, what should the plastering of the walls be composed of, and what would be the probable cost per square yard? Would a solid wall of stone and morter 18 inches thick, built double, be suitable to plaster on for inside work? or should the walls be furred out to receive the plastering? An answer to the above by some one who knows the "whys and wherefores" would be gladly received.
BARE Louse.-Ed. Farmer:-Inclosed find stamps for the "Farmer" for current year. It should have a wide circulation, and will, it the farmers and gardeners of the State do their duty. I will tell your readers in the March No. how I destroyed and entirely annihilated that formidable pest, the Bark Louse.

> J. Gould, Beaver Dam.
[All right. Glad that the Farmer is appreciated, and will be gladder yet for something that will annihilate the bark louse. Give us your experience.]
Wisconsin Farmebs to tale to the Farmers of Russta. - Editor of Wis. Far-mer:- Enclosed please find the subscription price of your valuable paper for 1861. I am correspondent of an agricultural paper published in Moscow, by the Imperial $\mathrm{Ag}^{\prime}$ l. Society, aud propose to enlighten Russia farmers as to the practices and experiences of American freemen.

Gurowski, New York.
[Will not our friend, also give our farmers the benefit of Russian experiences in so far as they may seem a help to us ?]

## Agricultural Cabinet.

We are trying to build up a Cabinet for the State Agricultural Society that shall fully illustrate the Natural History of Wisconsin in its more direct bearing upon agriculture, and also the condition of its Industrial Progress. Such a cabinet should embrace representative specimens of our minerals, natural fertilizers, soils, plants, timbers, insects of all sorts-particularly those noxious to vegetation-agricultural products and mechanical implements, and such curiosities whether natural or artificial as would be of interest and value to the collection.

We have already a few minerals, some 700 species of plants, a small collection of seeds and grains of various kinds, \&e., and would cordially invite all persons who may appreciate our endeavors and who feel disposed to render us material aid, to each gather together what he can that would be of interest, label them with the name of the contributor and the plaee where found, and send to us, at his earliest convenience.
The members of the Legislature are frequently visiting their homes during the winter and would, no doubt, take pleasure in serring their constituents and the Society as mediums of transmission. Think of it, readers of the Farmbe, and give us early evidence of your practical interest.

## Madison Mutual Insurance Company.

We publish in this number of the Farmer the annual report of the "Madison Mutual Insurance Company." It is hardly necessary for us to add anything to what we publish elsewhere in reterence to this old established Company. Yet we feel that we ought not to allow the opportunity to pass without urging the importance upon the attention of the Farmers of this State of insuring their property in a safe Company. The cost of insuring is but trifling, and when we take into consideration the danger of accident by fire, and lightning, which in a few hours may consume the labor and industry of years, and leave the unfortunate homeless, and houseless, perhaps as is often the case, without the means of replacing what has been destroyed, we cannot find language strong enough to urge all who are so fortanate as to possess insurable property, to provide against such misfortunes
by having it insured without delay. We could say much in favor of the manner of doing business adopted by the Company, but the best recommend to the people, is furnished by the fact, that for a period of ten years, the Company has done a successful business in the State, and always paid its losses fairly and promptly. As a further guaranty we need but call the attention of the people to the present Board of Directors and Officers of the Company, where will be found names of gentlemen who deservedly have the confidence and esteem of the people throughout the whole State.

## Special Meeting of the Wisconsin Fruit Growers' Association.

A special meeting of the Wisconsin Fruit Growers' Association will be held in the city of Madison, on Wednesday and Thursday, the 13th and 14th of February, 1861, at 10 o'clock A. M., at which time a discussion upon fruit culture, including aspects and soils, will be had. A list of sorts adapted to the Northwest will be made out, including the Small Fruits. The grape as adapted to vineyard and amateur culture will be a special feature of the meeting. Judge Knapp of Madison, will deliver an address upon soils and locality for an orchard, including the elements required to successful tree growing in the different soils of the State. Essays on kindred subjects will be read. Official business of importance to be transacted. The friends of Fruit Growing in the West are earnestly invited to be present and participate in the discoussion.

By order of the Exocutive Committee.

> J. C. Plumb, Ch'n.

## 0. S. Willey, Sec'y.

Wastern papers please copy.
[We are glad to see that the Fruit-Growers have, at last, called a meeting at this place. The subjects proposed for discussion are very important, and it is to be hoped that there will be a grand gathering of the Hortieulturists of the West on' the 18th.]

Bertown Lead Mines.-The Grant Co.
"Herald" has most flattering accounts of new discoveries of lead deposits about Beetown. The more the better, so that the farmers dont't all get the fever and leave their regular occupation. Shall look for the published statistics referred to with much interest.

## Waukesha County Ag. Society,

Waukesha, Dec. 24, 1860.
Editor Wis. Farmer:-The annual Meeting of the Waukesha Co. Ag. Society was held at the Gourt House in this village on the 10th inst., and the following named gentlemen were elected for the coming year :
President-W. D. Bacon; NecretaryM. Sellers; Treasurer-R. B. Hammond; Execulive Committee-0. S. Rathbun, Thos. P. Tarner and E. M. Danforth.

Four of the six are tillers of the soil, and that is guaranty that something will be done during the year to come to forward the interests of Agriculture. We have good grounds, inclosed by a tight board fence, and nothing hinders Waukesha county from having as good a fair as any county in the State. We have labored under one difficulty here from the first organization of our Society, and that is this: We have "run to seed" upon horses; this department has overshadowed all others and those that are not interested in raising fast stock have had but poor encouragement in exhibiting at our fairs. In our opinion there are other departments that should claim our attention, which are of equal value to the farmer, and we think that we have a board of officers this year that will attend to this matter and see that all departments of agriculture are fairly represented. The President, we know to be a man of firmness and will act discretely in the matter and do what he can to correct this abuse. I do not want any one to understand that I am opposed to the exhibition of good horses, for I like a good horse as well as any one can, but I say, let each department have a fair show, and then we shall not have so much grumbling that there are no premiums given only for fast horses. I may at some future time refer to this matter again, and give my views in regard to what should be done by farmers, and officers of Agricultural Societies, in order to make fairs, both State and county successful.

MGI SEE advertisement of Ingraham Gould, of Beaver Dam. Have never seen his nursery, but judge from what we have heard of him as a dealer and from the Catalogue of his stock that he is prepared to give satisfaction.

## Experience with Sorghum.

Ed. Wiscongin Farmbr :-Háving had some experience in Cane raising and the manufactory of the Sorghum molasses for the last four years, I take pleasure in giving what little I know about it. I worked mine up the three first years with a wooden mill and a common sheet-iron pan. Always made a first rate article of Sorghum. This year I bought an iron mill, made me a larger pan, ( 4 by 6 feet square and ten inches deep,) and have made for myself and neighbors six hundred and twenty-four gallons of a first rate article of syrup-so good that I can hardly keep any for my own use. I have sold six barrels at fifty cents per gallon, and could sell any amount if I had it. A great many have raised it in these parts, but always made an inferior article-either burnt it or something else. It is for this reason so many have pronounced it a humbug; but the day is aot far distant when the North will be supplied with sugar of our own manufac. ture. When I first offered my molasses for sale, this fall, I couldn't sell; they would take it on trial! But it soon got about and finally one man sold out a barrel, and got the second. Next year I intend to plant six acres, and my neighbors intend to plant lergely. I also intend buying one of Cook's Evaporators, to fix up a building and prepare for manufacturing all that comes.
I will give what little experience I have in raising the cane. The cane grows best four feet one way, by two and a half the other, in the row, or so you can go once in a row with a small plow. I never sucker mine until it gets about five feet high, then take a knife and out them close down, and they will not sprout again. I have tried suckering when small, by pulling them off, and four would start out again in the place of each and have to be pulled off again.
Plant as early as the ground will admit, and not cover your seed too deep-not over one inch. Last spring I sprouted my seed by putting it in a tin pan, wet it with warm water and covered with a flannel cloth; kept it in a warm plqee two days, and very near every seed was sprouted. Planted immediately, and in three days, half of it was out of the ground. I had a small quantity of seed get ripe; but none to be relied on, and don't know of any in this section. The time for working up the cane is just before the frost, and I don't think freezing hurts it, unless it comes off warm and sours it. I don't use
anything to dense with, and make a better article than those who use alkalies.

Yours, \&o., Seymour Cabvie, P. M. Hanover, Grant Co., Wis., Jan. 29, 1861. A. G. Hinford, proprietor of the Woodside Nirsery, Waukesha, Wisconin, and joint proprietor of the Columbus Nursery, located at Columbus Ohio, has several advertisements in this No., to which all par ties interested in the purchase of either a nursery or nursery stock, would do well to give especial attention. There is no narseryman in the Union in whom we have more confidence than in Mr. H., and while we would heartily deprecate his removal from the State-so heartily that, if we were pubiisher it wonld be hard to coax us to advertise his desire to sell-still, since duty and interest have combined to deprive us of his services as an enterprising and successful fruit-grower, and of his friendly association as a citizen of Wisconsin, we yield our own preferences, and reluctlanaly publish the undeniable fact that he has, and offers for sale, one of the pleasantest little homes-nursery and farm included-that we know in the State, and that his stock of fruit trees is large and unsurpassed:

State of the Country-Latest Signs of the Times.-At this moment (Jan. 31) the Federal power seems to be increasing. Ex-Secretary Floyd has been indicted for treason 1 Gen. Scott is strengthening the defences of Washington city; and the border slave States still decline to join the extreme South. Union men in Virginia, Maryland, Kentucky and Missouri are showing a little more courage. Still they evi. dently intena to make all they can by the state of alarm into which the North has been thrown, and accordingly, Virginia in taking the lead has invited the several states to send Commissioners to meet her at Washington on Feb. 4th, with a view to a compromise upon the basis substantially of the Crittenden proposition. New York and Ohio are atbont agreeing to do so, and the Wiseonsin Legislature has the appointment of such a commission under discussion today.

The President prays that no hostile demonstrations may be made by either the Government or the traitors while the propesed conference shall be pending.

PORE - "Good roi her Stze."—The Baraboo "Republic" of a recent date says:
"More pork, by far, than ever before, has been brought into this market this season. A week ago, the amount brought here since cold weather came in, was estimated at two hundred tons, and this week our streets have been as lively, and bristled as thick with porkers' legs, as ever. Allowing $\$ 475$ as the average price,-and this is assuredly low enongh, as one sale yesterday commanded 8590 , and it appears that $\$ 19,000$ have been paid in Baraboo this season for the article of pork. Good for ber size.'"

## PUBLISHER'S CORNER.

## Notice to Correspondents.

If our friends will remember the following in writing to us, they will greatly oblige us, and save confusion, trouble, and perhaps loss to themselves.
Prof. Hoyt is editor of the Farmer, and all matters, of whatsoever nature, intended for or connected with the editorial department of the paper should be addressed to him.
M. Cullaton is the publsher, and all orders for papers, advertising, or anything connected with the business of the paper must be addressed to him.
If the above rales are not strictly complied with, we cannot be responsible for any mistakes that may occur.

## Terms of Subscription.

We do not propose to make any change in the subscription prices of the Farmira. The following are the terms upon which it is sent to subscribers :
Single copies, 1 year, in advance.... 8100 Seven " " " " Ten $\quad 4 \quad 4 \quad$ " $\quad$ " $\quad$ " 16.1800 Fifteen " " " Trenty " (and one for the agent)..... 1500 OLUbBING WITH OTHER PAPERS.
We will continue to furnish the Farmer and either of the Madison Weekly papers ("Argus and Democrat ${ }_{2}$ " "Patriot," or "State Journal") at $\$ 2$ per year. All subscribers paying one dollar in advance for the Farmar, will be furnished with any first class enstern paper at the lowest club rates. (See prospectus on second page of cover.)

The Present Number.-Well, we have closed up the February Number of the FARuRB, sent the last "take" of copy (except this) to the printer, and have time to sit down and contemplate our work. Our labor through the month has not been light, and we are rather surprised that we have done as well as we have. Of the editorial department, we are proud and well pleased. The Professor has done well, considering that the printers have bothered him almost to death, hurrying him now, and making him wait for them again. But then he is used to the business and understands it. With usit was different. We had everything to learn, new type to put in shape, and all the fixtures of a printing office to arrange, and the Number to get out,-all in about 20 days, to say nothing of superintending the whole printing for the legislature and State officers during the same time. We have done the best we could, and we have, we believe, gotten up a larger and better number, mechanically, than has ever before been issued. With this; under all the circumstances, we are satisfied. We shall improve upon it in the future, until we will make the reading farmers of of Wisconsin acknowledge that this journal is as good as any in the country, and much more valuable to them than any other.

## An Important Consideration.

In the present state of the grain market, and in view of the probable rise in prices, we would suggest, that as a matter of utility, every farmer should have a platform scale that he may know the weight of his grain before he takes it to market, and thus be able to detect any mistakes, either purposely or otherwise, that may be made by the grain buyer. The cost of a scale may, in this way, he saved in one year.
One of Fairbanks' would best answer this purpose, as, on account of their great durability and high reputation, they are used almost exclusively by the grain dealers, and and are everywhere regarded as the test of correct weighing.

Give us Time.-TWe have writtem a great many letters, and answered many questions during the past month, but it is possible that we have not replied to all the letters we have received. This number of the FARMEr will be a sufficient reply to the contents of many letters sent us. We shall answer-others as fast as time will permit.

We desire to call the attention of readers of the Farmer to the advertisement of Mr.C. P. Rice, General Agent for Wisconsin for the celebrated Taggart \& Farr Sewing Maehines-these machines áre being sold by Cornell \& Co. of Chicago, at the rate of over Two HUNDRED a month-their superiority over all other machines is ackuowledged by all that use them. Every family that has not got a good sewing maehine should lose no time in purchasing one of these machines-they are as indispensible in a family as a clock-they are sold very low, and are really as much a matter of economy as a plow or reaper. Mr. Rice is located at Madison, and has his office at Wm. Booth's Clothing Store (next door to McKey \& Bros. Dry Goods Store.)

S6e the advertisement of the Kirby Reaper and Mower. This popular machine seems to be fully sustaining the good opinion of the public.
It will be seen that D. J. Powers, Esq., late publisher of the Farmer, is acting as agent for their introduction into this State, which is an ample guarantee that they are all right, in his estimation.

The Star Grain Deill find also advertised in the same connection.

Also, Plumb, Willey \& Co.'s advertise ment of Fruit Trees for the million. They claim to be growing trees that will stand our climate, and have had a long experience in this country.

Also, agents wanted to sell Fruit Trees, \&c,, \&c., a good and useful employment by the way for active leisure men at this season of the year.

Dry Goods.-Messrs. Menges \& Bartels, No. 2, U. S. Block, whose advertisement will be found in the Farmer, have as good a stoci of goods in their line as you will desire to select from, and they sell at prices that must prove satisfactory. They are obliging to eustomers, and entirely deserving of patronage. liable agent for the Farmara in every School District in the State. Liberal compensation will be paid to those who will take hold of the work in earnest. Full particulars will be sent on application to the publisher.

Traveling Agents.-We want to employ two or three active men as traveling agents for the Farmer in this State. Liberal inducements will be offered. Applications should be made to the publisher immediately.

SEND IN YOUR NAMEs.-We are still prepared to furnish subscribers with the January Number, but the quantity on hand is not large, and we urge new subseribers to send in their orders at once.

Hardware.-The attention of the reader is called to the advertisement of Mr. John N. Jones, in this issue. Farmers will find no better place to get everything they want, than at this first class establishment.

> [Advertisement.] The Kirby Reaper.
D. J. Powers, Ese..-In compliance with your request, that those who had used the Kirby Reaper, would give their opinion of it, I submit the following as the result of my experience :

I purchased Kirby's American Harvester of H. Franee, on trial, for the harvest of 1860. I gave no note or money until after a thorough trial. My horses were 4 year old colts. They worked on the Reaper to cut one hundred acres of grain, and forty acres of grass and came out in better order than wher I began, and my farm is quite uneven. The Reaper gave me entire satisfaction, and also my neighbors. I think, and know it to be the best combined machine I ever saw. The machine is more valuable than any wooden machine can be. All I have to do in the fall is to take off the pole, seat, and platform, and put them in the shed or barn, and then I have no wooden braces to rot, or warp and derange the geering. When I get another machine, which I think I will this year, because of a large farm, I shall unhesitatingly get the Kirby.

Thomas Fenton.
Mount Pleasant, Green Co., Wis., Jan. 19, 1861.

The Great Ice Boat Fizzle.-The Prairie du Chien Courier says of the Ice Boat:
${ }_{4}$ This grentest invention of the age, is fated to meet more obstacles before its practical utility is demonstrated to the world. It was steamed up the other day, removed from its house, and-not tried. One of the "shoes" or runners chmé in contact with some resisting force, and slightually broke. Another delay is the consequence."

صar Saturday was the coldest day experienced in Quebec this winter. The sheremometer at the citadel achool at $31^{\circ}$ below zero.

New York Markets.-Jan 31.
Flour-Market opened steady and closed a shade firmer, with little better demand for home consumption; moderate export enquiry.

Wheat-Rather more active with fair export, and quoted a shade firmer, without however, any decided change in prices. Sales at $\$ 1,18 a 1,21$ for common to good Chicago Spring; $81,25 \mathrm{al}, 28$ for good prime Milwankee Club, Amber Wlsconsin and Iowa, in store and delivered.

## Milwaulcee Markets.

Milwauker, Jan. 30.
Whear-No. 1 spring at 80 c del; No. 2 at 76 e in store; Club at 82 c del ; Extra at 82 c del. After receipt of the New York report, buyers were offering only 77 c for No. 1 Bpring in store. Holders did not concede to the decline, and there was nothing whateyer done on 'Change.
Barley-Market firm at 45 e for No. 1.
Onto-21a22c.
Oorn-1Kar 32a35c, shelled 36a37e.
Ttarley - 30 a 55 c for range of qualities.
Rye-42n48c.
Butter-Firkin 9a10c; fresh roll 11s 14c.
Eggo-12a14c-the latter price for fresh packed.
Poultry-Dressed chickens 7a8c per Ib ; turkeys 8a 9 c , geese 8 a 9 c .

## THEOLDEST

## Book Store and Book Bindery AT THR

STAY OF GOVIRNTMETMT

## BLISS, EBERHARD \& FESTNER,

ers, Stationers, Booksellers, and Mannfactur-
Bookbinders, Stationers, Booksellers, and Mannfacturers of Blank Books, in every style and yariety,

## MADISON, WISCONSIN.

We have for sale Bookn on every branch of Science, Art, Religion, History, Philowophy, Biography, \&c. \&c. Blank Books and Office Stationery for Bankers, Attorneys, Oounty Officers, Merchants, Railroads, Townships, Odd Fellow and Masonic Lodges, Religious and Literary Societies, Abstract Books, for Real Kstate Dealers and Agents, School Registers, Rewards of Merit, Indestructable Inkstands, new style for Schools Outline Maps, School Apparatus for illustrations in Philosophy, Astronomy, Mathematics. \&c.
We have the largest assortment of Steel Engravings, Lithographis, Photographs and Yrames that can be found in the State.

Whenever you are in Madison, call at our establishment, and examine our large assortment of Books as long as you have - leisure, You will be interested in so doing. Bring along your Pamphlets and Magazines for binding.
H. G. BLIES, J. EBERHARD. F. C. FRETNER,

## Dwarf Fratt Trees for Gardens.

A large and select assortment of the best varietieb aspecially adepted to city and village lots and the garden, both usefal and highly ornamental, viz: DW ARP APPLES of the best and mont showy kinds.
DWARF PEARS,-of thope gorts which do well, thus grown, including many most excellent kind.

## DWARF CHERRIES-Of varieties which endure

 the climate of Wisconaln.Her Send for Deacriptive Priced Catalogne, Cit Ivi
A. G. HANPORD, Waukeaha Wis.

## THE

## WISCONSIN FARMER.

VOL. XIII.
MADISON, MARCH 1, 1861.
NO. 3

## Industrral Statistices.

Where are we, as a State? What have we done? What are we doing? These are certainly important questions - questions that every State should be able to answer without hesitation, and without guessing.Especially is it important to a new State that it should be able to give answer to them, since it is these very questions that are constantly being asked by prospective emigrants at the East and in the Old World.
Figures are usually considered very dry things, but to one seeking information concerning a new country where he proposes making a home for himself and his posterity, there is nothing so intensely interesting and satisfactory as carefully collected, reliable statistics.
If a farmer, or if proposing to become such, he earnestly inquires for the area of timbered, arable, and cultivated lands; for the number of acres, already in pasture, and meadow, the number of acres in wheat, corn, rye, barley, oats, potatoes, flax, \&c.; for the average yield per acre of each of these products, their quality and recognized value in the markets of the country; for the amount of stock of the various classes and the breeds which are best adapted - the quantity of beef, pork, mutton and wool produced, the amount of each exported and the average price realized.
If a mechanic, what is so important as a full and complete knowledge of the number, character and capacity of the manufactories and workshops of the country where he would try his fortunes?
If a tradesman, mere capitalist, or a professional man of any class, what so valuable
as correct information concerning all these matters enumerated and a thousand others of the same sort? We all know this has been true in our own cases, and the enquiries coming to this office (the State Agricultural) almost daily from intelligent gentlemen in other States and in European countries are confirmatory evidence of the eagerness with which such information is sought.
But not alone with a view to immigration is an annual statistical exhibit of our industrial condition and progress necessary. We need to know for ourselves what we are doingelse how shall we be able to correct the errors of which we may be guilty as a people and a State? True, if any particular branch of business be overdone, that fact will appear in course of time, either by the depreciation in the value of its products, or -what is often, as in case of deterioration of soil, much more serious-by a depreciation in power and capacity of the agencies necessary to their production. But would it not be better to provide ourselves with the means of accurate information at once ?Besides, it is quite as important to know in what particulars we are not doing enough as in what we are doing too much; and it is this class of errors-errors of omission-that can only come to our consciousness through the medium of statistical reports. We may guess that we are raising great quantities of wheat, very few cattle and very little wool, but so long as there is nothing definite and positive, we incline to slur over these great practical faults, and slide along as we have been wont. Figures, on the contrary have point, and will prick us to a realization of our blunders as nothing else can.

What would be thought of a merchant who should attempt to do a wholesale business in all the departments of trade without keeping a single account book of nay kind ?Why, he would be set down at once as either an insane man or a fool, and very soon his neighbors would have a practical illustration of the best method of doing asmashing commercial business.
But the State of Wisconsin is doing just this very thing, only worse. Agriculture, mining, manufactures, commerce-all these important branches of industry are being carried on by our State without any definite knowledge as to how much is being accomplished by any of them. We have an active, enterprising people and know that something, and a good deal too, is being done; but the what and the how are at present beyond our means of knowing. In a word we are "going it blind."

The returns which come to the hands of the Secretary of State, once in two years, are oftener than otherwise very imperfect, and a large number of the counties make no reporb at all.

What, then, is the remedy? As it appears to us, it is two-fold-first, the amendment of the Statute for the collection of statistics, and secondly an awakening of the intelligent people of all sections of the State to the importance of thorough work in the matter of their collection.
THE STATUTE FOR COLLEOTING BTATIBTICS SHOULD BE AMENDED.
The law referred to should be so amended as to embrace the proportionate area of all lands under cultivation and other specifications of that character; also a variety of products and manufactures not now reported; and some measure should be incorporated therein which would insure a faithful obedience to its requirements.

There is now a penalty of "not less than twenty-five dollars" attached to the nonfullfillment of duty on the part of assessors, but no one ever thinks of enforcing it, and the law is about as good as a dead letter.The responsibility of enforcement should legally rest with the officer with whom the Secretary of State has more directly to deal. That officer, under the present Statute, is the Clerk of the Board of Supervisors. Suppose, then, it were made the duty of the Town Board of Supervisors to require of the assessor a certificate from the said clerk that all the duties devolving uppn him under
the Statute have been duly performed, as a prerequisite to the auditing of his claim for services; and suppose, further, that the said Town Board of Supervisors were required to see the penalty of the law executed upon the delinquent; is it not probable that these or similar measures would have the effect to secure a more uniform obedience to the law? If not, will some one who appreciates the importance of this matter devise and propose better.

A REMEDY IN THE HANDS OF THE PEOPLE.
But there is another remedy, which, if adopted, will prove more effective than the execution of the severest penalties. We mean the effective will of the people, carried out in the election of none but competent, interested and faithful men to the office of assessor-men who feel the force of what has been urged in their behalf-not stupid, shiftless and utterly incompetent persons such as are too often entrusted with this work. Every county and town in the State should have pride in being faithfully represented in the statistical reports of the Secretary of State, and no man should be elected to the office of assessor who is not possessed of sufficient public spirit to ensure the representation of the district to which he belongs.

County Agricultural Societies should feel this to be a matter of particular interest to them, and so, through their several members in the various towns make themselves the custodians of the work.

But we have already said more than we intended to at this time, but by no means more than the subject deserves. It is a matter in which we have long felt a deep interest, and the inconvenience and humiliation, as Agricultural Secretary, of correctly and positively knowing almost nothing of what our mines, our agricuIture and our manufactures are producing, have not been calculated to weaken that interest.
Several other States have their Bureaus of Statistics and are thus able every year to furnish the world with an account of their industry. One of them-our younger neighbor, Minnesota-has thereby attracted to herself marked attention during the past year, and found a deservedly prominent and profiting place in all the leading journals of the country. How much longer shall Wis: consin continue to grope in the dark?

Prepare your ground by deep plowing for planting trees early in the spring.

## Practical Suggestions for March.

It is, of course, unsafe to predict at this time, (Feb. 13th,) whether the spring of 1861 will open early or late. The majority of guessers, so far as we have heard, are on the side of an early and mild season-some declaring with much assurance, that "there will be plenty of dust in March." It is said, also, that the woodchucks have given the weight of their evidence on the same side! But whatever the character of the season may be, it is always well to be on the safe side-to take time by the forelock. The business success of the whole year will depend in no small degree upon the farmer's obedience to this injunction.

## the farm.

Fences.-Don't forget what was said last month in relation to getting materials on the ground where wanted before the surface of the earth becomes soft and muddy. Twice as much can be accomplished with a sled when the going is good as with a wagon when it is bad.

Fuel.--The same argument applies here, as above, and the matter cannot be too strongly urged. See article on subsequent page.

Seed.-Be looking out for best varieties, the purest, best matured, and most perfectly developed. Like produces like; and the economy that would save by using the smallest and least valuable of everything for seed is more stupid than wise. Such a rule will not'work in the breeding of stock, and the law of the vegetable world is just exactly as strict and inexorable. The farmer who sows his best wheat for seed and thrashes it gently by hand over the edge of a cask, saving none but the grains thus easily shelled out, is rarely troubled with smut or any other of the numerous wheat diseases. If so slow a process as this be not practicable, still the idea must not be lost. There is nothing that yields so large a per cent, as labor and great care in these matters.

Cellars.-Look to the potatoes, roots, \&c., in the cellar., As the damp warm weather of spring comes on they will be likely to rot. Sort them over and remove all that have commenced to decay. If any are to be taken to market see that they are sold and used up before they are done for. If the cellar itself be damp and mouldy,
cleanse and whitewash-the best way to save paying large doctor bills.

Clover.-Now is a good time to sow upon winter grain fields. It will catch early, and thus not only protect the roots from the effects of drouth, but provide a splendid feed for stock after the grain is cut, and enrich the soil when plowed under.

Cattle.-Directions for last month app!y now with even added force. "Spring poor" are mean words when applied to domestic animals. Keep the cattle in good condition. It's the only way to economize. Once reduced in flesh and health, and it will cost four times the value of the requisite fodder to bring them up again. If out of hay and corn fodder, use cut straw, slightly moistened with a weak brine and sprinkled with bran. Don't forget that shelter saves food. Breeding cows should be carefully looked to before calving. Give them comfortable, roomy quarters by themselves.

Sheep.-Observe directions of last month, and take special care of the pregnant ewes.

Horses, Hogs, and stock generally require occasional changes of diet in the early spring, more especially than at any other season.

The Henery.-Clean out, whitewash and occasionally fumigate to destroy vermin. Preserve the droppings for your garden planting, \&c. Dissolved in a large quantity of water and applied to cucumbers and other vines to help them forward, they may save from destruction by bugs.

Manures.-Now is a good time to spread fine compost upon either grain or grass fields. Protect the piles of long coarse manure from spring rains. See articles on "Muck," \&c.

THE ORCHARD.
It is not the time to do general pruning, but dead limbs and suckers may be removed with advantage.

Scions of the desired varieties should be secured at once, as the buds will soon begin to start. They should not be cut, however, when frozen, and must be buried in the cellar as before directed until time for use.

Preparations for planting and transplanting should be made before spring work begins to press, as otherwise it will be sure to be neglected.

Insects.-There will be no more favorable time for looking after bark lice, \&c. Give
the trunk and larger limbs of your trees thorough scraping and scouring with lye. THE GARDEN.
By all means arrange for a good vegetable and fruit garden this year. There is nothing that makes a farm house seem so home like as an abundance of every good thing right fresh from the garden and in its proper soason. Nor is there anything more conducive to good health. The farmer who don't yield to the appeals of his "better half" in a matter of so much importance as this, deserves to have nothing to eat but cold corn bread and salt pork and beans all summer long. And as for his family, he deserves to-have none!
See "Horticultural Hints" in their proper department. "Hortus" is eminently sound, and you may rely on his directions with confidence.
[From the Country Gentleman and Cultivator] Improvement of Sandy Soils - Sheep Farming.
For some time past I have watched the arguments in favor of paying more attention to the improvement of light soils, sandy soils more particularly, that have frequently appeared in the columns of your compressive pages. Their tendency must be beneficial, for their conclusions generally, and especially wherein the longer period of the year, and the greater facility, ease, and satisfaction with which they can be worked are great advantages in favor of silicious soils, if they can be made by any means to produce full, remunerative crops of fair quality. And the larger measure of success attending the improvement of blowing sands in several parts of Germany, as in Silicia, (evidently named from its sand or silica, ) and others, as well as the numerous instances of the fertilization of light qualities of soil by swamp muck, ashes, etc., in many directions among ourselves, leaves no doubt of the general practicability of making such land as productive as may be desired. Means, facilitics and fertilizers are neither inaccessible nor deficient. All that is wanted is a will, which usually follows a conviction that profit is involved, and a clear perception of "ways and means," and their sufficiency to accomplish ends and desires. Among others there is a plan of renovating sandy, soils that I have seen no notice of for many years. It is the employment of sheep to renovate sandy soils by grazing.
In England there are many sandy districts outside the limits of the pattern farming of Norfolk, I believe, and if I mistake not, there is much good farming-farming that is, as Mr. Chapman would have it, "selfsustaining." The Ryeland District, where the formerly popular "Ryeland sheep" were most extensively bred, is remarkable
for soil-so called-that is composed almost entirely of quite red sand, arising from the abrasion of the rock known as the " old red sand stone." On this Ryeland-so called from sandy land producing rye when wheat fails-turnip growing is carried out on a large and almost perfect scale, which is not, however, practicable in this climate. Nor is turnip husbandry - as Judge French seems to infer-the basis of English agriculture. There prevails, however, a system in that district which may, I believe, be practiced here with economy and satisfaction.
Barley is there the crop grown to seed down arable land with. And the seeds frequently employed, ns I am reliably assured, are not red. but white clover wiih sanfoin.
When we know how little mold sandy soils contain, and perceive the small degree of mechanical support, and the very small amount of vegetable or inorganic nutriment derived from them by the crop, it will, I think, appear most consistent to grow small rather than large clover on soils of this character. And, as may have been noticed by others, there appears to be a natural and almost spontaneous adaptation between "white" clover and sandy soils. Throughout the West, as I gather from those who have traversed it a good deal, and from frequently seeing it myself, white clover comes in not only most abundantly after sheep, but generally in the well pulverized soil, especially where sand abounds, of the former wagon tracks used before the enclosure of the land. I have not space to discuss the source the seed is derived from, but the fact that the Trifolium repens comes in with such spontaneity, is the best evidence of its adaptability to sandy land-of the mutual adaptation of soil and plant.
Then it is also well established that this plant-in contradistinction with timothy grass-branches the more from being grazed off. By this means it spreads and forms a thick, close mass, which at once shades the ground, and affords much more subsis-tence-especially to animals that graze close, it being here also favorably distinguished from timothy, which latter will not bear close grazing--than taller growing grasses with more imposing appearance. These characteristics of white clover well adapt it for depasturing by sheep, which graze very close, and to shade the soil without tall growth or comparatively weak stem, and a corresponding tendency to lodge, which are true of the red clover, and not good qualities in crops used principally for grazing.
Sandy soils themselves, from the firmness of their texture and their comparative and real freedom from mud and mire in wet weather, are also naturally much more suitable for sheep husbandry than any land of a heavier description, as we cannot have turnips on the English scale, but must have sheep; it would seem to follow that sheep should be kept most on soils that are most sandy, in districts where it is profitableand where is it not !- to keep them at all.
If barley is not well adapted to out light, thin soils, it is very certain that white clover is. I have seen no account of it being seed-
ed by any of our farmers on a large scale, as a field crop, with barley, or otherwiseBut as it is certainly grown in the Ryeland districts of the counties of Hereford and Gloucester, on light sandy soils, in fields of 20 to 40 acres each, in many instances, in England, why not our sheep farmers try it on a full scale here? If it supplies honey to bees so beautifully, of which there appears no doubt, I think it must also certainly contain the elements that supply cheap and good mutton in sheep.

Sanfoin grows taller than the white clover, perhaps as high as medium red, and its roots penetrate deep, which enables it to bear drouth. If otherwise congenial these properties fit it as a plant suitable for both a dry soil, like sand, and a dry climate, as usually ours is. They do well together in the sandy districts alluded to. But Trifolium repens, or white clover, will, without doubt, do well alone, or with some small leaved plant, like sanfoin, that will not shade it much.

But Iam, at all events, anxious to see this clover resorted to on our sandy soils for pasturing off with sheep to fertilize and bring them up to the substance and strength that will grow and mature a full crop of wheat without either plowing in red clover, or other special manuring. For by this plan the crop which fertilizes is substantially left on the ground, without losing its use for a single season, the increase of mutton and wool being in effect a full equivalent product, and equally or more profitable and marketable than the thin, light, poor quality of products too generally raised upon thin qualities of soil. And if, as appears highly probable, sandy soils can by this means be made to produce good crops of wheat, as in the English district referred to, they do; and if, as also appears highly probable, mutton sheep and the production of mutton food are destined to increase and be more extensively produced, then it seems that our sandy soils, and this system, or its equivalent, of growing mutton, as well as wool upon them, offers a wide and inviting field that promises well to those who occupy it judiciously. * * As to the crops to seed with, white clover must, I think, succeed with corn, or wheat, or oats, or barley -in brief with any crop with which other seeds flourish, when the soil, seeding, and management are suitable and consistent.
J. W. Claree.

## Green Lake Co., Wis.

## Country Life in the South-Retrogression.

A writer in "De Bow's Review" draws the following sad picture of country life in the South:
"Within the last forty years country life has quietly and almost imperceptibly undergone great changes, and, under the influence of modern discoveries and inventions, will, ere long, be wholly revolutionized. The pursuits and amusements of our parents are not our pursuits and amusements, nor
has anything new come in to supply the place of what has passed away. The whole tenor and complexion of country life has changed and that change consists in the country having become more and more dependent on the towns. Whether in pursuit of business, pleasure, or information, men leave the country and visit some neighboring city. Agriculture is the only rural avocation, and country is mere plantation life. The private social festive board is rarely spread; the barbecue, with its music and its dance, is obsolete and almost forgotten; the report of the fowling-piece disturbs not the slumbers of the woods or the fields; the huntsman's horn is not heard, the cry of the hounds, and the clattering hoofs of the pursuing steeds enliven but rarely the dreary monotony of country life. The boys, like the men, look to visiting town for amusement, and neglect their traps and snares, their guns, and their boats, and their fishing tackle, their dogs and their riding horses. The anvil rings no longer under the sturdy strokes of the stalwart smith, the shoemaker has ceased to ply his awl, the seamstress neglects her needle, and the sounds of the shuttle and the spin-ning-wheel are forgotten. Our fields are clothed in living drapery of black negroes, black mules, black birds, and black-crows, with here and there a forlorn looking master or overseer. Our bodies are in the country, our souls in town. There used to be far more variety, more leisure, more refinement and more social enjoyment, in country than in town. Each farm was a little community, producing within itself most of the necessaries and luxuries of life, and each neighborhood a little world within itself, with its store, its post-office, its church, its schoolhouse, its carpenters, blacksmiths, tanners, tailors, doctors, lawyers, and farmers. Men used to make fortunes in town and retire to the country to enjoy them. Hospitality was unbounded, and the guests always in attendance. Now the tables are sometimes spread, but the invited guests have gone to the city or the springs.

Men used to go to town to labor and to make money, and return to the country to enjoy it. How sadly is this changed. The country is the scene of mere monotonous agricultural labor-labor neither lightened by variety nor relieved by amusements. Men endure country life merely to make money, and go to town to spend it-to cease work and give themselves up to enjoyment."

## Country Life in the North-Progression.

[From an address before N. Y. State Ag. Society, by Hon. Josiah Quincy, Jr.]
${ }^{6}$ The actual condition of the agriculturalist in the United States presents no cause for despondency. Nature, by giving a profusion of productive power to the land, has taken care of the western farmer. Nor have the farmers of the North any cause to repine. Capital created in cities is gradually spreading into the country. Population and mannfactures are by degrees growing up in every State; cities are established, and collections of men and capital daily open new markets
to stimulate and reward agricultural industry. The profession of the farmer must become year after year more desirable. The tendency to agricultural pursuits daily increases among us, and must necessarily go on increasing. In our country small temptations are offered to worldly ambition by political patronage, or a church independent of a State establishment. Our army and navy present but limited encouragement for plunder or glory. The cultivation of the ground, of all occupations the most natural, useful and healthful must inevitably, in the course of time, establish societies and neighborhoods in which agriculture will be studied as a science, and become the absorbing topic of thought, of interest, and of conversation with multitudes. The class of men called in England country gentlemen will soon, here as there, form a society among themselves in which successful farming will be the common object of ambition. They will have a decisive influence in public affairs, and, although neither in the legislatures of the State or the Union, will exceed all other classes in shaping the destinies and perpetuating the institutions of our nation.
"There is enough land for all, and it is easily obtained. What, then, is wanting for success? Only labor intelligently directed; seeking success, not in multiplying acres or princely domains, but in thoroughly cultivating small portions of lands. Neither envying nor emulating in show and expense wealthy capitalists, but content with small profits, sure gains and gradually accumulating capital, invested, not in banks and insurance offices, but in improved farms and soils made annually, more productive by wisely applied labor."

Timothy on the Prairie.-The Prairie Farmer, speaking of the agricultural operations of H. B. Patrick, Esq., of Du Page Co., Ill., says: "The product of one hundred and sixty acres this year in timothy seed and spring wheat, startled us a trifle. He had sold one thousand dollars worth of wheat and one thousand dollars worth of timothy seed, and had one thousand tons of hay left-that from which the grass seed had been threshed." The Farmer, in another place, remarks that Mr. P. "has discovered that manure. even on our rich prairie soil, insures good crops of grass-good pasturage. He applies his manure broadcast, on the surface after harvest. He seeds land only when it is in good condition, and expects and gets good grass."
"Not Politics, but Farming."-Shortly before his death, Lord Aberdeen was showing off, to one who knew him well, the stately plantations round his Highland mansion, and pluming himself on the result of his labor in creating them. "You don't mean to say that you planted all these yourself?" exclaimed his friend. "Every stick of them," replied the statesman ; "and you will now begin to believe what I have always been telling you, that my line is not politics but farming."

## Sawdust as a Fixer of Ammonia -

Sawdust is one of the very best absorbents for liquid manures. Mixed with dilute sulphuric acid, it is one of the best materials for fixing the ammonia which is given off in stables. The following experiments have been put on record: A shallow basin, in which sawdust moistened with dilute sulphuric acid was spread, was hung up in a stable, and in the course of three weeks all the acid in the sawdust was completely neutralized by the ammonia in the air of the stable, and a considerable quantity of sulphate of ammonia was formed in this manner. For this reason, sawdust mixed with sulphuric acid is recommended as a means of keeping stables sweet and wholesome.The acid should be diluted with forty-five times its bulk of water, before it is applied to the sawdust. Just enough should be applied to make the sawdust feel damp. On account of its porosity, sawdust retains the acid very perfectly, and presents a large surface for the absorption of the ammonia.[Pen. Farmer and Gardner.

Sorghuy wot abandoned in Illinots.Hon. J. H. Baker stated at the State Farmers' Club, that the culture of sorghum has been abandoned in Northern Illinois. He has taken some pains to learn, and the farmers informed him that such was the fact. We did not learn of any such want of faith in the culture of the sorghum during our visit to the State Fair of Illinois in 1859. There were several mills and evaporators at work, and we thought the syrup made on the ground was of an excellent quality in spite of the poor season for cane.-Minn. Farm and Garden.
We say to Hon. J. H. Baker that he is entirely misinformed on the subject of Sorghum culture. There has been not less than 500,000 gallons manufactured in Illinois the past season, and we predict that there will be more than double this quantity made the ensuing season. We have an order for for four bushels of seed from one man who intends to plant it. This man says he can manufacture the syrup for 25 cents per gallon, and make it pay.-Chicago Farmer's Advocaté.

Importance of Manure.-A pertinent illustration on this point is furnished by a recent writer in the Rural New-Yorker.He says: "In Philadelphia, last summer, I happened to be in a meeting of practical gardners. Some one spoke rather lightly of the value of manure, when the gardner of Girard College arose and stated that he had a family of five hundred to feed, and the ease with which he was able to do this, depended upon the amount of manure he had on hand at the commencement of operations. With abundance of manure, he could supply all wants with ease; if the manure was short, he was obliged to work harder and occomplish less, as he, worked to disadvantage and
wasted labor."

## Agricultural Progress in Australia.

## A Statistical Congress has been held in

 London, to enquire into the agricultural condition of the Colonies. At present the official reports are in possession of the Board of trade, but will, we hope, soon be published. The following matter is taken from a report in the Farmer's Magazine. The gold production of the Australian colonies since 1854 has exceeded in value the enormous sum of $£ 101,000,000$; and the effect of this gold yield, and of the immigration it has induced, has been considerable, especially in Victoria. In this district the wages of skilled labour prior to the gold mining were 6 s . and 8 s . a-day; during two years they rapidly advanced, and for a short time stone-masons and other mechanics were receiving wages as high as 40 s . a-day. After a rapid fall there has been, until lately, some degree of steadiness at about one-third of these high rates. All articles bore enormous prices. When flour was $£ 25$ a ton at Melbourne, it was $£ 200$ a ton at the great gold field of Bendigo- 100 miles inland-with a population of about 50,000 . But now these difficulties are past. Bendigo has now a large incorporate town, Sandhurst, possessing excellent institutions. The area of land under crop has been rapidly extending, especially in the younger colonies. The crops include artificial hay. The extent under crop for 1858, was, in

The cultivation of the vine is considerable; the number of acres for 1858 being, in New South Wales, 1,180 ; in South Australia, 1,626 ; and in Victoria, 547. The cultivation of maize is now, likewise, very large.

An interesting fact is the large proportion of wheat land, as compared with other countries. For South Australia the wheat acreage is 71 per cent. of the whole area of land under crop; while in Ireland it is 11 per cent., and in Scotland only 6 per cent. The yield of wheat is remarkably small; as, for instance, 18 bushels to the acre in 1858 in South Australia, and in 1859 only 12 bushels per acre. New South Wales ranges between these quantities. Victoria illustrates the importance of genial seasons. The following yield per acre of wheat for four years, shows a gradual annual diminustion, caused by diminished or less seasonable supplies of rain :

Years 1856. 1857. 1858. 1859.

## $\begin{array}{llllll}\text { Bushels per acre............26.9 } & 23.2 & 20.7 & 19.9\end{array}$

A striking peculiarity of Austria is the large area of its naturally grassed country. Most of the waste lands, are, in their unimproved state, available for pasturage. The quantity of wool exported annually to
the United Kingdom and other places, amounts to nearly sixty millions of pounds weight.
In the year 1807, New South Wales export-
Lbs.
ed to the United Kingdom...................
In 1820 ..
245
In 1835, New South Wales and Tasmania to
all countries.
$5,500,306$
In 1845, Australia colonies to United King-
dom only.
$24,177,315$
In 1855, do,.................................................................... 49,142,306
In 1859, do $53,900,542$

Crops after Turnips.-A correspondent of the New England Farmer, relates his experience with corn, oats, and grass, after turnips and potatoes. He says :
"I applied three times the quantity of manure for the turnip crop that I did for the potatoes alongside, and treated both a like the following season, for corn, and did not get as much from the turnip piece as from the potatoe by ten bushels per acre, and the oats that followed the corn were very much less; in fact, when laid down to grass, a stranger would have noted the difference in favor of the piece planted with potatoes. The soil seemed packed, and plowed much harder where the turnips grew."

Many contend that this difference is not attributable to the turnip crop. It proves beyond question, to our mind, that turnips greatly exhaust the soil.- [Ex.

Standard Weights and Measures.-The following table of the number of pounds of various articles to a bushel may be useful to our readers:

Of wheat, sixty pounds.
Of shelled corn, fifty-six pounds.
Of corn on the cob, seventy pounds.
Of rye, fifty-six pounds.
Of oats, thirty-two peunds.
Of barley, forty pounds.
Of potatoes, sixty pounds.
Of bran, twenty pounds.
Of clover seed, sixty pounds.
Of timothy seed, forty-five pounds.
Of flax seed, forty-five pounds.
Of hemp seed, forty-four pounds.
Of buckwheat, fifty-two pounds.
Of blue grass seed, fourteen pounds.
Of castor beans, forty-six pounds.
Of dried peaches, thirty-three pounds.
Of dried apples, twenty-four pounds.
Of onions, fifty-seven pounds.
Of salt, fifty pounds.

Cure for Smut.-A sure cure for smut in wheat, is one pound of blue vitriol, dissolved in water, sufficient to cover 300 pounds of wheat. Let it remain in soak 12 hours.

The Detroit Tribune says pickling the seed in a strong brine and then drying in fresh lime, are excellent preventives of this disease; some in addition to the brine, use a small quantity of sulphate of copper (blue stone) dissolved in the water.

## [From the Valley Farmer.] <br> The Starvation of the Soil.

The history of agriculture shows that every nation save one, has gradually but surely starved its soil. Baron Liebig says of the ancient Romans, "All these rules had only a temporary effect; they hastened the decay of Roman agriculture, and the small farmer ultimately found that he had exhausted all his expedients to keep his fields fruitful." The fall of the Roman empire he ascribes not a little to the spoliation system of agricnlture there pursued. It is often the case that a nation is slowly ruined by its bad system of agriculture. Let the soil of a nation be impoverished and the nation soon goes to decay. The Chinese have for three thousand years kept their soil in a good fruitful state. Every other nation under the sun is ruining its soil. With all our boasted knowledge the Anglo-Saxon races are bleeding to death the soils on which they live. The Chinese have set an example which, if other nations would follow, they might preseve their soils and their national prosperity. Le Luc, a French traveler in China, says he often saw well dressed, educated men, standing by the roadside with shovel in hand to gather up as soon as dropped the excrement of passing horses and oxen. Mr. Mechi, of England, writes in the "London Times" thus: "I consider it a public duty to direct attention to a danger of great magnitude which threatens British agriculture, and through it the nation at large. I mean the gradual and sure exhaustion of the soil of Great Britain by our new sanitary arrangements, which permit the excrements (really the food) of fifteen million people who inhabit our towns and cities to flow wastefully into our rivers. The continuance of this suicidal practice must ultimately result in great calamities to our nation." This is precisely the practice of every European and American nation. The human offal drawn from the soil is not returned, but lost. The sewerage of great cities ooured out into rivers, lakes and oceans, is a fearful drain upon the soil, and in a few hundred years it will be sensibly felt.The soil must decline just in proportion as its crops are taken from it. This is a truth farmers should ponder well.

Lime and Wheat.-George H. Chase, an enterprising young farmer of Union Springs, N. Y., writes to the Country Gentleman that he has tried an experiment the present season, with salt, ashes and lime on wheat. An acre each was selected for three experiments. About two barrels of salt were applied to one, two two-horse loads of ashes to a second, and a hundred bushels of lime to the third acre. The result has not been measured as yet, but the effects of each are very visible. The salt proved least useful; the ashes less so ; and the lime most of all. The increase of the crop by liming, over the portions not dressed with anything, is at least ten bushels per acre.
[From the Prairie Farmer.]

## Hungarian Grass.

## E. C. Hall, of Bureau Co., writes us as

 follows:I have raised only two crops of Hungarian, with a yield of three to four tons per acre-nearly double the average of timothy. It cures quick, is ready to stack about as soon as timothy. I have discovered no bad effects in feeding. When fed to work horses, they require only about half the amount of grain usually fed with other hay. They may perhaps become too loose occasionally, unless constantly supplied with salt, which completely obviates that difficulty. When fed to cattle or colts, let them have full access to the salt trough; never allowing it to be empty. (This salting process I have pursued for a number of years, and I conclude my cattle are healthier than those only occasionally or never salted.)

Hungarian can be sown as late as the middle of June when we may very nearly estimate the yield of our timothy; and in case of a probable failure of that crop, through drouth, or other cause, its place may be profitably supplied with a patch of Hungarian. Another good feature for farmers: Haying with this crop is not in the midst of the small grain harvest, or at the finishing or laying by the corn crop. This obviates the necessity of paying exorbitant wages, or lose a portion of some one of your crops. Whereas, we have cut timothy. harvested wheat, and plowed corn the same day. and paid the same price for hands for the one purpose as the other. I am favorable to the culture of the Hungarian.

## Prose and Poetry of Farming.

The New Englander for November contains a capital article upon Agriculture as a profession, by Donald G. Mitchell, the Ike Marvel of literature, but de facto a successful farmer in the suburbs of New Haven. The opening sentence gives in a condensed form a bit of unpalatable truth: "For the man who can afford almost everything he needs, and sell very little that he raises, farming is a delightful amusement; for the man who can afford to sell almost everything that he raises, and to buy little or nothing that he needs, farming is a lucrative employment." To the oft paraded statistics of premium reports, he briefly replies: "The hens that lay golden eggs never cackle-at least we never heard them." The question as he states it is this : "Whether farming, upon the whole, is a profession warranting a certain degree of scientific culture, and giving room for its display, whether it is worthy to enlist the energies and the ambition of a young man who has a good life to live, and a career to make?"-a question that he helps to answer by sagacious hints and intimations. A farmer, he says, should have a practical familiarity with those facts, whether of science or experiment, which have a bearing
upon his trade. He should understand chemistry in its application to farming, but not the less gather assiduously those unexplained facts for which no chemist can account:
"The botanist must explain to him why the Canada thistle and the wild carrot, and the johnswort, thrive so heroically in spite of bad treatment; he wishes to learn their weak points; where lies the heel of these Greeks; what degree of heat in the compost pile will destroy the germinating power of seeds; and is the law of one seed the law of another seed?"
"He should know enough of the veterinary art to put aside the cant of horse jockies about "splints, spavins and ringbones, always a lie if you are selling, and not half the truth if you are buying." He must be a man of business and of means, for-
"He has his system to decide upon, his labor to engage and direct, his stock and implements to buy; and then--his crops to sell, his bills to pay, and his books to balance. Superphosphates and Mr. Quincey's eulogies on American farmers, won't help him much at these things. Money may; indeed, no farmer can start fairly without it." * * "There must be system, there must be prudence, there must be executive capacity; and without them all the geologic, chemic or other knowledges will be like the dry shreds of exegetical learning to a preacher who has no fire of faith flaming in his soul."

With all these qualities, there will still be difficulties to encounter. One of these is the difficulty of securing efficient laborers. "American laborers are not to be found. American blood is fast, and fast blood is impatient with a hoe among small carrots. It is well enough that blood is so fast and hopes so tall. These tell grandly in certain directions, but they are not available for working over a heap of compost." Farm labor, to be effective, must have the personal oversight of the master. There is a breadth and significance in the old saying of Palladius, "Prasentia domini provectus est agri," which way be literally rendered, "If you would push a crop through, look after it,yourself." Another difficulty is the lack of desirable market facilities.

The middle man stands between the producer and the consumer, and monopolizes the profit. In this respect farmers might help each other by judicious combination, but they lack coherency as a class. They have very little esprit de corps. "There is too much isolation; and isolation will inevitably play upon a farmer's pnrse, as it will upon his head and upou his heart." Then young America has a growing aversion to manual labor. He is a gentleman, and shall a gentleman take off his coat? He is vain of his culture, and mortified to find that ordinary sagacity and energy surpass him in success. He learns with pain that knowledge is not confined to bookg, and that the shrewdness that can mould raw la-
borers into effective help, tells more upon the year's profits than even the theories of Liebig or the experimenis of Lewes.
"The difficulties we have hinted at are, many of them, gradually disappearing: the labor question especially, is becoming simplified by the introduction of new and effective implements, whieh enable the farmer to reduce the number of hands. But since they do exist-and we think that our representations, though they may seem to show the shady side of the business, will be sustained by the testimony of practical men-it is best to meet the whole truth in this matter, whatever ugly faces it may wear. No man conquers a difficulty until he sees it plainly. Oaks are fine things; and rivers are fine things; and so are sunsets, and morning glories, and new mown hay, and fresh curds and spotted calves; but, after all, a farm and farming do not absorb all the romance of life or its stateliest heroics. There is width, and beauty, and independence indeed; but there is also -sweat, and anxiety, and horny hands, and a great deal of hay-dust in the hair. But if a man, as we said, be thoroughly in earnest, if he have the sagacity to see all over his farm-to systemize his labor, to carry out his plans punctually and thoroughly; if he is not above ceremonies, nor heedless of the teachings of science, nor unobservant of progress otherwheres, nor neglectful of such opportunities as the Yale agricultural lectures afford-let him work; for he will have his reward."

## STOCK REGISTER.

## Carrots for Stock.

Opinions with regard to the feeding properties of carrots are very contradictorysome maintaining that they are superior to everything else, and others declaring, with equal positiveness, that they are almost good for nothing. In our opinion both are right and both wrong. The difference has doubtless resulted from the different standpoints assumed by the two parties-the farmer looking simply upon the pleasant effect of the carrot upon the appetite and health of the animal, and the latter judging from the basis of its chemical compositiou.

Chemically speaking, carrots do contain but a small proportion of the tissue-forming compounds found in all uutritious foods; but little more (less according to some chemists) than turnips or even wheat straw, one-sixth as much as meadow hay, and only one-tenth as much as oats, barley, or Indian corn. According to Johnston, they consist of water, 85 parts ; woody fibre, 3 ; starch,
gum and sugar, 10 ; gluten, albumen, \&c., (muscle-forming substance,) $1 \frac{1}{2}$; fatty matter, $4-10$; saline matter, $1 \frac{1}{2}$ to 2 parts. It must be apparent, therefore, that carrots are among the least nutritious of foods.

On the other hand it is undeniable that carrots are an excellent kind of food for most every kind ot stock. For this assertion we have the highest authority in agri-culture-the testimony of such men as Johnston, Curwen, Colman, Stewart, and others-as well as our own experience.

Curwen, a distinguished English agriculturist, remarks as follows: "The profits and advantage of carrots are, in my opinion, greater than any other crop. This admirable root has, upon repeated and very extensive trials for the last three years been found to anwer most perfectly as a part substitute for oats. Where ten pounds of oats are given, per day, four pounds may be taken away; and their place supplied by five pounds of carrots. This has been practiced in the feeding of eighty horses for the last three years, with the most complete success, and the health and condition of the horses allowed to be improved by the exchange. An acre of carrots supplies a quantity of food for working horses equal to sixteen or twenty acres of oats."

Mr. Colman, the author of European Agriculture, in speaking of the foregoing views of Mr. Curwen, says : "My own experience of the value of carrots, which has not been small, confirms these statements."
But further foreign testimony need not be adduced; a number of farmers in Wiscon$\sin$ are ready to add the endorsement of their experience.

How, then, are we to consider these apparently conflicting elements of the controversy? Simply by showing that the value of the carrot is due to the peculiar properties it possesses, as a promoter of healthto its medicinal properties, if you please.The gum referred to above-and which constitutes about one-eighth of the whole substance of the carrot, exclusive of water -is a peculiar, jelly-like substance identical with the jelly derived from the ordinary fruits, such as the apple, pear, quince, \&c. It is known to chemists by the name of pectine, and is one of the best articles of
diet for either man or beast. Its effect upon digestion is especially favorable; and every one knows that a healthy digestion is the best kind of security for the health of the whole body.
Such being the character of one of its most important constituents we should expect the carrot to be found a most wholesome article of diet for domestic animals of every class; and especially for those most liable to derangements of the bowels.
But some authorities go further than this
and assert that it has a positive medicinal value. For example, Stewart, in his work on Stable Economy, says :
"Not only do carrots give strength and endurance to sound horses, but also give recovery and health to such as are sick. There is nothing better, perhaps nothing so good. When first given they are strictly diurectic and laxative, but as the horses become accustomed to them, these effects cease to be produced. They also improve the state of the skin. They form a good substitute for grass, and an excellent alterative for horses out of condition. To sick and idle horses they render grain unnecessary. They are beneficial in all chronic diseases connected with breathing, and have a marked influence on chronic cough and broken wind. They are serviceable in diseases of the skin ; and, in combination with oats, restore a worn horse much sooner than oats alone."
Set it down, then, as established, that, although carrots contain but comparatively little nutriment, yet the fact that they serve as a relish when given with other food, and are also calculated to promote the health of the animal fed upon them amply warrants their more general cultivation and use.

Butter and Sugar for Horses.-Langley, in his "Residencein Scinde," states that butter and sugar in that country are fed to horses. He says, "The Meer's horses consume a great deal of grain. The evening feed is about three-quarters of a peck of barley, or occasionally maize, and in the morning, after watering, each horse gets his breakfast, consisting of one pound of coarse sugar and the like quantity of clarified butter. This is made up into balls, and when accustomed to the diet after a few days' use, horses become very fond of the mixture, which fattens them prodigiously.
Trusting that this is not a "horse story," we lope the experiment will be tried here, as we have a vast quantity of butter in market that must be good horse food, we think!-N. Y. Tribune.

## [From the Rural New-Yorker. <br> High Feeding of Sheep.

for the benefit of all whom it may concern.
Eds. Rural New-Yorker :-You know I have for many years advocated the higher feeding of sheep and cattle and keeping them growing in winter as well as summer. No farmer can afford to let his stock stand still, and what is worse, let them get poorer from the first of December until the first of May or later.

Now, I will give you a case that came directly under my own notice. A long-time friend of mine, who lives at a considerable distance, was visited by me a few years ago, when I looked at his wool, just then shorn. I handled a few fleeces, and then said to him I was surprised that any man of common sense would raise such light fleeces. He asked me how could he help it; he fed them all the hay they would eat in the winter, and it would not pay to feed grain to sheep. I told him that it would not pay to keep sheep that sheared such light fleeces at any rate, and that, if it would not pay in the way he was keeping, he had better try grain, as he could be no worse off. Advised him to feed straw and grain until April, then have good, early cut hay, to feed until grass, either with or without a little grain; and, judging from his breed of sheep, I was confident that in a few years, by cutting so much less hay he could afford them far more pasture, and in that way get his fleeces to average from five to six pounds-that he would raise far more and better lambs, and thus make his sheep profitable. I left him without knowing whether he would take my advice or not, but he did take it, and gave the sheep threefourths of his meadows for pasture. When winter commenced he began feeding half a pound daily of buckwheat to each sheep, with fresh straw three times a day, (wheat, oat, and barley straw,) until the first of April; then gave good hay, with a very little grain. The first year his fleeces were increased about $11 / 2 \mathrm{lbs}$. each, or from $23 / 4$ to 4 lbs .; the next year they averaged 49-16 lbs., and this year they averaged plump 5 lbs. But that is not all his gain; he raises far more lambs and far better ones, and he sells his wethers immediately after shearing for nearly or quite double what he could formerly get in the autumn.

Now, let us look at the cost in keeping sheep in the way I recommend. In the first place there is the saving in the expense of cutting and making four months' hay, which is a considerable item. Say 75 lbs . of buchwheat per day for each sheep, for 150 days, at 40 cents per $48 \mathrm{lbs}-$ making $521 / 2$ cents. Increase of wool, say only 3 lbs . at 46 cents, (the price he sold it for these two years, ) is 92 cents. Then there is the profit in more and better lambs, the additional price for the wethers, besides getting them off in June in place of October, and the saving of cost of cutting the hay. Why, I should think any farmer could at once see that the profit is immense from keeping on dried up timothy hay and poor pastures in summer, and then
every farmer can do this that raises straw and ooats, barley, buckwheat or corn; for either will answer the purpose, only give half to three-fourths of a pound daily to each sheep. I assure you there is no way of making stock of any kind pay unless fully fed. When once sheep are got up in good condition, a little less than the above quantity daily will answer a very good purpose, especially if grain is high; but I have put the buckwheat above the average price on the farm; peas or oil cake meal is better than any grain for sheep.
Now, Mr. Editor, there are many thousands of farmers keeping their sheep equally as badly as my friend did a few years ago, who might better their circumstances greatly if they would only read this and believe me. I write what I do know and nothing else. It makes uo difference whether a färmer keeps one hundred or five thousand sheep; he ought to keep them all in the same way. When I kept a flock of from eight hundred to one thousand, I fed half a pound of oil cake meal or corn daily to each sheep, even when I fed hay all winter-at least always after I found out by experience that that was the only true and sure way to make them profitable. I know H. T. B. thinks it might affect trade and commerce if farmers should feed so much grain to their stock; yet my candid advice to farmers is to try it. If they find it ruinous they can discard the practice. But to begin with lean stock, they must feed them well for two years before they see the full effect of the change, and it may even take longer than that with poor, starved animals; but begin and continue one year and you will never give it up, I am confident.

John Johnston.
Breeding from Pork-fat Sows.-A correspondent of the Genesee Farmer says, John S. Kaats, of Alexandria, informs him that he has successfully practiced raising pigs from pork-fat sows for the last fifteen years; and his experience is, "the fatter the better." His litters have varied from 7 to 13 pigs-average 10 to 11 -and two litters from the sow a yer, He does not allow a sow to come in until she is a year and a half old, and finds it profitable to keep her until she is 5 or 6 years old. He has killed the pigs thus raised at from 6 to $10 \frac{1}{2}$ months old; and their dressed weight has varied from 300 to 450 lbs . An equal cross of Byfield and Suffolk is his favorite grade. * His swine are never allowed to get hungry, and they never learn to squeal!

Birs.-In a cold day of winter, when a horse's bits are full of frost, always warm them thoroughly before putting them in the mouth. Not to do this is very cruel. Touch your tongue or even a wet finger to a very cold piece of iron, and you can appreciate the importance of this hint. It may be a little trouble to do it, but it should be done. The frost may be taken out conveniently by placing the bits in water.-Ohio Cultivator.

## The Brittany Cow.

A correspondent of the New York "Tribune, writing from Philadelphia under date of December 4th, says :
"An importation of a great agricultural wonder will be made here by one of our wealthy fancy farmers, in the spring. It is the Brittany cow, from France, a mere min. iature creature, barely three feet high, docile as a cat, giving eight to ten quarts of milk daily, and consuming almost as little food as a goat. This breed has recently been introduced into England, where it has excited the utmost wonder and admiration even from experienced breeders. As de scribed to me, every citizen who boasts a garden of moderate size will be able to be his own milkman by simply tethering a Brittany cow on his grass-plot."

We are prepared to believe almost anything in the departments of science and art, -indeed, the chief difficulty we have is in finding stories big enough to satisfy our general taith in the genius of man,-but we can't help wondering where in France this Tom Thumb of a cow has been for the last hundred years that she has not been heard of before.

The Best Sheep for the Npw York Mar-ker.-Solon Robinson, who has long reported the markets for the New York Tribune, says:
Southdown sheep always outsell every other variety in New York to our first-class butchers, but they are not appreciated by the wholesole butchers, who are mostly Irish and Jews. There is always a good demand for choice Southdowns, particularly lambs, and the half-blood ones bring about as high prices as the full-blood ones would, if brought in early in first-rate condition. Samuel Throne, of Duchess county, buys good common ewes every year, and breeds to them his full-blooded Southdown bucks, and gets early lambs, which sell at \$4 or \$5 a head. He clips the ewes and fattens and sells them, and the sales of lambs, fleeces and ewes average about $\$ 7$ a head over the firsy cost. This makes a very pleasant and proitable stock business, and should be largely increased, as the market is good now, and improving each year for such choice lambs and fat sheep. The next most profitable breed for the New Yook market is the long-wooled, heavy carcase sheep. This sort always sells well by the pound; it does not matter that the carcases are loaded with fat; the mass of mutton eaters in the city are not such as appreciate the finest sorts of meat. Sheep generally sell by the head, and those which are the heaviest, not the best, bring the most money. Early lambs will average $\$ 5$ a head, the later ones $\$ 3$, if fit for the butcher.

Hog Cholera in Illinots.-The Peoria Transcript says: "From the first breaking out of this disease in our city, which was about two months since, up to the present date, over for thousand hogs have perished through its influence in the yards of our distilleries, and yet the diseas baffles all attempts to check its progress. Last week an examination was made by some of our medical men, when it was satisfactorily ascertained that death in every instance proceeded from a congestion of the lungs. It is principally among the stock hogs, but those "born and bred with the rest of us," as well as the large numbers brought from Missouri and Kansas, are alike seized with the epidemic. In many instances they expire within an hour from the attack, and it is very seldom that they linger any length of time-the present rate of mortality being about fifty per day.
The St. Clair County News Letter says: "This disease, of which we made mention a week or two ago, has raged among the hogs at the distillery, with destructive fatality. These hogs belonged to a firm in St. Louis, who had sent them here for fattening. Upwards of 1,709 out of 2,300 head have died, and they are still dropping off at the rate of seven or eight per day. We learn also that the disease has made its appearance in the pens of some of the farmers in this vicinity, though not extensively . Thus far no cure has been discovered -all efforts to check the progress of the epidemic being unavailing.'

## HORTICULTURE.

## Hints for March.

Mr. Edryor: Now that the season is approaching for planting and sowing in the fruit and vegetable gardens, I will make a few suggestions in relation to them. First procure seed from some reliable source and the quantity you require of each sort. Prepare your ground by deep spading, and incorporate plenty of well rotted manure; allow the earth to become dry enough to work without elogging.
The following list are all superior varieties and will supply the table with the best of their kinds for summer and winter use: Beans-Early Yellow, Six Weeks and Mohawk. Pole Beans-Large Lima, Indian Chief. Beets-Bassano, Blood Turnip, and Long Blood Beet. Cabbage-Winningstadt, Globe, Savoy, Premium, Flat Dutch. Car-rots-Early Horn, Long Orange. Cauli-flower-Paris, Waite's Alma. CeleryWhite Salad. Cucumbers-Russian, Long Green. Egg Plant-Improved, New York Purple. Leeks-Large Scotch. Lettuce-

Curled Silicia, Tennis Ball. Musk Melons -Christiana, Green Citron, Nutmeg. Water Melons-Black Spanish, Iee Cream, Citron. Onions-all the New Globe varieties are good. Parsnips-Large Dutch and Guernsey. Peas-Dan'l 0. Rourke, British Queen, Champion of England. PeppersSweet Spanish, Bull Nose. Radishes-Early Olive Shaped, Black Spanish. SquashBush, Crookneck, Marrow, Hubbard. To-mato-Large Red, Smooth, and Yellow. Turnips-White Dutch and Long White French. To the above might be added Salsify, Parsley, Spinnach, and the different culinary herbs.
fRUIT GARDENS.
No time should be lost in making up lists of what you design to plant in this department; for the earlier everything is planted (after the ground is in good working order) the better. Of strawberries every garden should have a liberal supplyIf Wilson's Albany and Large Early Scarlet, plant the rows two feet apart and one foot between the plants in the row. Raspberries-Franconii, Falstolff and Catawissa are varieties that seldom fail to give large returns for the labor and attention they require. They should be planted in hills, four feet apart, each way, or in rows, which is better, five feet apart and one foot between the plants in the rows.
Carrots and Gooseberries should be in generous supply, and treated as fruit-bearing plants. Few plants show the effect of good treatment sooner, both in the size and flavor of the fruit. Plums, Cherries, Pears, Apples, Grapes and Blackberries should not be omitted from the general list. Always get such kinds as will suit your soil and locality, and you will seldom fail of getting good results.

Hortus.

## [From the Gardenars' Chronicle.]

## Notes on the Vegetation of Japan.

Taken during a Trip into the Interior to Mount "Fusi Yama," the Holy Mountain of the Japanese, in the month of September, 1860. By John G. Veitch.
The vegetation of Japan is remarkable for the immense variety of trees and shrubs growing throughout the length and breadth of the land. Three-fourths of these may be said to be evergreens, giving the country almost as fresh an appearance during the winter months as in summer.

The country we traveled through during our trip is probably second to no other in
point of vegetation ; from the lowest valley to the mountain summits it is one dense mass of luxuriant trees and shrubs. The trees ot considerable size which we met with consisted of pines, oaks, maples, \&c. Others of less dimensions, viz., beech, lime, alder, chestnat, \&c., give a pleasing variety of foliage. The main roads are planted wherever practicable, with pine avenues. These trees often attain the height of trom 150 to 180 feet; their higher branches forming a perfect covered archway. The splendid effect thus produced by miles of noble trees, can scarcely be described.

## JAPANESE FRUIT.

Nothing is more disappointing to Europeans visiting Japan for the first time than the scarcity of fruit that everywhere prevails, and the insipid flavor of what is produced. No country can be more favorably situated for its caltivation. The soil is very rich and productive. The climate is all that can be dosired, yet throughout the entire empire the fruit is scarce and bad. From the short experience I have had during my stay in these parts I can scarcely hazard an opinion in the matter, but from the little I have seen I consider the secret to lay in the Japenese paying no attention to the improvement of fruit. The original kinds have in all probability been grown year after year, and no pains have been taken to improve them. I am further strengthened in this opinion on finding that one or two varieties of each kind of fruit only exists. For instance, of peaches, pears, grapes, \&c., only one kind is grown ; if there be a little difference in some, it is merely that they are larger or smaller varieties of the same kind. There is no difference in point of shape or flavor. I feel confident that if a few of our English fruit trees were imported and a fair trial given them, they would prove the soil and climate of Japan to be capable of producing fruit equal to any country in the world.
The following fruits are met with :Cherries, chestnuts, figs, grapes, oranges, pears, peaches, plums, walnuts, and melons two or three kinds.

## THE PLANTS OF JAPAN.

Notwithstanding the Americans were the first to obtain treaties with Japan, they have so far only made use of the commercial advantages connected with them. Rich as the country is known to be in plants, not a word has been said in relation to them, Our Government, at great expense, has sent agents to Europe to pick up worthless seeds and plants, which could have been obtained in abundance at home, but has overlooked one of the best opportunities to enrich our gardens with some of the finest trees and shrubs. But if Americans take
no interest in such things, enterprising Englishmen do, and they have embraced the earliest opportunity to act. Mr. J. G. Veitch, grandson of the well known nurseryman of Exeter, sailed for Japan a year or more ago, and an account of his progress in his researches for Japan plants has appeared in the Gardeners' Chronicle, which is pot only very interesting, but gives a list of the different plants found growing in such parts of the country as he visitedfor as yet foreigners are not allowed to travel in the interior. On the 2d of September, at Kanagawa, he learned that the consul general of Great Britain, Mr. Alcock, was coming from Jeddo to visit Fusi Yama, the great mountain of Japan, and Mr. Veitch was in hopes to accompany him, though none but attaches were allowed to go. Fortunately, Mr. Veitch succeeded in his effort, Mr. Alcock appointing him as Botanist, pro tem., to her Britannic Majes ty's Legation at Jeddo. "You may imagine." says Mr. Veitch, "that I grew six inches taller on my appointment." He thus proceeds: "This mountain is said to be 14,000 feet high, and is supposed by the Japanese to be holy. Thousands of pil grims go there every year, and one year in sixty females are allowed to go; this happens to be the sixtieth year. One party will be twenty-eight in all, eight Europeans, and twenty Japanese attendants, interpreters, \&c. We shall be the first foreigners ever permitted to go inland, or ascend the mountain.
"The Japanese are great lovers of flowers and shrubs, and $I$ find qualities of plants grown by them in their gardens, which I never saw growing wild, nor can I ascertain where they are to be had in a wild state. Endless varieties of plants can therefore be had in the towns themselves, and others I can procure from the natives as I go on. The kinds of conifers I am most anxious to procure appear to me the scarcest; one or two pinuses, in the way of our Scotch pine, grow everywhere, likewise Cryptomeria japonica, but the rarer specimens are scattered, and apparently not plentiful."

Fruit in Minnesota.-Many complain of the absence of Fruit in Minnesota, and strongly object to coming here for this reason. But no eastern town is favored with a richer supply of apples than Lake City. And it is an admitted fact tnat our dry, clear atmosphere is so favorable to the preservation of fruit, that the most common varieties of fall apples that cannot be kept beyond November in Michigan, Indiana, Illinois, keep well here all winter. So after all, this is the place for good fruit. The very best of large assorted apples are selling for about $\$ 3$ per barrel.-Ex.

## The Currant.

An old fashioned fruit, met within almost every garden, and by long use become indispensible in the domestic economy. Too often permitted to go uncared for, unpruned, starved, neglected, choked with grass and weeds; the fruit, of a consequence, small and seedy.

A fruit adapted to so many uses, the first in the season, and continuing in use so long, is deserving of more careful and intelligent culture, which it will most bountifully repay by the greatly increased yield as well as size and quality of fruit.

Of the many sorts now in cultivation the true Red and White Dutch are still the favorites. The Cherry is very large and a fine dessert and probably the best of the new reds. Magnum Bonum, Prince Albert, Victoria and Red, also, among the redsWhite Grape, Chassalas and Chrystal, among the whites, and are large, more or less distinct and desirable in a collection. The Champagne is a very pretty pink sort, as large as the Dutch, beautifully transparent, rather more acid than the Whites, but less so than the Reds.

The Black Currant is much admired by some, while to others its odor and flavor are unpleasant. Most persons, however, soon acquire a fondness for it. The Black Naples is superceding the old English. The Bang Up, a still newer sort, bids fair to rival the Naples.
The soil must be deeply worked and made rich by liberal annual dressings of manure. This is necessary to insure the best results with all the Currants, but especially so with the Black, which is a gross feeder.
In some districts of France the Black Currant is superceding the Grape for wine making, and is cultivated in large quantities for this purpose.
Excellent jellies and jam are made from the Currant. They are also nice, dried in sugar, and afford one of the most common and best of domestic wines.
That from the Black varieties is peculiar, and both it and the preparation of the fruit are esteemed useful in affections of the throat.
The Currant may be profitably grown for market. The supply in our cities is far from equaling the demand.
Considerable quantities were sent the past two seasons from this place to Chicago,
realizing to the producers $\$ 1.50$ per pushel at the rail station here.

All should plant at least an abundance for home use, and it is astonishing how many a family, with a goodly number of little folks about, will consume; but plants are cheaply procured from the nurseries, or may be easily propagated from cuttings. Trained as little trees, with a single stem, they look pretty and are easily cultivated, but are liable to disease and accident. We prefer to grow in the old fashioned bush form, renewing the young wood from time to time by cutting out the old and unproductive shoots. Five feet is not too far apart to plant. A. G. Hanford.

Waukesha, Feb., 1861.

## Mahonia Aquifolia-(Ashberry).

A pretty evergreen shrub, seldom met with in the west, but which we are sure only needs to be known to be admired and sought for.

Its prickly leaves of purple and green forms a pleasant contrast with every other evergreen. It is covered in spring with clusters of bright yellow flowers, which, mingled with the lively green of its young foliage, and the dark purple of the older leaves, forms an object of much interest.

It is one of the few plants that thrive in the shade, and though hardy needs to be shaded from the sun in winter, otherwise the foliage is liable to be injured.
On the north side of fence, or buildings, or shrubbery, or in shade of trees, would be the place for this interesting plant. It transplants readily and thrives in a variety of soils. The Mahonia leaves are considered by the ladies very beautiful in various ways of ornamentation. A coronal about the back hair, drooping behind the ear, is prettier of these Yeaves than any made of satin or velvet. Its different colored leaves, when arranged with taste, make very pretty picture frames, fancy baskets, boxes, and other ornamental things. They give a pleasing variety when mingled with a boquet of dry grasses, immortelles, \&c. In ornamented work they should be varnished, to preserve their shape and color.

Waukesha, Feb., '61.

## Bark Lice.

Mr. Editor: Bark Lice can be effectually destroyed by applying a whitewash, made of common ley and lime. The ley should not be strong for any tree, but old ones that have been a long time affected by them, will require stronger ley than younger trees. It should be tempered according to the age of the tree to which it is to be applied. Apply with swob, brush, or any thing you please, but old trees with large tops are better reached with a large syringe, made for the purpose. Apply the wash early in the spring, or before the buds begin to swell much, as it will kill the buds if too much exposed. Try it and you will be delighted with the result. It leaves the tree smooth and healthy looking in the fall. If the composition should be washed off by rain soon after it is applied, repeat the dose, and apply it every spring to your trees and it will pay, whether your trees arc lousey or not. I have formerly thought lime injurious to trees, but experience has taught me the reverse.
Yours, for fruit in Wis., which we shall certainly have by and by,
I. G.

Beaver Dam, Feb., 1861.

## Will Our Farmers Ever Weary of Being Humbugged by Tree-Pedlers?

Mr. Editor: What shall we say of the hawking Tree Pedler? In this age of mon-ey-making, perhaps he is not to be blamed at all, unless he lies about his trees.

Of course they were dug the same year, and some of the roots left on! and while the load was being made up it was more convenient to leave them without protection, over night if necessary; and such packing-a little straw and trusting to an occasional pail of water to keep them in perfect order; no occasion for coating the roots, as they have no fibrous roots that need it!

Such bundles, and they put up to "order" by nurserymen! Good trees on the outside but inside full of dead nurserymen's bones. All warranted fresh dug and that each bundle contains some of each (which word better be left out) of the following varietieswhich list of course is all right.

Now that such a set of men should each year stalk up and down our country with dead trees and sell them to men who have
eyes, but see not! All this is not very astonishing, for experience teaches us that every man must be taken in by about four Eastern pedlers and two purporting to emanate from some reliable Western establishment.

Now what shall be done? Why, let these men who wants trees keep on buying from every straggler till they get sick of it, and then probably they will curse all the Fruit Growers-and the country especially-and even get mad if they should be presented with a circular from a fruit dealer.

Why do not men of common sense, even if they have but little, go and get their trees at the nursery nearest home, if a good onesee to the digging and placing themselvesand have no trees but such as have proven themselves adapted to our climate, even if but five or ten kinds? What do we want of more than twelve kinds of first rate apples any way? Get trees that will bear such, and take them home, heel them in and proceed at once to set them on high, dry, well and deeply plowed, gravelly clay, or poorish corn land-usually the poorest land, will bring the most fruit, and make the most healthy orchard.

Set the trees no deeper than they stood in the nursery, at your peril if you do. Brace the heaviest branches and lean the tree to the southwest, and take care that you mulch well with chip manure or straw-tend well your orchard, end don't plow more than six times toward the trees before you think them deep enough to die!

Fence well, and once a year will be often enough to let the cattle prune them. Then,
"If at first you don't succeed, try try again." Remember, there are nore than a dozen varieties more hardy than seedlings, of the first quality of fruit-and that will bear in Wisconsin, croakers to the contrary notwithstanding.

Yours, \&c., Geo. J. Kellogg. Belle Cottage, Janesville, Feb. 14th, '61.

## Potatoes.

By way of introducing new sorts of potatoes we have done something for Wiscon. $\sin$ in times past. Growing, for the purpose of testing as many as twenty distinct sorts in one season. Our exhibition in this department at State and County Fairs during past years will be remembered by many.

We have grown the "Peach Blows" and "Carters," referred to by Dr. Tinker, in Feb. Farmer; both good sorts, the latter unexcelled, to our taste, by any other sort except the "Mexican," introduced by us some years ago-standing, we believe, today, first as a table variety. It needs, however the best of culture in order to give satisfactory returns.
Planted late on poor soil and neglected, the tubers are small and yield light; besides in unfavorable seasons it is inclined to rot, and this is the principal drawback to the "Carter." Among a number of new sorts received from Rev. C. E. Goodrich, Utica, N. Y., some years since, we found one which pleases us much, nearly or quite as the "Carter," and exempt from disease or rot. "The Garnet Chili," was raised by Mr. Goodrich from seed of the "Tough Purple Chili," in 1853. Form, roundish; skin, reddish or of flesh color; nearly smooth; flesh, white;-cooking dry and mealy ;-of uniform size; exceedingly productive. Should be planted early, as like the "Carter" it requires the whole season to mature.
In "Mathews Early Blue" we have a perfeet gem,-the best very early sort with which we are acquainted. Shape, varying from round to long; skin, pale blue; fllesh, white; cooking white and mealy. Good size for an early potato; very hardy; never known to rot; and, on good soil, with culture, is productive. Should be planted early, in order to get size before the dry weather of mid summer, while it ripens.

## A. G. Hanford.

Waukesha, Feb., 2861.

## Special Meeting of the Wisconsin Fruit Growers Association.

This meeting was held in the State Agricultural Rooms in this city, as per notice, on the 13 th inst. The attendance was not large, but the discussions were of an interesting nature, and much knowledge was brought to light, which might otherwise have "been hid under a bushel." When we think of the amount of good, and useful knowledge this society might be the means of disseminating, we wonder there is so much indifference expressed by the Fruit Growers in the State towards it. The North-west is upon the eve of a crisis in Fruit Growing. It is about to be abandon-
ed, or renewed with more zeal :-That it will be the latter, we all believe who heard the remarks of those present, and listened to the lecture describing the causes of failures, and modes of success.
The discussions were confined mostly to small fruits. Red and White Dutch, and White Grape Currants were recommended for general cultivation, being "the best and most productive." Victoria, Cherry, Long Bunch Red, Knight's Sweet Red, Red and White Gondouin recommended for further trial. The talk upon grapes was full of interest; every member deeming it best to always cover the vines in winter. So slight was the labor of doing it, that most of the members said they "would make no difference between semi-hardy and hardy vines," for, "with protection they are all quitealike." The same remarks were applied to Raspberries. Hartford Prolific, Northern Muscadine, Isabella, Marion, Port, Concord and Clinton were recommended for general cultivation. Delaware, Diana und Rebecca for trial, though some thought so well of the Diana they urged for it a place in the first list. Mountain Seedling Gooseberry considered most productive and finest flavor. Houghton's was objected to by amateurs as being "too spreading;" must confine it to a "certain position of the garden;" could not "border the walks with it as with some other sorts." Wilson's Albany Strawberry "is the berry for the people." Large size, and showy fruit, with its productiveness, will always render it a favorite. Wilson's Large Early Scarlet and Hovey's recommended for general cultivation, and the Willy and Hooker for amateurs.
The Plum experience was varied. Bleeker's Gage, Pond's Seedling, Red Diaper, Lombard, Washington's and Smith's Orleans were enrolled for general cultivation.

Very little favor was found for the Cherry Tree. Common Red English, Morello, Belle de Choiscy, and Reine Hortense had met with general success-recommended. Several members were trying Peaches by growing them with very low heads, and protecting in winter by covering with soil or boxing around them, filling up with leaves or sawdust. A high state of top cultivation was strongly argued for Pieplant and Currants. "Too much manure cannot be given them." The theory of mulching Pieplant, Currants, Raspber-
ries, and other small fruits was introduced, but was objected to by Mr. Stevens (amateur,) who said it might do for some, in large plantations, to keep the weeds down, but for his part he wanted to plant nothing in his garden but would grow without it; would as soon see a "littered parlor" as "littered gardens."
[His Garden and Green House are models of neatness.-REP.]

The failure of Apple Trees was attributed to bad, level selections of orchard sites, with poor underdrainage or none at all, which gave them "wet feet" causing the trees to "take cold and die with quick consumption." It was clearly demonstrated by many that on high, airy grounds, and limestone bluffs or ridges, fruit was succeeding reasonably well.

## JUDGE KNAPP'S ADDRESS.

At six o'clock P. M. the Association adjourned, to meet in the Assembly Rooms at seven o'clock, to listen to an address by Judge Knapp. A good audience was in attendance. Meeting was called to order, and E. B. Quiner, of the Higher Lav, being chosen chairman, introduced the lecturer, who spoke for nearly an hour. The following is an abstract of his remarks:

Wisconsin is divided, as to its soil, into two great districts-the Southern and the Northern. The line between is tortuous, beginning at LaCrosse and touching Low. ville, Columbia Co., Marquette, Big Buttes des Mortes, and reaching the shore of Lake Michigan above Green Bay, as seen by the geological maps.
The southern portion is characterized by Limestone formations; the northern is san-dy-both capable of producing fruit with proper precaution and care.

Over large portions of the limestone district there is a layer of soil resembling clay, but consisting chiefly of sand very finely divided, and hence-very close and compact in its character. This is not very pervious to water, and must hence be prejudicial to the healthful growth of fruits planted upon it. It is usually found near the surface, and varies in thickness from 2 to 10 feet. The remedy in all such localities is drain-age-either by well constructed drains uHder the tree-rows, or by digging large holes where each tree should be planted, through this clay.like sand, and filling up with surface soil; or by excavating to the depth of

6 feet and filling up with stones, sticks' gravel and surface soil.

Fruit trees may aiso be made to succeed in the sandy region by making an excavation in the sand, say 4 to 6 feet cubic, and filling up with a mixture of the black soil of the low lands-first preparing it by exposure in heaps during the summer and also frosty weather, if possible, so that it shall be crumbled-and a peck of fresh lime and a half bushel of well pulverized clay, in alternation with the soil removed; using of the black earth about one cubic yard.

As to locality, the high lands are the only safe places for fruit trees, being better drained and less liable to injury by frost.
But trees should not only be properly planted; they must also be carefully attended to afterwards. Trees, in their growth, especially require lime, potash, soda, phosphates, and vegetable matter. The last named can be supplied by the application, to the surface, of stable manure; the former ingredients may be advantageously furnished by making a compost in the following manner:

Take a large hogshead-crockery or sugar will answer-and set it up the same as if you were going to make a leach of ashes; secondly you want every bone you can find on the farm, no matter how old or new ; and thirdly, you want all the wood ashes from the stoves and fire-places, and the materials are ready for the work. If you have not material to fill the hogshead at one time, put in what you have on hand, and fill up as the material is made. Begin your work by placing a layer of two inches of strong new ashes in the bottom of the hogshead, and covering it over with bones, as nearly even as possible; then put in another layer of ashes, followed by the bones, and so on, until the hogshead is filled to within six inches of the top. All should be so far packed that there would be no open spaces under the bones; and the ashes may be dampened as they are putin, but not enough to leak. Take care that the bones do not touch the sides of the hogshead; and the last six inches of the top should be filled with ashes alone. The whole should be left under cover, but yet so kept that the air may have pretty free access to it. This mass of bones and ashes must be kept mois-
tened with water for at least six months, and no matter if it be a year; and should it leak, the ley ought to be turned back.Should you mix in the mass a few pieces $o_{f}$ iron pyrites, or place on the top at. times Sulphur, Plaster of Paris, or Coperas, you may water the mass with human urine, and so save the richest manure yet discovered. The Pyrites, Sulphur, Plaster of Paris, or Coperas, should be just so much as would prevent the Ammonia from escaping. When one hogshead is filled, another may be set up, and filled in the same manner. Your work is now done for six months except to take care of the watering and cover. The work will go on almost as well in winter as summer.
At the end of six months, or more, as convenience and work permit, if the work has been well done, and the ashes are good, you will see the result. The oil and gelatine of the bones will all be taken up by the Potash, and the bones will be so soft as to be readily cut by the shovel, or broken with a wooden maul. The whole mass should now be removed to a board floor, the bones pulverised, and all mixed, and put away in a a dry place for use. It will improve by age, and especially if occasionally shoveled over, and a little salt, say a pint to a bushel, may be added, once. When the mass shall become perfectly dry by the action of the air, it will consist among other things of the following materials, the earthy materials of the ashes, consisting of Siliea, Alumina, and Lime, which will help to give consistency to the sandy lands, pure Potash, Nitrate of Potash, or Salt Petre, Urate of Potash, Phosphate of Potash, Phosphate of Lime, Sulphate of Lime, Sulphate of Potash, Sulphate of Ammonia, Urate Phosphate of Amonia, Chlorides of Potash, Lime and Amonia, with some other Salts, in small quantities, every one of which will be in a proper form to enter into the composition of vegetable beings. On the whole, the mass will be not much less valuable than the celebrated Peruvian Guano, in its manurial qualities.

One half peck of this composition upon the most sandy soils of Wisconsin, will be an abundant supply for a ten-year-old ap pletree, and should be scattered annually over and dug into the soil in which the tree feeds.
In the limestone region this compost will
not be so necessary ; but even there Potash is usually necessary. One of the best methods of applying it is in the form of a ley, wash, strong enough to set an egg on end, though not strong to float it, and containing salt in proportion of 1 oz . to one pint. Apply in early spring, to as much of the tree as possible. It will both promote the growth, and destroy the insects that live upon the bark. Ashes may likewise be dug into the soil.
Thesmall fruits-Grapes Currants, Gooseberries, Raspberries, \&o., can scarcely have too much manure, for their successful cultivation. What has been said of the importance of care, applies eqnally to them.

The Cherry, Plum, Peach, and also the Apple, require a supply of iron, which may be furnished cither by putting scraps about the trunks, or by emptying the sand saved from the grind-stone box near them.

After the lecture a lively discussion was had. and the whole matter passed off in good spirits. Yours Truly, O. S. Willey, Sec'y.

## How to Make a Hotbed and to Sprout Sweet Potatoes.

Ed. Wis. Farmer: In the first place, arrangements should be made early in the season, to have frames and covers made, manure and all necessary material engaged in due time.
The location of the beds should be on dry ground, with a southern inclination. The best material for a hotbed, is fresh horse stable manure, and if mixed with one fourth or one half its bulk of either sawdust, fresh leaves, tan-bark, or straw, the heat would be more mild and durable.About the first or second week in March, in this latitude, haul the materials for the bed, and mix them together in a ridge where the bed is to be made, and as soon as it is hot, shake it thoroughly, mixing the cold and hot, wet and dry portions together, forming a bed on top of the ground, running east and west, which, when settled with the fork, (not tramped) should be fourteen inches high at the edge, and twelve in the center, more or less, as there is a greater or less proportion of manure used, and six inches wider on all sides than the frame to be placed over it.

Hotbed frames should be made of two inch pine or oak plank, framed together at
the ends with keys, to be taken apart and placed under cover when not in use. They may be twenty feet or less in length, and for convenience should not exceed four feet in width. The front or south side should be eight inches high; the north from eight to twenty, according to the shape of the ground on which the bed stands, as the top of the frame should have a pitch of eight to twelve inches, to receive the heat of the sun and to shed off the rain freely.

Temporary beds are made by setting slabs or planks on edge, and filling in the manure, \&c. But such beds are difficult to cover, and if used for sweet potatoes should not be laid within six inches of the sides. Cover the beds with mellow earth, four inches at the edge and six in the center, on which set the frames, and proceed to plant the seed. If the bed is designed for sprouting sweet potatoes, then make it the first of April and plant by the tenth day, and lay them two inches apart, with the top end of the potato to the north or upper side of the bed, and opposite the middle of the adjoining potato, placing the large ones at one end of the bed and the small ones at the other. If the potatoes are very large, and the bed in good order, they may be split through the middle, placing the cut side down; but if the bed should be either too hot or too cold they will rot. Cover the potato with three inches of good soil that is freed from foul seeds and will not bake. Top soil from the woods, and from around old $\log s$, would be preferable.

More potatoes are lost by over-heating than from any other cause, and as a pre. ventive, place more earth under the potatoes, especially in the middle of the bed, and less on top than is usually done at the time of bedding the potatoes, and afterwards add one or two inces of earth just as the plants are bursting up, which will also destroy all weeds that have started. Another thin layer to be placed on the bed after the first plants are off. During the first ten days the bed should be carefully examined by running the hand down to the manure, and if it becomes so warm as to feel unpleasant there is danger of scalding the potatoes, and it should be cooled by watering, being careful not to apply too much at a time.

The beds must be carefully covered at night, and in cold and wet weather, and be
careful to uncover them every fair, warm day, to toughen the plants and inure them them to the open air.

Glass-covered hotbeds cause the plants to spring up tender and weak, and such plants do not grow when set out in the hill like those raised in open beds.

The best covers are made of strong muslin, tacked on lath eight inches apart, so that they can be rolled up conveniently. Lath for this purpose should be $\frac{1}{2}$ by $1 \frac{1}{2}$ inches, and should project beyond the cloth, which should be cut two inches wider than the frame, and held during winds by loops, or by scantling placed on each end. The tacks should be driven through narrow strips of oil-cloth, te prevent the heads tearing out. These covers will admit the light, shed off the rain, and be cheaper in the end than other covering, and sufficiently warm except in extreme cold weather, when straw, or some warm covering should be thrown over them. Tramped straw, or mats made of rye straw, answer in the absence of better covering.

Respectfully Yours,
Eagle, Jan. 28, '61. Albert Bovee.

## Strawberries-Protection.

This is the trying month of the whole year upon these tender plants. And "tender" is not quite the word, for with very few exceptions the plants are all hardy. But to illustrate: The plants are small; roots fine and easily broken; and as we have often seen, easily lifted quite out of the ground by the action of the frost. The same, precisely, as wheat is "hove out" in many parts where the winter cereal is grown. All farmers know the loss attending such frosty visitations and all gardeners will soon learn, unless they take heed in time to avoid it.

Strawberry beds should be covered with clean litter, i. e. free from foul seeds, in the fall or early winter, but as the damage is usually done in March, it is not now too late to derive the benefit from protection, and we find that to a great extent no protection has yet been given. All who have neglected doing so, should, as soon as the snow settles away from their beds, leaving them bare or nearly so, cover them with some material, coarse litter. straw, chip manure, sawdust, or other refuge, always accumulating about the house and stables, and
which is just as easily turned to a good account as thrown away.
But be not over kind; too much of a good thing spoils the whole. Plants must have "breathing holes." Just as easy to smother them as anything living, which we can see "move and have its being." Let the "covering be one or two inches thick after setting." This covering is not given on account of any constitutional tenderness of the plants, but to save their vigor, and that their whole strength may be given to the growth and development of the plant the coming season instead of one half or more being expended in reclaiming the lost vitality of the preceding season.

Yours Truly, o. S. Willey.

## THE BEE KEEPER.

## More About the Italian Honey Bee.

We are naturally inclined to be cautions in recommending any new thing until fully satisfied of its superiority; and it is not our purpose to "go it blind" on the Italian Bee question. But inasmuch as we have resolved upon urging the importance of bee-culture in Wisconsin, it is certainly proper that we furnish our readers with all the information at our command relative to varieties. It is not impossible that the merits of the Italian are over-estimated, but some of the best culturists in the United States concur in the highest encomiums, and it is hardly reasonable to suppose their opinions entirely, without foundation.
The California Culturist devotes much space to a discussion of the subject in the Dec. No., and claims to have watched the progress of the introduction and culture of this variety of the bee with much care.The Editor says: "We believe that the superiority of the Italian bee is no longer questionable, even among apiarians who have large stocks of the common bee for sale." From a number of letters published on the subject, we quote two or three, whose authors are most widely known-one from Rev. Mr. Langstroth, a careful, conscientious man, and author of the best work on bee-culture with which we are acquainted; one from Dr. J. P. Kirkland, one of the most reliable naturalists of Ohio; and a portion of another from Mr. Brackett, the sculptor, first published in the American Agriculturalist.

## LETTER FROM REV. L. L. LANGSTROTH.

I have three colonies (artificial swarms) to which the Italian queen were given in June. All the common bees appear to have died, and if we may judge from the working of these colonies, the Italians will fully sustain their European reputation. They have gathered more than twice as much honey as the swarms of the common bee. This, however, has been chiefly gathered within the last few weeks, during which time, the swarms of common bees have increased but very little in weight. The season has been eminently unfavorable for the new swarns-one of the very worst I ever knew-and the prospect is, I shall have to feed all of them except the Italians.
Aug. 24th, '60. L. L. Langstroth.

## LETTER FROM DR. J. P. KIRTLAND.

In your last letter, you expressed a wish to hear from me, the result of my experience with the Italians, etc.

1st. Their disposition to labor far excels that of the common kind. From the earliest dawn of day to the arrival of evening, they are invariably passing in and out of the hive, and rarely suspend their work for wind, heat or moderate showers-at times when not a single individual of the common kind is to be seen. Two hours, each day, their labors are extended beyond the working time of the last named kind.
2d. Power of endurance, and especially of resisting the impression of cold, they possess in a marked degree. Since the buckwheat, solidagos and astus have flowered in this vicinity, the nights have been remarkably cold. This low temperature has, in a great measure, suspended the efforts of the common bees, and they have been eating their previously accumulated stores. Not so with the Italians; they have been steadily accumulating honey and bee bread, and rapidly multiplying their numbers. They seem peculiarly adapted to resist the chilly atmosphere, and high winds, which predominate in autumn, on the shores of Lake Erie.

2d. Prolificness they equally excel in. Both my full and half-blooded stocks have become numerous and strong in numbers, as well as in stores, at this late season of the year, when the common kind have ceased increasing, and have become nearly passive.
4tb. Their individual strength is greater; and this is well illustrated in their prompt manner of tossing to a great distance, any robber that chances to approach their hive.
5th. Their beauty of color and graceful form, render them an object of interest to every person of taste. My colonies are daily admired by many visitors.
6 th . Of their moral character, I cannot speak favorably. If robbing of weaker colonies is going on, these yellow jackets are sure to be on hand. So far as my experience has gone with them, I find every
statement in regard to their superiority sustained. They will no doubt, prove a valuable acquisition to localitics of high altitudes, and will be peculiarly adapted to the climate of Washington Territory, Oregon and the mountainous regions of California.
J. P. Kirtland.

Cleveland, Ohio, Sept. 13th, 1860.

## Letter from mr. A. e. brackett.

"* I think it too soon to
form any certain opinion in regard to the Italian bees in this country. We must, therefore, still, in a great measure, depend on the statements of German bee keepers, and that is universally in favor of their great superiority over the black bee. Dzierzon states, that since he has Italianized his apiaries, his yield of honey has been double that obtained from the same number of common bees. My experience, thus far, satisfies me that they that they have not been over-rated. The queens are larger and more prolific. The workers, when bred in comb of their own building, are longer, and their honey casks larger. They are less sensative to cold, and more industrious. In all my handling of them-and I have done so pretty freely, lifting the combs, and examining them almost dainyI have never known one to offer to sting. A queen that I received in June, and introduced to a strong stock of bees, in eleven days filled thirteen sheets of combe with brood and eggs. There is, at present, scarcely a black bee in the hive, so rapid has been the change. Although I have taken from it large quantities of worker brood and sealed drones, the hive is still overflowing.

Allow me to suggest to you an idea that may be of importance. They are in a state of nature, susceptible, in my opinion, of great improvement-at least as far as form and color goes-by culture and careful breeding. In order to do this, they should be allowed to build their own comb, as soon as may be, and the largest and best colored queens be selected to breed from-avoiding breeding in-and-in as much as possible.
I have received a letter from a friend, stating that one of the queens is quite dark; and he seems quite troubled about it. A little knowledge, if not a dangerous thing, is sometimes an uncomfortable one. Every one at all familiar with the common black bees, knows very well that their queens vary much in color, and I see no reason why the Italians should not do the same, within certain limits, and still be true to the race. Those whoare anxious to have high colored queens, must resort to careful breeding."

Froge, Bee-eaters.-L. Varney notes in the New England Farmer that he has found frogs close to bee-hives in the evening, and inclines to the belief that they eat the insects.

## MECHANICAL.

## Paine's Improved Surveyor's Measure and Tackle Case.

The inventor of this valuable instrument is W. H. Paine, Esq., of Sheboygan Wisconsin. It
 was patented in July and August, 1860, and is being introduced in the Government
Surveys, having received the endorsemn't of many of

the most distinguished engineers in the United States, including Prof. A. D. Bache, Superintendent U. S. Coast Survey ; Jos. S. Wilson, Commisssioner U. S. General Land Office ; and Prof. Jos. Henry, Secretary Smithsonian Institute.

Lt. Col. Graham, who is probably well known to most of our Surveyors, writes as follows concerning it :

## Opfice op General Superintendence op Lake Harbor Improvements, Сhicago, Jan. 25, 1861. $\}$

I have examined with great interest the "Improved Surveyor's Measure," invented by Mr. W. H. Paine, of Sheboygan, Wisconsin, and am fully impressed with the great, advantages it combines, over the common Surveyor's Chain, both in regard to accuracy and rapidity of work. Although I have not had an opportunity of using it myself in surveying, yet I see so plainly wherein it overcomes the chief impediments to that degree of accuracy which is desirable, and which the old methods do not secure, that Ido not hesitate to recommend it to the favorable attention of all practical Surveyors.
(Signed')
J. D. GRAHAM,

Lt. Col. Sup't Engineer, U. S. Army.

## description of the measure and case.

The following description has been furnished us by the inventor:

[^0]strap, by which it may be suspended at the side of the chain-carrier. On the front is a tbermometer, by reference to which the compensatory scale is adjusted.The usual complement of marking pins are carried in a convenient positiou, while the outs, or tally record, is kept by turning the knob on the frout to the proper figure.
"The Measure, when not in use; is received and coiled within the Case, the handles being detatched
and placed in pockets on each side."

## MeCormick's Reaper.

Believing that Mr. McCormick had enjoyed the Reaper monopoly about long enough, the Executive Committee of the State Agricultural Society, at their recent meeting, took the matter under consideration and after some discussion instyucted the Secretary to prepare a memorial against the reissue of the patent to McCormick, and to forward the same forthwith to the Commissioner of Patents. The following is a copy as unanimously adopted by the Committee. We trust it fairly represents the farmers of Wisconsin :
7b the Honorable, the American Cemmissioner of Patents:
The undersigned memorialists, for and by authority of the Executive Committee of the Wisconsin State Agricultural Society, would respectfully represent :
That, while the immediate object in the issue of patents by the Government, on labor saving machinery, is to secure to the inventor a fair compensation for his ingenuity and skill, nevertheless the great ultimate end to be attai_ed thereby, is the more rapid progress of the arts of civilization, and the consequent elevation of the masses who labor, whether as manufacturers or as producers from the soil
This being granted, your memorialists further re prekent, that patents should never be re-issued in cases where the patentee has derived an adequate remunerstion for talent and labor expended, inasmuch as such renewal of his privilege of exclusion must necessarily continue a burdensome tax on the industrial classes, the effect of which cannot be other than to retard that very progress whicn the original issue was intended to promote.
They further represent that the application of Mr. Cyrus W. McCormick, of Chicago, Ill., for a renewal of the patent on his reaper is pre-eminently of the class referred to above, and therefore ought not to be granted. For fourteen years he has enjoyed exclusive ptivileges, which have yielded him ten to fifteen dollars ou the immense number of machines sold within that period of time, and an aggregate wealth of perhaps one or two millions of dollars.
The reaping machine has come to be a necessity in the grain fields of our country, and it is manifestly unjast that the farmers, upon whose industry the prosperity of the country so essentially depends, should be compelled to longer pay tribute to one who has already been made oppulent through their liberal patronage.
Not less than three thousand reapers of eifferent patterns-yet all using patented portions of the McCormick machine-have been sold in Wisconsin the past year, and it is reasonable to estimate that the total of fees which would accrue to Mr. McCormick within the ncxt seven years in the event of a renewal, would fall scarcely short of $\$ 2,000,000$.
Your memorialists, therefore, in view of all the foregoing considerations, and impelled by a sense of duty to the hundred thousand farmers whom they directly represent, as well as of justice to the farmers of the whole country, do earncstiy pray that a renewal of the patent in question be not granted to Mr. McCormick.
B. R. HINKLEY, President.
J. W. Hort, Secretary.

State Agricultural Rooms, Madison, Wis., Feb. 6,

## New American Inventions.

The following reports of some of the most useful inventions recently patented in this country are gleaned from the Scientific Am.:

## MACHINE FOR SEWING BOOTS AND SHOES.

The object of these improvements for making stitched boots or shoes by mechanism is to hold the work done on the table or bed plate of the machine as near the awl and needle as possible, and to keep the channel formed on the outside of the ou er sole, open, so that the seam will follow closely in this channel, that tne raised lip of the channel may be pressed down after the shoe is finished, and present a neat appearance, as if the stitching had been done by hand. The invention also provides for stitching the shanks of the boot or shoe, in which operation the work can be presented to the awl and needle with great facility; and it further provides for keeping the upper from the needle, and for guiding the channel to receive the seam, through the machine; and for sewing light or heary, large or small work. The patentee of ihis invention is Francis D. Dallon, of Abington Mass.

## HEMP DRAKES.

J. B. ucCormick and W. R. Baker, of St. Louis, Mo., for an improvement in Hemp Brakes.
[This invention consists in the employment or use of a rotating drum, provided with spiked or toothed bars, and stationary or operated in a nuvel way, in counection with an endless slatted apron arranged to operate conjointly with tho drum, whereby the hemp may be heckled and scutched or cleaned very expeditiously and without injury to the fibre.]

WOOD-BENDING MACHINES.
Hiram McDonald, of Union Springs, N. Y., for an Improvement in Wood-bending Machines.
[This invention has for its objeet the bending of steamed wood, such as wagon bows, felloes, \&c., into proper shape, by a very expeditious and simple means, and in a pertect manner.]

CORN PLANTERS.
W. C. Willey, of Princeton, Ill., ior an Improvement in Curn Planters.
[The object of this invention is to obtain a simple and efflcient machine for planting corn either inshills or drills, and at a greater or less depth, as may be required. The invention also admits of having its seeddisturbing apparatus operated automatically or manualiy, as may be desired, and without the liability of choking or clogging.]

## haryess for shoeing horses.

J. P. Reynolds, of Mirabile, Mo., assignor of H. II. Robertson aud C. G. Carr, of Kingston, Mo, for an Improved Harness for Shoeing Horses.
[This is an ingenious device for securiug wild or vicious horses while being shod.]

## machine for facing and polishing millstones.

This invention consists in a novel arrangement of cutters, polishing device and gearing, whereby millstones may be faced and polished very expeditiously and in a perfect manner, and the individual blocks of a stone also roughed oft and faced before being connected together by simply using a check or holding plate. Edmund Munsen, of Utica, N. Y., is the patentee of this invention.

## bolling tire.

The object of this invention is to produce a tire o uniform width all round and with smooth and well finished edges, and the invention consists in the employment, in combination with the ordinary pressing rellers, of a top roller acting on the edge of the tire previous to its passing throuph between the ordinary pressing rollers, said top roller being arranged in a lever, or connected with some other similar device, to produce the requisite pressure on the edge of the tire. The lever to which said top roller is attached has its fulcrum in a swivel head, which allows of adjusting said roller to the varying diameters of different tires, and flanged guide rollers serve to facilitate the motion of the tire while the operation of rolling proceeds.The credit of this invention is due to S . Jaqua, of Patterson, N. J.

## HABVEsters.

C. G. Dickinson, of Poughkeepsie, N. Y.. for an Improvement in Harvvesters.
[The object of this invention is to obtain a simple, economical and efficient means for elevating the finger bar and sickle to enable them to pass over obstructions that may be in their path, and also to enable the machine to be drawn from place to place, the parts being so arranged that the driving mechanism will be automatically thrown out of gear as the finger bar and sickle are raised, and thrown in gear as they are depressed or allowed to descend to their working position.]

## sHingle bawer.

A. F. French, of Franklin, Vt., for an Improved Machine for Sawing Shingles from the Block.
[This invention relates to an improvement in that class of shingle machines in which snws are employed for cutting the shingles from the bolt. The object of the invention is to obtain a simple and economical machine that will perform its work very expeditiously and in a perfect manner.
machings for digaing potatozs.
DeWitt Clinton and Ives Lynd, of Poestenkill, N. Y., for an Improvement in Machines for Digging Potatoes.
[This invention consists in the use of an adjustable scoop, in connection with an adjustable reciprocating screw, the above parts being placed on a mounted frame and so arranged that the potatoes, as the machine is drawn along, are dug from the hills or drills, separated from the earth and deposited on the top of the ground, the work being performed in an expeditious and perfect manner.

## MOLE PLOWs.

J. A. Hammer and J. P. Gordon, of Lisbon, Iowa, for an Improvement in Mole Plows.
[This invention consists in the combination with the adjusting lever, of a toothed arc, pinion, notched disk, dog and crank, for the purpose of adjusting the mole to the desired depth, and also in arranging the adjnsting lever with a friction roller in its end, which in combination with a round pin behind the coulter, serves to facilitate the up-and-down motion of the latter.]

## Harvesters.

J. B. Tinker, of Plymouth, N. Y., for an Improvement in Harvesters.
[This invention relates, first, to a novel and improved means for lowering or raising the sickle or cutting device, whereby the aame may be raised horizontally and bodily without affecting, in its movement, the framing of the machine or interfering at all with the sickle-driving mechanism. The invention relates, second, to a peculiarity in the construction and arrangement of the cutting device,, whereby the crank movement or stroke may be quite short and rapid cutting insurred without the liability of choking or clogging, a contingency of frequent occurrence in using the reciprocating sickles.]

RAEES FOR HARVESTERS.
T. S. Whitenack, of Easton, Pa , for an Improvement in Rakes for Harvestres.
[This invention relates to certain improvements in th. $t$ class of raking attachments for harvesters in which the rake and beaters, in passing over the platiorm, describe the arc of a circfe in a horizontal plane. The object of the invention is to apply this class of raking device to the machine in such a way as to admit of the use of a driver's seat on the machine and also to admit of the regulating of the rake and beaters as regards the height of the movement over the platform and the perfect adaptation of the former to the latter as circumstances may require.]

> CLAMPING MACHINE.

Wm. R. Axe, of Beloit, Wis., for an improved Clamping machine.
mproved harvester.
George Esterly, of Whitewater, Wis, the well known inventer of Esterly Harvester has obtained a patent upon a material improvement in Harvesting Machinee.

卫S A machine for milking cows, is among the wonderful inventions of the past year. Have any of our dairy men tried them?

## EDUCATIONAL.

## State University-The Chancellorship.

The resignation of Dr. Barnard, late Chancellor of the Wisconsin State University, which was tendered to the Board of Regents last summer, has finally been accepted. Great hopes had been entertained that he would inaugurate a new area in the history of the institution and in due time succeed in securing to it the rank and usefulness justified by its position and endowment. Unfortunately, however, the Dr.'s health which was feeble when he assumed the duties of Chancellor, had so far failed him before the expiration of his first year, that he felt compelled to desist from labor and return home to Hartford.

When he came to our State in the summer of 1859 and assumed the double duties of Chancellor and Agent of the Board of Normal Schools of the State, he was heralded far and wide, and the press could hardly find words sufficiently eulogistic of his remarkable antecedents and his transcendant ability as an educationist. And now, on the other hand, since he has necessarily failed to execute the impossible programme which his own laudable ambition and educational enthusiasm allowed to be marked out for him, these same papers are equally extravagant in their detractions and denunciations. This is certainly wrong. Moderation at the first, and just judgment, in the second place, would certainly have been more worthy, though, perhaps, not so characteristic of our western journals.

We have never been very partial to Dr. Barnard; indeed, for certain important educational reasons, we were opposed to his appointment as the executive head of the University; but neither that difference of opinion nor his subsequent failure to accomplish what was exacted of him by his admirers, have blinded us to his real worth as an earnest friend and efficient promoter of the noble cause of popular education. As an author and editor he has fairly won a first position among the educational men of this country, and we most sincerely and deeply deplore that shattered state of health which has forced him to relinquish this new and most interesting, though difficult, field of labor, where he had fondly hoped to ac-
complish so much for the future of our young and prosperous State.
Had he confined his efforts exclusively to either the Chancellorship or the Agency, it is possible that his declining health would not have failed him so almost entirely; but the overdoing in a work of so much interest and importance is certainly a pardonable fault, and we sincerely trust that his brief career in our midst will be contemplated with feelings of genuine and profound regret rather than in a spirit of censoriousness.
Dr. Barnard is yet but a little past the meridian of life, and it is earnestly hoped that in the rest and quiet of his pleasant New England home he may find again that precious boon of health for which his spirit yearns.

The question of the succession is being agitated in the newspapers, and the names of distinguished gentlemen have been proposed for the vacancy. It is hoped, however, that the Regents will be deliberate in their action, and this time make an appointment that shall be permanent and satisfactory. The right man is undoubtedly somewhere ; may the Board of Regents be fortunate enough to find him. Of what should be his qualifications, as also of what modifications of the general policy of the Institution seem to be necessary, we may have something to say in the next number of the Farmbr.

## Educate the Daughters.

In many of the States of the Union, Universities have been endowed for the education of tne "inhabitants" thereof in the higher branches of learning; but in no one of them are the facilities offered to the the youth of the State without an unjust and most unwarrantable distinction in favor of males. We have on several occasions called the attention of the educational public to this important subject, and were intending to prepare an article thereon for this number of the Faryer, when we happily fell upon the late excellent message of the Gov. of Michigan, which treats of this and other educational topies in so able and manly a way, that we cheerfully vacate the chair editorial, for the present, and allow him to speak in our stead.
The world is sadly slow in learning the great lessons of wisdom and justice, but
the signs of the times are nevertheless hopeful. There is a better day dawning for woman, and the time is not far distant when the enlightened world will cast out the names of the blind guides whose office now is to perpetuate the old wrongs of the barbarous ages.

The following is the language of Gov. Wisner:

In my inaugural message of 1859 , I called the attention of the Legislature to the great injustice of excluding our daughters from the State University, at Ann Arbor, and asked that some provision might be made for their education in all the higher branches of learning. I again renew the subject. In 1826 Congress granted to the Territory of Michigan seventy-two sections of land, for the support of "an University, and for no other use and purpose whatsoever." The Legislature, in 1837, organized the "University of Michigan," and by the act of organization specially declared that "it shall be open to all persons residents of this State, who may wish to avail themselves of its advantages." The act of organization contemplated the formation of branches in different parts of the State, and declared that "in connection with every such branch of the University, there shall be established an institution for the education of females in the higher branches of knowledge." It is manifest from this act, that the Legislature contemplated and intended that both sexes should have equal advantages under the law, and that the rich donation made by Congress, was for the mutual benefit "of all persons resident in this State, who might wish to avail themselves of it." The lands thus granted have nearly all been sold, and a trust fund has been created, amounting to one hundred and twenty-two thousand, five hundred and fif-ty-eight dollars and twenty-seven cents, upon which the State pays the University a rate of interest of seven per cent. per annum.

Thus far the females in our State have been denied a joint participation in this fund, and have been excluded from the University, since its first organization. The State should make this right. Not one dollar of money has she, thus far, expended in teaching her daughters the higher branches of learning. We boast of our common school system, as the early nurseries of the future Statesmen, and the very foundation on which our free institutions must ever rest. Yet we could not carry on this system one day without the aid of these females, who are excluded from the University. The annual report of the Superintendent of Public Instruction, for the year 1860 , shows that out of the seven thousand nine hundred and forty-one qualified teachers, in our primary schools, five thousand three hundred and forty-two are females. These female teachers mould the minds of
our children, and stamp upon their youthful intellects impressions as lasting as life.

The influence which they exert upon the rising generation is far greater than that of the male teachers, and in the same proportion as they are educated will this influence be beneficial; and yet the State moves on apparently indifferent, and without making the slightest effort towards educating our daughters in "the higher branches of learning." For twenty years the University fund, which is the joint property of both sexes, has been exclusively devoted towards educating our sons.

## THE H0ME.

## To American Mothers of ' 61 .

> BY MR8. HOYT.
> Come neighbor, and sit by my fire; These are days but few of us smile, And the cheeriest think of the morrow ; Leave work, and be with me awhile.
> Dids't think it would come to this, In less than a hundred years,
> When reading our grandsires' victories Between rejoicing tears ?
> Greed, wrath, confusion, perjured strife, Hate, Treason's red right hand, Ambitions foul, and fierced-faced war, All abroad in this beautiful land.

I know they are many and just, Who stand in the breach to-day, And with patriot zeal, right royally, Are pointing the better way.

But, good neighbor, do you see it, How they falter there to tread? For they love this old-time Union, Thinking of theglorious dead.
And who wonders ? One whose blood Helped to win us Bunker's glory Closed, but yesterday, his eyes, Dreaming still that brave old story.
Every child has heard of Yorktown; Still the Delaware is flowing;
Trenton Heights and Valley ForgeSpeak these words, and fires are glowing.

They will compromise and save it; But when Union flags are waving,
Swift as timeis, sure as truth is, It will need another saving.

Now what can we women do
To save this mighty nation ?
From troubled times, that bode us ill,
To save this dear-bought nation ?
Ive thought ot it, when my palse beat high, And when my heart stood still;
For well I know, of what we sow The harvests of God will fill.
Mother, your boys are like eagles ; My darlings have eyes of blue;
Let us take them often upon our knees And tell them the things that are true.
"Children," let us say to them,
"Christ meant what he said,
When he spake that Golden Rule
You have so often read;
"And just the things that you would like To have others do to you,
These are the things, my children, That he has bid you do."

When we look into their faces, Let us see that every word
Wakens thoughts by which we would choose To have their young hearts stirred.

Principles are not opinions; Let that truth be deeply sown; Make them see it, make them feel it. Help them make the pure their ownPrinciples for all life's conduct, Firm as Heaven's eternal throne.

We must leave them, leave them neighbor, To the conflict error wages,
Battering at the holy shrines
Ot Truth, through tardy ages.
But if we do all our duty,
Leave them staunch and royal men,
When next our Union's Freedom altars
Are assailed by base defaulters,
Be sure our boys will save it then.
Madison, Jan. 17, 1860.

## Heroism of Private Life.

The following extracts from Grace Greenwood's lectures on the heroism in Common Life we clip from an exchange. The subject could not have been touched in a more truthful manner or have been better delineated by the gifted lecturer :
"The heroism of private life, the slow, unchronicled martyrdoms of the heart, who shall remember? Greater than any knightly dragon slayer of old, is the man who overcomes an unholy passion, sets his foot upon it, and stands serene in virtue.Grander than the Zenobia is the woman who struggles with a love that would wrong another or degrade her own soul, and conquers. The young man, ardert and tender, who turns from the dear love of woman, and buries deeply in his heart the sweet instinct of paternity, to devote himself to the care and support of aged parents or an unfortunate sister, and whose life is a long sacrifice in manly cheerfulness and majestic uncomplaint, is a hero of the rarest type-the type of Charles Lamb. I have known but two such.
"The young woman who resolutely stays with the father and mother in the old home, while brothers and sisters go forth to happy homes of their own; who cheerfully lays upon the altar of filial duty that costliest of human sacrifices, the joy of loving and being loved - she is a heroine. I have known many such. The husband who goes home from the weary routine and the perplexing cares of his business with a cheerful smile and a loving word for his invalid wife ; who bringe
not against her the grievous sins of a long sickness, and reproaches her not for the cost and discomfort thereof; who sees in her languid eye something dearer than girlish laughter, in the sad face and faded cheeks that blossoms into smiles and even blushes at his coming, something lovlier than the old-time spring roses-he is a hero. I think I know one such. The wife who bears her part in the burden of life-even though it be the larger part-bravely ! cheerfully ! never dreaming that she is a heroine, much less a martyr; who bears with the faults of a husband, not altogether congenial, with loving patience and a large charity, and with a noble decision hiding them from the world -who makes no confidents and asks no confidencies; who refrains from brooding over short-comings in sympathy and sentiment, and from seeking for perilous 'affinities;' who does not build high tragedy sorrows on the inevitable, nor feel an earthquake in every family jar; who sees her husband united with herself indissolubly and eternally in their children-she, the wife in very truth; in inward as in the outward, is a heroine, though of rather an unfashionable type."

## The Mortgage.

The house is high, and decorated round
With architecture's cunningest inventions; Within, arts hold harmonious contentions, And luxury a temple there has found
But o'er the roof and all the ample ground,
Noiseless, yet of the most malign intentions, A viewless thing the master never mentions, Though unto his sole vision it is bound,
Whether he wakes or sleeps, has settled firm;
Henceforth to hang unbidden ever nigh, Haunt all his hours close as the undying worm; And, when he feeds his guests, unceasingly Before him stalk, unseen of others's eyes, Threat'ning to drive him from his paradise.

## The Cultivator.

## BY J. G. WHITTIER.

Give fools their gold and knaves their power, Let fortune's bubbles rise and fall; Who sows a field, or trains a flower, Or plants a tree, is more than all.
For he who blesses most is blest; And God and man shall own his worth, Who toils to leave as his bequest An added beauty to the earth.

And, soon or late, to all that sow, The time of harvest shall be given,
The flower shall bloom, the fruit shall grow, If not on earth, at last in heaven.

躬 At the age of seventy-five one must, of course, think frequently of death. But this thought never gives me the least uneasi-ness-I am fully convinced that the soul is indestructible, and that its activity will continue through eternity. It is like the sun, which, which seems, to our earthly eyes, to set in the night, but is in reality gone to diffuse its light elsewhere. Even while sinking, it remains the same sun.-[Goethe.

Little Things.-Springs are little things, but they are the sources of large streams; a helm is a little thing, but mark how evenly it governs the courze of the largest ship that ever floated the whters; pegs and nails are little things, but they hold together the large parts of the largest buildings; that memento sent to us by a friend is a little thing, and cost perhaps but little of the world's wealth, for it is of the simplest kind, and yet it expresses the universe, for it is a thought of love, clothed in a form of beauty; an angry word, a jealous thought, a frown-all these are little things, but powerful for evil, and are helping to build penitentiaries and prisons, and to fill them with those who merely have carried the same passions and feelings further than we have. Mind the little things.

Content.-I tell you, if a man has come to that point where he is content he ought to be put in his coffin, for a contented living man is a sham! If a man has come to that state in which he says, "I do not want to know any more, or do any more, or be any worse," he is in a state in which he ought to change into a mummy. Of all hideous things, mummies are the most hideous; of mummies, those are the most hideous that are running about the streets and talking.[Beecher.

A BABE is a mother's anchor. She cannot swing far from her moorings. And yet a true mother never lives so little in the present as when by the side of the cradle. Her thoughts follow the imagined fature of her child. That is the boldest of pilots, and guides her fearless thoughts down through the scenes of coming years. The old ark never made such a voyage as the cradle daily makes.- [Beecher.

TS There is a vacant smile, a cold smile, a smile of hate, a satiric smile, an affected smile, a smile of approbation, a friendly smile; but above all, a smile of love. A woman has two smiles that an angel might envy-the smile that accepts a lover before the words are uttered, and the smile that lights on the first-born baby, and assures him a mother's love.
$\$$ What greater thing is there for two human souls than to feel that they are joined for life-to strengthen each other in all labor, to rest on each other in all sorrow, to minister to each other in all pain, and to be one with each other in silent unspeakable memories at the moment of the last parting? -[Adam Bede.

The Punctual Man.-A punctual man is very rarely a poor man, and never a man of doubtful credit. His small accounts are frequently settled, and he never meets with difficulty in raising money to pay large demands. Small debts neglected, ruin credit, and when a man has lost that, he will find himself at the bottom of a hill he cannot ascend."

## HEALTH AND DISEASE.

## Diphtheria.

This disease has prevailed so extensively and so fatally in this country during the present winter that it has come to be a subject of very great interest and importance to the public. Much has been said of it in the medical journals and in the newspapers, but the most valuable article we have yet seen, is from the pen of Prof. C. H. Cleaveland, M. D., of Cincinnati. It is found in the Journal of Rational Medicine, of which he is the able Editor, and covers the whole field of enquiry.

From this article we learn that Diphtheria (from diphthera, a skin or membrane) has had various periods of prevalence in different countries from very early times.
A full description of the disease would not be appropriate to an agricultural journal, but inasmuch as many of our readers live remote from any physician, and as prompt and judicious action may be necessary to save life, we have thought it well to quote a few brief passages which relate to symptoms and treatment, giving in parenthesis the signification of such technical terms as might not otherwise be understood.

Concerning distinctive symptoms the author observes:

* But the disease is not always insidious in its approaches. It sometimes comes on with great rapidity, without any premonitory symptoms, and may terminate fatally in a few hours, or in a day or two.

The patient, perhaps more frequently than otherwise, is taken in the morning, with the usual symptoms of cold, or if the the attack is quite severe he will become drowsy or even almost stupid, but does not complain of his throat. If the physician makes enquiry, he will persist in saying there is no soreness or uneasiness or derangement in the throat, even after the pellicle has extended quite over the fauces (back part of mouth) and throat.
At other times there will be observed a slight uneasiness in the throat accompanied with a little difficulty of swallowing, a little distress in the pharynx, (top of œesophagus or gullet) and some difficulty in turning the head.
Soon there will be considerable swelling, hardness and tumefaction of the sub-maxillary and cervical glands (glands under the lower jaw and of the neek); the face will look puffy and swollen; and the eyes will be a little red, swollen, and quite moist, as though the patient had been slight-
ly choked in trying to swallow a hard substance. If the throat is examined at this stage, the gutteral faucæ (parts far back and low down in the mouth) will be seen to be dark red in adults but of a rose-color in children; the redness being quite noticeable on the soft palate and as far forward as the wisdom teeth, but not apparently affecting tongue or gums. One of the tonsils may be a little swollen, but it is quite seldom that both are enlarged; the uvula (soft body hanging just behind the palate) is swollen, elongated, and tumified; there is commonly a discharge of watery matter from the nose, and moisture in the eyes, but but neither sneezing nor cough.
Usually there is but little fever, perhaps not any, and children sport about the house and retain nearly their ordinary appetite for food. But in those cases of sudden attack referred to, the disease, even from the first, is so intense as to excite the apprehensions of the patient and friends, and to produce great and immediate danger. This form of disease may terminate fatally in a a few heurs, or continue several days and the patient then sink; or, after a longer period the patient may finally recover.

When the disease is more aggravated in its attack, it may arrive at its maximum of intensity and danger in a very few hours, or in a day or two. In those cases the tonsils rapidly swell and become so large as to touch each other; the velum palatii (soft palate), and particularly the uvula, becomes so much distended as to render it almost impossible for the patient to swallow liquids, or even to breathe with any freedom. * *
As the disease progresses, the fetid odor of the breath and the cutaneous exhalations become more diffused. The pulse sinks, becomes thready, irregular, and at times scarcely discernable; the extremeties become cold and damp, with a sticky perspiration; the patient grows more drowsy, or very restless and agitated; the face assumes a semi-cadaverous look; and the patient finally expires.

The disease, at times, is very rapid in its approach to a fatal termination; especially if it attacks those already in feeble health, when the pellicle at once assumes a brown color, and its decomposition commences almost immediately. Death has occurred in a very few hours; but more commonly the disease does not have a fatal termination until the end of a week, or one or two days more. As a notable contrast to this malignancy, there are many cases of slight ailment, during an epidemic of diphtheria, presenting some of the characteristics of this disease; and yet the illness is so slight, that even close observers cannot tell positively if it be anything more than the ordinary results of a cold.
The Prof. says, "there seems to be no positive evidence of the contagiousness of diphtheria, but on the contrary, almost any
amount of proof to establish its non-contagious character. It appears to be a purely epidemical disease * * manifesting itself in such localities and aticking such individuals as are most suceptible of its influence."

Remedies.-After discussing the various methods of treatment recommended, the Professor remarks:

* Mild diaphoretics (agents that induce perspiration, mild relaxants, gentle laxatives, and the quietude of the system produced by confinement to the house or room, with as little change from the ordinary diet as the state of the appetite requires, will be all that will be demanded under ordinary circumstances for the general treatment.
As there is a strong tendency to the formation of a pillicle in the throat, and swelling about the gutteral cavity, it is well to give the patient as much of the milder alkalies as the system can dispose of without injury. Bi-carbonate of soda, in doses of from one to ten grains according to the age and condition of the patient, may be dissolved in cold water, or watar thickened with gum or mucilage, to be drank once in half an hour, or every hour or more. If the skin is dry, carbonate of ammonia, dissolved in a similar manner, may take the place of the soda for a little time.
In diphtheria, a membrane somewhat similar to that of croup, is liable to cause great trouble and danger; and its formation should be prevented if possible without injury to qhe general system. Pulverized borax has been introduced into the throat by insufflation (blowing in, as through a quill). Borax dissolved in honey and water, has been used as a gargle, or applied to the fauces and throat by means of a sponge tied to a probang (any smooth pliant stick will do).
A gargle, composed of a very strong solution of common salt, if the pellicle is not yet formed, will produce a flow of fluids through the epithelium (the fine, thin cuticle or skin which lines the mouth, \&ce., and thus cause the fauces and throat to be too moist to allow a pelicle to be formed. If taken early in the attack, repeated very often, at the same time that plenty of soda is taken internally, most cases of diphtheria will pass off without any appearance of the membranous formation.

If a pellicle has already been formed, a salt-and-water gargle will still cause free exsudation of fluids, which may soften and detach the pellicle and prevent it from undergoing the putrefactive decomposition that gives the foul odor to the breath, and through the lungs poisons the blood, and produces disease of the whole system which may be so severe as to throw the patient into the Typhoid Condition, or even to destroy life.

Many articles and preparations have been made use of as internal and local remedies, for the purpose of preventing plastic deposits about the gutteral fosse and for their removal after they have become formed; but none have proved of equal utility to the internal use of soda and the local application of common table salt in solution.
From the very first, a flannel wet with a strong solution of common salt, and plenty of fine salt sprinkled upon it to keep up the
strength of the solution, and folded four or five inches wide so as to cover the entire throat and under the chin, should be kept constantly applied. This will aid the internal medicine and the gargle in preventing engorgement of the cervical and sublingual gland and tissues, as well as the formation of the diphtheretic pellicle on the fauces or down the trachea. It should be worn constantly, day and night, for sometime, and then replaced with a fold or two of dry flannel to be worn until convalescence is fully established.

## YOUTH'S CORNER.



## About Foxes.

There are two prominent species of the fox in this country-the red and the grey. The first named is the more handsome of the two and his fur is most esteemed.Though differing in more respects frome English Fox, still he is considered by many to be quite identical. He is about two feet long and eighteen inches high, has slender legs and bushy tail two-thirds as long as his body. His yeneral color is reddish, especially on the back and sides. In the summer his fur is fine and bright; in the winter longer, thicker and less brilliant.

When pursued, the Red Fox forsakes his haunts and will often run for miles in one direction, though halting occasionally to rest, and then redoubling his speed.

The Grey Fox does not materially differ in sixe, but has a grizzly color, and is usually disposed to keep near his home.

Both species are characterized by extraordinary shyness and cunning, and the Fox has, hence, come to represent these traits
of heman character. Sly as a fox has passed into a proverb.

They do some good by destroying rabbits, mice, moles, \&c., but on the whole are considered " more plague than profit," owing to their strong and incurable propensity to visit the poultry yard.
Being too smart to get into traps and snares, they are usually taken by dogs and guns. In England their capture constitutes one of the finest field sports of the gentry and nobility. Large parties of gentlemen (and often ladies too) mounted upon fast horses and accompanied by packs of hounds, frequently spend their mornings in this healthful and exciting exercise. The cutat the head of this article represents a Fox doing his best to escape a pack of hounds, which, though not visible in the picture, are no doubt close upon his heels. Does n't he go it though ! Been in mischief, no doubt but then we can hardly help wishing he may escape.

But stop! we like to have forgotten that we were talking too long ourself, while our little friend Genaro is waiting to give you all an interesting account of a fox he has tamed. The story is well written and shows plainly that the author is quite as fond of his books as of his pet. We give it exactly in his own language:

Mr. Editor: I am much pleased with your Youth's Corner, and although I am but twelve years old, yet I send you a story of my fox.
About a mile west of my home, on Rock River, one day my brother, while going through the woods, came across a fox burrow. He came home and got the gun and went back to the burrow, and just as he got there he saw the old fos coming home from a hunt. He shot her. Then he dug into the burrow and iound foar little foxes! He took them home and fed them milk for some time; then he gave 2 away. One of the others he gave to me. After they were partly grown they were playful as kittens, and when we fed them they would run upon our shoulders and cut up many funny pranks, and seem quite tame for the time. At other times they would seem quite shy and foxy.

We kept them in a little house near by, made partly under ground. When about a third grown we had them chained, so that they conld go in and out as they pleased.

We shot black birds for them. There was a wood pile near by, and ons night one of them hung himself! My fox kept growing, and when he was as large as a big cat he would twist his chain so hard that it would break, and he would run off to the neighbor's hen house and catch chickens and bring them part way home and bury them in the snow for some future day, and then come home. One day while he was loose the neighbor's pigs came into our garden and my fox chased one like a dog, and made it run.
Thus ends the story of my fox.
A. Genaro Kellogg.

Janesville, Wis., Feb. 15th, 1861.

- A man lately put his dog to bed, and and kicked himself down stairs; he did not discover his mistake until he tried to chase a cow and could n't bark.


## NEWS DEPARTMENT.

## THE DOINGS OF AGRICULTURAL SOCIETIES.

## State Agricultural Society.

The first regular meeting of the Executive Committee of the Wisconsin State Agricultural Society ter the current year, was commenced on the Sth and adjourned on the 7th ult. There were present Messrs. B.R. Hinkley, of Waukesha connty, president; B. Pinkney, of Fond du Lac ; H. M. Billings, of Iowa; David Wiliiams, of Walworth; C. Loftus Martin, of Rock; Nelson Dewey, of Grant; O. T. Maxon, of Pierce; B. Ferguson, of Dodge; and David Atwood, H. P. Hall and J. W. Hoyt, of Dane.
The report of the Secretary, embracing a detailed exhibit of the finances of the Society, and of the provision made for the proper care of the buildings and other property belonging to the Society, was read and approved. The volume of Transactions for 1860 was reported as being in a state of forwardness of preparation for the press, and as comprising, in addition to the usual proceedings of the State, County and Fruit Grower's Associations, and the Annual Addresses, valuable essays, \&c., which characterize the last volume, a series of reports of the several counties in the State, embracing, in general terms, their natural reeources and present industrial condition; also the industrial statistices furnished by the U. S. census.

The Premium List and Regulations for the Fair were amended by the increase of premiums in the important departments, and by the adoption of a new ticketsystem which cannot fail to give universal satisfaction -the main features being that exhibtors will be allowed free ingress and egrees during the Fair, without extra charge, and that day tickets art to be issued instead of single admission tickets, for the fee of 25 cents. This system is a more liberal one than has ever before been adopted by any State Society, but it is believed that its very liberality will afford the Society greater security against fraud than a narrower policy, the natural tendency of which would be provocative of a disposition to avoid the prescribed regulations.
Among the important prizes offered the present yearthre, $\$ 200$ for that machine which shall accomplish the nost thorough disintegration of the soil with the greatest economy of labor, time and moner; a Banner worth $\$ 100$, for the mest creditable exhibition by any one County; aud handsome prizes in silver plate for the best, second best, and third best farms that may be entered for competition.

The Committee have likewise had under consideration the importance of an Agricultural Survey of the several counties in the State, with a view to a more thorough knowledge of their natural resources, condition and wants, and have decided to inaugurate the policy by authorizing the survey of Dane County, under the direction of the Secretary of the Society. This importani work will be commenced early next summer and is to embrace a careful investigation into the topography, geology, botany, and practical industry of the county.

Under the head of incidental business, the Committhe adopted a memorial to the Commissioner of Patents, praying that there be no extension of the McCormick Reaper patent ; for which see Mechanical Department. The Eleventh Annual Exhibition will be held on September 23d to 28 th.

## Wisconsin Agr'l and Mech'l Ass'n.

At the Annual Meeting of the Board of Directors of the Wisconsin Agricultural and Mechanical Association, held in Milwaukee, on the 23d of Jan., the following officers were elected for the present year:President, T. C. Dousman; Vice Presidents, Alexander Mitchell, H. Crocker, J. V. Robbins, B. Ferguson, H. Durkee, Moses Whitesides and W. D. McIndoe; Secretary, I. A. Lapham; Treasurer, Harrison Ludington; Executive Committee, T. C. Dousman, S. S. Daggett, Simon Ruble, W. H. Hobkirk, J. L. Burnham, and S. B. Davis.

The Annual Fair will commence on the $2 d$ of September. Liberal premiums are to be offered.

## County Societies.

st. croix county societt,
At the Annual Meeting of the St. Creix County Agricultural Society, held in the city of Hudson, on the 18th day of December A. D., 1860, the following officers were elected for the current year, to wit:President, Silas Staples; Vice Presidents, Dr. J. N. Van Slyke, John Thayer and M. L. Wadsworth; Re. cording Secretary, S. S. Starr; Corresponding Secretary, Alfred Day; Treasurer, John Gibson.
Isupposed, Mr. Editor, these had been sent you long ago by the Corresponding Secretary, but as it is " bet. ter late than never" I now send them.

> Yours truly, S. S. STARR, Recording Sec'y. St. Croix Co. Ag. Society.

## bacing county society.

At the Annual Meeting of the Racine County Agricultural Society, held at Union Grove, on Monday, January 7th, 1861, the following officers were elected: President, Jerome I. Case, of Racine city ; Vice President, F. H. Trowbridge of the town of Burlington; Treasurer, Francis Drake, of Mt. Pleasant; Secretary. Gustavus Goodrich, of Raymond; Chief Marshal, Bruce E. McCoy, of Mt. Pleasant.

## GUSTAVUS GOODRICH, Sec'y.

## COLUMBIA COUNTY society.

The officers of the Columbia County Agricultural Society for 1861 are: President, Daniel White, of Dekora; Vise Presidents, J. Q. Adams, of Falll River and R. T. Graves, of Cambria; Secretary, Henry Converse of Wyocena; Treasurer, F. C. Curtis, of Rocky Run ; Executive Committee, II. L. Haskell, of Portage: Jona Whitney, of Portage; A. W. Ingalsbee, of Columbus; C. L. Brown, of Leeds; Wm. N. Baker, of Lodi.

Yours, \&c.,

> HENRY CONVERSE, Sec'y.

## mock county society.

At the Annual Meeting of the Rock County Agricultural Society and Mechanics Institute, in December last, the following gentlemen were elected officers:Jos. Spaulding, President; W. Lester, Treasurer; J. S. Strasburger, Recording Secretary; Winfield S. Chase, Corresponding .Secretary : also a worthy man from each Town as a Director. The principal topic before the meeting was that "old debt" which hangs like a great incubus upon the prosperity of the Society. A plan was adopted which, we are in strong hopes, if carried out faithfully, would at once relieve us, and place us once more in the lead for getting up a Fair.
W. S. CHASE, Cor. Sec'y.

## STATE AND LOCAL ITEMS.

- According to the statistics of the Secretary of State, the expenditures and resources of Wisconsin, for 1861, will be as follows:-


## EXPENBES.

Salaries and Permanent appropriations .... \$30,406 25 Legislative Expenses................................. 71,564 45 State Prison and Charitable Institutions.... 105,00000 Miscellaneous, of all kinds......................... 103,471 00

Total,
$\$ 360,74240$ besuurces.
Balance in money, Sept. 30, 1860................ $\$ 39,04546$
Stae Tax of 1860............................................ 150,00000
From all other sources.............................. 280,285 58
Total. $\$ 469,33104$

- The following shows the total earnings of the La Crosse and Milwaukee, and the Milwaukee and Mississippi railroads, for the past year:

| Length. | Total Earn'gs | Earnings |
| :---: | :---: | :---: |
| miles. | 1860. | per mile. |
| . 200 | $\$ 756,47575$ | $\$ 2,78238$ |
| .. 235 | 799,84145 | 3,40358 |

$\begin{array}{lllllll}\text { LaC. \& Mil. R. R...... } 200 & \$ 756,475 & 75 & \$ 2,782 & 38 \\ \text { Mil. \& Miss. R. R....... } 235 & 799,841 & 45 & 3,403 & 58\end{array}$

- The Mil, $\boldsymbol{\&}$ Miss. R. R. having been purchased by Mr, L. H. Meyer, on behalf of the trustees, creditors and several bond-holders, the company has been organized under the name of "The Milwaukee and Prairie du Chien Railway Co." The officers of the new courpany are: President, L. H. Meyer; Vice President, John Catlin; General Manager, James C. Spencer; Superintendent, Wm. Jervis; Secretary and Treasurer, Wm. Taintor; Directors, L. H. Meyer, John Catlin, W. Seball, Wm. P. Lynde, Allen Campbell, John Wilkinson, H. L. Dousman, Geo, Smith, N. A. Cowdry.
- The Watertown Democrat says that there is an extensive business of buying and packing pork for foreign markets carried on in that city. One dealer has already expended $\$ 16,000$ in buying pork, and before the season is over, probably his investment will reach as high as $\$ 25,000$. He has purchased over 1,000 hogs, the average weight of which was 273 lbs. Most of the hogs bought are cured as bacon and shipped to England.
- A correspondent gives encouraging accounts of farming in Dunn Co., naming a farm, belonging to the Menomonee Mill Co., consisting of 600 acres, that is well fenced, and last year yielded 2,200 bushels of wheat, 4,400 of oats, 1,800 of vorn, 1,500 of rutabagas, 4,800 of potatocs. 50 tons of English hay, "any amount" of wild hay, and a large number of fat cattle.
- The New York Central Railroad Company have leased the large warehouse and grain elevator of the late firm of Hathaway \& Penn, Green Bay, and are preparing for an extensive forwarding business. Steam power is to be used for the elevator. This company are also building several boats to run between Fond du Lac and Green Bay.
- The Chicago and Northwestern R. R. has been completed to Neenah, and will soon reach Appleton. Over one thousand barrels of flour are now shipped from Neenah per day,
- The La Crossc Repuhlican estimates the lumbering operations of the St. Croix, Chippewa, Black and Wisconsin rivers at $250,000,000$ feet for the year.
- Anothe artesian well has been discovered in Fcnd du Lac. There are 200 in that place.
- The Elkhorn Independent says the diphtheria is having a fatal prevalence in Walworth County.
- By a recent fire in Menomonee, Waukesha county, four children of a Mr. Codigan, lost their lives.
- The Portage City Record notes the shipment from that place during the six months previous to Feb. 1, of 71,075 bushels of wheat, the equivalent of 30,000 bushels in flour, and 502,624 lbs pork. One firm have purchased pork to the value of $\$ 15,000$.
- The St. Croixan gives a graphic account of a contest between a wild cat and a Mrs. Wicks and her dog' in which this varmint came off second best, losing his head by a blow of the heroine's ax.
- The Oshkosh Courier says W. M. Greenwood, late Clerk of the Board of Supervisors of that County, has been arrested on charge of embezzlement and forgery. The charge was preferred by Eli Stilson, Chairman.The amount in question is about $\$ 1,700$.
- According to the Chicago papers, Manitowoc has shipped more shingles during the past year than any other port on Lake Michigan-nearly $400,000,000$ in all. The prices are now low.
- The Baraboo Republic, and other papers in the western part of the State, complains of the frequent depredatio as of a rascally gang of thieves.
- Thirteen students were recently expelled from Be loit College for disobedience.


## POLITICAL.

Legislative-But little has been accomplished by the Legislature during the past month. Much time was consumed in the discussion of the propriety of sending delegates to the Peace Congress, convened at Washington on Feb. 4th, in response to a call made by the Legislature of Virginia. The resolution to appoint passed the Sonate with the casting vote of the Lieut. Gov., but was amended in the House and finally defeated.

The only bills of much general impoatanye are as follows:

A bill appropriating $\$ 5,000$ for the relief of the suffering in Kansas.

- A bill extending the limit of time within which the taxes must be paid, one month; according to which papment may be deferred until the 2nd week in May.

Several bills of considerable importance-including one for the relief of the form-mortgagors-have been half passed.

Congressional.-The revolutic nary movements in the Southern States have so absorbed the attention of Mrmbers of Congress that but little progress has been made in the transaction of business.

A Tariff Rill, with features resembling the one of 1816, is pending, and a bill authorizing a loan of $\$ 25,000,000$ has been passed.

The great Congressional evert of the month was the counting of the electoral votes for President and Vice President, which took place in presence of both Houses, on the 13th of Feb- Fears had been entertained that the enemies of Mr. Lincoln would take measures to prevent his being declared the President elect, but the whole affair passed off without interruption.
-National-Progress of Treason.-The "Peace Congress," consisting of delegates from the northern and "border" States, and having in view some plan of settlement of the national difficulti.s, convened on Feb. 4th, in Washington City. N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Penn., Del., Md., Va., Tenn., N. C., Ky., Mo., O., Ind., Ills., and Iowa were represented. Ex-President Tyler, of Va., was elected President, and C. W. Wright, Esq., of Ohio, Secretary.

The Convention has now been in session 21 days, but nothing of importance has been accomplished; unless it be a delay of Border State Secession. One of the members, Hon. John C. Wright, of Cincinnati, a man venerable for his years and his patriotic services to the country-suddenly died while in the performance of his duties at Washington.

The " Southern Congress," called by South Carolina, Florida, Missisfippi, Alabama, Georgia, Louisiana, and North Carolina, for the purpose of organizing a new government, convened on February 9th, at Montgomery, and arranged a provisional government by the adoption of articles of confederation, and the appointment of Jefferson Davis, of Mississippi, President, and Alexander H. Stevens, of Georgia, Vice President of the new republic. The Constitution and the Flag adopted are as nearly like those of the United States as they could make them, consistently with their attachment to " the peculiar institution."

The inaugural of Mr. Davis is defiant and threatening. Declares his determination, that, in case war is forced upon them, the fighting shall be upon Northern soil.

The "State Convention" authorized by the Virginia Legislature is composed of "Union" men, in spite of the desperate efforts of the Traitors to get secessionists elected. It is still in session, but nothing of importonce has been done.
But little change has taken place in the military status of the country, except that several old ships of war are being repaired by the Government. Fort Pickens is not yet taken! Ft. Kearney, in Nebraska, was recently taken possession of by a miscreant mob who raised the Palmetto Flag, but the people of the village were not long in recapturing it, tearing down the Palmetto and rattle snake and restoring the Stars and Stripes.

Mr. Lincoin left Springfield on the 11th of February and proceeded via. Indianapolis, Cincinnati, Columbus, Pittsburgh, Buffalo, Albany, New York, Philadelphia, Harrisburg and Baltimore, to Washington city, where he arrived on the 23 d . Magnificent receptions were given him at all stopping places on his ronte. snd mul. titudes of the people flocked to see him at all possible points. So triumphant a procession has never before been known on a similar occasion. His speeches were brief, and carefully cousidered-shadowing but little of his plans, except that he intends to execute the Constitution and the Laws as interpreted by the platform of principles upon which he was elected. From Harrisburgh he proceeded alone and incog, for reasons not fully understood, though said to have been strenuously urged by his friends and approved by Gen. Scott. Numerous fears and predictions to the contrary notwithstanding, he will undoubtedly have been inaugurated before this record will have fallen under the eye of many of our readers. What is to come then re, mains to be seen.
Forelgn.-The French Chaimber was addressed by the Emperor on Feb. 4th. He re-asserted his disposition to maintain pacific relations with the nationalities of Europe, and explained the sending of a French fleet to Gaeta, which place is being stormed by the Sardinian squadron. He appeals to England to stop the career of Garibaldi. England declines, however, maintaining that the Neapolitans should be allowed to settle their own affairs in their own way.
Queen Victoria in her late address to the Parliament -which was delived in person-deplores the difficulties in this country and earnestly hopes there may soon be an amicable adjustment.

## EDITOR'S TABLE.

The State Falr for 1861. -The attention of our readers is called to the new regulations of the State Agricultural Society as partially shadowed on page 102. Every effort will be used to make the next Fair a perfect success in every respect. It is, of course, impossible to please all who attend our Fairs, but it is believed that with the experience of other years and the sifted experiences of other State Societies, the Committee will be able to make arrangements that shall satisfy all reasonable parties. The new ticket system will certainly not be obnoxious to the zame class of objections that were urged against the old, and extra pains will be taken by the Secretary to improve the system of entries and examinations.

Let every farmer in the State plan to have something for exhibition. Now is the time to determine what it shall be before becoming wholly immersed in the busy work of spring. Let the ground bo prepared and sown with reference to premium crops; it will pay whether you finally enter them or not.

It's a shame that of eighty or a hundred thousand farmers, only a half dozen have spirit and State pride enough to enter for premiums on field crops. Awake, farmers, and give us your data for such a report of this year's agriculture as will astonish the country yet more than the $25,000,00$ ) bushels of wheat did the past season.

## Agricultural Secretaries, Attention :

-Will you not so far regard our wishes and the interests of your Societies as to forward AT ONCE, lists of your offi. cers for the current year-not forgetting the P. O. ad, dress? As the repaesentative of the State Agricultural Society, we wish to establish a more intimate relation between it and the County Societies. Will you give us a chance?

Japanese Wheat.-We see by our exchanges that some speculating concern in St. Louis is trying to humbug the farmers of the west into the paying of extravagant prices for small quantities of "Japanese Wheat," which they claim will yield 200 to 300 bush ${ }^{-}$ els. We don't believe any sensible farmer in Wisconsin will be gulled by any such nonsense, but have, never. theless, written to the Secratary of the St. Louis Ag. and Mech. Ass'n to ascertain whether the pretended firm have any real existence, and will publish his reply in the papers as soon as received.
[After the above was in type the following letter was received in answer to the commanication above referred to; and although we.have no authority to do so we take the responsbiliiy of publishing it in full. It reveals just about such facts as we had anticipated, and will effectually settle the Japanese Wheat question, in this State at least. The specimen sent us by Mr. Coleman is Mfillet and nothing else. The character of the head reserables that of "Coffee Corn." though much smaller and of very light color. The seed and leaf appear very much like those of Hungarian Grass, and can hardly be distinguished from it by the taste.]
COPY OP Letter of mr. Coleman, ed. valley parmer.
St. Louis, Mo., Feb. 20th, 1861.
J. W. Hoyr. Esq. :-Dear Sir:-Yours of the 21st is at hand. I inclose you about an eighth part of a head of the Japanese Wheat. I think it may prove a valuable Millet, but the name Wheat is used to gull the farmers. The heads are of .great length and are
well loaded. This head was left here by Jones \& Co, I also enelose a leaf of the plant. You will be able to judge whether it is wheat.

Fraternally Yours, Nozman J. Coleman.
Wisconsin Apples.-Thanks to onr excellent friend A. G. Hanford for a box of his most luscious apples. If the apple with which Mother Eve tempted Adam was half as fair and tempting as these, we don't blame him a bit !
Industrial Statistics.-See article on this subject on first page, and ponder what is said in relation to the election of fit mev for Town Supervisors.

Envious of Rarey's Fame.-John S. R. rey, the famous horse-tamer, has been prosecuted by Denton Offut, of New Orleans, for an alleged violation of contract many years ago. Mr. Offut claims to have originated the Rarey System, and claims that Mr R. received lessons from him under oath of secrecy. Don't believe his suit will amount to anything. The Rareys are the men to whom the world owes the beautiful and humana philosophy upon which the present popular system of taming horses is based, and to them it will award the laurel wreath all the Offuts to the contrary notwithstanding.

To Correspondents.-The communications on the "Culture of the Cranberry," "Planting the Chestnut for Timber," and the "Origin and Prevention of Smut," arrived too late for this Number, and will appear in the next To insure their appearance, communications must be in our hands before the 10th of the month previous to the month for which they are intended.

Recent Pablications.-Our ackuowledgements are due to D. Appleton \& Co., N. Y.; Hon. S. T. Gıodale, Sec'y Maine B'd of Ag.; Eben. Wright, Esq; Cor. Sec'y Mass. Hort. Society ; Joseph Harris, Esq ; Geo. Jaques, Esq., of Boston; W. T. Coggeshall, Ohio State Librarian; Rev. D. Y. Kilgore, of Evansville Seminary ; Prof C. H. Cleveland, Cincinnati, 0 ; Messrs. Barnes \& Burr, N. Y.; and J. E. Tilton \& Co., Boston, for recent publications.
We have no space for notices this month but shall endeavor to do them justice in the next Number.

The Homestead Law.-We regret the disposition on the part of sume of our best legislators to so amend the Homestead Law of this State as that the value of the 43 acre homestead in the country, and the half-acre lot and village home, shall be restricted to $\$ 1,500$, each, and the city home to $\$ 3,000$. The law as it stands may have been abused occasionally, but this is true of any law on the Statute Books. Our wives and children are entitled to comfortable homes, and, in no case, because of some blunder of their legal repre. sentative. should they be turned out of doors to satisfy the demands of a creditor who should have become such with the full understanding that the homestead weuld be exempt from execution.
The system of trusting to the present visible property of men rather than their integrity and enterprise is unsound, anyhow, and is more likely to result disastrously to the creditor than would the absence of all law for the collection of debts.

Guarantee to a man his home, and you not only do not defraud the forewarned creditor, but on the other hand, you do save his wife and children from a world of tormenting anxiety and distress and reserve to them all a nucleus of property as a rallying point for the re. covery of what has been lost by fauit or misfortune.

## Notices of Advertisements.

Special attention is called te several new advertisements in this number :-

Loudon \& Robingon's Badger Staty Nurserize bear a good reputation, and we have reason to believe they are safe and reliable parties.
N. Drake, proprietor of the Racine City Nurseries, offers 200,000 apple-trees; also several varieties of strawberries, \&c.

Priced Cataloguzs of garden, vegetable, and flower seeds, by Alfred Bridgeman, New York.
J. W. Dicernsox, successor to Menges a Bartelsr. claims to have the cheapest dry goods store in Madison.

Bowen \& Ramsay. at the old stand of S. R. Fox, offer the largest stock of hardware, agricultural implementa, \&c., with which we are acquainted this side of Milwaukee. They are a sound and enterprising firm, and deserve a large and continued patronage.
W. D. Porter, late of Janesville, and well acquaint. ed with the seed-business, is now opening a fine store in Madison, just opposite the Madison House, King Street, where he proposes to keep for sale all sorts of approved seeds, on the most reasonable terms. A store of this kind is very much needed in Madison, and as he is connecting a grocery with the seed department, we trust his establishment will become a permanent institution of our city.

Persons Hawing Businiss at the State Offices, are referred to the advertisement of Wakely \& Vilas, Atty ${ }^{\prime}$ s at Law.

Catipornia Seed Wheat, in any quantity, less that 25 bushels, may be had of P. S. Rider, Esq, Pheasant Branch; at \$1.25 per bushel.

## PUBLISHER'S <br> CORNER.

The Present Nnmber, owing to the larger amount than expected of valuable horticultaral mattar, is necessarily condensed in some of the departments with tne aid of smaller type; which, though not quite so easily read, yet gives more matter for the space. We think it will found be fully equal, in every respect, to the February number.

The Farmer on Election Day.-The gathering of the people at the polls on Election Day will afford a fine opportunity for our working friends to give us a good lift; and while none should omit to labor to elect the best men to the several offices in the towns, we hope the Farmer will prove a popular candidate and secure a unanimous election to a place in the homes of all the farmers in Wisconsin.

Thanks.-We return our thanks to the many friends of the FArmer, who have sent us substantial evidences of their approval of our efforts to get up a good agricultural journal. Subecriptions come in fully as freely as we expected, and we are well pleased with the favor with which the Farmar is received.

Clubbing--Look at our prospectus on the second page of the Cover. We continue to club with the Tribune, State Journal, Life Illustrated, Allantic Monthly, Argus e Democrat and Wiscoasin Patriot, on the same terms as they have heretofore been furnished by the publishers of the Fararer.

The February Number was a little behind time, owing to the many things we had to do, and the large edition printed-and not the least provoking cause of the delay, was a failure to get paper for the cover, which did not arrive until a week after the number ought to have been issued. The delay in the last number necessarily throws this number a few days be. hind, but we have perfected our arrangements to have the Fabmer out in time hereafter.
Back Numbers.-We have still a few copies of the January Number left, and can supply those who subscribe soon with the FARMER from the commencement of the volume.

Broken Banks.-We will receive the bills of the Ean Claire and the Artic Banks on subscription to the Farmer, at par. This will be for the Farmer only. Those wishing other papers with the Farmer, must send current money.

Hirsute.-Those who are ambitions of manly honors and have not time to "tarry in Jerecho," will find something to interest them in the advertising department.
Seeds.-Thomas Hislop advertises choice green house plants and a large variety of valuable seeds.

MADISON SEED STORE, Johnson's Block,.....King Street.
(OPPOSITE THE MADISON HOUSE.)

ITHE UNDERSIGNED is prepared to furnish fresh

## Garden, FieId \& FIower Seeds

In any quantities. Having made arrangement for a full supply at all times during the season.

Orders by mail, accompanied with money, will secure prompt attention. Also, a full supply of

## Choice Family Groceries,

Constantly on hand. Farmers and Gardners' are invited to call and examine his stock.
W. D. POTTER.

Madison, March 1st, 1861. daw1m [marltf.

## FAIRBANK'S



FAIRBANKS \& CREENLEAF ${ }^{35}$ Lake street, Chicago. Be Careful to Buy Only the Genuine! SIMEON MILLS, Agent, Madison, Wis.

## PLOws:

WTHITEWATER, GRAND DE TEUR, MOLINE. Whitewater Breaking Plows, all sizes.

BOWEN \& RAMSAY.
marly (Successors to S.R. Fox,) Madison, Wis.
Stoves and Tin-Ware!
T WHE Largest and best assortmont west of Milwaukee. Cheap for cash.

BOWEN \& RAMSAY:
marly (Successors to S. R. Fox,) Madison Wis.

## THE

# WISCONSIN FARMER. 

J. W. HOYT,

Editor.

VOL. XIII.
MADISON, APRIL 1, 1861.
NO. 4

## Agricultural Suicide.

In the popular and etymological sense, suicide is self slaughter, irrespective of the mental condition of the individual who commits the act. It matters not whether he be considered an "insane man" or "a.person of years and discretion and in his senses." So far as this world is concerned, the result is the same-a loss of life and a sort of family disgrace.
It is in this broadest sense that we use the term in its application to agricultural practice-leaving it to those persons who are guilty, either as principals or accessories, to decide for themselves which horn of the dilemma they will take. They cannot escape both, for there is nothing more than demonstrable, than that the agriculture of this State, if not, indeed, of the whole western country, is self-destructive.
The process is comparatively slow, perhaps, but gradualness is not an uncommon characteristic; nine-tenths, yes, ninetynine hundredths of all the cases of suicide are slow.
In Upper Styria, and in the mountainous districts of some portions of Asia, the inhabitants have a passion for plumpness of form and clearness of skin, and so habitually eat arsenic because it is believed to be promotive of those desirable ends. But does any one presume that this foolish de. sire gives them immunity from the poisoning power of the arsenic? Not at all; the small quantities with which they begin ensure a postponement only, of the fatal result. So also the man who persists in the use of alcoholic drinks, or improper fopd; the wo-
man who denies herself the pure air of heaven, daily exercise, and suitable dress, that that she may look fair and delicate and thus win the favor of fools; and the ambitious man who impairs his health and abridges his life that he may win for himself material wealth or the temporary applause of the world,-all these abbreviations of life are slow, but they are none the less sure, reprehensible and wicked.
Let the farmers of this country not be deceived, therefore; "God is not mocked," and his natural laws are as inexorable as are the moral.

It may appear to some of our readers that we strike the note of warning oftener than is necessary, but we think not. There is nothing of greater importance to our country than that its agriculture should conform to the demonstrable principles of economy and common sense, and by the grace of God it shall, in Badgerdom, if the ears and eyes of the husbandmen of the State are not closed to all appeals to their reason.
Farmers of Wisconsin! now that you are just entering upon the more important agricultural operations of 1861 , will you not ask yourselves whether the general policy of almost exclusive grain-growing is calculated to ensure the best results-not simply for this year, brt the next, and the next?

The spendthrift pours out his money like water to-day, and to-morrow is begging in the streets. So must it be with the farming of our vigorous young State, if we continue for a few years in our present course.We are committing agricultural suicide just as surely as the spendthrift commits pecuniary suicide, or the self-poisoner is
guilty of the disease and death of the body.

The wheat crop of 1860 robbed Wisconsin of not less than ten thousand tuns of the phosphates, the alkalies and the alkaline earths, and four hundred and eighty thousand tuns of the elements which compose starch, sugar, gluten, albumen, and the other compounds essential to wheat-about a half million tuns weight of what cannot be spared without serious damage to our soils! If this does not look like progressive exhaustion, then subtraction is not a means of diminution.

But there is another view of the matter deserving of attention. Even if the soil were absolutely inexhaustible, the present exclusive system would not be a wise and economical one for several reasons.

First, every grain crop is liable to failure; so that, if you have but one, the failure is total.

Secondly, where the husbandry is exelusive there is liability to excessive supplies and consequent low, unremunerative prices, and,

Thirdly, where that exclusion is in favor of grain the cost of transpotation is large in comparison with the profits.
It must be apparent, therefore, that
a mixed husbandry is our only salvation.
The farmer who raises wheat, corn, rye, oats, grass, horses, cattle, swine, and, last of all and yet first of all, sheer, is on the right road to security, independence and wealth. If one crop fail he has others to fall back upon, and is not bankrupt at once; while the stock retard or entirely prevent that impoverishment of the soil which would otherwise be inevitable.

For example, suppose instead of nothing but wheat, which bears but a very small price, more of our farmers had a quantity of pork which sells readily at five or six dollars a hundred, and likewise a fair proportion of beef, bntter and cheese, \&c., who does not see that their condition would be better than it is to-day ?

LESS GRAIN AND MORE WOOL.
Wisconsin is especially adapted to the production of wool-the advantages of which, over grain are very apparent, in that it does not exhaust the soil one-twentieth as much, while, at the same time, it costs less than one-tenth as much to get it to market. Moreover, the price which it bears at the
home of the producer is a small per cent. less than its price in the best markets in the world, while the grains that are grown will seldom bring more than one half the highest market prices in the country. These are weighty reasons in favor of wool-growing, and we know of no arguments by which they may be invalidated. If any of oar readers discover flaws in the logic, or facts which are not facts will they be good enough to point them out?
We have said we hoped, ere many years, to see the hills of Wisconsin white with flocks of grazing sheep; and although our hope is still strong, we must confess that we are dissatisfied with the progress made or making. Here and there is found a farmer who seems to realize the force of what we would urge, and now and then a stray enquiry comes as to the best breed for our climate, and the locality where they may be bought; but the whole amount of our wool export is scarcely more than one county ought to clip.
It is not our purpose in this article to discuss the question of breeds, but we have no hesitation in pronouncing in favor of the Spanish Merinoes for all who would keep a large number, purely or chiefly for the wool-and our remoteness from the great meat markets of this country precludes the economy of raising sheep for mutton. The Merinoes cost a little more to begin with, but with proper care they winter well and cheaply, and the clip is worth considerably more than that of the long-wool breeds.

## cultivate the grasses.

But whether you raise sheep, cattle, or horses, or all three-which is better-it is important that your attention be given to the growth of grass for food. Stock will live, perhaps, on marsh hay and hazle brush, but these are not the most economical kinds of fodder. Sheep, particularly, will pay for good keeping. But no keeping is good which does not include a proportion of the tame grasses. Hence we would urge the sowing of grass seed this spring with wheat, oats or barley, as may seem best. Whether you wish to seed down for meadow and permanent pasture or not, it pays very well to sow a few pounds of grass seed at the time of putting in the grain. We would prefer a mixture of clover, timothy, and redtop in proportions varying according to
the character of the soil; others may choose a differt mixture.
Here, then, fellow farmers, you have another glimpse of our views of the suicidal system of agriculture practiced in this State, together with a few plain hints as to the course to be pursued in order to arrest and revolutionize that ruinous system. If you agree with us, yrove your faith by your works; if not, show us our error, and we will promptly revoke all that has been said.

## Practical Suggestions for April.

Considered with reference to practical operations, April is the most important month in the calendar of the whole year. All the successes of the richly-fruited autumn have their origin here, and are dependent upon the faithfulness of what is done now.

THE FARM
Presents a thousand claims, and all must be attended to at once, or remain undone for the year. Each demand is imperative and may not be set aside by the farmer to suit his convenience. Awake, then, oh ye farmers of Wisconsin! Lay off your coats, roll up your sleeves, and pitch in with a will.
let the plowing be thorouahly donenot lazily and skimmingly, as though you had but one small yoke of steers, spring poor, but deeply and well, as if you intended to do your full share towards a glorious crop. The miserable fashion of just skinning the surface, so prevalent among our farmers is shiftless and disgraceful. Let there be none of it this year. No operation on the farm pays better than the thorough preparation of the soil for the seed. Remember that. Should there be any old stumps, patches of briers, grubs, or underbrush, clear them out at once. They are unprofitable and unsightly. Oneday's vigorous experience in that direction will convince you that in such jobs there is more in dreading than doing. Old logs and tree trunks that have been plowed around two or three years should be knoeked to pieces and converted into rails, ground-chunks for fence, or fire wood. They will often pay for the labor of removal in this way, and the comfort of working and the neat appearance of the field will quadruple your own satisfaction. Try it,
sELECT GOOD SEED.
What can be more important than this? The plowing, the seeding, the cultivation and the gathering may be done ever so carefully, aut if the seed be not good, it must all come to naught. There is nothing gained by the narrow penny-wise-and-pound-foolish system so common among farmers, of selecting out the best of everything to sell and saving the unsalable for seed.
In preparing wheat don't forget to try the vitriolizing process if you would avoic smut. It is a sure preventive, and the expense of preparation is slight. Process in last number of Farmer.
In the selection of seed corn, plant none but such as you know to have been fully ripened, and be sure that it was not frozen in the field or crib before drying. Then reject the small kernels on the tip of the cob. As we have repeatedly said, "like produces like" in the vegetable as well as in the animal kingdom.
sow and plant early.
Not until the soil is in proper condition, of course, but when that moment comes, in with it, delaying nothing. In this climate there is everything in favor of this poliey. Crops sown early are better prepared to stand the drouth of summer, are more likely to escape destruction by insects and other forms of blight, and are very sure to yield better results generally.
PLANT WELL.

Much of the labor expended on our farms is wasted because the seeding is not properly done. The farmer who neglects to plant properly is about as wise as he who should build a strong fence around his possessions and yet leave open a gap for the free ingress of depredating cattle and swine.

## CARE OF STOCK.

"Betwixt hay and grass" means April. The buds are starting and all nature is preparing to don the beautiful garment of green, but the warm sunny days have been too few to complete the resurrection of the vegetable world from the grave of winter: Now is the time, therefore, when your live stock will suffer unless you look to them with care. Directions of last month still applicable. To relieve cattle and colts of vermin-and they must have such relief ere they can be expected to thrive-smeàr the
sffected parts with oil. It seals up their argans of respiration, and they accordingly die for want of breath! The back of the head and neck especially require this treatment.

## Clean out the stables and seieds

 nicely and make them as neat as possible. The farm-yard too will require your attention, and the cornfields will not complain a bit of the manurial contents.
## the henery.

Now is the heyday of the chickens. Give them half a chance and they will delight you with cackles that mean what they say. The roost and entire arrangement should be cleaned out and whitewashed at once. If troubled with vermin-and they are quite liable lo be in the spring-treat them with oil the same way as directed for calves and colts. Often a little touch of oil on the back of the head, which place they cannot reach with their beaks, will straighten them up beautifully in a few days.

## THE ORCHARD.

Don't let this month pass without filling up the vacant places in the orchard with the most approved varieties obtained of reliable home nurserymen. If you have no orchard growing lose no time in starting one. See articles on varieties, \&c., in Horticultaral department, as also what has been said on the subject of locality, planting, \&ce, in Feb. and March No.'s

## tee vegetable garden.

First resolve to have one that will not be a disgrace to you, and then go about it in earnest. A few hours each day stolen from the labors of the farm will hardly be missed and yet ensure to yourself and family the best luxuries of the season.

Peas, early potatoes, lettuce, raddishes, beets, beans, tomatoes, asparagus, celery, rhubarb, currants, gooseberries, raspberties, btrawbbrries, \&c., \&c., may all be had almost as well as not. See Monthly Hints in Horticultural Department.

## the flower garden.

Don't turn away, friend, what we have to suggest in this connection is specially intended for you. "Well but flowers are not necessaries, they will do for the women folks well enough, but I can't bother my brains about them." Hold! they are necessaries, and you should give them a little at-tention-st least enough to ensure their
presence in the door-yard, if mother and the daughters want them. It is not all of life to live and grow fat. The soul has its needs-needs that are not confined to time and space and the baser things of senseneeds that must be met in order to that higher development of the intellectual and moral nature whose refinement and elevation are of more worth than all the crops of grain, fat cattle and bank-stock in the world.

Flowers have a refining and purifying influence upon the minds and hearts of children which is beyond the power of human calculation to estimate. Will you not, then, do so much, at least, as to prepare the materials and do the hard work essential to a good beginning of what shall be a beautiful fllower garden in the future?

## the dwelling.

Much of what should be said under this head will be found in the Home Dep. We must not omit in this connection however, to urge upon the head of the family and the boys the importance of giving the premises a general cleaning up. The cellar should be cleared of all decaying vegetables and nicely whitewashed. It is impossible to have pure air and health in the family unless this matter is attended to. The dooryard should also be cleared of all rubbish, rotting chips, \&c., and put in nice order. of course every one of our readers understands all this perfectly well, but then we know so well how apt we are to postpone what is unpleasant when other apparently more important matters are pressing, that we have rather felt it our duty to jog their memories slightly.

## Treatment of Bones-Compost.

"Bones! what sort of a theme is that for farmers?" A theme, good reader, that ought to possess a great deal more interest for farmers than it does; for bones contain elements which are essential to every plant hat grows-lime, phosphorus, and carbon. Wheat is especially benefited by an application of bone dust, inasmuch as it requires the lime and phosphorus in unusually large proportions. A few bushels per acre have been known to restore lands to a marked fertility that had been completely "worn out," so far as this crop was concerned.

It ought to be clear that what has once made bones will make bones again-nay, that nothing else can make bones. And yet how many.farmers take any pains at all to save this precious food for their starving plants? Not one in ten thousand! But since there is a growing interest in the manure question in our State, and as two or three provident farmers who have collected considerable quantities of bones, wish some advice as to their preparation, we have thought it well to treat briefly of the approved methods.
Bone Dust is prepared by either grinding thoroughly dried bones in a strong iron mill, or by first burning and then grinding. The burning deprives them of their carbon, but this loss will not be felt in case of the "dark rich" soils, and the process of pulverization, otherwise difficult, is thereby rendered very easy.
We have never seen it tried, but it is our impression that the feed-grinders in common use in this State would do the work splendidly, after the bones have been burnt.
Phosphatic Compost is made as follows: Reduce the bones to small pieces by either grinding or breaking with sledges; put them into tubs or tanks, or on a dry floor under cover, and saturate with hot water, pouring on just as much as they will absorb. Now pour on dilute oil of vitriol, strong enough to slowly dissolve the lime of the bones, and occasionally stir up, adding more acid as it may be needed. In the course of one, two, or three weeks-according to the strength of the acid-the bones will be dissolved and the moist mass should then be mixed with rich, dry earth, muck, ashes, and a small quantity of salt, and thoroughly stirred up every two or three days, until the whole mass becomes crumbly and almost dry.
The above plan is for more immediate use; and if time is not so much of an ob-ject-and there will be time enough this spring before the season comes when it would be advantageously applied-you may prepare a cask of compost without the labor of burning and grinding the bones. The process may be conducted in a wooden cask as before, and the materials should consist of alternate layers of ashes, bones, vegetable mould, charred peat or muck, lime, a small quantity of salt and old scraps of leather, woolen rags and other refuse mat-
ter. The bones may be used more or less sparingly according to the quantity on hand, and the whole should be moistened with dilute sulphuric acid as before. Cover it up and let it stand for several days or even weeks, if in no haste, and when the mass requires re-moistening add urine in moderate quantities, and thus continue the process until the bones are pretty much decomposed. Then empty out and mix with shovel or hoe, after the manner of mortar, adding fresh quantities of mould, peat or muck, until quite dry and pulverized. It is now ready for use, and, if put-into the hill at time of planting, will give the peas, beans, cucumbers, melons, strawberries and almost anything else in garden or field an astonishing rapidity of growth.

## Muck! Muck!

It may fairly be presumed that every farmer of thrift and enterprise, who has muck beds, took pains, at the opening of winter, to get out large quanties of it when the weather was favorable, and expose it in small heaps to the action of frost. Very well ; so far, so good. It becomes a most excellent fertilizer for light, sandy or even poor clay soils when thus treated, but is of little value if not, indeed injurious when applied directly from the bed.

Frost is a great pulverizer, and pulverization is essential to the best effect of manures upon the growth of plants.
If any have quantities of nicely dried and soft muck, as the result of careful attention to this valuable manure last summer, we would suggest its use as a bedding for stock. It makes a soft, pleasant bed, and is greatly improved as a fertilizer by the absorption of liquid manures on an intermixture with the solid droppings. As soon as saturated it should, of course, be removed and have its place supplied. A quarter to a half cord will last one bullock a couple of weeks, if constantly used.
Hog pens and beds may also be treated to muck with most decided advantage, both winter and summer, and the compost heap "is nowhere" without it. In short, muck is a very important institution, and the farmer who entirely neglects it is a sleepy fellow and does not know what he loses.

## Management of Manure.

A paper of much value was published in a recent number of the Journal of the Royal Agricultural Society of England, having the following title: "On the Composition of Farm-Yard Manure, and the change which it undergoes on keeping under different circumstances. By Dr. Augustus Voelcker, Professor of Chemistry in the Royal Agricultural College, Cirencester."

A summary view of the main points of this paper, in connection with some remarks illustrating the correspondence with well established facts in practical agriculture, may interest our readers, although our restricted space obliges us to be very brief. Dr. Voelcker was engaged for more than a year in experiments on which his essay was in part based: Having described these experiments with particular minuteness, he presents in conclusion, the most prominent points developed by his investigation. Among these are the following:
"1. Perfectly fresh farm-yard manure contains but a small proportion of free ammonia.
2. The nitrogen in fresh dung exists principally in the state of indissoluble nitrogenized matter.
3. The soluble organic and mineral constituents of dung are more valuable fertilizers than the insoluble. Particular care, therefore, should be bestowed upon the preservation of the liquid excrements of animals.
4. Farm-yard manure, even in quite a fresh state, contains phosphate of lime, which is much more soluble than has hitherto been suspected.
5. The urine of the horse, cow and pig does not contain any appreciable quantity 'of phosphate of lime, whilst the drainings of dung heaps contain considerable quantities of this valuable fertilizer. The drainings of dung heaps, partly for this reason, are more valuable than the urine of our domestic animals, and therefore ought to be prevented by all available means from running to waste.
8. Well rotted dung contains little free ammonia, but a very much larger proportion of soluble organic and saline mineral matters than fresh manure.
9. Rotten dung is richer in nitrogen than fresh.
10. Weight for weight, rotten dung is more valuable than fresh.
11. In the fermentation of dung, a very considerable proportion of the organic matters in fresh manure is dissipated into the air in the form of carbonic and other gases.
12. Properly regulated, however, the fermentation of dung is not attended with any great loss of nitrogen, nor of saline mineral matter.
13. During the fermentation of dung, ulmic, humic, and other organic acids are formed, as well as gypsum, which fix the ammonia generated in the decomposition of the nitrogenized constituents of dung.
14. During the fermentation of dung the phosphate of lime which it contains is rendered more soluble than in fresh manure.
15. In the interior and heated portions of manure heaps, ammonia is given off; but on passing into the external and cold layers of dung heaps, the free ammonia is retained in the heap.
16. Ammonia is not given off from the surface of well compressed dung heaps; but on turning manure heaps, it is wasted in appreciable quantities. Dung heaps, for this reason, should not be turned more frequently than is absolutely necessary.
17. No advantage appears to result from carrying on the fermentation of dung too far, but every disadvantage.
18. Farm-yard manure becomes deteriorated in value when kept in heaps exposed to the weather; the more the longer it is kept.
19. The loss in manuring matters, which is incurred in keeping manure heaps exposed to the weather, is not so much due to the volatilization of ammonia, as to the removal of ammoniacal salts, soluble nitrogenized organic matters, and valuable mineral matters, by the rain which falls in the period during which the manure is kept.
20. If rain is excluded from dung heaps, or little rain falls at a time, the loss in ammonia is trifling, and no saline matters of course are removed, but if much rain falls, especially if it falls in heavy showers upon the dung heap, a serious loss in ammonia, soluble organic matters, phosphate of lime, and salts of potash, is incurred, and the manure becomes rapidly deteriorated in value, whilst, at the same time, it is diminished in weight."
Many of the above points deserve particular consideration. Some of the most important are, that in fresh manure, the nitrogen is chiefly in the insoluble state, (paragraph 2)-that rotted manure contains "a very much greater proportion of soluble organic and saline mineral matters than fresh manure, (paragraph 8)-and that "the soluble organic and mineral constituents of manure, are much more valuable fertilizers than the insoluble," (parapraph 3). If these points are admitted, the advantage of the fermentation of manure is demonstrated. The fermentation is necessary to increase the quantity of soluble vegetable food. It is no argument against this, that in the way in which fermentation usually takes place, there is considerable loss of fertilizing matter, (paragraph 11,) for Dr. Voelcker immediately states, (paragraph 12,) that if the fermentation is "properly regulated, it is not attendedowith any great loss." It is only in the "heated portions of manure heaps" that ammonia is given off, (paragraph 15.) Care should be taken, therefore, that the process is not carried too far-that it does not run into a high temperature, and that the manure should be mixed with substances which will absorb
any gases that may be evolved. If proper attention is given, there is no obstacle to the fermentation of manures in such a manner as to secure therefrom very important advantages.

The next point deserving special attention is, that manure heaps are greatly deteriorated in value by being exposed to much rain (paragraphs 18 and 19)-the elements of fertility being thus leached out. Who can estimate the immense loss which our farmers annually sustain from this cause? On a large proportion of the farms of the country the manure is drenched by all the rains of winter and early spring, and the soluble matters extracted are carried off, more or less in streams.

We may observe in this connection, that Dr. Voelcker advises spreading manure on the land for which it is designed, rather than to allow it to remain in heaps. His reason for this is, that the further evolution of ammonia is stopped when the manure is spread, and the soluble matters are carried into the soil and retained. Whether or not this practice can be adopted without waste, depends much on the situation or aspect of the field and the nature of the soil On hill sides the manure wonld be apt to wash off, to some extent, and on sandy or gravelly soils it would soak away, and also be dissipated by the air. Dr. Voelcker says:
"In the case of clay soils, which possess the power of retaining manuring matters, I have no hesitation to say the manure may be spread even six months before it is ploughed in, without losing any appreciable quantity of manuring matters. I am perfectly aware that, on stiff clay land, farm-yard manure, more especially long dug, when ploughed in before the frost sets in, exercises a most beneficial action by keeping the soil loose, and admitting the free access of frost, which pulverizes the land; and would, therefore, by no means recommend to leave the manure spread on the surface without ploughing it in. All I wish to enforce is, that when no other choice is left but either to set up the manure in a heap in a corner of the field, or to spread it on the field, without ploughing it in directly, to adopt the latter plan."

But he, with good reason, recommends a different practice for light and sandy soils, "as such soils do not possess the power of retaining manuring matters in any marked degree." Here, he suggests, "to manure with well fermented dung, shortly before the crop intended to be grown is sown." It is well to observe the distinction made in regard to dry and light soils. We believe that every reliable experiment will bear out the correctness of Dr. V.'s suggestion, that for light, sandy soils, well fermented manure is best, and that the nearer the time of putting in the crop it is applied, the greater are its effects.-Boston Cultivator.

Lism not the first in dignity be last induty.

## [From the Country Gentleman and Cultivator.]

## Mulching-Surface Manuring.

From the best experience and observation which has come to my knowledge, it is clearly evident that no one operation in farming is more advantageous than surface-manuring, or top-dressing-for almost all crops-while it is the cheapest mode of manuring.

First-for Meadows.-I had a small timothy meadow of about five acres, which had been mowed many years, until it would not produce one ton to the acre, and so spindling it could hardly stand up before the scythe; but during early winter about half of it was spread over evenly with a liberal coating of barn-yard manure; this protected the roots of the grass during the freezing and heaving, and bleak winds of winter, so that wherever there was any cracking open or heaving of the ground by frost, the finest of the manure fell into them, not only protecting but enriching the grass; this is one benefit. Then, the spring thaws and rains drenched the manure and carried it into the soil, before the sun was hot enough to evaporate it much, which gives the grass a vigorous healthy start; this is the second benefit. Again, this mulching shelters and protects the young grass and roots, still later in the season, from the hot sun, before the grass is grown enough to protect itself, and this is a third benefit to the meadows-while there are still others, such as keeping the land mellow, moist and loose during the season.

Second-for Corn and Potatoes.-Let the ground be covered with a good liberal coating of half or full-rotted manure, either before planting or after the crop is fairly up, and the ground will be kept mellow and moist-never suffering from drouth-and the weeds will be kept down, so that hoeing and cultivating can be dispensed withwhile the time required to do this mulching well and carefully, will be less than to hoe and dress it well; then the manure will be finely and gradually drenched to the roots by the occasional rains, in about such quantities as will handsomely stimulate and nourish the plant, continually, to a vigorous growth; while this manure will not begin to evaporate enough to be wasted, before the crop will have grown sufficiently that the leaves will absorb and profit largely by this escape of ammonia from the manure; for the successful fruiting of crops need to appropriate liberal supplies of ammonia and other gases, more by their leaves above ground than their roots belowit being more their office to seek and take up the requisite minerals. At least such has been my experience, having invariably obtained the best yields of corn, potatoes and grass from lands thus mulched or manured, and that, too, where the corn and potatoes were not hoed or cultivated at all after planting; while I have never known a corn or potato or grass field thus treated,
to suffer in the least from drouth, even in
the driest seasons, as it not only prevents the escape of the moisture already in the earth, but also absorbs and retains the dews and mists of night. These are no vague notions, but well settled facts. Not only will time be saved and the labor made easier by faithfully and extensively practicing this top-dressing, but larger and more certain yields of crops will result from it, and the soils remain longer in tilth.

Third-for Wheat.-These beneficial results will be equally certain and liberal in the raising of wheat, particularly if winter wheat be sown-and winter-killing will be almost totally prevented thereby. Let the manure be spread as soon as the ground is frozen; then if the ground is likely to crack by freezing the manure fills in and protects the roots; nor can the winds dry and drift the soil-laying bare the rootsas in the case of our prairies more partic= ularly.
D. s. c., Madison, Wis.

## Cause and Cure of Smut.

Editor Wis. Farmer:--I have been for some years studying to determine the origin of smut in wheat, and have almost come to the conclusion that it is owing to the heating of the grain, either in the mow or bin. Several circumstances of recent occurrence favor this theory. If it be correct, we might necessarily expect wheat properly matured in the field and carefully stored, to yield a seed that would not produce smut. Well, just this has been my experience; for when I have reserved a piece for seed allowed it to get fully ripe and then stacked separate or put up upon a scaffold, instead of mowing it away with the bulk of my harvest, I have never had smut.

The result of some experiments made with the view of solving the question of smut, may not be uninteresting to your readers.

First, I sowed two acres of ground with wheat from the bin. Result, considerable smut.

Second, I sowed three bushels that had been washed in brine and sprinkled with ashes. Result, very little smut.

Third, I sowed six bushels which I had first washed in vitriol water-using $\frac{3}{4}$ lbs. of vitriol. Result, no smut at all.

Finally, to finish up my sowing, I took another quantity from the bin without washing. Result, smut as before.

I sowed three different pieces of land at three different times in the same way, and always with the same result.

Respeetfully, Alonzo Burroughs.
Dartford, Feb. 23d, 1861.

## Large Field Crops.

[The following reports of crops entered for premiums in this office in 1860, were duly despatched by Mr. F. C. Curtis, together with samples for the inspection of the Committee, but owing to neglect of the messenger did not reach their destination at the proper time. They show commendable enterprise and very creditable results, and we therefore publish them in full, simply omitting the affidavits by which they are properly and satisfactorily verified.]

## statements of mr. curtis-corn.

The land upon which I raised the corn entered for premium was a sandy loam,-it had been cultivated about ten years-to wheat a forgotten number of times-and relieved by corn two or three times during ten years. The last three years it had produced a scanty crop of timothy. I took six acres of this kind of land, manuring it from my barn cellar (neat cattle dung) at the rate of about thirty loads per acre in the winter of ' 59 and ' 60 . I broke it up from the 5th to 12 th of May, with an 18 inch breaking plow, about six inches deep, harrowed it well, and marked it out three feet apart each way with a single shovel plow. I took a quantity of home-made poudrette, as per page 210, Wis. Far., 1858, mixed it with a lot of leached and unleached ashes, and put about a pint of the mixture to cach hill, covering it with dirt before dropping the seed upon it. I went through it with a cultivator twice in a row each way, as soon as the rows showed sufficiently, and hoed and thinned it to about three to five spears in each hill. About the 1st of July I went through it with the single shovel plow, once each way, and followed with the hoe, doing but little except to cut up the weeds that remained. The latter part of August we had a very hard storm that blew it down so badly I did not cut it up. I assisted David Chase to measure one acre of the kind we call Dutton Corn, and half an acre called King Phillip. I was not present at the harvesting of the corn, but Mr. Chase informs me that the one acre of Dutton Corn produced 191 bushels of ears of corn, which we have since shelled, measuring 97 and nearly one half bushels per acre, of shelled corn. It weighs about 60 lbs . per bushel. The King Phillip half acre produced 76 bushels of ears per acre.

Expenses of cultivation per acre.


On the 5th of April, 1860, I assisted David Chase to measure half an acre each of the potatoes herewith submitted, known here as the Trout and California varieties. They had been planted on a sandy loarn soil about tho 10th of May, three feet apart each way; no manure used though about half of it had received some wash from a barn-yard. The land had been cultivated to wheat, corn, oats and carrots about six years. It was plowed and harrowed just previous to planting, cultivated once each way with a cultivator soon after the potatoes were up enough to be seen, hoed or weeded immediately after, and in about three weeks we went through them with a single shovel plow, once each way, and followed it with a hoe, cutting up the remaining weeds. But little hoeing was done, as the shovel plow in potatoes three feet apart does most of the hoeng necessary. The digging of the potatoes was done with a long handle spade-the operator making backwards, taking two rows at a time and assisted by a hand to pull tops. The hand with the spade puts in the spade and throws out nearly or quite the whole hill at once, when properly assisted by the one pulling tops, who is to pull upon the tops just as the spade lifts upon the hill.

I was not present at the digging of these potatoes, but Mr. Chase represents to me that the product of the California half acre was 296 bushels, and of the Trout half acre was 197 bushels- 493 pushels per acre.
Cost of plowing and preparing one acre, ....... $\$ 100$
Cost of planting (covered with the foot,) ...... 100
Cost of cultivating and weeding,................... 150
Cost of plowing and hoeing,........................ 100
Cost of digging and housing,................about 550 About 8 bushels of seed was cut and used, worth about 25 cts. per bushel,............ 200
Total,
$\$ 1200$
I designed the White Meshannock to compete for the prize in place of the Trout, but it rotted almost entirely, though it exceeded the Trout in yield, and is a much better potato for the table.
F. C. Curtis.

Lowville, Wis., Dec., 1860.
From two to two and a haif bushels of barley per acre should be sown.

## STOCK REGISTER.

## Cattle-Best Dairy Breeds.

Believing that the advantages of dairy farming are too little appreciated in Wisconsin, we have been for some time contemplating a slight agitation of the subject in a series of articles on the best breeds for dairy purposes; treating of them in the order of their value, and commencing with what are usually denominated the pure bred.

We shall, of course, find otirself upon disputed ground, but no matter; our pages are open to a fair discussion of the subject, and a little clever excitement will not do the least possible harm If our views are not sustained by the approved authorities, we shall not at all object to being floored by the champion of any other than our favorite breeds.

Truth is what we are after, and if our farmers are to buy and breed stock for the dairy, they certainly ought to be interested in discovering which breed will best answer their purposes, all things considered.
first, then, of the ayrshire cow.
According to Flint, whose admirable work on Milch Cows and Dairy Farming is the best authority extant, this breed is of comparatively recent origin. The name is derived from the County of Ayr, in the Southwestern part of Scotland, where the original stock upon which the present imported breed was based, first received special attention in the latter part of the 18th century. At that time they are said to have been "of diminutive size, ill-fed, ill-shaped; mostly of a black color, with large stripes of white along the chine and sides of their backs, about the flanks and on their faces." They were, moreover, neither good milkers nor profitable for slaughter.
There is reason to believe, however, that both these qualities or characteristics were susceptible of easy development in them, for we find them very rapidly growing into favor soon after they began to receive the attention of careful breeders-the main features of the system of improvement being, proper care and judicious crossing with the old Teeswater or Dutch cattle.
These efforts commenced about 1760 , and in 1815 they had made such advancement, that Aiton, the author of a Treatise on the Dai-

ry Breed of Cows, says of them: "They are not now the meagre, unshapely animals they were forty years ago; but have completely changed into something as different from what they were then as any two breeds in the island can be from each other. They are almost double the size, and yield about four times the quantity of milk the Ayrshire cows then yielded." Since that time they have been still further improved, until now they not only excel all others in the special qualities for which they were bred, but are even characterized by beauty and symmetry of form, and the marks of pure blood and distinctive race; all of which is a most pointed and unanswerable commentary upon the value of good care and scientific breeding.
As thus improved, the Ayrshire cow is correctly represented by the accompanying engraving from the able work of Mr. Flint, who faithfully details her features as follows:
"In color, the Ayrshire cow is generally red and white, spotted or mottled, not roan like many of the short-horns, but often presenting a bright contrast of colors. They are sometimes though rarely, nearly or quite all red, and sometimes black and white; but the favorite color is red and white, highly contrasted, and by some strawberry-color is preferred. The head is small, fine, and clear; the face long, and narrow at the muzzle, with a sprightly yet generally mild expression; eye small, smart and lively; the horns short, fine and slightly twisted upwards, set wide apart at the roots; the neck thin; body enlarging from the hind quarters; the back straight and narrow but
broad across the loin; joints rather loose and open; ribs rather flat; hind quarters rather thin; bone fine; tail long, fine and bushy at the end; hair generally thin and soft; udder light color and capacious, extending well forward under the belly; teats of the cow medium size, generally set regularly and wide apart; milk-veins prominent and well developed. The carcass of the pure-bred Ayrshire is light, particularly the forequarters, which is considered by good judges as an index of great milking qualities; but the pelvis is capacious and wide over the hips."
Having been bred for a great many years in a region of country the demands of whose population was unusually large for fresh dairy products, their early-discovered susceptibility of improvement as milkers has developed that particular capacity, until now they are ranked before all othersin the world in the quantity and quality of their milk and the economy of their pro-duction-a single cow having been known to produce over ten imperial gallons of good milk per day. A dollar a day for six months of the year is said, on good authority, to be a common yield in Glasgow-and seventy-five cents is quite below the average.

Youatt estimates the average yield of an Ayrshire dairy at 600 gallons per annum for each cow ; and that three and a half gallons of milk will yield one and a half pounds of butter-about seven ounces to the gallon.

Mr. Harley, who establshed the celebrated Willowbank Dairy in Glasgow, and who was author of the Harleian Dairy System, kept
for some time about 300 head of milch cows of the different breeds; with a view of determining their relative merits, finally settled down upon the Ayrshires, as being "much cheaper kept," giving more good milk in proportion to their cost, and as " im proving much more, in beef and fat, in proportion to their size," than the higher priced and larger Short-horns, \&c.

This experience of Mr. Harley is corroborated by Morton, who in comparing them with the Short-horns, says "the returns are obtained with less expenditure of capital;" and again, "They will yield as much milk with less food."

Youatt very properly remarks, "The excellency of a dairy cow is estimated by the quantity and quality of her milk. The quantity yielded by the Ayrshire is, considering her size, very great.
The quality of the milk is estimated by the quantity of butter and cheese that it will yield. \% \% An Ayrshire cow may be reckoned to yield 257 pounds of butter per annum. When the calculation is formed, according to the quantity of cheese that is usually produced, the following will be the result: twenty-eight gallons of milk, with the cream, will yield 24 pounds of sweetmilk cheese, or 514 pounds per annum.
"This is certainly an extraordinary quantity of butter and cheese, and fully establishes the reputation of the Ayrshire cow, so far as the dairy is concerned."

As beef cattle, the pure Ayrsheres have never been particularly distinguished, although their flesh is excellent food. The fleshy portions are mixed with the fat, and on this account they are not favorites with the butchers, who prefer a good deal of separable tallow.

In rich pastures they fat easily and at an early age. But it is when judiciously crossed with the short-horns that they are remarkable for the early age-of two or three years-at which they are fit for the butcher.
The average weight of the Ayrshire cow is five to eight hundred pounds, though when bred upon a rich soil and in a favorable climate, they considerably exceed that.

As working cattle the Ayrshires have nothin particular to recommend them.
So far as constitution and climatic relations are concerned, they are hardy-capable of thriving in a severe climate and on an inferior soil. Having been reared in a
hardy manner, they can bear, without injury, considerable changes of climate; though, as noticed by Morton, it is especially important "that the change be from worse to better(!)"
It is probable that some little time would be necessary for their acelimation in the Northwest, but their high reputation in the land of their nativity, as also the success which has, in most eases, attended their introduction into the Eastern States of the Union, should awaken an interest in them among the stock-breeders of Wisconsin. We have positive knowledge of but one small herd in the State, though we presume there are others. We understand that Mr. Learned-the owner of the herd to which we refer-has been in possession of his herd but a short time, and presume, therefore, that he has given them but a partial trial, as yet. The yearling bull and two-years old heifer for which he drew premiums at the last State Fair, were very good animals, and if he is not now ready to report, we shall be pleased to hear from him as soon as his experience will enable him to speak with assurance.

## Why Sows Destroy Their Young.

## Mr. Editor:-Having been a reader of

 the Fabmer for some years, 'at different times I have seen enquiries therein for the cause of sows destroying their pigs, and a remedy for the evil. Enclosed you will find a slip from the Homestead, which I think meets the case with more reason than anything I have seen in print. If you think it worth a place in the Farmer you can use it for the benefit of your readers.D. Whitney.

Mineral Point, Feb., 1861.
"I have always kept breeding sows, and in early life met with many vexatious losses from the sows destroying their pigs. Common sense told me that this must be caused by some treatment by which man thwarted the designs of nature, as in the natural state, animals may be left in safety to their instinets, of all which the strongest is love for the young. This led me to study hogs closely during the latter period of pregnancy, and watch all their ways up to the hour of pigging. I also noticed my neighbors' treatment of their breeding sows, and by comparing results, I learncd what caused the danger, and how to guard against it.

Costiveness and its accompanying evils are the main cause of sovs destroying their young-and proper food is the preventive and cure.

I have never known a sow to eat her pigs in autumn, when running at large with plenty of green food; but with hardly any exception. sows littering early in the spring are troubled with costiveness, which is frequently so severe as to be accompanied by inflamed eyes, great restlessness, and other signs of suffering. This restlessness sometimes increases till it amounts to frenzy. I have had them become so savage as to attack me fiercely, though at other timer perfectly gentle. If not stopped, this frenzy may increase with the pains of labor, and the sow will then destroy her young, or any other living thing within her reach. Cure the costiveness, and this restlessness and irritation will be cured, and if she was a good natured sow she will become quiet and gentle again.

Green food is the Cure.-As it is usually scarce at this season you ought to prepare for the emergency by saving roots to feed them. Formerly for this purpose I used potatoes but since the potato rot commenced I have used sugar beets, and always have some on hand to feed my sows for several weeks before they come in. They are very fond of them and eat them greedily raw. A half a peck or more a day with but little other food will keep a sow in the finest condition. Potatoes are as good, and carrots, parsnips, mangel wartzel, or turnips will do, but it may be necessary to boil them and mix them with other food. If you have no roots of any kind you must resort to sulphur, and give a large tablespoonful two or three times a week for several weeks before littering. Give also a little charcoal occasionally, and always be kind and gentle to them, and they will never attempt to kill their pigs.

A common mistake is to move the sow to another pen shortly before she litters. This is very irritating to her. She should be separated from the others and moved to her new quarters several weeks before her time is out. She must be kept sheltered, and a week before she litters supplied with all the straw she will want, which will be better for being short. After this her nest must not be molested, and she ought not to be disturbed in any way, as it is the nature of all animals to seek privacy at this period. Hogs are more true to their time than other animals, and rarely vary more than a day or two. But if you want to be sure to lose your pigs, feed your sow on corn and cob meal. This will make her very costive, fed without much other food. Then when she is sick and feverish, and consequently cross, irritate her yet more by driving her from the nest she has become so accustomed to; then let the boys tease and abuse her every day, and if the poor maddened animal does not destroy her young as fast as they are born, it will not be your fault ${ }^{\text {p }}$

[^1]
## From the Rural Regiater. The Best Breed of Swine.

By the best breed, we do not mean the best looking breed, but the breed which will produce the most money, in the shortest space of time, and on a given amount of food. Of course the questions of hardiness of constitution, good breeding qualities, adaptability to our climate, and to our system of fattening our pork, should be taken into consideration. We do not keep our pigs in pens as is done in the North and East, the year round, but they are turned out to shirk for themselves as best they may, relying upon clover pastures, the gleaning of grain-fields and the nuts of the forest for their support and growth, and the corn-field and corn-crib for the purpose of finishing off the fattening process.

Having had considerable experience in breeding swine, and having tried most, if not all the breeds now known to the West, I will give my views on the question of the best breeds. And first on the list, without hesitation, I place the Chester County White breed. I have found the hogs of this breed to be perfectly hardy, prolific breeders and good nursers; thriving well in our climate, and under our management attaining a weight of frou 400 to 500 pounds with good treatment, at the age of from twelve to eighteen months, and being, in fact, all that could be desired of a hog. They are quiet and peaceable, and good graziers, and fatten very rapidly at any age you may de-
sire.
The next breed on the list I would place the receutly imported Berkshires. They fatten readily on a small amount of food, are good breeders, attain good, average size, and are a great improvement on the old imported stock; their color, black, is an objection, but this only skin deep, and some think that black hogs are less liable to skin infections than white hogs.

If the Suffolks had a little more hair, and the young bigs were not quite so tender, they would strongly contest the first rank -we mean the late importations. This breed has been greatly improved within a few years. The crosses of this breed on the Irish grazier and our common breed make a decided improvement. The crosses will keep much fatter and mature earlier than the common breed, and an inexperienced person may go among a large herd of the same age, having the same care, and very readily pick out the half Suffolks by their being in much better condition. The Essex are too poor breeders to be raised as a pure breed-but cross well on other large coarse breeds. But taking all things into consideration, it will be difficult to find a breed possessing more good traits for Western men, than the Chester White. And those who are raising hogs would find a cross of this breed of inestimable value. It would increase their size, improve their form, hasten their maturity, and what is more important than all else, materially
lessen the amount of food for a given number of pounds of pork. This, too, would be the case with all breeds mentioned-but none of the other breeds combine so many exoellent qualities.
A writer in the (Maine) "Eastern Farmer," also gives a decided preference to the Chester hog. He says: "I am inclined to think that the White Chester is one of the best breed of porkers now in the State. Perhaps it will not be saying too much to say the best. They are giving very general satisfaction wherever they have been kept." The editor adds: A gentleman from Winslow, a somewhat extensive breeder, remarked to us a few days since, "that he considered the Chester-as highly as he prized the Suffolk-to be the best breed ever;'introduced into Maine;" said he, "I have a full blood Chester, that at two years of age, I will make weigh 1000 pounds."

From the Rural Register.

## The Horse's Age by the Teeth.

The following information as to the age of the horse indicated by the teeth, we have taken from one of our agricultural exchanges. It will guide some in their examinations:
Yearling and two-year-olds are alike in mouth, and must be judged by general appearance. At three years old, the horse has four horse-teeth, two above and two below, in front of the mouth, which supply the place of the sucking teeth. At five years old these are gone, and the mouth is up, at least, with the exception of the inside of the backmost, which, especially in mares, sometimes do not rise until the sixth year; that is, all the teeth are horse-teeth, and the task is up on each side of the mouth. A dark mark, or hollow, is generally observable in all the teeth of the bottom jaw at five years old; and the tusks are concave in their inner surface. At six, the two middle teeth have quite lost their mark, and the tusk is higher up, and longer, and not so concave. At seven, the next two teeth have lost it, and the corner teeth only have the mark left in them. At eight, it has grown out of these, and no mark is left at all. The tusks also become longer, and instead of being concave in the inner surface, become convex; the horse is then termed aged. There is, however, a great difference in the mouths; some have lost their mark in all except the corner teeth, even as early as five years old; others have their front teeth in the top jaw projecting over the bottom teeth at the same age. You may form some idea of the age from the appearance of the mouth in general, when the marks are no longer visible. If the corner teeth do not appear long and running forward, as it were, to the front of the mouth; if they retain their square shape, and shut well together; if the tusks are blunt, and have the least conclude that their inner surface, you may conclude that the horse is not very old, partic-
ularly, if his head be not gray, and not very hollow about the eyes; though this latter shape sometimes exists in young horses. A concave tusk is the most certain criterion of youth; and as mares have no tusks at all they must be judged with reference to what I have said about the corner teeth, except in some cases of what is called "shell teeth," from their resemblance to the plate-like cakes of shells, and horses with these preserve the appearance of youth till ten or twelve years old. It is here proper to mention, that the difficulty of acquiring accurate knowledge of the age of horses by their teeth, is very much increased by the tricks that are practiced.
-Remedy for Garget in Cows.-I had, a few days since, a new milch cow whose bag was very badly caked-so much so that the usual remedies of cold water, soap-suds, spirits of camphor, \&c., had no effect upon it. I asked our family physician for a prescription, who gave me this:

> 1 part of aqua ammonia,
> 2 parts sweet oil,
well rubbed in, twice a day. In two days a cure was effected.
W. J. Pettek, Salisbury, Ct.
Patience in Milieivg.-A writer in the Ohio Farmer says that a cow was cured of holding up her milk, by patiently milking until she ceased to hold it, and by continuing the practice, she has become an easy
regular, and a good cow. regular, and a good cow.

## THE BEE KEEPER.

## Care of Bees in April.

In this climate, where frequent changes and sudden "cold snaps" are not uncommon during the spring months, it is important that the hives be kept quiet until the winter season is believed to be fairly passed, as otherwise, your bees will be liable to be overtaken by cold and thus perish in such numbers as to weaken the swarm.
how to febe starving swarms.
If in danger of starvation before the flowering season, supply them at once with either honey or candy of the description referred to in the Feb. No.; placing their supplies on the floor of the hive, if the swarm be very weak, but otherwise on the top, by catting an opening two or three inches in diameter in the top board of the hive. Over his opening place a square, bottomless and ttopless box three inches high and closely fit_ ting the board so as to be insect proof (to insure this the box may be set in mortar or clay), and fill with the candy, covering first with cloth and then with a board, kept in its place by a stone.

In giving these directions, reference is, of course, had to the common hive. Those who are fortunate enough to have the Movable Comb Hives are doubtless supplied with all needed information on this subject.

## CLEANING THE HIVES.

As soon as the weather will admit of the bees making excursions for pollen and honey, or whenever the workers manifest a determination to be out, you should cleanse the hives and thus aid them in beginning the active labors of the season.

This shnuld be quietly done, and will ordinarily require two persons-one to lift the hive and the other to clean off the board and put it back, or, better still, a new one in its place. If disposed to be troublesome during this operation, a few whiffs of smoke blown into the hive will quiet the restless bees.
how to test whether each hive has a QUEEN.
If, on the first general stir in and sallying forth from the hive, there be an appearance of embarrassment, anxiety and confusion on the part of the bees, such as a flying out from the hive and back again immediately, a running out upon the alighting board followed by a prompt retreat, together with a peculiar plaintive hum in the hive kept up for a considerable length of time, there is good reasou for presuming that the swarm has lost its queen, or that the queen, if living, is either barren or has lost her ability to lay worker-eggs. If unfamiliar with these characteristic appearances, and you are yet able to distinguish BROOD comb, give the bees a little smoke and partly invert the hive, so as to allow the sun to shine between the combs, and thus reveal the young brood if there be any. If gresent, all will be well in a little time, though the queen be dead, for the colony will provide themselves with a successor. But if there be no comb containing eggs and larvæ, then a portion of such brood-comb should at once be inserted in the lower and rear part of the hive.Should this be out of the question there is no alternative but to break up the queenless colony and divide the bees among the remaining hives-first taking care to sprinkle with sugar-water the colony to which you would add them, in order to ensure a kindly reception of the orphan strangers.

国 In good honey years, ever bean-pole sweats honey.-German Proverb.


The Langstroth Hive, of which the above is a fair representation, appears to be coming more and more into favor: It possesses great advantages in the facilities which it affords for examining the bees while at work, and even the combs, each one separately and thoroughly. For dividing swarms, for artificial swarming, for feeding weak colonies, and for the easy destruction of all sorts of vermin which commonly infest the bee-hive, we know of no one that possesses equal advantages.

## Natural vs. Artificial Swarming.

The following remarks on this subject were made at a Bee-Keeper's Convention held in Cleveland, Ohio, in 1860. The American Bee Journal publishes the report in full:
The next question for discussion being "Is natural swarming the most judicious mode of propogating bees?"-Mr. Sturtevant observed that he would rather that some other person would speak on the subject. It is conceded, at this time, that hives can be artificially swarmed. He considered artificial superior to natural swarming, as the former have more time to collect stores, and there is no loss from swarms leaving, which is a great drawback to beekeeping.

Mr. Langstroth said that for ignorant persons, natural swarming is the best; but in the hands of intelligent beekeepers, artificial swarming is preferable. The watching for the swarming of bees is aveided in the latter case. It is far more profitable, even with the common box-hive. Swarms seldom leave large apiaries, and it is seldom that a swarm can pass over such without. Mr. L. explained his method of dividing swarms.

Mr. Underhill said that if apiarians in his section of country, would depend on natural swarming, there would be but small increase. If a rapid, sure increase is desired, artificial swarming must be resorted to. It is also much cheaper, for it requires less attention and labor.

With reasonable attention all the stocks in an apiary may be brought into working condition before May 1st.

## Swarming and Hiving.

To attract and arrest natural swarms when issuing, and be able to hive them more conveniently, I remove the bottom boards from several of my most thriveng and populous colonies, replacing them by extra boards kept for the purpose. To each of the removed boards I fix three hooks in such a manner that each board may be suspended horizontally by cords from the limb of a tree, with the side which was next to the bees turned towards the ground. I drop some melted wax on the side which will thus be undermost, and attach to it a small piece of clean comb. When the swarming season approaches, I suspend the boards thus prepared under a tree or trees twenty or thirty feet from the front of my apiary, and five or six feet from the ground. I find that the swarms which issue will almost uniformly cluster under these boards. When the bees have become settled, the board is lowered gently, and the swarm hived. The board is immediately suspended again to attract any stragglers flying about, which are afterwards carried to their companions in the hive. On very warm days, swarms are inclined to rise higher than usual, and to provide for such a contingency, it is necessary to suspend one of the boards at a greater elevation than the others. I have successfully used this method more than ten years, and can recommend it to those who still permit natural swarm-ing.-J. Hildebrand.

- Salt, slightly moistened with water and applied to the wound, has, in many instances, relieved the pain caused by tho sting of a bee, and prevents swelling.
-If, when examining a hive to ascertain whether the young queen has become fertile, we find one or more rudimentary royal cells, containing eggs or larvæ, we may safely conclude that the queen has been lost, and that the eggs wrre laid by a fertile worker.
- Ants are frequently troublesome pests in an apiary. To get rid of them, mix equal parts of potash and sugar, pulverizing the whole in a mortar. Set the mixture in snallow plates, in places which the ants frequent.
Impregnation of the Queen Bee.-The American Bee Journal, from which the above items are copied, publishes affirmative evidence in favor of the theory of the impregnation of the queen by the male drones. This question has long been a mooted one, and its final settlement will afford great gratification to all the bee enthusiasts of the world. Mr. S. B. Parsons, of Flushing, N. Y., Mr. Wm. W. Carey, of Coleraine, Mass., and R.C. Otis, of Kenosha. Wis., are sharers in this interesting discovery.


## HORTICULTURE.

## How to Plant Trees.



Fig. 1

With the issue of this number comes the "tree planter's" month; when the "tree pedler," ag't, and nurserymen realize their busiest season; and with no little anxiety, if they have a reputation at stake, that their products shall equal the representations. For a "reliable nurseryman" has an equal interest in both "ends of the line." His cares, viewed in the future have not ceased when his trees are "labeled" (too often properly spelled libeled) and boxed to the distant purchaser, who, from various reasons attendant upon spring operations, is prevented from attending in person to the selection and shipping of the trees. But while the reliable nurseryman fills his orders, he quietly hopes, that by strict honesty and carefulness in cultivation and selection of sorts, his trees may stand forth a living, progressive advertisement, believing that ere long they, if not himself, shall be "known by their fruits."
To accomplish this desirable end too much pains cannot be bestowed on the digging, although back of this is the selection of sorts. And now that it is known which sorts will succeed almost beyond a doubt, a nurseryman is greatly to be blamed if he sends out any others, unless specially ordered, and even then it should be done under protest. A tree properly lifted, viz: by placing the spade edgewise to the tree, and a proper distance therefrom, lifting out each spadefull of earth as they proceed around the tree, thus loosening the extremities of the roots; after which, with very little care after the tree is up, roots will move in every way resembling those seen in Fig. 1, and which are just as easily produced with proper cultivation and soil, as those so often disseminated with large main roots, cut off within six inches of the body, and no prbres.

Tree dealers too often receive more than their share of blame. At least one half, and not unfrequently three fourths, of the losses are in the planting. Much improvement has been made in the mode of planting within a few years, not to mention the inhuman manner very many, even of the choicest varieties of trees, are twisted (Fig. 2) into their earthy abodes. The specimen of tree, you see, is good, and the roots not altogether objectionable, though by no means what they should be. But the directions or the intuitive idea that it is a necessity has often given the roots the positions they are shown in the drawing. The planter will thrust his tree to the bottom of the pit, and then the more certain of


Fig. 2 getting the roots all in, the tree is raised with a twist, when surely enough they are all there in a "pretty plight." But then this error is no greater than "too deep planting." In our drawing (Fig. 3) the planter has dug quite through the soil, and


Fig. 3.
if his roots are not twisted badly, they are firmly placed in the subsoil, which they must have a strong constitution to be able to twist their own way through. The planter is not altogether to blame for this act of his, who, following the directions of those who profess to know, directed his trees planted a little deeper than they stood in the nursery row, which you see he was sure to do, only a " little more so.". Forgetting that roots require light, breathing holes; and nourishment from the atmosphere, as well as that their relative positions should be such that special fertilizers may be applied at any time and readily taken up by the feeders. Very many have erred on this point, which in every other respect have given their trees good
attention- Perhaps the drawing goes a little to the extreme, but if so the idea is the same. A cold, uncongenial subsoil, that will hardly grow a weed when exposed to the light, and often impervious to water, is certainly not a very fit habitation for trees of any species.

In tilling an orchard, which should always be done, and not seeded down, it is much more convenient to work toward the trees than from them, and by 'so doing, without much care, the tree will still get far below the surface. Now to avoid this, and at the same time have drainage, with the roots wholly under your control to fertilize and mulch, plant shallow. If it is properly done the tree can be placed upon the surfacc. We would make a very slight excavation, placing, their roots in their natural position as the earth is shoveled around them, and when all are covered to the proper depth they will have the appearance as seen in Fig. 4. In this mode of planting it will be always necessary to place some material about the tree to prevent the wind from blowing
Fig. 4. away the soil, till it becomes settled. At the same time a mulch is absolutely demanded in all cases. For this purpose any refuse material answers well, but when it can be had without too great sacrifice, use coarse-ground quarry rubbish, or coarse sand, prefered in the order named. In the absence of any of these the barn yard, and litter about the wood pile will be resorted to as "the best."
O. S. Willegy,

Vine Hill Nursery, Madison, Wis.

## New Mode of Saving Trees from the Ravages of the Borer.

A writer, Silas McDowell, of North Carolina, in the "Cincinnatus," a monthly periodical, says: "I promised to show you a way to preserve apple trees which are complelely girdled around by that fatal scourge of the orchard, the borer. In the first fourteen years after planting my apple orchard, I lost more than a hundred trees by the depredations of that hateful worm, and then found out a way to save my trees, which he had gnawed around; since which discovery ten years have passed, and in all that time I have never from his mischief, lost a single tree, nor ever expect to lose another. I, in fact, begin to rather like him, as he has giv- .
en me so many fine subjects on which to show my skill in horticultural surgery; and many of the trees which 1 found entirely girdled around, and the top completly cut off from the cireulation of the sap from the roots, as I showed Mr. Ongely, are now as thrifty and vigorous trees as are in my orchard.
"The mode of operation by which I effect this result, is as follows: I scrape back all the soil from the girdled tree down to the roots, which leaves the wounded part and the worms in a girdle four inches above the roots. I then pass a strong, sharp knife through the bark of the roots, and make a clean, vertical cut up the tree ten inches, through the bark, crossing the belt of worms, and continuing into the bark above the wound. I thus pass around the tree dividing the bark into sections of two or three inches, according to the size of the tree. I now see to it. that all worms and their litter are removed, and then have ready some thrifty water sprouts, which I cut into sections to correspond with the vertical sections in the bark. These I point at each end by a gentle slope from the bark on the one side to that on the otber, and then run one of these ends between the bark and the wood next to the root of the tree, and the other part resting two or three inches above and across the girdled part, is nicely inserted under the bark, and each cut end now rests upon ahe albumen or young sap wood, which it takes up at the root, and a duct conveys across the section where the bark is dissevered from the tree; a circulation of the sap now takes place. You pass around the tree in this way, confining the bark above the girdle and below it, upon the ducts, with a string; then make a mound of earth around your tree to reach above all this, and leave it till autumn, and the ducts will have grown into a group of strong nerves. Visit it a year afterward, and these nerves will have formed a compact, corrugated shield over the wounded part of the tree, giving it the appearance of greater strength. There is, in fact, no cause why an apple tree should ever be lost from the ravages of the Borer. as his attacks are ever at the surface of the ground, and never meddling with the roots."

## What shall we Plant for Timber?

Editor of the Wis. Farmer:-I notice in the January number of the Farmer an article recommending planting chestnuts for timber. I would like to tell you my experience in raising them. A few years ago I bought some chestnuts in the fall and planted them. The next spring they came up and grew nicely; but the following winter about one half of the trees killed out, and the next winter nearly all of them went the same way. I am satisfied they cannot stand our winters. I have known several to plant cheatnuts, but with the same result.

Yellow Locusts I have never known to grow to any great size, and they are very likely to break off by the hard winds. I would recommend the soft or black maple. It is hardy and a fast grower, and makes excellent wood. I believe it will stand our elimate in any location. I have several hundred of them growing that will be two years old this spring. Some of them are 6 feet high. The seed is ripe the last of May, and will be found on the bottom lands or in heavy timber.
Prepare the soil as for corn. Plant in drills, ten feet apart in the row. Cover one inch in depth. Work with horse, and hoe the same as corn. J. H. Saunders.
Albion, Feb. 17th, '61.

## FRUIT AND KITCHEN GARDEN.

It is a nice thing to have early fruits and vegetables with which to cut short the less wholesome diet of the long winter season. Not that the winter diet is not wholesome for the season to which it is especially appropriate, but, that the summer season brings with it a demand-and that demand based upon a physiological law of the human bedy --for food of a different character.
In the polar regions they live and thrive upon train oil, which they consume in immense quantities, while in the equatorial regions the craving is equally marked for the fresh acid fruits, such as limes and oranges. The reason of these two opposite cravings is obvious, and is precisely that which explains the oppositeness of the winter and the summer appetites. The one class of foods are fat-producing-heating; the other cooling-fat-preventing. ${ }^{\text {. }}$

If therefore the fat-producing diet of winter be continued after the cold, which required and ensured its consumption, has ceased, it must be that the fat will accumulate in the body, derange the liver-whose office it is to elaborate and digest the fatty portions of food-and thus give rise to the bilious diseases too prevalent in warm weather.
The man who neglects to make the necessary preparations for a good fruit and vegetable garden, is, therefore, guilty of a flagrant sin against the health and comfort of himself and family.

## STRAWBEREIES



Are a luxury that no family can afford to do without; and the expense of making a bed of themis sosmall, that not to have them should be esteemed a disgrace.

Get a few dozen plants of the most approved varieties-"Hovey's" and "Wilson's" are as good as any-prepare the beds well, by deep spading and thorough manuring with well-rotted barn-yard manure, ashes and lime; plant about sixteen inches apart each way; water well, during dry weather, every morning, before sunrise; keep down all weeds, and if you fail to get a few luscious berries the first year-the fewer the better until the plants are well established-and an sbundance, the second, it will not be your fault.

Beds already established should have attention at once. Rake off the mulch and thin out properly-using surplus plants to make another bed, or giving them to some unambitious neighbor who would not otherwise engage in their cultivation.

## RASPBERRIES

Are likewise worthy of much attention.The American Black Cap, Fastolff and Brinkle's orage, are good varieties.

Procure a number of roots without delay; plant in deep, rich soil, well stirred, about 4 to 5 feet apart, and where they can have the benefit of the sun.

Old plants will need trimming. Cut out the old canee, and shorten back the younger. If already possessed of good varieties, don't neglect to ensure to yourselves all the plants you want by propagating by layers.

## GOOSEBERRIES

Are rarely cultivated, and their excellent qualities for pies should sccure them a place in every garden.

Houghton's seedling is among the best varieties and, so far as we have observed, is not subject to mildew.

The gooseberry is easily propogated by euttings, and the cutting out of the buds chorld be such as to prevent the growth of
suckers and ensure a tree-like form to the bush. The cuttings should be set 3 feet apart, with five orsix feet between the rows the blackberey
Is a splendid fruit and may be as readily grown as the raspberry, or in like manner. Luscious and wholesome as a fresh fruit, it also makes magnificent pies, and excellent jams and cordials. The New Rochelle is the best variety.

## THE CURRANT

Is the chief dependence, however, in the line of small fruits; bearing the same relation to strawberries, raspberries, and blackberries, that apples do to peaches and pears.

It is a most unaccountable fact that there are hundreds of farmers, neverthless, who haven't a single bush on their premises.This is a shame, and if we had the power we would confine all such barbarians to an exclusive and perpetual diet of raw pork and boiled cabbage.

Progagated by cuttings in the same manner as gooseberries, they will bear quite a supply the second year, and the summer following hang out their rich scarlet clusters in profusion. They should be planted 4 to 6 feet apart and kept well trimmed out The old Dutch Red is as good as any of the varieties with which we are acquainted; though some prefer the white as being less acid. If, for any reason, deficient, don't neglect to obtain and plant a good supply of cuttings or roots this spring.

> of the garden vegetables

We have not space to speak in detail. See that nothing prevents you having this year an abundance of early potatoes, lettuce, raddishes, peas, beans, beets, salsify, onions, sweet-corn, and everything else that is good and can be conveniently raised.

We repeat it, there is no branch or depart. ment of the farm that will pay as well as a properly prepared and well kept garden.

## Experiments in Planting Potatoes-

Editor of Wiscongin Farmer :-In our Farmer County Club last spring the subject of raising potatoes and planting the seed in a variety of ways was discussed. Some said the single eyes, cut the size of a dime, planted one or two in a hill, was better than more seed. One man said he planted the heart, cut one inch square from large potatoes, and they did well. I have been in the habit of
planting my best potatoes, large and small, as they come from the cellar; sometimes cut the large ones. Generally change the seed every three or four years. I have good potatoes and a good crop generally. I prepared, as usual, a small patch of ground and planted the 14th day of May last. The rows were all of a length, $31 / 2$ feet each way between hills. First I planted four rows seed ends, two in a hill. Result, six bushels of potatoes. Next, two rows seed ends, one in a hill. Result, two bushels. Next, one row heart, inch square. Result, none. Next, one row single eyes, three in a hill. Result, very small, three peoks. Next, one row single eyes, two in a hill. Result, half bushel. Next, four rows one large or two small ones (my usual mode). Result, eight bushels good ones.
I find a great benefit by changing seed often. They do not rot so badly as they do by planting the same seed for several years on the same farm. Respectfully yours,

John Whiting.
Sheboygan Falls, Feb. 28, 1861.

## The Allen Raspberry.

Editor Wisconsin Farmer:-I see that, in a number of horticultural reports, this variety is condemned or thrown out, as not being productive or worthy of cultivation, and yet I must say it is the best bearer I have among eleven varieties, when planted in rows and as specimens.
My rows were six feet apart-each row a different variety-and were arranged in the following order, to-wit: American Black Cap, American Yellow, American red, (these three varieties are now propogated by by suckers,) Fastolf, Frankenian, Hudson River, Antwerp, Allen, Red Antwerp, Catawissa, Yellow Antwerp, Brinkle's Orange.

I had likewise planted, in a garden spot on my farm, some four dozen plants of the Allen alone; but they had scarcely any fruit, and such as they did bear was imperfect. But few seeds of each berry would swell; from which I concluded that special care must be taken to supply the Allen plants with males in order to insure prolific bearing. There is always an abundance of blossoms.

A hint to amateur cultivators?
Pewaukee, March, 1861.
C. P. P.

## THE FLOWER GARDEN.

Mr. Editor:-The lovers of floriculture should now be on the alert, as plants that were covered all winter should have some of the covering gradually removed. Don't remove all at one time, as two sudden an exposure would be injurious to most of the half-hardy plants that are wintered in the open ground.

Commence the first of the month to start dahlias,maderia vines, and the gladiolus; and as soon as the ground is in working order, sow the different kinds of hardy annuals where they are to remain.
Secure a good stock of Verbenas, Petunas, Heliotrope, Scarlet Geraniums, Pansies, Feverfews, Carnations, and Holy hocks. All these can be had at reasonable rates-from one to two dollars per dozen-of any responsible florist.
Nothing ean surpass a bed of Verbenas ${ }^{\text {B }}$ A dozen varieties of the following names will give satisfaction both in color and abundance of flowers: Beauty of ${ }^{*}$ Astoria, Pink, Brilliant Rose, Captain May, Lilac, Defiance, Scarlet, Etonian, Dark Purple, Ethiopian, Blue, Fair American, White, Fanny Fern, Red, Giant of Battles, Eemisoro, Helen, Lavender, Henry Clay, Ruby, Mrs. McKay, and Cherry.
Great improvement has been made in the Petunia in the last few years, and we have now some double ones, as large as ordinary roses, and of a great variety of colors. They should find a place in every garden, as they will flower from June till severe frost sets in.
Scarlet Geraniums make a brilliant show when massed together; select the dwarfer sorts, of which Tom Thumb is the type.The scented varieties are not to be despised, as they are very useful for boquets.
Antirhinums, Caphea, Lantunas, Carnations, Picota, and Pinks, are all beautiful and deserve better treatment than they often receive at the hands of the careless cultivators.
Of the Rose I would like to say a great deal, as I think it deserves the name of the Queen of Flowers. Of hardy roses, we have many fine varidties, Hybrid, Perpetual, Monthly, Catatonges, with thousands of names. But I think two dozen of each judiciously selected, would give more satisfaction than hundreds that bear high sound-
ing names, a great many of which possess no other merit.

Phloxes and Delphinias, have been improved vastly within the last two years, There is not a plant in the whole family of Flora to compare with a full grown specimen of Delphinium Formosum. The flowers are produced on spikes often measuring two feet in length and covered with the purest azure blue flowers; a color very rare and ought to be prized more on that account. There are several other fine varieties of this fine plant, but none of them possess all the merits of Formosum.

Dielytra spectabilss is also a great acquisition, its beautiful, neat shaped flowers are admired by all. It is perfectly hardy and should be widely dissemminated.

Hortus.

## MECHANICAL.

## Economy of Good Implements.

Cheap implements are the poorest investment that the farmer can make of his money. The best usually costso little more than the worst, that the advantage gained by the purchase of plows, harrows, rollers, harvesters, threshers, fanning mills, grinders, \&c., \&c., that are substantially made of good materials and after the most approved models, will often greatly overbalance the extra purchase price.

There are always old fogies enough in every neighborhood willing and glad to purchase old, superannuated and superseded implements of every description at prices much above their real worth, and it should be the policy of the wide-awake, enterprising farmer to sell and buy again, as often as he can find a new implement or machine which is demonstratably more economical than the old ones he is using-not that we would approve of his jockeying the poor dullards who havn't either the ambition or wit to open their eyes to theimprovements that are making -by no means. But if any will persist in shatting their blind eyes to the light of progress, then it is certainly his privilege, after having labored for their enlightenment, to sell them all the old traps they may be fools enough to buy 1 But sale or no sale, the sensible farmer will not waste the price of two implements in trying to save the remain ing value of one.

## [From the Scientific American.]

## Late American Inventions.

## grindivg mill.

This invention reiates to an improvement in that class of grinding mills in which a cast metal, conical grinder is placed within a shell of corresponding form. The chief difficulty attending the operation of this kind of mill has been the producing of uneven work; that is to say, portions of the article being ground are discharged much coarser than others, and the mill, while working rapidly, produces inferior work. In order to obviate this difficulty, diagonal teeth or projections have been used in connection with the ordinary or grinding surfaces, said teeth or projections being desigued to arrest the progress of the article being ground through the mill, and thereby insure its reduction to a proper, fine state before its discharge. This arrangement has not been generally adopted, as it creates as great a difficulty as the one it was designed to obviate, to-wit, the chokiug or clogging of the mill. This class of mills, also, has been hitherto liable to heat, and soon becomes worn and unfit for use. This invention consists in having the rotating grindec, and also the shell, formed of a series of concentric rings, corrugated or tootbed at their peripheries, each ring of the grinder, in connection with its fellow ring of the shell, constituting a distinct grinding device, the article to be ground passing consecutively through the series of grinding devices. By this arrangement, the above-naned difficulties are avoided, while the advantages of this class of mills, to wit, rapidity of grinding, in connection with economy of construction, are retained. This mill is the invention of William Stewart, of Philadelphia, Pennsylvania.

RAIL ROAD SWITCHES.
This invention relates to a novel improvement for automatically operating the switch rails of a permanent roilroad, so that as the train of cars approaches the switch in either direction appliances on the locomotive will operate the switch rail, and switch the cars on the desired track, where the switch rails will be securely locked and held in the desired position. Patentee, J. M. Brahn, Red Bank, N. J•
improvement in plows.
This invention and improvement in plows consiste in a novel mode of forming and putting together the several parts composing the body of the plow, whereby the front cutting edge of the landsidn may be removed and reversed when an edge becomes worn out, and this cutter, with the landside wing, may be attached to the moldboard withont using bolts, pins or screws. It also consists in a novel means of transferring the draught from the frcnt end of the beam to the back part thereof behind the plow standard, and of adjusting the draught bar at this point and giving to it a yielding motion. It further consists in the employment of a self-cleaning device for preventing the plow from el ggivg with weeds, \&c., at the point where the standard connects with the beam. Patentee, J. K. Gingrich, North Annville, Pa .
upsetting tire.
This invention consists in a combination of stationary and moveable bed plates, havisg clamping jaws on them for grasping and holding the tire securely, with a sector and cam lever for shrinking the tire after it is properly clamped to the beds, and a spring whieh throws the moveable spring back after it has been acted upon by the cam and sector. Patented by W. C. Salmon and G. F. Bliss, Placerville, Cal.

## PRINTING PRESE.

The object of this in invention is to obtain a printing press which will be simple and cheap in construction, capable of being worked rapidly, and operated with but a moderate expenditure of power. To this end the invention consists, first, in the employment or use of two rotating and traveling pressure cylinders in connectioy with a stationary form-bed, which is placed between the cylinders for the purpose of giving the impression. Second, in the employment or use of a blanket and tapes, arranged and applied to the press in such a way as to properly conduct the paper to and from the form. Third, in a peculiar operating or driving mechanism for giving the travelling movement to the cylinders. George Gary and Eamuel P. Gary, both of Oshkosh, Wis., are the patentees of this invention.

## thes machine.

This invention relates to a machine for making tubular tiles, such as are ured for draining lands, and for similar or analogous $I$ urposes. The object of the in-
vention is toobtain a machine which will mold the tiles very compactly, so that the same may be manipulated or handled as they are discharged from the machine without the liability of boing injured or marred, the compactions of the clay also readering the tiles more substantial and less liable to crack under the baking operation. The invention also has for its object a facile mode of adjusting the gearing for the purpose of varying the speed of the spiral or screw feeders relatively with the feeders of the pug mill, so that the molding box may always be kept properly snpplied with tempered clay, the supply being regulated according to the demand. This invention was patented by George J. Tiffany and Henry Ingraham, both of Palmyra, Mich. grain-mrasurivg machine.
This invention is inteuded for measuring grain in a very rapid and perfect manner, and also for registering the measured quantity or quantities. It consists in a circular measuring box having a desirable number of small cells or compartments arrauged around it, which box is mounted on a circular floor which has one or two spouts projecting from it, which are so arranged with relation to each increasing cell, that as these cells are filled and revolved around a central axis, they will each discharge their load througe the troughs. It also consists in conmecting with the central shaft which rotate with the measuring box, a train of wheelwork and a registering band, suitably arranged so as to operates with the measuring box and indicate every eighth, tenth, or twentieth revolution of this box, according to the number of cells which it contains. The patentee of this invention is J. A. Cluxton, of Bentonville, $\boldsymbol{O}$.

## The New Patent Law.

Since the issue of our last numbe the Congress of the United States has passed a new law in relation to patents - the main feature of which is the extension of the time for which all patents shall be issued to seven. teen years, and the prohibition of all renew. als, Under the old law, as most of our readers are aware, the first period was fourteen years, with the chance of a renewal for seven years,
In our opinion the new law is a decided improvement, and will do away with a vast deal of the monopoly and corruption that have grown out of the old system of re-issues.

## SCIENTIFIC \&C.

- The nett revenue from all the canals of New York for 1860 , amounts to $\$ 1,669,611.61$.
- Over two-fifths of the Union is watered by the Mississippi and its tributaries.
-There are in England and Wales 39,338 known thieves and desperadoes.
- Every person in the country pays on an average a yearly tax of $\$ 4.25$.
-There are $1,500,000$ real estate owners in the United States.
- One-quarter of the population live in cifies, towns and villages.
- The cost of the Crimean war is said to have been two hundred and fifty millions of dollars.

The Coal Product of 0hio.-The amount of coal annually taken from mines in Ohio, is estimated by the Commissioner of Statisties to exceed two million tons. We never dreamed that Ohio operated in the black diamond to such an extent.

- The artisan well at Columbus, O., hav. ing reached a depth of two thousand, seven hundred and seventy-five and four-tenths feet without water being obtained, the work has been suspended. A current of water was struck at one hundred and fifty feet, sulphur water at one hundred and eighty, and salt water at six hundred and soventyfixe feet, none of which, however, rose to the surface. The temperature at two thousand, seven hundred and seventy-five feet was eighty-eight degrees Fahrenheit, showing an increase of one degree for every seventy-one feet.
- The deepest depression of the Atlantic basin, occording to Lieut. Maury's map, lies between thirty-three degrees and forty degrees N. latitude, where the plummet (though we must allow for errors occasioned by the deflection of the line) has been lowered to the depth of thirty thousand, and even forty thousand feet. At short distarices from Madeira, the Cape de Verd Islands, and the Bermudas, the sea deepens to twelve thousand and fifteen thousand feet, so that, seen from the ocean ground, those isle-clusters would appear as the summits of mighty mountain lands, grand and imposing as the Andes.
-A white gunpowder has been patented in England. It is composed of yellow potassa, chloride of potassium, loaf sugar, crystalized sugar, and brimstone. It possesses superior qualities over the black powder, being quicker and more powerful in its actions, and not fouling the gun.
- The official census returns show the population of California in 1860 to have been three hundred and seventy-five thousand. The population of San Francisco is between fifty-seven and fifty-eight thousand. Complaints are made that the census was imperfeotly taken, and that the real population of the State is not less than six hundred thousand.
- There is a manufactory of flax-straw goods at Mount Pleasant, Iowa, and Gov. Kirkwood, of the same State, has sent to Boston for specimens and particulars concerning the manufacture of flax-cotton, with a view to stimulate the growth of flax in Iowa, whose climate is well adapted to its culture.
- The total value of imports at New York during 1860 , amounted to $\$ 1,925,760,460-$ $\$ 50,760,460$ more than the last ten years average. Total exports for same pariod, $\$ 145,683,451$, an amount considerably greater than ever before within the history of the country.
- Pennsylvania sent eight million and five hundred thousand tons of anthracite coal to market in 1860. In 1820, the trade was only three hundred and sixty-five tons. Her total income from coal is thirty millions of dollars per annum.
-The Lake Superior "Miner" says the largest mass of copper yet obtained arrived at Ontonagon, January 10. It weighed six and one-half tons.
- There is one house to every six persons in the United States.
-The average valuation of land in South Carolina is only two dollars per acre.
- The State of New York contains about one-eighth of the entire pooulation of the United States.
- The amount of lead shipped from the Galena mines last year, was 18,553,211 pounds, valued at $\$ 1,038,442.10$.
- The number of inhabitants on the east side of the Mississippi river is twelve times greater than the number on the west side of the river.
- The number of adopted citizens of the Uuited States capable of voting comprises about one-twelfth of the whole number of voters.
- The total valuation of property in San Francisco is thirty-five million, eight hundred and nine thousand and six hundred and thirty'nine dollars.
- Immensely rich silver mines have been discovered in the mountainous district of New Leon, North Mexico. One vein, intersected by a creek, was six feet wide and over seventy feet deep.
- Photography is every year playing a more important part in book illustration, and it would seem that the day is not far distant when it will supercede the old methods of embelishment in wood and steel engraving.
- In the item of cost of construction and equipment of railroads, Pennsylvania heads the list, thus: Pennsylvania, \$151,529,629 ; New York, $\$ 145,259,792$; Ohio, $\$ 117$,353,116 ; Illinois, $\$ 106,975,581$. No other State comes within gun-shot of these figures.
- The calculations and plans of the Victoria Bridge across the St. Lawrence were so accurate that the whole of the iron work was prepared at Birkenhead, England, from specifications, and was all successfully put up, although each tube contained tour thousand, nine hundred and twenty-six pieces.
- Statistics of the Roman Catholic Church, from 1808, prove its steady progress in the United States. During the last year, foundations of thirty-six new churches were commenced. In 1808, there were only sixtyeight priests, eighty churches, and two bishops in the United States. In 1860, there were 2,235 priests, 49 bishops, and 2,389 churches.
Califormia.--The San Francisco papers make up their statement for the year, showing an export of forty-two millions and three hundred and twenty-five thousand dollars in gold, and eight million and seven hundred and thirty thousand dollars in produce; the produce export being an increase of three and a half millions over the year before, and wholly a creation of the past three years. The passengers arrived by steamers were thirty thousand, and those departing were fourteen thousand, showing an apparent gain of sixteen thousand from this source, to which should be added fifty thousand by overland.

The Lobses and Gaing of Political Powze, A writer in the New York "Tribune" estimates that the census will make the following change in the House:


The following exhibits the power of each section, for thirty years:


These figures are gloated over by the secessionists. They say it's a sure sign that the power is gone.
United States Military Force.-The following statement shows the number of the militia in each State, from the latest returns made to the United States Adjutant General's office in 1850:

| Free States. |  | Slave States. |  |
| :---: | :---: | :---: | :---: |
|  | 50,505 | Delaware | 9,229 |
| N. Hampshire... | 27,867 | Maryland ......... | 46,864 |
| Massachusetts... | 101.781 | Virginia .......... | 129,733 |
| Vermont | 23.915 | North Carolina | 73,448 |
| Rhode Island | 15,037 | South Carolina. | 55,209 |
| Connecticut. | 57,719 | Georgia | 57,312 |
| New York | 224,665 | Flosida | 12,122 |
| New Jersey...... | 39,171 | Alabama | 58,048 |
| Pennsylvania. | 276,070 | Louisiana | 43,823 |
| Ohio. | 176,455 | Mississippi..... | 46,084 |
| Michigan | 68,938 | Tennessee ........ | 71,252 |
| Indiana. | 53,913 | Kentucky ........ | 87,607 |
| Illinois | 85,234 | Missouri........... | 61,000 |
| Wiscons | 32,203 | Arkansas .......... | 17,137 |
| Iowa* ............ |  | Texas............... | 19,766 |
| $\begin{aligned} & \text { California*....... } \\ & \text { Minnesota* } \end{aligned}$ |  | Total | 778,634 |

Oregon* $\qquad$
otal
778,634

Total $1,226,573$

## *No returns published from these States.

Railroads in the United Stateg. Ohio has more miles of railway in operation than'any other State in the Union. Pennsylvania ranks next. The following are the figures; Ohio, 3057 miles; Pennsylvania, 2943; Illinois, 2924; New York, 2808; Indiana, 2058. As regards the total length of lines of which these miles form parts, we rank thus: Ohio, 4133 miles; Pennsylvania, 3972; Illinois, 3551; New York, 3455; Texas, 2667; Indiana, 2522. In the item of cost of construction and equipment, the list stands thus: Pennsylvania, \$151,529,629; New York, \$144,259,792; Ohio, \$117,353,116; Illinois, $\$ 106,975,581$. No other State comes near to these figures.
-Dr. Englemann's recent calculationsrand measurements make the hight of low-water mark at St. Louis three hundred and seventyfour feet and four inches above the Gulf of Mexico, and the average fall of the Mississippi, from the mouth of St. Peter's. river to the Gulf, about four inches per mile.

- The ordinary coining capacity of the Philadelphia mint is seven million and five hundred thousand dollars per-month.


## The New Census.

The census returns of 1860 develop many remarkable changes in the relative rank of the different States. While the whole nation has advanced greatly in population, in some quarters the progress has been so much more rapid than in others, that their proportionate amount of political power, and of commercial and industrial importance, has been essentially modified. The free States and the territories have gained an increase of population twice as great as the increase of the slave States during the last ten years, the aggregate of the former being five million, seven hundred and twenty-nine thousand and three hundred and eighty-two, and of the latter, only two million, eight hundred and twenty thousand five hnndred and thirty-nine. The progress of the slave States however, during this period, has been much greater than that of most countries, and it only suffers in contrast with Northern advancement on account of the large accessions of foreign emigration we have received.
Among the old Thirteen Colonies only two have exceeded an increase of twenty-five per cent. over the population in 1850, viz: Pennsylvania and New Jersey; but New York, Delaware, Maryland, Massachusetts, ând Connecticut, fall but little behind us in this respect.

No section has increased so rapidly as the great Northwest, which bids fair to speedily become the controlling region of the whole country, as will be seen by the following statement:

|  | Pop. in 1850. | Pop. in 1860, | Increase. |
| :---: | :---: | :---: | :---: |
| Ohio | 1,980 329 | 2.377,917 | 397,588 |
| Indiana | 988,416 | 1,350,802 | 362,386 |
| Illinois | 851,470 | 1,601,238 | 839,768 |
| Michigan | 397,654 | 754,291 | 356,737 |
| Wiscons | 305,391 | 763,485 | 458,094 |
| Iowa, | 192,214 | 682,002 | 489,788 |
| Minnesota | 6,077 | 172,796 | 186,719 |
| Missouri. | 682,024 | 1,201,214 | 519,170 |
| Kansas |  | 143,645 | 143,645 |
| Nebrask |  | 28,892 | 28,892 |
|  | 5,403,595 | 9,166,282 | 3,702,687 |

There has been an increase of nearly seventy per cent., which is more than double the average increase of the whole nation; and while this great region contained in 1850 considerably less than one-fourth of the population of the Union, it has now but little less than one-third of it. We have included Missouri, although it is a slave State, because its interests are almost identical with the States which bound it on the east, west, and north, and it is rapidly beeoming assimilated with them in feeling on nearly all subjects. It gained a greater increase of population from 1850 to 1860 than any other slaveholding State, and it now contains more inhabitants than any of them except Virginia, although in 1850 it was surpassed by Kentucky, Tennessee, Alabama, Georgia and North Carolina. It presents a very striking contrast with South Carolina, which, in 1850, contained but thirteen thousand, four hundred and fifty-seven fewer inhabitants. But the later has gained an increase of only fortysix thousand, eight hundred and sixty-four,
five hundred and nineteen thorsand, one hundred and seventy.

In only two of the slave Staxes has there been a positive decrease in the number of slaves, viz: Delaware and Maryland, the statistics being as follows:

| Slaves in 1850. Slaves in 1860. |  |  |  |
| :---: | :---: | :---: | ---: | Dec.

But in others the increase has been so slight as to fall much below the average increase of the slave population of the whole country. The total number of slaves in 1850 was three million, two hundred thousand and four hundred and twelve, and in 1860, three million, nine hundred and ninety-nine thousand and three hundred and fifty-three. The increase has been almost exactly at the ratio of twenty-five per cent.; and while some of the States have fallen short of this ratio, others have barely maintained it, and others again have far exceeded it.

In the first of these classes the States of Virginia, North Carolina, South Carolina, Tennessee, and Kentheky may be ranked, their increase being as follows:


In the second class may be ranked the States of Alabama, Louisiana, and Missouri, viz:


In the third elass are Florida, Mississippi, Arkansas and Texas, viz:

| Florida. | 39,309 | 63,809 |
| :---: | :---: | :---: |
| Mississippi | 509,878 | 479,607 |
| Arkansas. | 47,100 | 109,066 |
| Texas | 56,161 | 184,956 |

The increase in Missouri over the prevailing ratio is rather accidental than othewise, and by no means indicative of a strong desire to extend slavery there. It is a mere incident of the large white emigration she has attracted from some sections of the South, as well as from the North. Into Florida, Mississippi, Arkansas and Texas, a large number of slaves have evidently been taken, and in the internal slave-trade traffic they, with Louisiana and Alabama, may be, therefore, considered importing States, while Delaware, Maryland, Virginia, North Carolina, South Carolina, and Kentucky, are better prepared to act as exporting States. Georgia falls very little short of the prevailing ratio, and has, therefore, probably shown little disposition to buy or sell slaves to or from the other slaveholding States.

The population of Utah is set down at only forty-nine thousand, which is much below the estimates that have heretofore appeared. But it is probable the returns from that Territory are defective.

- There are about $\mathbf{1 0 0}, 000$ Indians in the United States; at the termination of the Revolution there were only 36,000 in the thirteen original States.


## Agriculture in the United States.

We g'ean the following statistical data concerning the United States, its agriculture and mannufactures, from an able article by M. E. Dormoy, in the "Kevne Cotemporaine." In 1783, at the period of the peace. the United States only comprised eight hundred and two thousand, and two hundred and thirty square miles; at the present time they extend over a territory of two million, nine hundred and sixty-two, and fifty square miles, or nearly double the extend of Europe, exclusive of Russia. Out of a population of three million and four hundred thousand males of the age of fifteen and upwards, forty-five per cent. are agriculturists; while those engaged in commerce, manufactures, trades and mines, put together form more than thirty per cent.; two per cent. are devoted to a seafaring life; while the army scarcely claims one per thousand. These proportions differ widely from those of Europe, since in England not more than fifteen per cent. are agriculturists; in France twenty-three per cent. and in Belgium twen-ty-five per cent. The capital engaged in agriculture amounts, in the United States, to five thousand, two hundred millions of dollars; while that employed in other branches of industry does not exceed one thousand millions of dollars. Every year agricultare adds sixteen million and six hundred thousand dollars to the wealth of the country, and in the State of New York alone, agriculturists pay four-fifths of the taxes In 1857 the total exports from the United States amounted to three hundred and sixty millions of dollars, of which sum agricultural produce formed two-thirds, including cotton, which alone stood for onethird. In the course of ten years the value of these exports had increased seventy per eent. In the United States the averge extent of a farm or estate is from one hundred and fifty to two hundred aeres; in France it is not more than twelve and one-half acres; while four millions of small farmers do not own more than from six and one-fonrth to seven and one-half acres. Maize constitutes the chief staple of the United States, since it occupies noarly one-third of the land under oultivation, or thirty millions of acres ; twenty millions of acres more consists of uncultivated pasture land, incapable of producing hay; oats are grown on seven and one-half millions of acres, and five millions. of acres produce cotton. The vine covers two hundred and fifty thousand acres. The four chief sources of revenue to the Union in the way of annual produce are-maize, producing three huudred millions of dollars; hay, one hundred and forty millions; wheat, one hundred millions, and cotton, eighty millions. Horses, asses, and mules, are estimated at five millions, or one of those animals for every five inhabitants, there are eighteen millions of oxen, thirty millions of pigs and twenty millions of sheep. The total value of all these domestic animals is about six bundred millions of dollars.
-The earth has $1,288,000,000$ people.

## Increase of Railroads--Illinois he Banner State.

The rapid increase of railroads in this country and the consequent rapid development of its resonrees during the past ten years, is certainly without a parallel in the bistory of any country. Though this has been called the "Iron Age," and the "Railroad Age," but few have a true idea of the extent of our railroad system. Hence we have prepared the following from the most reliable statistics we could obtain:
$\begin{array}{lrrr}\text { Miles in operation } & 1850 . & 1860 . & \text { Increase. } \\ \text { eighteen Northern States., } 5,498 & 18,9051 & 13,4071 / 2\end{array}$ $\begin{array}{llll}\text { In eighteen Northern States.. } 5,498 & 18,9051 / 2 & 13,4071 / 2\end{array}$ $\begin{array}{llll}\text { In fitteen Nouthern States..... } 2,363 & 8,481 & 6,068^{12}\end{array}$
Total in the United States. $\overline{7,861} \overline{27,3361 / 2} \overline{19,4751 / 2}$
Illinois has constructed more miles of railroad during the last decade than any other State, and has increased only six hundred and thirty-eight miles less than one-half as many miles as all the fifteen Southern States put together. In 1850 Illinois had but one hundred and five miles in operation, now she has two thousand, eight hundred and twenty, showing an increase of two thousand, seven hundred and fifteen miles. Ohio stands next in the list, having constructed two thousand, seven hundred miles during the past ten years. Maryland is the lowest in the scale-having three hundred and eighteen miles in 1860 , and only three hundred and sixty-eight in 1860, showing an increase of fifty miles. California had none in $1850-$ now twenty-two miles. Arkansas, Minnesota and Oregon are each, as yet, entirely without railroad facilities. Kansas has about six miles of track laid, but none in use.

Duration of Life.- By calculation it is shown that, of one thousand individuals, twenty-three die in their birth, two hundred and seventy-seven from teething, convalsions and worms, seven in measles, two women in child-birth, one hundred and ninety-five of consumption, asthma and other chronic complaints, two hundred and fifty of fever, twelve of apoplexy, and forty-one of dropsy. Or, in another point of view, of one thousand persons two hundred die within the first year, eighty in the seeond, forty in the third, and twenty-four in the fourth; and within the first eight years of life, fanr hundred and forty-five, or almost one-half of the number are cut off by premature death.

DGIT The population of the world, according to the most recent authorities, is about one billion, two hundred and eighty-eight million. Of this number it is estimated that there are Protestants, eighty-nine million; Roman Catholics, one hundred and seventy million; Greek Church, seventy-six million; Jews, five million; Mohammedans, one hundred and eixty million;' Heathen seven hundred and eighty-eight million. From this statement Christianity has a heavy work to perform before it can hope to expect that "every knee shall bow and tongue confess." Nevertheless the labor is steadily progressing and increasing, with an eye singly directed to the great achievement.

## [From the Cfotinhati Commercial.] <br> What the Cotten States have Cost the Union,

Some people are credulous enough to suppose that the seceding States, having first got out of the Union, can make a settlement with the remaing States which shall leave a sufficient balance on the side of the seceders to entitle them to claim a share of the territories. Let us see. The following is a table of the actual expenditures of the government for and on account of the Cotton States. The Mexican war expenses are properly counted in, since that war would never have been undertaken but for the claims of the extreme Southern States:

|  <br> To this is to be added some hundreds of millions more, on account of the cost of the post-office service in those States, over and above the revenue, for seventy years; on account of the enormous extra expenses in that section for river and harbor improvements, military defences, \&c.; and on account of extra protection to Southern sugar, paid by the people of the North, in the shape of thirty per cent. tariff, which amounted to twelve millions of dollars in the single year of 1857 . |
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## EDUCATIONAL.

## Right Kind of Munificence.

Mr. Vassar, a resident of Poughkeepsie, N. Y, has given the sum of $\$ 400,000$ for the establishment of an institution for the education of young ladies. The institution has been incorporated with the title of "Vassar Female College," and under the direetion of an efflcient Board of Trustees, which embraces some of the most distinguished men of New York. The work of providirg the necessary buildings is already commenced.
According to the plans adopted, $\$ 200,000$ will be consumed in the erection of the edifiee, which is to be of magnificent proportions and constructed in accordance with established sanitary principles.
As is well known, we do not approve of the old monk-and-nunnery systom of education,
put until the world shall have advanced so far beyond its present stand point as to be able to at least half appreciate the more philosophical and christian idea of coeducation, it is important that there should be institutions for the highest possible culture of the young women of our country. We rejoice, therefore, in this noble bequest of Mr. Vassar, and trust that the College to which it has given origin may be crowned with the highest success.

## Education in Wisconsin, Illinois, Indiana and Pennsylvania.

From exchanges and the reports of public officers, we glean the following interesting statistics relative to the condition of public school education in the States above named. We have thrown them into tabular form for the sake of more convenient comparison : Whole No. Schools, $\quad$ Wis. ${ }_{4,620}$ III. Ind. Penn. $\begin{array}{llrrr}\text { Whole No. Schools,...... } & 4,680 & 9,162 & 9,016 & 11,577\end{array}$ No Chil. bet. $4 \& 20$ yrs. 288, 084546,194 512,468 No. attendinc school.... $199,455472,217315,678 \quad 580,669$ $\begin{array}{llll}\text { No. male teachers,..... } & 8,223 & 5.823 & 6,485\end{array}$ $\begin{array}{llll}\text { No. female trachers,..... } & \mathbf{6 , 4 8 5} & 1.611 & 4,832\end{array}$ Monthly wages of male
 Vosthly wages of female teachers,......... $\$ 15,30 \quad \$ 18,80 \quad \$ 23,10 \quad \$ 18,11$ Total cost of common school system in $1860 \quad 574,756 \quad 2,619,367$
Total of Schnol Fund for Wis. is $\$ 3,234,156$; for Til. is $\$ 4,919,054$; for Penn. is $\$ 6,046,653$.

Seminaries and Sewing Machines.-.-The most successful seminaries of learning for young ladies, in the East, are indebted in a great measure, for their success, to the fact that the use of Sening Machines has been made an important branch of rudimental study. Professor Cochran, of the New York State Normal School, was the first to introduce this very important element into the schools, and his good judgment in the matter, has met with unqualified and hearty approval, from all who have come within the sphere of a wide spread influence his example inaugurated. Let the teachers of our State take this matter in hand at once, and in ten years, nay less, how vastly improved will be the condition of our young wives and husbands. Sewing Machines are now an indispensable article in every well regulated household--alongside the reaper, the telegraph, and all the advantages of steam they take their stand as conservators of public welfare. Let the schools teach their use.-New York Independent.
-The Royal Academicians are about to abrogate the silly Salic law, which has banished female students from their schools. It has lately been discovered that the very best of the competition drawings sent into the Academy were the work of female hands.

## From the State Journal Startling Disclosures Respecting the School Fund.

A special report from the School Land Commissioners was received and read in the Assembly this morning, urging a radi cal change in the present system of investing the School and other trust funds of the State, with the reasons which induce them to believe that the adoption of a new system is absolutely essential to prevent the total loss of those funds.
The Commissioners are now compelled to loan out these funds in small sums upon mortgage of real estate, and in most instances, as they state, to make these loans "to men of whose character and responsibility they know nothing, and upon security of the value of which they are entirely ignorant, excepting as they obtain information from the appraisal of men of whose judgment and integrity they have no knowledge whatever."
The roport then proceeds to give facts in regard to the practical operation of the present system. In 1858 there were forfeited to the School Fund 49 mortgages, and the Drainage Fund two, securing loans in the aggregate, amounting to $\$ 23,628,87$. The actual value of the lands at present does not exceed $\$ 5,200$. In 1859 there were forfeited to the School Fund 102 mortgages, to the University Fund 3, to the Drainage Fund 11. These were held by the States as security for $\$ 51,811$. The actual value of these securities does not exceed $\$ 22,870$, and probably would not bring half that sum on forced sale. The loss to these trust funds during the past year from forfeiture of mortgages is reported at not less than $\$ 17$,178 , and probably much more, since, in obtaining information in regard to the present value of securities, the Commissioners have been obliged to rely on the statements of the same persons who joined in the original appraisement. But even by the recent appraisements, exaggerated as they may be, an aggregate of $\$ 64,644$ has been lost to these funds.

Startling as these facts are, the Commissioners say they show but a fraction of the truth. "We know," they add, "that the interest is now annually paid upon many loans on worthless securities, because of the shame that would follow the exposure incident to a forfeiture.

With the most careful manage nent on the part of the Commissioners, more or less loss to the funds are inevitable, while under the charge of careless or corrupt men, the greatest facility for frauds exist under the present system. The Commissioners close with an earnest recommendation for its total repeal, and the passage of a law directing these funds to be invested in United States stocks or the stocks of Northwestern States.
$-165,226$ children daily attend the public schools in New York city.

## THE HOME.

## Home Burroundings.

Presuming that thorough house cleaning will be done at the proper time from mere force of habit, whether irritable busbands grumble at the turning of "everything up side-down" or not ; and doubting nut, more* over, that all the good housewives who read the Farmer understand the art perfectly well, we have nothing to offer on that interesting subject.

But of the surroundings of home there is need that something be said. Indeed, the surroundings are included in the very idea of home, aud by their character often determine its charm or its repulsiveness. Nay, more, they not unfrequently determine the moral and intellectual form and fashioning of the children who grow up in their midst - moulding them by the sweet influences of orderly and beautiful objects and arrange. ments into models of health, virtue and beanty, or by the opposite influences, into gnarled and ugly specimens of a low and mean humanity.

Of course, we do not claim that mere material circumstances are capable of completely eradicating the evil tendencies that are innate in the minds of some children, or of angelizing the child naturally good; but we do claim that the mind of every human being is susceptible of very happy and important modifications of character and tendency by the means suggested.
Place one child in a rude, rickety, mis' erable-looking home, with rag-stuged windows, half-hinged doors, filthy, swine plough. ed dooryard and broken-down fences, and his mate in a neat little cottage always nicely painted and in good repair, with trailing vines about the doors and windows, with a handsome though simple inclosure, and clean gravel walks bordered with evergreens, shrubs and flowers, and, all other things being equal, it is almost necessary that one should grow up with groveling aims and boorish habits, the other with refined manners and pure and elevated sentiments.

Even we, who are grown to adult life, can not rid ourselves of the influences of things about us. How important, then, that the
youthful and plastic minds of our children should be subject to none but the happiest influences when in the primitive stages of their being. Father, mother, there is hardly a possibility of overrating the measure of that responsibility which comes of this wonderful susceptibility of the youthful mind. Think of it a moment and then resolve to leave nothing undone that your hands or means may add to the certainties of its best possible culture.

Under the head of "Practical Suggestions," page 110, we have already said a word to the husbands and the boys about helping on the lawn and garden, but the inauguration of the enterprise will, in most cases, devolve upon the more tasteful and appreciative mother and daughtess. Let them, therefore, with paper and pencil draw their plans without further delay, and then, the first opportunity - some evening, for instance, when the whole family are gathered about the hearth - talk the matter over, as pleasantly, enthusiastically and winningly as they know how, until there is an agreement on all important points and the head and sturdier branches of the family have promised to furnish the materials and aid in the heaviest part of the work.
The spring work will press heavily upon all field hands during this month and the next, and you will doubt.ess find it necessary to try your own muscles a little in the finishing of beds and borders, and in the planting of bulbs, climbers, flowering shrubs and evergreen trees. But then it is healthful to work in the fresh earth, and if you are careful not to overtask yourselves under the stimulating influences of a quickening sunshine and the prospective reward, it will only put the beautiful glow of health into yonr faces and not hurt you a bit.

Politeness in Russia.-Perhaprthe most polite, observant, bowing, and bending nation of the world is Russia. It is, to one who has a liking for these matters, quite a lesson to see a Russian nobleman of the high school in conversation with any one; he is the beau ideal of good manners and gentlemanly bearing; he takes off his hat to every woman, he bares his head to a tradesman, he salutes him when he enters his shop, he bows when he goes. Princes of the blood imperial do this.
[From the Chicago Tribune.]

## Our Country's Flag.

## BY MRS. HOTT.

Oh ho for the Uulonl They asy there is none; Oh ho for the Union! They say we're undoneThat the hand of the foeman is red in the field, And the fate of our conntry in darkness sealed. But why do they say it? and what do they mean ? The Flag I see, where our ensigns soar, Why, that is the flag our Fathers bore! There are the stripes, the red and the white; There are the atars, in their places all right; There is our Ragle, with beak and claw, The royalest bird that a foe ever saw, The omen of empire that nations have seen Fronting our battles and bearing us through. The Fathers, the Fathers, we have them no more, But they've left us the standard they bravely upbore, With its Eagle of Freedom, far-visioned and trae, And the red and the white of the Old Thirteen, And the stars that are gold on a field of blue.

There's a thrill in my heart, as I see it unroll; There's a pulse in my heart that I cannot control ; It fills me with hope for humanity born; It makes me a part of that glorious morn, That gave us a country to live in, and die, And gave to our country its Fourth of July. Away with the traitor would trail it in dust! Let the waves of oblivion cover him o'er; Let his name be heard upon earth, never more. But loved of his people, snd blessed be he, Who bears it aloft on the land and the sea; May his name go down to uncounted dates; May his children's children sit in our gates, Strong in the faith and the flag of our trust. Waving in pride o'er a hundred States. The beautiful Flag that our Fathers upbore ! God help us defend it, and long may it soar, With its Eagle of Freedom, far-visioned and trna, And the red and the white of the Old Thirteen, And the stars that are gold on a field of blue. Madison, Wis., Feb. 22, 1861.

## Farmer's Work.

BY CHARLES SWAIN.
Take the spade of Perseverance ; Dig the field of Progress wide; Every bar to true Instruction Carry out and cast aside; Every stubborn weed of Error, Every seed that hurts the soil,Tares, whose very growth is terror, Dig them out, whate'er the toil!

Give the stream of Education Broader channel, bolder force; Hurl the stones of Persecution Ont where'er they block its course ;
Seek for strength in Self-exertion: Work, and still have faith to wait; Close the crooked gate to fortune; Make the road to honor straight.
Men are agents for the future; As they work so ages win Either Harvest of advancement, Or the product of their sin.
Follow out true Cultivation, Wideu Education's plan, From the majesty of Nature Teach the majesty of Man.


## Handsome Gothic Cottage.

A friend wishes us to publish the design of a handsome cottage of Gothic style, but does not indicate whether it should be of wood, stone or brick; simple and cheap, or elegant and expensive. We accordingly farnish one of medium grade - material, stone.

In many places in Wisconsin a fine build ing stone is easily obtained at an expense bat a little above that of brick or wood. In all such cases, we would recommend its use; for although it may require a little longer time and a little more money to build, when once erected and finished, it is a house for generations to come. Wood houses always look temporary, as though the oceupant only intended to remain a few years just long enough to take the cream off the soil-and then pull up and be off again to some new country. But when we find here and there a substantial and handsome stone dwelling - particularly if it is surrounded by a beautiful lawn and gives other evidence of refinement and cultivation - we say involuntarily to ourselves, "Here is a beautifal and permanent home. May it remain in the same family line for a thousand years."

The above design is appropriate to any well-improved farm, free from mortgage, and requires, in order to the best effect, ample grounds about it and a few handsome natives of the forest. Cost, $\$ 2,500$ to $\$ 4,000$, according to the expensiveness of finish.

In the next number we will publish a de sign of simple character, but of the same general style of architecture.

## Give the Boys a Chance.

Few fathers ever practically educate their children for the duties and responsibilities of their chosen pursuit. We mean to say there is too little directand special effort made with reference to the duties they will hare to assume when they come to set up for themselves.
Most farmer boys learn by imitation alone and are never thrown upon their own resources until they go out from the old home for life. They have never been specially taught the best methods, with the reasons therefor, as a faithful teacher is in the habit of instructing his pupils in the philosophy of language and the theory and applications of science. The result is, in too many cases, when they come into new circumstances and the conditions are different, they are at a loss how to proceed.
Fathers, don't imagine that your boys are mere animals or machines with so much work in them, which it is your business to get out with the least possible cost. Treast them rather as young students trying to learn the art ot taking care of themselves and of contributing their fair share to the world's advancement in civilization.
One of the best methods of developing self-reliance and that practicality which will
be useful in manhood, is to give them a little land for independent cultivation - a corner of the garden and a reasonable patch in the filed - and such animals as they have a partiality for, and are competent to take care of. Give them all the instruction you can, to start with, and then add to it as they desire and as it becomes necessary. Labor under such circumstances will be pleasant ; their taste for farm life will be increased; their powers of observation and comparison of facts will be sharpened and strengthened, and they will gradually become fit for the responsibilitjes of adult life.
We remember with pleasure our own boyhood attempts at independent farming the young sow and pigs that we bought with money earned in picking up apples, and which so rapidly and remarkably increased her family, that in two or three years we had three hundred dollars worth of pork on our hands ! - the acres of cern and potatoes that we cultivated "on shares" - the beau. tiful flock of sheep, all sprung from the halffrozen lambkin that we saved from the snow--and the handsome little colt that grew to be the wonder of the neighhorhood, and continued the object of our affection and pride long after we had ceased our ambitious efforts on the dear old homestead farm.
Others have had similar experiences, and all will join in their endorsement of the wisdom of the plan of giving children a chance to do something for themselves. Try it, ye fathers who have not.

Henry Clay on Segessionitts.-Colonel Benton's Abridgement of Debates, vol. 16, page 594, reports Henry Clay as havivg thus spoken in 1850 , respecting a South Carolinian, now infamously notorious, when no man out of that traitor State dared to second her proceedings:
"Mr. President :-I said nothing with respect to the character of Mr . Rhett, for 1 might as well name him. But if he pronounced a sentiment, attributed to him, of raising the standard of disunion and resist , anee to the common government, whatever he has been, if he follows up to the declar. ation by corresponding overt acts, he will be a traitor, and Ihope he will meet the fate of a traitor. [Great applause in the galleries, with difficulty suppressed by the Chair."]
"Mr. Clay resumed: "I have heard with pain and regret a confirmation of the remark

I made, that the sentiment of disunion is becoming familiar. I hope it is confined to South Carolina. I do not regard as my duty what the honorable Senator seems to regard as his. If Kentucky to-morrow unfurls the banner of resistance, I never will fight under that banner. I owe a paramount allegiance to the whole Union - a subordinate one to my own State."

## Queen Victoria's Children.

The following, elipped from an exchange, is commended to the attention of such tender, weak-minded mothers as think labor a curse to be shunned, and so, though, perhaps, compelled to toil themselves, work all the more slavishily that their good fornothing daughters may spend their time in fashionable amusements and grow up in blisful ignorance of all that they ought to know. Mrs. Vietoria is a most admirable motherly Queen, and now that she has made it aristocratic for young ladies to know something of the mysteries of the kitchen, we trust that all the would-be aristocratic mothers in the world wtll follow her noble example:

Queen Victoria's Children.-At the summer residence of Queen Victoria, in the Isle of Wight, a large portion of the pleas ure grounds is appropriated to the young Princes and Princesses, who have each a flower and a vegetable garden, green-houses, hot-houses, and forcing fromes, tool-houses, and even a carpenter's shop. Here the royal children pass hours of their time.Each is supplied with a set of tools, marked with the name of the owner; and here they work with the enthusiasm of an amateur and the zeal of an Anglo-Saxon. There is no branch of gardening in which the royal children are not au fait.

Moreover, on this juvenile property is a building, the ground floor of which is fitted upas a kitchen, with pantries, closets, dairies, larders-all complete in their arrangement; and here may be seen the young Princesses, arrayed a la cuisinierre, floured to the elbows, deep in the mysteries of pastry making, like a rosy New Eugland girl.Cooking the vegetables from their own gardens, preserving, piekling, baking, sometimes to partake among themselves, or to distribute to the poor of the neighborhood, the results of their handiwork. The Queen is determined that nothing shall remain unlearned by her children; nor are the young people ever happier than during their sojourn at Osborne.

[^2]
## Home Courtesies.

A correspondent gives us this experience: "I am one of those whose lot in life has been to go out into an unfriendly world at an early age; and of nearly twenty families in which I made my home in the course of about nine years, there were only three or four that could be properly designated aa happy families, and the source of trouble was not so much the lack of love as lack of care to manitest it." The closing words of this sentence give us the fraitful source of family alienations, of heart aches innumerable, of sad faces and and gloomy home circles. "Not so much the lack of love as of care to manifest it." What a world of misery is suggested by this brief remark ! Not over three or four happy families in twenty, and the cause so manifest, and so easily remidied! Ah, in the "small, sweet courtesies of life," what power resides! In a look, a word, a tone, how much of happiness or disquietude may be communicated. Think of it, reader, and take the lesson home with you."

Queen Victoria's Appearance in Par-liament.-Queen Victoria, on the opening of Parliament, entered the chamber preceded by heralds emblazoned with gold and followed by lords. "As usual (says the account) Her Majesty is perfectly at her ease, quietly looking around the splendid chamber as if she sat alone in it, and the surrounding six handred pair of eyes were bent on any one but her. As always on these great occasions, Her Majesty wore robes of state, her dress being composed of silver tissue, striped with gold, and a superb train of crimson velvet, lined with ermine, and embroidered with gold, which was carried by the ladies in waiting and two pages. On her head was a demi-crown of brilliants and with it were worn en suite a necklace, earrings, stomacher and bracelets of dia monds."

## HEALTH AND DISEASE.

Colds.-If a man begins to cough as the result of a common cold, it is the result of Nature herself attempting the cure, and she will effect it in her own time, and more effectually than any man can do, if she is only let alone and her instincts cherished. What are those instincts? She abhors food and craves warmth. Hence, the moment a man is satisfied that he has taken cold, let him do three things. First, eat not an atom; secondly, go to bed and cover up warm in a warm room; third, drink as much cold water as he wants, or as much herb tea as he can, and in three cases out of four he will be almost entirely well within thirty-six hours.
If he does nothing for the cold for fortyeight hours after the cough commences
there is nothing he can swallow that will do him any good; for the cold, with such a start, will run its course of about a fortnight, in spite of all that can be done, and what is swallowed in the meantime, in the way of physic, is a hindrance and not a good.-Dr. Hall.
The Dyspepsia ahong Farmers.-Would any man think it! exclaims a contemporary, yet the press of the West asserts that indigestion prevails more exclusively among its farming population than any other class. They say it comes from eating too much salt pork-too much saleratus bread, bolting their food always in a hurry, taking only 15 minutes to a meal, and then rushing away to the field to work on a hastily crammed stomach. What a queer commentary on life! Once we th ought indigestion only the gourmand's and the millionaire's punishment; now it seems it is the curse of that frantic American resolution to do too much, to get rich in a year instead of fifty, as our forefathers did, and plagues the stomach of the sturdy west as much as if it were the place and subject of diabolical possession. Salt pork, hard water, saleratus bread and bolting food are enough to destroy the action of any but an ostrich's stomach.--Ex.
Putrid Sore Throat-Cure.-A lady who has experienced the benefit of the following simple remedy, is very anxious that the readers of The Tribune should be made acquainted with it and its value:
"Mix one gill of strong apple vinegar, one table spoonful of common salt, one table spoonful of drained honey, and a half pod of red pepper (or half tea-spoenful ground pepper), boil them toge ther to a proper consistency, then pour it into half a pint of strong sage tea. In severe cases half a teaspoonful every hour for a child; one teaspoonful for an adult. As the canker decreases, decrease the fi equency of the doses.
To encourage the Growth of Hair and prevent its turning Grey.-A lady friend of mine was recommended by a coiffeur to use sage water. She was obliged to discontinue its daily use as it made her hair too thick. Pour boiling water on the sage leaves, and let them remain sometime in the oven or near a stove; then strain and apply to the roots of the hair daily. If any pomade is needed, an equal mixture of cocosnut and olive oils, with a little perfume, is very efficacious.-Ex.
-By calculation it is shown that, of 1000 individuals, 23 die in their birth, 277 from teething, convulsions, and worms, 7 in measles, 2 women in ehildbirth, 195 , of consumption, asthma, and other chronic complaints, 250 of fever, 12 of apoplexy, and 41 of dropsy. Or, in another point of view, of 1000 persons, 200 die within the first year, 80 in the second, 40 iu the third, and 24 in the fourth; rnd within the first eight years of life, 445, or almost one half of the number, are cut off by premature death.

A Remedy yor Slerplesssiess.-How to get sleep is to many persons a matter of great importanioe. Nerrous pérsons, who are troubled with wakefulness and excitability, usually have a tendency of blood on the brain, with cold extremities. The pressure of the blood on the brain keeps it in a stimulatéd or wakeful state, and the pulsations in the head are often painful. Let such rise and chafe the body and extremities with a brush or to wel, or rub smartly with the hands, to promote circulation, and withdraw the excessive amount of blood from the brain, and they will fall asleep in a few moments. A cold bath, or a sponge bath and rubbing, or a good run, or a rapid walk in the open air, or going up or down stairs a few times just before retiring, will sid in equalizing circulation and promoting sleep. These rules are simple, and easy of application in castle or cabin, mansion or cottage, and may minister to the comfort of thousands who would freely expend money for an anodyne to promote "Nature's sweet restorer, balmy sleep."--Ex.

## WIT AND WISDOM.

-The following inscription is said to have been found on a head-board of a grave in Sparta diggins in California :

## In memory

John Smith, who met
a wierlent death this spot
18 hundred \& 40 too - He was shot by his own pistill.
it was not one of the new kind bnta old fashioned one
bras barrel and of such is the Kingdom of Heaven.
$-\Delta$ medical student under examination, being asked the different effects of heat and cold, replied:
"Heat expands and cold contracts."
"Quite right. Can you give me an example."
"Yes sir. In the summer, which is hot, the days are longer, but in winter, which is cold, the days are shorter."

- At dinner at Erie, some gentlemen offered Mr. Lincoln some wine, and rather forced it upon him. Mr. Lincoln replied: "I have lived fifty years without the use of any liquor, and I do not think it worth while to change my habits now."
-The following notice appeared on the west end of a meeting-house: "Anybody sticking bills against this church, will be prosecouted according to law or any other nuisance."
-A lady being asked the place of her nativity, replied: "I am so unfortunate as to have no native place; I was the daughter of a Methodist clergyman."
-In all noble enterprises the ladies are like the electric telegraph-far in advance
of the mates. of the males.
-The aid that South Carolina deserves-
anon-ade.
-Those who do right usually suffer wrong.
-The man who confines himself to the drink best for him, is well-supplied.
-How to insure a stable government; elect Rary for next President.
- Hood said his umbrells was a good Catholic, for it always kept lent.
-It has been well observed that advice is not disliked because it is advice, but because so few people know how to give it.;
-The snake has been quite appropriately adopted as the device on the Secession banner. It is the shape which the Devil took to oause the loss of Paradise to our race.
-A paragraph of The Cineinnati Cowmercial, in relation to Gov. Picken's seizure npon the money in the Charleston subtreasury, is headed "Pickins and Stealings."
--Harper's. Weekly publishes portraits of all the seceding South Oarolina members of Congress. They are not as well executed as they ought to be.--Louisville Journal.
--Drop by drop falls into the clear well of youth the bitter water of experience, and there is no filter this side of the grave that can restore the old purity.


## DOMESTIC ITEMS.

Kitchen Odors,-A skillful housekeeper says, that the unpleasant odor arising from boiling ham, cabbage, etc., is completely corrected by throwing whole red peppers into the pot-at the same time the flavor of the food is improved. It is said that pieces of charcoal will produce the same effect.
Gingerbread.-One cup of molasses; 1 cup of sagar; 1 cup of sour cream; 1 tablespoonful of butter, or take 1 tablespoonful of buttermilk with $\frac{1}{2}$ a cup of outter; 2 tablespoonfulls of ginger; 2 large teaspoonfulls of saleratus; a little salt. Mix it, not very stiff, roll out like baker's gingerbread, and bake from ten to fifteen minutes.
To Make Hasty Pudding.-Take $\frac{1}{2}$ doz. eggs; 2 tablespoonfulls of sugar; 1 cup of flour; a lump of butter, large as an egg, and half an nutmeg; you may add, if you like, $\frac{1}{2} \mathrm{lb}$. raisins ; mix well and bake quick.
Potatoe Custard.-Ten potatoes boiled soft, six or eight eggs, sugar to your taste, one cup of milk, quarter pound of butter, nutmeg, essence of lemon, brandy and wine to your taste. Mash the potatoes very fine.
-Cleanse hair brushes and combs by washing them in a quart of soft water, in which has been stirred three or four teaspoonful of li yuid ammonia.
Ox Marrow Pomatew.-Take two ounces of yellow wax, 10 ounces lard, 8 ounces beef marrow, melt all together, avd when cool, perfume with th "antial o of-

To Make Rush. -Take $1 / 2$ pint of milk 3 eggs, 1 large tablespoonful of butter, a tablespoonful of sugar, $1 / 2$ a cup of yeasst, mix as batter, (not tog thin,) set in the sun until light, then knead into a loaf, pull off pieces of equal size, roll in the hands, put them in an oven close together, let them rise, and when they have done so, wash them over with egg and sugar. Bake quich.- [Southern Cultivator.

Baked Apple Dumplings. - Boil one pound and a half of good apples with a gill of water, and half a pound of brown sugar, until reduced to a smooth pulp; stir in one gill of sweet cream, a tablespoonful of flour or fine bread crumbs; flavor with a little lemon juice, or grated lemon, and bake forty minutes.
Hoz Cake.-This cake, so popular in the South as a breakfast and tea cake, is made in the following way: Scald a quart of Indian corn meal with a pint of water; stir in two teaspoonsful of salt and a little melted butter; put it, when properly mixed, into a well-greased tin, and bake it half an hour.
To tafe Ttains cut of Silver.-Steep the silver in soap lye for space of four hours; then cover it over with whitling, wet with vinegar, so that it may lie thick upon it, and dry it by a fire; after which rub off the whiting and pass it over with dry bran, and the spots will not only disappear, but the silver will look exceedingly bright.
-Destroy chinch-bugs by having the bedsteads taken down every few days, and washing each crevice thoroughly with cold water, then brush them over with strong camphor-water or varnish. Now is the time. Dust should never be allowed to accumulate on bedsteads.

Tea Cake.-One pint new milk, two pints flour, two eggs, two tablespoonsful butter, one do. of soda, do. of cream tartar.

## A Hint for Young Men.

- A happy woman! Is she not the very sparkle and sunshine of life ?-A woman who is happy because she can't help itwhose smile even the coldest sprinkle of misfortune cannot dampen. Men make a terrible mistake when they marry for beauty, for talent or for style: the sweetest wives are those who possess the magic secret of being contented under any circumstances. Rich or poor, high or low, it makes no difference : that bright little fountain of joy bubbles up just as musically in their hearts. Do they live in a log cabin: the fire light that leaps up on its humble hearth becomes brighter than the guilded chandeliers in an Aladdin palace. Was ever the stream of life so dark and unpropitious that the sunshine of a happy face falling across its turbid tide, should not awaken an answering gleam?


## YOUTH'S CORNER.

## A-Word to the Girls.

Girls, in another place, we have asied the fathers to give the boys a chance to do something for themselves and learn to catry on a farm by cultivating small pieces of ground, taking care of pet colts, lambs and pigs.But we hope you will not think for a moment, that we have forgotten all the thousands of bright-eyed good little girls whe every month look first at the Youth's Corner to see whether we have anything there specially for them. Not we. We like the girls as well as the boys, if not better!
Here then, little misses, is a plan for you : A flower garden-wouldn't it be nice to have one all your own ?-a delightful little nook in the big garden, full of larkspurs, pansies, candytufts, portulaceas, phloxes, mignionettes, marygolds, and a dozen more beautiful flowers that we have not time to name. A pretty little bed of pansies is certainly more beautiful than the sleekest, fattest pig in the world; and if it won't yield quite so much money, you may feast your eyes upon its soft velvet flowers day after day and learn from it a lesson of the beauty of modesty, which is of far more worth than all the pigs in creation.
And then, perbaps you can persuade your kind parents to get you a woodbine or honessuckle that will climb up by your window and delight you and your little playmates with its green leaves and delicious shade in the hot summer time; a flowering almond, lilac or snowberry, that will not require to be planted each year like the flowers first named; and even a beautiful little cedar, fir, or arbor-vitae, that will remain fresh and green, summer and winter, as long as yon live. Just think of it !-and not oniy think, but go straight and ask mother and father, if they will not help you to get all these nice things.
Should any very practical little girl read this, who would like something besides, that would bring a little money for bright ribbons, pretty books, and china for the play-house, we ask her to think of how many dimes she could get from two or three currant bushes, or a very little strawberry bed, or melon patch! Father and brother will plant them and you must keep out the weeds.


## The Wolf.

There are several different species of this animal, as, for instance, the black, the grey, and the prairie wolf. The black wolf is cor. rectly represented in the picture above.Though not so common he is more ferocious and dangerous than either of the others named. His length is about five feet and eight inches from tip of nose to end of tail, andtwo feet three inches highatthe shouiders.
His color is brownish-black; the coat a sof, thick down, with longer, coarser hairs, which, with his bushy tail, sharp nose and stiff pointed ears give him a $k \in e n$, fierce look true to his character. He bites by savage and oft repeated snaps.
He is much more powerful than the dog. and his thirst for blood makes him a very unsafe fellow in the neighborhond of sheepcotes and pig'pens. Nor are their appetites confined to quadrupeds; men have often fallen into their remorseless jaws.
The fellowing thrilling story will show our little readers how ready they are to eat up even good little boys when they get the chance:
"The settlers of Maine found, besides its red faced owners, other and abundant source of annoyance and danger. The majestic forests which then waved where now is heard the hum of business, and where a thousand villages stand, were the homes of innumerable wild and savage animals. Often at night was the farmer aroused from sleep by a noise without, which told that bruin was storming the sheep-pen or pig-sty, or was laying violent paws upon some unlucky calf -and often on a cold winter evening did they roll a large log against the door, and
with beating hearts draw closer around the fire, as the dismal howl of the wolf echoed through the woods. The wolf was the most ferocious, blood-thirsty but cowardly of all, rarely attacking man unless driven by hunger, and seeking his, vietin, with the utmost pertinacity. Tpe int ofent rere related occurred in the history of Biddeford. A resident of that flace, Mr. ——, was one autumn engaged in felling trees at some distance from the house. His little son, eight years old, was in the habit, while his mother was busy with housthold cares, of running out inth the fieldeand woods, around the house, and often going where his father was at work. One day after the frost had robbed the trees of their foliage, he left his work rather sooner than usual, and started home. Just on the edge of the forest he saw a curious pile of leaves and without stopping to think what had made it, he cantiously removed the leaves, when what was his astonishment to find his own darling boy lying there sound asleep. 'Twas but the work of a moment to take up the little sleeper, put in his place a small $\log _{\text {. }}$ carefully replace the leaves, and conceal himself among the bushes to watch the result. After waiting there a short time, he heard the wolf's distant howl, quickly followed by another, till the woods seemed alive with fearful sounds. The howls came nearer, and in a few minutes, a large, gaunt, savage-looking wolf leaped into the opening, closely followed by the whole pack. The leader sprang directly on the pile of leaves, and in an instant scat tered them in every direction. Soon as he saw the deception, his look of fiercene 8 and confidence changed to that of the most abject fear. He shrank back, cowered to the ground, and passively awaited his fate, for the rest, enraged by the supposed cheat, fell upon him, tore him to pieces, and devoured him on the spot. When they had finished their comrade, they wheeled around, plunged into the forest and disappeared; within five
minutes of their first appearance not a wolt was to be seen. The excited father pressed the child to his bosom, and thanked the kind Providence which led him there to save his dear boy. The boy after playing till he was weary, had laid down and fallen asleep, and in that situation the wolf had found him and covered him with leaves, until he could bring his comrades to the feast; but himself had furnished the repast.".

## ANECDOTES ANDD FUN.

## What Came of Indectionon.-

Professor Toots
Wanted to buy a pair of boots.
He found two pair
They fitted him to a hair-
The one at Elack's, the other at Fee's.
He tried on those and he tried on these;
Went from Fee to Black,
And then went back-
From nhop to shop
Till ready to drop-
And knew not which to choose;
So that Mr. Toots.
In buying one pair of boots
Wore out two pairs of shoes.
Puzzls.-Make, four lines, thus:

$$
1-1
$$

Then, by adding five other straight lines, make ten of the whole.

The following is an improvement upon the last. Put downsix lines, thus:


Add five straight lines and make nine.
Take'seventeen matches, pencils, or anything of that description, and arrange them on a table, or level surface, in the annexed shape :


Of which five matches or pencils must be picked up, in order that three squares only shall remain.

Puzzle.-

> WOOD
> JOHN
> MASS.

From these three words having regard to their position, you are to get the name of a man and the town and State of his residence. The surname and town contain three syllables each. Solution in the next number. Send in your answers, girls and boys.

[^3]
## NEWS 'DEPARTMENT.

## POLITICAL.

Legislatir Among the bills of impor. tance which becama laws during the latter part of the session of the legislature may be enumerated therfoid
A bill for the relief of farm mortgagors.
A bill to ensure the faithful collection of industrial statistics; embracing the precise featurea, proposed in our leader in March number.
A bill now apportioning the State into Assembly and Senatorial districts.

A bill apportioning the State into six Congressional districts, as follows:

First District.-Embracing the counties of Milwaukee, Waukesha, Walworih, Racine and Kenosha.

2nd Distribt.-The counties of Rock, Jefferson, Dane and Colambia:

3d District:-The counties of Green, Lafayette, Iowa, „Grant, Crawford, Richland, and Saul.

4th District.-The counties of Ozaukee, Washingion, Dodge, Fond du Lac and Sheboygan.

5th District.-The counties of Manitowoc, Calumet, Winnebago, Green Lake, Marquette, Waushara, Waupaca, Outagamie, Brown, Kewaunee, Door, Oconio, and Shawanaw.

6th District.-The counties of Bad Ax LaCrosse, Monroe, Juneau, Adams, Portage, Wood, Jackson, Trempeleau, Buffalo, Pepin, Pierce, St. Croix, Dunn, Eau Claire, Clark, Marathon, Chippewa, DaHas, Polk, Burnett, Douglas, La Pointe and Ashland.

A bill to ensure the destruction of noxious weeds, (snap dragon and Canada thistle,) making it incumbent upon overseers of highways and the boards of town supervisors to see that they are so desiroyed, and that the penal.y is executed upon all who neglec ${ }^{t}$ their duty as prescribed by the Statute.

A bill io faciiitate the recovery of strays Attaching a severe penalty to the neglect to give nocice of the taking up of stray animals, and giving to the informant one half the fine collected.

A bill discontinuing the Geological Survey.

A bill abolishing the ofifice of Town Superintendent of Schools, and creating the office of County Superintendent, with a salary not exceeding $\$ 600$ per annum.

A bill providing for the publication of the Transactions of the Wisconsin State Agricultural Society for 1860.

A bill pioviding for the publication of the Report of the Geological Survey.
A bill creating two new judicial circuits.
A bill taking awhy a portion of the land grant from the La Crosse R. R. Co., and giving it to the Sugar River Valley R. R., for the completion of roads between Madison and Portage, and Columbus and Portage.

A bill authorizing the Treasurer of State to issue State bonds to the amount of $\$ 200$,000 , if needed, for the organization and equipment of militia to aid in suppressing the Southern Rebellion.
Congressional.-The last Congress was ehiefly distinguished for its numerous Union and anti-Union speeches; by the adoption of a new tariff similar to that of 1846 ; by the admission of Kansas into the Union; by the organization of the territories of Colorado, Nevads and Decotah, and by the framing of a new Patent Law, elsewhere referred to.
The Executive Session of the Senate continued about two weeks, and owing to the previous withdrawal of Secession members, was characterized by unusual harmony and concurrence with the wishes of the President.
National-Since the issue of the last number of the Farmar national events have been so startling as that tho intelligence of them cannot have failed to have penetrated every nook and corner of the entire country. Details, therefore, are superfluous now.
President Lincoln, despite all our fears to the contrary, has thus far shown himself the man for the times-conciliatory and magnanimous, yet firm and determined. In the selection of his Cabinet he displayed unquestionable sagacity, and a majority of his foreign appointments must meet the approval of the whole country.
The following are the officers of the Cabinet and the appointees to the most important foreign ministries:

## CABINRT.

Wm. H. Seward, of N. Y., Seo. of State. S. P. Chase, of O., Sec. of Treasury. Oaleb B. Smith, of Ind., Sec. Interior. Simon Cameron, of Penn, Sec. of War. Augustus Wells. of Conn., Sec. of Navy. Edward Bates, of Mo., Att'y General. Montgomery Blair, of Md., P. M. General.

TOMPORTANT FOREIGN APPOINTMENTB. Minister to England, Chas. Francis Adams, of Mass.

Minister to France, Wm. L. Dayton, of New Jersey.
Minister to Spain, Carl Schurz, of Wis. Minister to Russia, Cassius M. Clay, of Kentucky.

Minister to Mexico, Thomas Corwin, of Ohio.

Minister to Prussia, Norman B. Judd, of 1llinois.

Minister to Austria, Anson P. Burlingame, of Mass.
Minister to Sardinia, George P. Marsh, of Vermont.

Our home appointments are too multitudi ness and too unimportant, individually considered, to demand enumeration. They have necessarily occupied a large share of the President's attention up to the present time, since on his accession to the Presidency a large number of the Federal offices were in the hands of either armed traitors or of persons of doubtful loyalty.

Progress of Treason.-Deceived by the oonciliatory police of the President and his Cabinet, the Rebellionista have made some bold moves within the past few weeks. The "Southern Confederacy" has been offieered as follows:

President, Jefferson Davis.
Vice President, A. H. Stevens.
Sec. of State, Robert Toombs.
Sec. of Treasury, C. S. Memminger.
Sec. of Interior, Vacancy.
Sec. of War, L. P. Walker.
Sec. of Navy, John Perkins, Jr.
Postmaster General, H. T. Ellet.
Att'y Gen'l, J. P. Benjamin.
Texas has seceded, in spite of Gov. Houston, and has taken possession of a large amount of Federal property.

Fort Sumter has been captured, and a large army is gathered at Fort Pickens.
Attempts have been made to obstruct the navigation of the Mississippi; to capture the shipping in Norfolk harbor; to take possession of the military stores at Harper's Ferry; to prevent the pessage of troops for the defence of Washington; and last and basest of all, Virginia has seceded, and a large army is said to be gathering in the vicinity of the Capitol, with a view to wresting it from the Administration.

But meantime the President has not been less vigorously active in carrying out the line of policy indicated in his admirable Inaugural. Having first got the reins of government fairly into his hands, and gathered in the few ships of war that were scattered everywhere along the coast and on the high seas, he has reinforced Fort Pickens, blockaded Charleston, removed to places of safety the arms and munitions of war from Harper's Ferry and other exposed places, collected an army of a hundred thousand men, and called a special session of Congress to meet on the 4th of July, for the purpose of providing the requisite means for carrying on the war to the issue of an enforcement of the Constitution and the laws. His proclamation calling for 75,000 men was issued on the 14th of April, and within one week not less than 150,000 men had enrolled themselves. Never in all history was there such a universal uprising of the people. Party politics are entirely forgotten, and the old patriotism that seemed to have been sleeping for a quarter of a century, has been rekindled and now glows with an intensity never known before. At the present rate of enlistment, before the first day of June there will be a million of men in the north ready to battle for the Union.

## AGRICULTURAL.

- At the annual meeting of the State Agricultural Society, recently held at St. Paul, measures were taken to commence the work of erecting buildings for the State Agricultural College at Glencoe.
- The Ohio State Board of Agriculture have decided to hold the next State Fair at Dayton, that city guaranteeing the payment of $\$ 5,000$, furnishing the Fair Grounds free of charge, and securing the usual railroad facilities.
- The Illinois State Fair is to be held at Chicago on the 9 th, 10th, 11 th, 12 th, 13 th and 14th of September.
- In addition to the supply from swill-fed and other animals in the city, New York now receives daily by railroad, 180,000 quarts of milk, makiug, at 7 cents per quart, an aggregate annual business of $\$ 5,000,000$. The Harlem railroad derives an annual revenue from this source of $\$ 250,000$.
- We learn that Israel Parshal, of Ha vana, Siginaw county, Mich., raised the past season from forty-two acres of land, 6,721 bushels of corn ears, which is just about 190 bushels to the acre.

The same gentleman has constructed for the immediate reception of this crop, what he styles a " self operating corn crib." It is sixty four feet long and holds 4,000 bush els. It is built on a hill side, and has a pitch, in the direction of its length, of one foot in four. It can be entirely filled from the upper end, the corn sliding don $n$ by its own weight to the other extremity, where it is drawn out at a door as wanted.

- According to the Davenport Democrat the hog disease is still prevailing to a considerable extent in Iowa. It is said to be a kind of sore throal, and to be chiefly confined to fat hogs. The "black tooth" is also prevailing.
- The product of the wheat crop, last year, in six northwesiern States, was 95,000,000 bushels; Illinois and Wisconsin, $25,000,000$ each; Indiana $16,000.000$; Michigan 12,000,000; Iowa $10,000,000$; Minnesota $6,000,000$. The whole grain crop of Illinois in 1861 is estimated at 101 busbels to each inhabitant.
- China at present produces six times as much cotton as all our Southern States put together, and is capable of producing an unlimited amount. Labor costs almost nothing, and it is the discovery of their immense capacity that may be considered the true key to the China war.
- Every yéar France imports between 11,000 and 12,000 horses at an expense of about $\$ 3,500,000$, and still the cry is, "More I"
- The immense appetite of London is fed every year by about 276,000 oxen, besides 30,000 ealves, $1,500,000$ sheep, and 80,000 swine.
- The Linn (Iowa) County Register ac knowledges the receipt of a sample of supe rior cotton raised by a gentleman of that county the past season.
- The United States census shows that we might better afford to lose three suceessive crops of cotton than one crop of grast.

EDITOR'S TABLE.

## some Things the Editor wants Dis tinctly Understood.

First, That, having simply agreed to edit the Farmer, and being in no manner whatsoever connected with the printing and publication department, he is no more responsible for any irregularities of its monthly appearance than are the subscribers themselves.
Secondly, That all subscriptions and letters intended for the business department of the Farmer should be sent to the Publisher. Any communication intended for the Editor, and enclosed, on a separate piece of paper, in the same envelope, will reach his hands just as certainly, and, at the same time, save him no little trouble. Communications intended for publication, or reporting facts for the editors use, should, of course be sent directly to him.
Thirdly, That he desires every reader, possessed of knowledge or views appropriate to an agricultural paper, to forward them to the Farmer for publication.

## The Arts of Peace and War.

There is great danger, in times like the present, when war so almost exclusively occupies the minds of the people, that the hands of farmers who remain at home to cultivate the fields will be less active than is necessary to meet the demands of the country. And yet there are three important reasons why all agricultural operations should be carried on more vigorously than ever: First, because the war will result in an increased demand for the products of agriculture; secondly, because the number upon whom the production of food depends must be proportionally diminished; and thirdly because the increased value of all agricultural produets will the better remunerate the producer.
We are certain of war at home, for it has already begun and the conflict is likely to be "irreoressible." The Union cannot compromise, and treason will not yield until it is crushed. Therefore, farmers of Wisconsin, awake! Put on a new energy-the energy Which is begotten of patriotism, of humanity and of self interest-and may the God of jnstice smile alike upon the armies and the fields of the loyal North !

A New Joint Stock Soheme for Farmers.
The people of Kansas are starving! The people of Kansas are poor ! These two considerations combined, cause great suffering, calling forcibly for sympathy and aid. The manner in which we have responded to this call proves in a degree our claim to the brotherhood of man. The farmers of this State are poor; in fact agrieulturalists generally, are poor; they are sadly in want. I am in want-my neighbor is in want; not of bread, or lands, or money; we want knowledge, we want facts. I want a great variety of facts,-my neighbor wants information on as great a variety of subjects as I, but a little different in kind. These wants we cannot deny, ignore, or secede from. Some of my neighbor's wants I can satisfy, and he in turn can satisfy some of mine. Some man up in Pierce, or Dodge, or Rock, can supply others, and I in return can give them something from my store of facts.
There is one pleasant feature in this mutual giving-the total absence of any thing like alms; and also, that however much we give, our store is not diminished. Is not, charity then but a gift-that in giving shall profit the giver as well as the receiver? In fact we propose a Joint Stoek Mutual benefit Society, wherein the amount paid in shall bear an infinitely small proportion to the dividend, and the dividends shall in all cases increase in proportion to the use they are put to.
The terms of membership are: 1st, subscribe for the Farmer, and 2d, (and this I must here warn you is by many considered the great boo scare, the skeleton of the feast) each stockholder shall contribute from his or her stock of knowledge, what of value they can collect. Is there any thing onorous or burthensome in this? Will it not rather be a pleasant and profitable labor. Let us view this matter in a more serious and impressive light. In choosing the business of farming, we in so doing assume the office of Guardian in trust of Heaven's bounty to man. May we squander this inheritance without guilt, or in dissipating it can we plead ignorance with impunity; and at the same time neglect the most ready and feasible means of information. In the business of tilling the soil, there is a strong tendency to isolation-disinclining most farmers from aiding to ere-
ate by dissemination, commünity of knowledge. Much, however, of the repulsion that farmers entertain for agricultural literature is owing to the fact that a very large proportion of such literature is drawn from the closet rather than the field-bearing on its face and in its substance unmistakeabe evidence of its origin, and for that reason too often repelling the less cultivated student. There is also an inoffensive word or term, that is much abused, and made repellant when it should be winning. I here allude to the term Science. It is considered as a kind of cabalistic sign, applicable only to the uninitiated few, when its utmost limit of meaning is "a correct arrangement of facts."
There is now, truthfully speaking, no science of agriculture, the list of facts being far too small, too limited in compass, and liable to too numerous exceptions to now warrant the term; not because those facts are not known-forthey are-butas yet they are not widely disseminated. What is now required is combining, gathering up anc arranging. This labor comes within the famer's prov-ence-the facts arein our hands; let us each and all send up to the farmers what we have and see what will come of it.

Springfield, March, '61.
D. W.

## Transactions of the State Ag. Society for 1861.

In order to make the 6 th volume of Transactions of the State Agricultural Society as complete an exhibit as possible of the natural resources and general industrial condition of Wisconsin, we addressed letters in the early part of December to prominent and responsible persons of our acquintance in all the counties of the State, asking for such communications as would briefly and reliably inform a stranger of the topography of their counties respectively-character of surface, distribution of land and water, proportion of cultivated, wild, and waste land-of the quality and kinds of timber; of the nature of the various soils ; of the crops cultivated; the fruits grown; the character of the stock bred; of the number, kind and capacity of manufacturing establishments, \&e., so.

A number of the gentlemen addressed saw at once how valuable such a collection of reports sent to every state in the Union
and to most countries in Europe, must be to our State, as also the peculiar benefit to the counties themselves, which must come of their publication, and hence very properly, and most of them promptly, complied with the request. Others have not done so. Bui as provision could not be made for the publication of the volume until very late in the session of the Legislature, it may not be too late yet if some competent, energetic,?public spirited person in each county will undertake the task. The following are the counties now represented in the work:

Adams, Brown, Bad Ax, Calumet, Columbia, Douglas, Juneau, Jackson, Kenosha, Lafayette, Outagamie, Ozaukee, Pierce, Racine, Richland, Sauk, Winnebago, Waupaca and Walworth.

Will not the officers of the several Agricultural Societies whose counties are not represented, take this important matter in hand immediately, and thus give us their reports before it is too late-say within two or three weeks at farthest ?

## Monthly Agricultural Reports of Cropss Fruit, Stock, \&c.

There is scarcely any importation more interesting to the farmers or more important to the great public than that which acquaints them with the condition and prospects of the crops from month to month. We propose, therefore, to publish in each number of the Farmer a synopsis of such reports as may be furnished us from all parts of the State, together with an average estimate deducted therefrom. Returns upon the following items are especially solicited:
Principal crops under cultivation.
General appearance and prospects of the crops.
Character of the weather-favorable or unfavorable.
Also specific reports on Wheat, Rye, Oats, Barley, Indian Corn, Potatoes, Root Crops, Sugar Cane, Grass, Hemp, Flax, Gardens, and Orchards.
Stock-healthy or otherwise.
The persons making these reports, although invited to speak for their own crops are. especially requested to represent the general locality-town or county-where they reside.

State, Fatr-Premiuk List.-The list of premiums and judges, together with the rules and regulations for the Fair of 1861, will appear in a few daye.

## Extracts from Correspondence.

Sheep-The Naxt Wool Clip.-Sheep have wintered very well indeed and bid fair to yield heavy fleeoes the coming season. I think we shall not get as high a price into some eight or ten cents per lb. as last year; but wool-growing will be profitable at even those reduced prices. I have noticed some very good articles in your last number on sheep, which I have taken much pleasure in reading; also valuable articles on various other subjects worthy of careful study. I wish you much success in your noble enterprise. Yours respectfnlly,

## H. Hummerway.

Whitewater, April 1861.

## Arlington, April 2.

Prof. Hoyt:-Accompanying this are a few little matters for the Farmer, if you think them worthy a place in your valuable monthly. The recipes we have tried, and found them good. The article on Seed Corn is condensed from a Cincinnati paper. They are at your disposal.

Very respectfully,
E. M. Dunning.
[The recipes will be fouud under their appropriate heading in Home Department.Ed.]

MPORTANT TO FARMERS.-SEED CORN-HOW to produce early germination.
Dr. Chamberlain, of Bureau Co., Ill., has made some important discoveries in regard to hastening this process by artificial means, and demonstrated that nearly half the time may be saved in germinating the seed by the use of chloride of lime. He has in his office four boxes, each contairing corn planted at the same time, in the same soil, and from the same ear. In the first box, the corn was planted without soaking, and has not germinated; in the second, it was soaked in warm water and has just begun to sprout; in the third; it was soaked in a solution of lime and the green blades are just peeping above gronnd; the fourth, was soaked in a solution of chloride of lime and copperas; in equal parts, and the blades are now nearly three inches above the ground! The boxes have all had an equal share of heat and light. The copperas used in soaking will prevent worms, gophers, \&c., from eating the seed. Dr. C. states that one pound of chloride of lime and one pound of copperas, in water, will soak corn enough to plant twenty acres. Worth trying, anyhow.

Willow Spaings, Lafayette Co., April 18.
Mr. Editor:--Please allow me to grumble in my rough way. As the time is drawing near for making regulations and drawing up societies, I would like to draw the attention of the officers to what I call the absurd practice of giving premiums to the fastest trotting horses. I write with the hope that some one better able to handle the subject than I, will take it up. The benefit of it I cannot see, but I think it encourages gambling, horse-racing and gamblers, and encourages farmers to raise fast men, as well as fast horses. It is getting so with our farmers in this section that but few of them have a good, solid, serviceable plow horse. If, Mr. Editor, there is any great utility in it, please inform us, and oblige

Clodioprer.
Transactions of the State Agricultural Society for 1858-9.-Finding that the last legislature, owing to unusual appropriations in various directions, was unable, at the close of the session, to appropriate the amount necessary to pay for the printing of the volume of $1858-9$, in accordance with the usage in other years, we have naturally continued in possession of the few hundred copies yet undistributed, and are now making such disposition of them as seems most advisable.
First we gave three copies to each member of the Legislature as a reward for their cleverness ! and secondly, we have distributed and propose to distribute 20 copies to each County Agricultural Society that has made its annual report.

Before the adjournment of the Legislature we notified both branches of our intention in this respect, and requested all members who were willing and could make it convenient to favor their respective County Societies to acquaint us with that fact. A number received the due apportionment and conveyed the books to their Soc!eties; others reported a disposition to do so, but an inability, without too much inconvenience.

The following Societies have been furnished through members or by express at the request of members; and we are willing to serve all other Societies reported, on application:

Ozaukee; Waukesha, Grant, Racine, Fond dú Lac, Dodge, Eau Claire, Kewaunee, Sheboygan, Calumet, Manitowoc, Green. Lake, Jefferson, Marquette, Lafayette, St. Croix, Richland, Washington.

## New Advertisements.

- The attention of our readers is especially called to the notices of Messrs. Hanford \& Gifford, in relation to Woodside Nursery. Every word of what is said of Mr. Gifford we believe to be true. See page 1.

Also see Mr. Hanford's advertisements on 1st and 2d pages, of South Down Sheep, Chester White Hogs, and Seed Potatoes.

- Smale Fruits are advertised by the well-known firm of Plumb, Willey \& Co., on page 1. They offer the best varieties of such fruits as everybody ought to grow. See also six other advertisements by same par-ties-Evergreens, Wilson's Albany Strawberries, Apple Seeds, \&c.
- The Extract of Tobacco advertised, on page 1, we know nothing about from personal use or observation. It is highly recommended, however, by gentlemen of Massachusetts, and may serve a good purpose. Certainly tobacco should be put to no more respectable use.
- Cahoon's Patent Broadcast Sower.We believe this machine has given pretty good satisfaction to a majority of those who have tried it and who prefer the broadcast method of seeding. Mr. Capron can be relied on for promptness and faithfuluess in filling orders.
- The Thorough-bred horse, Prince of Wales, comes from good stock, and has the reputation of being a good horse.
-Rock Terrace Nursery, near Madison, comprises a large and excellent assortment of small fruits, grapes, pear, plum and cherry trees of the most approved varieties, also, evergreens, flowering shrubs and annuals. Mr. Chandler was several years associated with Marshal \& Wilder. of Boston, in the cultivation of fruits, and is no doubt thoroughly acquainted with his business, and Mr. Robbins possesses the energy, taste, ambition, and meney requisite to success in an undertaking of this sort. Read their avertisement, (page 2,) and give them a trial.
- The Missouri Farms offered by the Hannibal \& St. Jo R. R-Co., are favorably situated, and, in case that State should remain in the Union, will undoubtedly find ready purchasers.

Nansemond Sweet Potato Plants for sale by Messrs Harris \& Cobb, Lemont, Cook Co., Ill. We are not specially acquainted with these parties, but presume they will be found prompt and reliable.
-Chas. H. William's Premium Bull, Paris, is so well and favorably known, that no commendation in this place will be necessary.

- Edwin Marshall, Poughkeepsie, N. Y., likewise offers? the choicest and newest vrieties of small fruits.
-Chester Whitr Hoas seem to be all the rage. See Mr. H. C. Graff's advertisement, page 1.


## PUBLISHER'S CORNER.

Fatrbanks' Scales.-We would call at ${ }^{-}$ tention, especially of the farmers, to an advertisement in another column, of these celebrated Scales. The very general use of Weighing machines renders it a matter of importance to all business men to know which are the best and most reliable. Farmers too, are especially interested in this, as they are coming into general use by them, in order to detect any mistakes in the weight of their grain, pork, wool, \&c., which they take to market.

In order the better to advise our readers, we have examined the plan, construction and workmanship of the above Scales, and without hesitation pronounce them the best in use. The long experience and constant application of the inventors, have reduced them to the simplest form possible of a compound balance. They have from time to time made important improvements, among which are the steel guaads, secured by patent, to prevent friction of the loops on the beam, and of the greatest utility are the check rods which, while, they do not in the least obstruct the free operation of the Scale; entirely prevent all friction of the bearings on the knife edges of the Scale, on which the platform of all Scales must rest.

These stay rods are not used in the Scales first made by Fairbanks, but experience has demonstrated that their use, by effectually preventing all chafing of the bearings on the pivots, adds essentially to the durability of the Scale. These Scales being always perfectly accurate, unequaled for durability, and the acknowledged standard, are the best and cheapest to buy.

They may be had at manufacturers prices, at their Warehouse, 35 Lake street, Chicago, and at Simeon Mills, Agent, Madison.

Uncurrent Money!-Our currency is now in such a shape that scarcely any of it can be relied on for any length of time Subscribers hereafter will be credited for the amount the money they send us is worth when it reaches us. Persons ordering the New York Tribune, or any eastern paper, until further notice, must send us eastern currency. Wisconsin money is at too great a discount to make it available in Netा York.

Life Illustrated.-We have received s few subscriptions for "Life Illustrated," in clubs with the Farmer. On sending for copies of that journal, we received notice that it had been discontinued. Those who subscribed for it can have their money refunded, or will be supplied with the N. Y. Tribune, or either of the Madison weeklies instead. They will please notify us immediately which they prefer.

THE
WISCONSIN FARMER.


WDL. XIII.
MADISON, MAY 1, 1861.
NO. 5

## The Culture of Flax.

Flax has been cultivated from time immemurial, and its manufacture has probably wasce largely engaged the interest and taxed thas inventive genius of the manufacturing wurld than any othor sort of textile fiber.
In some portions of Europe its production sanstitutes the most important branch of Emshandry, and even schools are established fiur the purpose of giving instruction in the Fert methods of its culture and manufacture into cloth. But since the invention of the cotton-gin and spinning-jenny, cotton Hhes been so much more cheaply manufactured, that the demand for linen has naturalily somewhat declined-particularly in thase countrias where labor is dear. Reandly, however, great improvements have Been made on the processes of the olden sime, which were so tedious, laborious and expensive, and there is reason to hope for a sevival of the former interest with an in--crease propertioned to the magnitude of the new motives which can hardly fail to influ--ance at least England and the United Siates.

## OBJECTIONS ANSWERED.

Three great objections seem to stand in the way of its more extensive cultivation in the country:

First, it is deemed a hard crop to prepare Jurmarket.

Second, it is not considered a very remumerative crop.
Third, it is thought to exhaust the soil mace than almost any other crop.

1. The first was valid as against the old enedhods in use when our fathers cultivated
flax, or even ten years ago, but they are not good against the machinery and processes of the present. Once it was a work of weeks to get the fiber ready for market. Now, by the aid of machinery and hot water, the whole labor is accomplished in twenty-four hours; and, anywhere within a range of many miles of a manufacturing establishment of modern style, the farmer is simply expected to harvest and dry it. Even the old fashioned and slow process of pulling by hand is now superceded by cutting with the reaper, and this crop is as easily gathered as any other.
2. The second objection may be true or it may not. When the spinning had to be done by hand, although at the same time cotton could be spun by machinery, the relative high price of linen diminished the demand in the same proportion. But now, that means have been invented whereby the fiber is so changed as to be susceptible of working up like cotton, there is likely to be an increased demand.

There may be some doubt-notwithstanding its confirmation by good authoritiesas to whether the process of cottonization will prove economical, but there is very little doubt that the inventive genius stimulated anew, as of late, by the new motive of patriotism, will speedily accomplish an object so highly important.

But then the business of flax-raising is made profitable in some parts of the country where no account is made of the fiber at all. In Ohio large quantities are raised merely for the manufacture of linseed oil. And with our rich soil and favorable climate,
we doubt not the establishment of a few oil mills in our midst would ensure the profitableness of this rather new branch of husbandry in Wisconsin.

There are a few mills in ourstate already, but owing to the prevalence in the public mind of the objections above named, they have enjoyed but a small patronage.
The seed usually sells for 75 cts to $\$ 1,50$ per bushel, and with a yield of 10 to 20 bushels per acre is as profitable a crop as wheat.

Suppose, then, we had factories for working up the fiber-and why should we not have them?-and could thus add some 2 tons coarse fiber, or 500 lbs per acre of dressed fiax, with two or three hundred pounds of tow. It at once becomes apparent that the production of flax may be made a better business than the growth of any of the grains now cultivated in this State.
3. "But does it not exhaust the soil?" We answer no, not so rapidly as many other crops. A chemical examination shows that a much larger proportion of the substance of flax than of almost any of the cereal crops is derived from the atmosphere -the mineral constituents being present in a proportionally small quantity. We have the best authority in the world for making this statement. Suppose then we leave the roots in the soil, cutting off the stem just above the crown of the root, and then return all the waste fiber, is it not apparent, that with such treatment, flax would prove an easy crop upon the soil?

## the system of culture

Is as simple as for most crops. The first requisite for the best crop is a deep, rich, loamy soil, well drained, either naturally or artificially. Flax will succeed very well, however, upon a great variety of soils. Indeed, the finest and best fiber is oftenest produced upon the poorer soils. The selection should be determined somewhat, therefore, by the use to which the crop is to be put.

As to the succession of crops, it is thought by many to do better after corn, but succeeds well after wheat, and even upon sward ground if very thoroughly pulverized.

Deep plowing and much harrowing are important. At all events the soil should be deep and fine.

The sowing should be done early in May,
or as soon as wheat sowing is out of the way and before corn planting begins. If for the seed only, three pecks to the acre will be sufficient; if for the fiber, two bushels; if for both seed and fiber, one bushel to five pecks.

If neither the land nor the seed be foul it will not need weeding. Otherwise, when about two or three inches high it will require going through with the hand or some convenient instrument-especially if the fiber is intended for the factory.
the gathering.
If raised for the seed simply, the latter should be allower to mature; which may be known by the yellow color of the straw and the bright lustre and reddish brown color of the seed. If the fiber is also to be used it should be gathered when the stalk is yellow, about one third or one half the way up from the bottom.

As before remarked, the old process was pulling by the hand. Subsequently machines were constructed for pulling it, and the method now proposed is to reap it with horse-power machines. When removed from the soil, by whatever process, it should be bound in small bundles and set up in shocks or stacks, like grain, and left in the sun until cured.
But we have already transcended our intended limits; it being the object of this article, not so much to give specific information, as to call attention to an important omission in our western farming, and to answer some of these old stereotyped objections which have outlived the reasons upon which they were once founded.

We are pleased to see a waking up to the import ince of this subject, and to note that in our sisterState, Illinois, joint stork companies are being organized for the establishment of oil mills and flax-dressing and linen manufactories. Will not Wisconsin at least take this matter into consideration?
Sorghum.-Its Cultivation and manufacture.
Pleasant Spring, Dane Co., March 16.
Mr. Editor:-I thought I would give through the columns of the Farmer, my experience in raising and manufacturing the sugar cane. The first thing to look to in raising, is the situation, and kind of soil. My experience is, that an elevated position and sandy soil is to be preferred. Elevated,
because less liable to be cut by the early frosts, as the frost materially injures the quality of the syrup. Sandy soil, because the cane grows more rapid and is more likely to arrive to maturity in season to work before the frost comes to injure the juice ; as I have found that freezing the cane does materially injure the syrup-making it of a darker color and stronger taste. I have also found that cane grown upon sandy soil is richer in quantity of juice, and decidedly lighter in color, and better in taste, than that grown upon land that is rich and mucky.
The next that I have looked to is the seed. After getting my seed (I prefer that grown here) I put it into a tin pail, or any suitable vessel, and then pour hot water upon it -nearly boiling het-and let it stand for fifteen or twenty minutes, and then turn off all the water that will readlly run off without draining; then let it stand two or three days in a moderately warm place. By this time it will have sprouted; then plant as early as the weather will admit.
The distance that is to be preferred to put the rows is a matter of opinion. I have had the best success in putting the rows three feet each way; in this way the cane can be worked among both ways, which leaves less work to be done with the hoe. I think that planting in hills is preferable to planting in drills, as the hill planting is less liable to sucker if the right number of stalks stand in the hill, which I find to be from four to six. It is well known to all that have tried to grow the cane, that it is very slow to start, and that it is late in the season before it is big enough to hoe. Consequently, the weeds are apt to get so large that it is difficult to find the young spears. I think that if those wishing to plant the coming season, could obtain plaster to put, say a teaspoonful in each hill, and then put the sprouted seed upon the plaster, then cover about an inch deep with well pulverized earth, it would have a tendency to relieve if not to entirely remove the difficulties which have thus far beset us in this direction. It would also have a tendency to bring the cane to maturity from one to two weeks earlier in the fall.
I have found that the best way to strip the cane is while standing in the hill. If stripped before the frost comes, the leaves will pay for stripping.

I think the best way to manufacture the cane, is to cut, express and evaporate as nearly the same time as practicable.
I woutd prefer to have the cane cut before the frost, even if it had to lay wo or three weeks before it could be worked, than to have it frozen standing in the field. My experience the past fall has led me to this conculsion.

One of my neighbors had some cane that was nice and pretty well matured that he wished me to work. But not knowing how the thing should be done, he went on and cut up his cane before comiug to see me about working it for him.

I told him I could not do it for him in less than two weeks. He replied that he was afraid it would spoil, as it had been cut a week already.

I said that was the best I could do for him. He brought his cane bound up in bundles eight or ten inches through, and piled it up three bundles high and went his way. It lay there three weeks before it was worked, and it made about as good syrup as any I made, and I made some that look-. ed very much like honey, and of excellent flavor.

Cook's evaporating pan, I believe to be just the thing we need to evaporate the juice. I used one last fall, and made for myself and neighbors over four hudred gallons of syrup which was all of good quality. I used no cleansing material, as the pan did the cleansing till after the frost struck the cane. Then I used the bisulphate of lime, obtained from Mr. Walter Carswell of Portage City, with deciled benefit. It sweetened the juice by neutralizing the acid, and made the syrup decidedly lighter colored and better fiavored.

The quanty of the bisulphate used, I varried according to the acididity of the juice. But I think, on an average, I used two-thirds of a pint of the bisulphate of lime to forty gallons of juice. The quantity to be used of the bisulphate of lime depends upon the strength of the bisulphate of lime and acidity of the juice. I think that the bisulphate is very useful in cleansing the tubs and vessels used in the sugar camp, as it prevents fermentation and keeps them sweet and clean.
The bisulphate should be put into the juice as it is being expressed from the mill. The cloths used to filter the juice should be
washed at least once a day with a half pail ful of water with a gill of the bisulphate thrown in. Some objections have been urged against the use of the bisulphate, because it leaves a mineral taste to the syrup. But 1 have found that as soon as the syrup has stood sufficiently long to work itself clear, this taste subsides, and the molasses keeps decidedly better through the summer that has been cleansed with the bisulphate. After having three years experience with the cane business, I have come to the conclusion that syrup can be made from it to a profit in this way: Let one man in a neighborhood get a mill and a pan and the rest, say eight or ten, reise the cane, say $\frac{1}{2}$ acre each, and pay him for working up.

> E. M. Crandall.

## Product of a Model Farm.

Prof. J. J. Mapes, publishes in the Working Farmer the following results of his operations on his farm in Newark, N. J., for the year 1860. It consists of $53 \frac{2}{2}$ acres of upland, and 78 acres of woods, salt meadows, \&c :

| alys of products. |  |
| :---: | :---: |
| Cabbager,.................................................. | \$778 19 |
| Celery,..................................................... | 42737 |
| Carrots.................................................... | 14960 |
| Currants................................................. | 13968 |
| Onions, | 42986 |
| Turnips, | 25784 |
| Beets,..... | 22513 |
| Pigs, | 8349 |
| Seeds, | 2,426 86 |
| Potatoes. | 76931 |
| Raspberries, blackberries, and currant plants, | 61048 |
| Strawberry plants and berries,................... | $26673$ |
| Grapen, ................................................. | 4714 |
| Pears, pear trees and grafts,...................... | 81326 |
| Tomatoes, | 9780 |
| Rhubarb and rhubarb plants, | 41095 |
| Small vcgetables etc., etc., | 15887 |
| Calves, | 11250 |
| Hay, | 1,300 00 |
| Crrn fodder | 6000 |
| Milk, | $95<0$ |
| Total sales, $\qquad$ EXPEMSES AKD DIBBUREEMENTE. | \$9,610 07 |
| Farm labor. | 81,584 36 |
| 13,300 lbs. phosphate,.. | 26600 |
|  | 53500 |
|  | 6500 |
| Taxes,..... | 3900 |
| Wear and tear of tools,............................. | 12000 |
| Black=mith and Wheelwright,..................... | 6500 |
| Keeping 2 horses, 1 mule and oxen,.............. | 63250 |
| Oharcoal cinders,...................................... | 9650 |
| Cowmon Salt, | 2300 |
| Miscellaneous. | 10000 |
| Total expenses, | $\begin{aligned} & \$ 3,44636 \\ & \$ 9.61007 \\ & \$ 3,44636 \end{aligned}$ |
| Net profit, | 6,163 71 |

Beans are among the most nutritious of foods. Indeed they are more muscle-forming
in their properties than any other vegetable whatever. Not only so, they likewise contain a large proportion of phosphorous and sulphur, those fiery elements which enter so largely into the conposition of the brain and nervous system.
These are the reasons they have been in use from time immemorial as a diet for armies. They give power and endurance. Therefore we repeat it, plant more beans than nsual. Our soldiers will want them.

## The Great International Exhibition for 1862.

It appears by English papers,that London is again to be the focus of the great world's industry. The exhibition is to be held in 1862, and is intended to embrace everything in the departments of agriculture, the mechanic and fine arts. The guarantee fund amounts to about two millions of dollars, and the necessary preliminary arrangements are already perfected.
Information of the enterprise has by this time reached every part of the civilized globe, and the hands of industry have thus soon begun to ply the implements of art with new zest and stimulated skill.
It was a grand idea, that of gathering together the representatives of the industry of all nations for a comparison of their progress in the great arts of civilization. By this means, the advancement of the world, in every part, is furthered by the aggregate efforts of all the individuals of enterprise and genius whom the world contains. No new invention or valurble discovery is hidden from even the weakest and most benighted of the nations. All are put upon a level for the time being, and anol, :~ helped forward by the best eftorts of erely one and all the rest.

But the great advantage derivable from such gigantic exhibitions of the industry of all nations needs no argument. The question for our nation to ask is, shall we be represented?
It will be remembered that in 1851 America acquitted herself nobly in some departments of the exhibition, and, indeed won for herself the proud distinction of ranking firstin the mechanic arts. Will our mechanics be determined to maintain their right and title to that eminence? And will the agriculturists of America who failed to do themselves equal credit on that occasion
prepare to vindicate the honor of the American soil?
True, we are plunged in civil war, and besides being largely engrossed by the momentous question involved, are sure to expend an immense amount of effort and treasure. But, if wisely managed, as we believe it will be, the war need not be of long continuance; and, besides, we hold that there is power and patriotism enough in this glorious old Union to throttle Treason with one hand, while with the other it prepares the food for the maintenance of its people and the means requisite to a vindication of its industrial rank among the nations of the earth.
Moreover the odds are not likely to be so greatly against us. Other countries either are already or are likely to be involved in war. France is strugggling hard and expending great sums of money to provide for herself the best navy in the world, and England is taxing herself to the utmost to retain her long boasted supremacy. Italy is in turmoil; Austria is threatened with war, and the other governments on the continent are buisy with the thought and preparations for war.
Not the most propitious time in the world, to be sure, for a World's Fair; but then the arts of peace must not be neglected even in such times of confusion. Indeed it is more important than ever, that the votaries of industry should be doubly zealous.
As an American citizen we feel a strong desire that something should be done by this country worthy of her incomputable natural resources and of her unequalled physical and intellectual energies.
As a citizen of the northwest and of Wisconsin, we feel a local pride which must be added to the pride of country and general interest in the progress of the arts.
The Northwest has not yet come to be known, to any considerable extent, by the people of the old world, as other than a vast tract of wild lands partiy valuable and partly waste. Let us show them their error-that here is a vast territory of country teeming with life and the multiform products of the skilled industry of a people of unsurpassed genius and energy.
It is hoped that the Agricultural Societies of the several States will take the matter into consideration, and that active measures will be adopted to insure a worthy representation of the Uaited States as individual commonwealths and as a nation.

## STOCK REGISTER.

## Trotting Horses too Young.

It has long been our opinion that horsemen are too much given to putting their promising colts to their speed at too early an age. We lave in our memory a number of splendid young horses which, as we think, were just about ruined by such blunders of their owners.
There can be no objection to commencing the process of training at quite an early age. Indeed the work of education should begin while yet they are sucking colts. But as the development, strength, and power of endurance come on gradually, rarely attaining their masimum until the horse arrives at the age of six or seven or even eight years, it would seem to be the teaching of philosophy and common sense that the severe trials of speed and power should not be imposed until the period of maturity.
And yet nothing is more common, at most of our State and County Fairs, than to see young colts of hardly three and four years put upon the trotting course and whipped through to the very verge of their endurance. In our way of thinking, such practices are not only unwise but barbarous and inhuman. As will appear by the premium list in this number, they are no longer to be encouraged by the Wisconsin State Agricultural Society. $\qquad$
Shegr-Wasims.-The wool-growers of Erie county, Ohio, in Sandusky city, March 9 th, 1861, unanimously adopted the following resolution:
Resolved, That the practice of washing wool on the sheep's back is not only injurions to the sheep and the man that washes it, but that it pays the man the best who does his work the poorest, and not in the least benefitting the wool-buyeror manufacturer, as they intend to make an average of the well and poorly washed wool, at the same time making but little difference in price, and therefore the disagreeable job is entirely a useless one, and that being so, the wool-growers of Erie Co. are ready to abandon it.

## Sheep-Shearing-Scabby Sheep.

This is the season for Sheep-Shearing ; many are already beginning the work, and as at this time remedies are applied for Sheep affected with the Scab, we shall give one of the prominent receips for a wash for this purpose :
50 pounds Leaf Tobacco, 40 pounds Blue-
stone ; 40 pounds Salt ; 5 pounds Corrosive Sublimate; 3 gallons Spirits Turpentine. Dissolve the Sublimate in Alcohol, as in water it is apt to crystalize when cool. This will make the quantity for 50 gallons water ; plunge the Sheep in this wash. Others use simply Tobacco water. We learn of one of our largest Sheep-raisers in Monterey county having purchased of Greene, Heath \& Allen, 5000 pounds of Tobaceo for this purpose. Messrs. Greene, Heath \& Allen have large lots of Tobacco at low prices for this use; to this house we recommend purchasers.
No Sheep-raiser should permit the Sheepshearing season to pass without efforts to eradicate this disease from his flocks; those who neglect to do this are "'penny wise, but pound foolish."- [California Farmer.

## Overstocking.

"I read the reports of your agricultural discussions with much interest. Some of the ideas I find therein, I approve, and some I do not. I like the idea that land can be improved by grazing, if it is not overstocked. That is the truth, gainsay it who will. There is no way that land can be so profitably improved as by grass, not to be eaten off to the bare earth. but kept in a vigorous state of growth. By this course you are enriching the land and getting pay for so doing as you go along, by the cattle or sheep which you feed, while the land produces more and more grass every year; whereas, if you overstock your pastures, your stock pays little or nothing.
"It was my fortune to be brought up with a farmer who thought it bad policy to put on so much that they had to pick off the grass to the bone. He said that stock which was reared in that way showed many bones but little flesh. I have generaly followed his plan. But let me suppose a case-yet it is no supposition, for I have often seen it. A has a field which he thinks will keep 20 cattle, and he puts them into it. B has a field of the same size and quality, and he puts only ten cattle into it. Now it will almost always be found that in autumn, the ten have gained as many, often more pounds live weight, than the twenty. The ten with first-rate pasture should gain four hundred pounds each, and it is doubtful if the twenty would have gained 200 pounds each. The ten would make extra beef and bring an extra price, while the twenty would make only third rate beef, bringing little more per pound than they were worth when they were turned to pasture. The ten paid $\$ 25$ each for their pasture, or perhaps more. This I have often seen.-John Johnston in Homestead.

## Soiling Cattle.

We are satisfied this is a subject of much importance to dairymen. Soiling cattle is practiced with great success and profit in the Eastern States, and has also been tried at the West with the very best results. By
soiling cattle is understood raising green crops, and feeding them in a green state to stock, either in a stable or in a yard or field of sufficient dimensions to afford exercise for the cattle. The crops generally grown for this purpose are corn, clover, millet, \&c. The best crop, however, in this climate is corn, it grows rapidly, and when sown broadeast or in close drills, yields immensely. The yield on one acre of corn properly planted for soiling purposes is greater than ten acres of pasture-that is to say, ten times the amount of stock can be maintained where soiling is carried on, than by pasturing.
Those having small farms and wishing to keep more stock and keep it better than by pasturing, will find it for their interest to take this matter into consideration and try some experiments the coming summer.

For milch cows, there can be no doubt of the great advantages of feeding regularly green food. It is so full of the rich juices that it increases the flow of milk greatly, and in hot summer weather when pastures here are burned up by the intense rays of the sun, a large, thickly planted corn-field is especially desirable. Our pastures in this latitude are seriously affected by drouth every year, and if soiling is not carried on altogether, it should be sufficiently to carry stock through the hot months. Horses, colts, hogs sheep, \&c., can be kept as well by soil. ing as by any other manner, and on about one-tenth of the amount of ground.-The Valley Farmer.

## Summer Management of Sheep.

A correspondent of the New Hampshire Journal, gives the following as his method of managing sheep in summer:
"I separate my ew es that are with lamb, from the rest of the flock, and keep them on hay, with a little grain, till they goto grass. I plan to have my lambs begin to come in April, and as soon as she ground is bare 1 turn them out. I put them up every night, and feed with hay and grain, till the nights become warm, and the feeble ones, if there be any, can take care of themselves. I put them up nights to save the manure, as long as they will eat hay. I keep my ewes and lambs from the rest of the flock till I wean my lambs, the first of September. I hares nice place for my lambs-the fence is tight. and they become tame, and are easily managed through life.
My pasturing is divided into seven parts. I have two flocks, and it takes about twenty days to get them around through the pastures, so they have new feed every few days. There is water in every pasture. I will give you my reasons for this management. In the first place, sheep will go to the further end of the pasture before feeding much. and if there is a good spot of feed they will find it, and crop it snug to the ground, and the rest of the feed will go to seed. In s small pasture, sheep will crop off the wild
grass when it is tender, and when they come around again they will crop it a second time, and so on. They will also be more contented. I see no reason why sheep will not eat wild grass in summer as well as in winter. A pasture of one hundred acres, divided into ten or more, is better adapted to the care of the sheep. The shepherd will see them oftener, and salt them more regularly. They will soonlearn his whistle, or will run at the sight of the salt box he holds in his hand.
One more reason. It gives me a chance to raise my potatoes wtth a little extra expense. Most of our old pastures need plow-ing-it will improve the feed. By so doing we can have more room for corn and roots in the fields."

## Signs of a Good 0x.

At a recent Legislative Agricultural meeting held at the State House, in Boston, Mr. Sheldon, of Wilmington, gave the following as his rule of judging of a good ox:
"You should stand before him and be sure he has a fine hazel eye, large nostrils, broad at and above the eyes, rather slim horns, toes straight out before him, straight in the knees, bosom full, back straight, and wide at his hips. If you find these points said the speaker, you need not ask of what breed he is, but if you want one, buy him. He said that he had found that a black-eyed ox was not to be depended on, as he will kick and be ugly, while a short headed ox will start quick from the whip, but he will soon forget it."

Shakspeare's Description of a Horse.There is not, probably, in the English language a better description of a "well proportioned steed," condensed into so few words as the following from the pen of the immortal Shakspeare:
Round-hoofed, short-jointed, fetlocks shag and long, Broad breast, full eyes, small head and uostril wide; High crest, short ears, straight legs and passing strong;
Thin mane, thick tail, broad buttock, tender hide;Look, what a horse should have he did not lack,
Save a proud rider on so proud a back.

## Raw-Hide--To Use.

How few persons know the value of Rawhide. It seems almost strange to see them sell all of their "deacon" skins for the small sum of thirty or forty cents. Take a strip of well tanned raw-hide an inch wide, and a horse can hardly break it by pulling backtwo of them he cannot break any way.
Cut into narrow strips and shave the hair off with a sharp knife, to use for bag-strings; the strings will outlast two sets of bags. Farmers know how perplexing it is to lend bags and have them returned minus strings.
It will out-last hoop iron (common) in any shape, and is stronger. 1 it is good to wrap around a broken thill-better than iron.

Two sets of rawhide halters will last a man's lifetime-(if he don't live too long.)

In some places the Spaniards use rawhide log-chains to work cattle with, cut into narrow strips and twisted together hawser fashion. It can be tanned so it will be soft and pliable like harness leather. Save a cow and "deacon pelt" and try it."-[Wm. Rhodes in Country Gentleman.

## Diseases of Horses.

Case of Cramp or Spasm.-I was requested a short time ago to visit a horse said to be the subject of "stifle ;lameness." The patient, a gray gelding, aged eight years, was put up at the stable on the evening preceding my visit, apparently in perfect health; early in the morning, ere I was called, the "feeder" observed that the horse was incapable of moving the near hind limb, and it appeared to be, as I wasinformed, "as stiff as a crowbar."

On making an examination of the body of the animal, he appeared to be in perfect health; yet he was unable to raise the limb in the slightest degree from the stable fioor. The case was accordingly diagnosed as cramp of the flexors.

Treatment.-The body and lower parts of the limb were clothed with blankets and flannel bandages, and the affected limb was diligently rubbed fo. half an hour with a portion of the following linament: Oil of Cedar, one ounce; Sulphuric Ether, twa ounces ; Proof Spirit, one pint.

In the course of a few hours after the first application' the difflculty had entirely disappeared.

The owner informed me that the horse had, on the day prior to the attack, been exposed to a cold and continuous rain storm, and probably this operated as the exciting cause of the spasm.-American Stock Journal.

Loss of Cud.-My method of curing loss of cud, is this: Give a healthy cow a small quantity of oats or barley in the straw to eat, and when she begins to raise her cud take a handful of it, or the masticated food from her mouth; and while warm, put it into the mouth of the one that has lost the cud. This has proved an effectual cure in all instances wherc I have known it tried. - Cor. Prairie Farmer.

Remedy for Blind Staggers.-A writer in the Charleston Courier gives "an effectual remedy for that formidable disease in horses, the blind staggers," the recipe being as follows: "Gum camphor, one ounce; whisky or brandy, one pint-dissolve.-Dose-One gill, in a half pint of gum arabic, flax sced, or oiher mucilaginous tea, given every three or four hours; seldom necessary to give more than three doses. The horse must be kept from water twenty four hours. Never bleed in this disease.'

Horses Pulling at the Haltrr.-Take an inch rope, put it around his neek, throw it over a pole in front of him, about as high as his head-the pole being fixed solid-run the rope back under the pole to one of his hind feet, hitch it around his fetlock, fasten, and let him pull. This is the best remedy I have ever tried, and will effect a cure.

- In answer to the inquiry, how to break a horse of pulling at the halter, I would say tie him to the limb of a tree, or something that will give, but not let him loose. I think $\mathbf{i}^{\text {tan effectual remedy.-Cor. Ru'l N. Yorker. }}$ i

A trshires.-Pure bred and grade Aryshire bnlls are rising in favor greatly with those of our dairy farmers who have used them.-[The Homestead.

## THE POULTERER.

## Poultry Profits on a Small Scale.

Mr. Benjamin Stevens of this city bought 13 common fowls at $371 / 2$ cents each. They were kept in a room 10 X 12 feet, and had the run of a yard 10 X 35 feet. They received good care, were kept cleanly, and consumed $\$ 17.82$ worth of corn and other grain and meat scraps. They had grass and sods occasionally thrown to them in summer, of which no account was kept, of course Neither was the labor of attending them estimated ; and, in our opinion, for a man situated as Mr. Stevens is, that is living a little way out of the city, having regular business hours, and of course some hours of comparative leisure, such labor pays for itself in the relaxation it affords, so that if we were to be nice about it, we should charge it upon the credit side of the account.

The products are 1,365 eggs, $\$ 4.74$ worth of chickens, eaten and charged at the market price at the time they were eaten, and an increase of one in the stock on hand.

The account stands thus:

| Cr. |  |  |
| :--- | ---: | :---: |
| 14 fowls on hand a371/4 cts. each $\$ 5.25$ |  |  |
| Chickens eaten, | 4.74 |  |
| 113 doz. and 9 eggs, | 25.03 |  |

Dr.
13 cocks and hens a371/2 cts. each $\$ 5.371 / 2$
Keoping,
17.82
$\$ 22.691 / 2$
$\$ 12.321 / 2$
This makes the clean profits amount to about a dollar apiece, which does not include the interest on the cost of the coop, or rent of the ground on which it stands, nor the wear and tear of materials, which are abundantly offset by the manure produced.

Every family in the city which can give to chickens a comfortable, dry room, and a dry, sunny yard, can keep so many as can have a square yard of floor each, and two square yards of ground room each; aud Mr. Stevens' success is not at all extraordinary, but may be the common experience. Were this to be done, we might export eggs, or, as the phrase is, "live like fighting cocks," for eggs are a prominent article of diet for these birds.

The coop should be airy and well ventijated, or the birds will die, and it shonlall live clean and often whitewashed, or they wiin be infested with lice. They should alwaga have dry ashes to wallow in, and sulpaser thrown into the ashes and given in foed ta the fowls is, in our experience, excellent. Salt meat, etc., gives a tendency to dispazs, and tainted meat, onions, decayed cablager and many other things, flavor the eggs diveagreeably.

Rats will steal the corn unless the feeding: through be hung on wires, which is a meat and convenient way. Water must always ice present, and it must be pure and fresh ; cassered with a grating or slat-work of wire ect wood, that hens cannot step into it.

Black Spanish, Bolton Greys, White Derekings and Black Polands are, in our visw the best varieties for keeping in the eity, where eggs are the great desideratuzn, nimil well behaved, handsome birds are desirazile, too. Game fowls are unruly, though exemillent as layers, as well as for the table[The Homestead.

## THE BEE KEEPER.

## Starting an Apiary-How to Procure Bees.

In starting an apiary it is of the utmoses importance to commence right. To do thirs the following rules should be carefully observed:
First--Select colonies if possible, in frame hives, I prefer Mr. Langstroth's.

Second-The best colonies to procure in spring, are second swarms of the precesizagy year, provided the hives be full or mearly full of combs. They are the best, hecanseif net queenless, each has a young queen. Queens generally lose their fidelity after the third or fourth year; the younger the quers the more prolific she is, bence the mare profitable the colony will prove to the ownesAgain, the combs are not as liable as calder colonies to be filled with a superabuncaanes of bee-bread. In frame hivez, this exress of bee-bread may readily be taken away, av that by their use this objection is partis?ly removed.
"First" swarms of the preceeding year should generally be rejected by the inexperienced, whenever "second" swarms rasy be obtained, as the age of the queen cammit always be ascertained-the first swarm from a hive being always accompanied-save one exception-by an old qneen-usually $\frac{\text { at }}{}$ least one year old.

Old stocks should not be selected whenever either of the above classes can be procured, as the combs may be moldy, or fillez with an excess of bee-bread. Howewer, stocks not over two years old, being fret from disease or foul brood, which have cest swarms the preceding year, and whase combs are bright, make very good stod hives. You may have to pay more far:


#### Abstract

"second awarms" than for either of the other classes enumerated; they will, however, be found the cheapest in the end.

Third-Make a thorough examination of the selceted colonies. After a little experience this need not require over ten or fifteen minutes. Take a piece of cloth about ten inches square, and spread over it a thin layer of tobacco-smoking or chewingthen commence on one side of the cloth and roll it together, and sew or tie it in a roll, Punk, or partial decayed maple-wood will answer as well. Set one end of the punk or roll on fire-do not let it blaze. Blow a little smoke first in the entrance of the hive -the bees will retreat among the combs and fill their sacs with honey, when they are always peaceable. Remove the top cover, and blow a little more smuke into or through the slots, or holes, of the honey board. The honey-board should now be removed and the frames of eomb lifted out reparately,


 and carefully inspected. The conditon of a "good, healthy." colony should be as follows : 1st- At least eight frames of combs (there are ten frames in the Langstroth hive which I use) should be for rearing workers, which may be known by the size of the cells-the small cells being for the workers, the large cells for the drones or male bees. Unless the majority of the combs be suitable for rearing the workers, the colony is of but lit th) value. 2nd. The combs should no be in the least moldy; on the contrary, they should present a bright appearance, especially such as have not been bred in. 3d. The colony should be perfectly free from disease. This may be ascertained generalls by removing the lids of sealed brood. It any brood be found in a putrid state, which emits an offensive scent, the colony is usuallydiseased. Better not select even apparently healthy colonies from apiaries in which "foul brood" has made its appearance. 4th. The hive should be well supplied with bees ; also with brood combs in all stages of devclopment, which, even though the queen be not seen during the operation-is a pretty sure indication of her presence. Thus examine all ot the selected colonies, and if any be found that fail to mect the standard reject them. A few good, healthy colonies to commence with are far better than a large number of poor or diseased ones.If the colonies be in common "surplus box hives," the hives should be inverted for examination. The condition of the bottoms of the combs may thus be ascertained by driving the bees away from them by smoke, and if you are pretty good at guessing, you mar possibly guess correctly concerning respecting the condition of the combs further down. Do not select such hives simply because they have an abundance of honey. The less honey in box hires in the spring, provided the bees have enough-say from 10 to 15 pounds-the better. The comb
should be regular or straight, that they may be more suitable, should you wish to tramsfer them to frame hives; there should also be a majority of the worker class.

Mode of Transporting.-An elastic spring wagon is the best conveyance. The entrances of the movable frame hives may be closed to confine the bees, by tacking over each of them a narrow strip of wire cloth or gauze. The slots, or holes in the honey board, should be uncovered, that the bees may have access to the honey ehamber if necessary. The hives thus prepared may Low be set into the wagon in their natural position. Box hives should be inverted while carrying them in the wagon. The bottoms may be covered by laying a sheet over each, which should be so secured thent no bees can escape; provision for ventilation should be made. The vehicle shonld not be driven faster than a walk.-Cor. American Agriculturist.

## Principles in the Natural History of the Bee.

There are certain fundamental principles in the natural history of the honey bee, which have been fully established; among which we may enumerate the following:

1st. There are three classes of bees ins every family-the queen, workers, and drones.

2d. The queen is the only female bee is the family, the workers are neuters, and the drones are males.
3d. Queens are impregnated on the wing by the drones, and an impregnation is operative for life.

These few principles are the foundation of the entire history of the honey bee; and the various "theories," such as "the drones die immediately after impregnating the queens, ${ }^{7 /}$ and others equally incapable of proof, are unworthy of the credence of the bee-keeping nublic.-[The Homestead.

How to get rid of Ants.-Ants are frequently troublesome pests in an apiary. To get rid of them, mix equal parts of potash and sugar, pulverizing the whole in a mortar. Set the mixture, in shallow plates, in places which the ants frequent.

## HORTICULIURE.

For the Wieconsin Farmer.
Practical Suggestions for May.
THE FLOWER GARDEN.
This will be a busy month with those that wish to excel in this department. Sow early this month hardy annuals; such as the Clarkia, Coreopsis, Hibiscus, Lupine, Mignionette, Portulacea and Petunia, and divide all herbaccous plants, that you may wish to increase, or are becoming too large.

Towards the middle of the month, tender annuals may be sown with safety, and Dahlias, Fuchsias, Verbenas, and Petunias, may be planted out. Uncover bulbs, Roses, and in fact averything that needed protection during winter, if not done before. Mulch the roots of newly planted trees and shrubs, with well decayed manure or swamp muck, and stir the soil occasionally about them, to allow the air to penetrate and sweeten the ground and induce a vigorous growth; for newly planted trees require careful treatment in order to grow well. Plant climbing vines around pillars. verandahs, such as Climbing Roscs, Wisteria, Honeysuckles, Madeira Vine, and last though not least, that much abused, but lovely flower, the Morning Glory. Some of the new varieties are beautiful acquisitions, that can hardly be dispensed with, and though the old ones are common, we could not replace them by any other of Flora's productions.
fruit and kitchen garden.
The present will also be a busy month with the lovers of good things in the fruit and kitchen garden. Neglect now will be repaid with short-comings through the whole seasou. Plant Asparagus and Rhubarb in well prepared soil, deeply dug and highly enriched with plenty of well settled barnyard manure. It can hardly be too rich for them as both are very gross feeders, and require good treatment to produce satisfactory results. Beans-plant a few for early use, in a warm dry spot. Beets, Carrots, Lettuce, Turnips, Radishes, Spinach should be sown early for summer use ; the main crop of these should be sown about the middle of the month for fall and winter use. Plant Raspberries, Strawberries, Blackberries, Currants, Gooseberries, Grape Vines, as early as possible, making the ground rich and deep for them, and mulch the ground with old manure to induce a vigorous growth Cut the Raspberry within a few inches of the ground immediately after planting, never allow them to fruit the first season. Plant out as soon as the weather is settled, Cabbage, Cauliflower, Brocoli, Pepper and Egg plants, and plant seeds of :Sweet Corn, Squash, Melon, and Cucumbers, together with a good supply of culinary herbs, such as Thyme, Sage, Marjorum, Basil and Summer Savory. Prepare trenches for Celery using plenty of well decomposed stable manure to produce good rich heads, of this delicious vegetable. Prune small fruits if not done before, giving a good top dressing of old stable manure.
hortus.

## Houghton Seedling Gooseberry.

It is now twelve years since we received a few plants of the Houghton Gooseberry from that eminent pomologist, J. J. Thomas, who remarked at the time that it was worth more than all other sorts for this clip mate.
Accustomed to give great weight to Mr . Thomas' recommendations, we at once set about propagating very industriously, and soon were able to send it out by the thousand: It is gratifying to know that it has every where been successful and proved an acquisition.

A spurious sort has been disseminated hereabouts for the Houghton, more upright growth, leaf rounder, fruit smaller and round, reddish, with a tough skin.

The true Honghton is spreading, with a decided tendency to the ground; fruit medium, oval, green in shade, dull brown or reddish when exposed to the sun, skin very thin, flavor delicate and excellent, always exempt from mildew and exceedingly productive. A single plant has afforded half a bushel of fruit. It should be trained to a stake or trellis, pruned freely, the soil well manured and kept free from grass and weeds.
Plants are now sold so cheaply that every family should have a good supply. Its culture on a large scale for market and for wine would be very profitable. We might then hope to find them take the place of the prickly wild berries so often used at our hotels.
In Ohio, another sort is largely cultivated and is displacing the Houghton, which it closely resembles in everything but habit of growth, being more vigorous and upright.
"The Ohio Seedling," or as it is now called "The American Seedling," by which name it has been largely disseminated from the Columbus Nursery, was introduced by a German gardener of Columbus fifteen or sixteen years ago.
" Old Joe," as he is known thereabouts, claims to have brought it from Germany. Its habit of growth, and freedom from mildew, clearly indicates its American origin.
Gooseberries are fit for use when half grown, for pies and tarts. From the ripe berries excellent jam and jelly are made;
also, wine much resembling champagne. The best of the kind we have met with, was made by Mr. F. W. LLoudon, JanesvilleWe add his receipt as communicated to the Wisconsin Fruit Growers Association, and published in their transactions for 1860 :

## gooseberry champagne.

"Take large, fine gooseberries that are full grown, but not yet beginning to turn red, and pick off their tops and tails. Allow a gallon of clear soft water to every three pounds of gooseberries; put them into a large, clean tub. pour on a little of the water, pound and smash them thoroughly with a wooden beetle, add the remainder of the water, and give them a hard stirring; cover the tub with a cloth, and let them stand four days, stirring it frequently and thoroughly to the bottom; strain the liquor into another vessel, and to each gallon of liquid add four pounds of fine loaf sugar, and to every five gallons a quart of the best French brandy. Mix the whole well to gether, and put into a clean cask that will jast hold it. It should be filled full-place the cask in a cool cellar on its side, and lay the bung loosely on top; secure the cask firmly, so that it, cannot, by chance, be moved or shaken, as the least disturbance will injure the wine. Let work for fortnight, or till the firmentation is over, and the hissing has ceased, then bottle it, and drive in the corks tightly ; lay the bottles on their sides, and in six months it will be fit for use."

Waukesha, Wis. A.G. Hanford.

## Cranberries.

I have an acre of my own little garden farm appropriated to the cultivation of cranberries, another devoted to the cultivation of strawberries, another to Lawton blackberries, and a fourth to plums, pears, peaches and other fruits. I planted my Cranberries on the swampy land, from whence I removed the muck to the upland. cranberries my be grown from cuttings on almost any variety of low soil. They do best on marshy land subject to overflow with water, which prevents the blossoms of the plants from blighting. There is no danger of drowning out; the standing water does them good, and where lands can be ovorflowed, it prevents the weeds from growing, and the plants from wintering out. Cranberries will grow in any peaty or floating marsh or bog, and will also grow in the best potato or corn soil; will grow in pure sand, and are not injured by summer overflows. The plants may be put out by cuttings in drills, with no other care than hoeing, produce the second year, and usually cover the ground all over the third year. A barrel of plants or cuttings costing $\$ 4$ will plantan acre. They are usually worth
about $\$ 8$ per barrel. It is not possible :o glut the market, for experience has shown the more they are cultivated the more they are used.-Solon Robinson in N. J. Farmer.

## Strawberry Runners, Trimming, \&c.

It is perhaps not generally known, that the practice followed by many strawberry cultivators of cutting off the runners upon their fi. st appearance, is not to be commended. The proper time for cutting them, is when they have formed their second joint or bud. If cut sooner, a super-abundance of foliage will follow, which is not desirable.

A practice prevails with some of the growers of strawberries in Europe, and more espeeially those of Bath, of cutting off all the old leaves of the plants as soon as the fruit is gathered. In doing this, great eare must be taken not to cut or injure the young foliage. By this method, plants secure a more vigorous growth before fall.

A writer in the Journal of the Horticultural Society, says: "These young and vigorous leaves were in a condition to elaborate rap, to form equally vigorous roots for supplying abundant nourishment to the ensuing crop. After it is gathered, the knife is again immediately employed to remove all old leaves, in order to give space and light for new ones. And, inasmuch as the large amount of fresh foliage thus annually encouraged, produces a corresponding amount of new tissue, the plants are so far annually regenerated; and hence it may be inferred that the frequent renewals of the plantations become less necessary,"

It is under this system that the Bath growers produce such superb berries; some of them measuring seven inches in circumference; and their plantations remain in profitable bearing condition from seven to ten years.-Cor. Farmer and Gardener.

## The Sweet Potato.

This admirable, excellent potato is coming gradually into cultivation in this State. Whether it will ever succeed on a large scale is questionable, but a vegetable of so desirable qualities is certainly worthy of some effort, Some few enterprising gentlemen have been testing the practicability of its cultivation in this climate, and so far as they have made known the results, their reports are rather encouraging.
For several years J. W. Tenbrook, Esq., Proprietor of the Park Nursery and Sweet Potato House, Rockville, Ind., has offered through the Wisconsin State Agricultural Society, prizes of one, two-thirds and onethird barrels of his best tubers for the best potatoes grown from seed procured of him. This year he renews the offer, and the award will be made as usual at the time of the Fair.

From his published pamphlet, entitled ${ }^{\text {"The }}$ Sweet Potato Culturist, (see notice elsewhere) we extract the following, as appronri.to to the present time :
Duhl, Situation, etc.-Next in importance to varieties, is the selection of soil and situation, combining all the advantages of protection aud drainage, and at the same time, having the full advantage of the sun during the entire day. No plant that we have handled is so impatient of shade and surplus moisture as the Sweet Potato, and none have stood long protracted drouth, or transplanting in dry, hot weather better than this; and for this reason, we would never plant when the ground is wet, except in sandy soil, preferring to plant in the dust rather than mud, with one pint of water to the plant, which should be covered up with the roots of the plant, leaving the surface dry and loose. The best soil for this crop is a light, sandy loam; but we would not discourage those having a stiff clay soil, as we have raised most of our crops on such soil for years in succession, with apparent improvement in the yield, but with much extra labor in pulyerizing the clods, which is indispensable in this crop. The soil should be deeply and thoroughly prepared for this crop, and thrown into ridges or hills with the plow, three feet apart from the center, with one plant in each hill, and fifteen inches apart, if in ridges. We think one plant better than more, at this distance.
In Southern climates it has been the practice to plant the small potatoes in the hill, as we do the Irish potato ; but the more economical mode of sprouting the tubers, and setting out the plants, is now generally practiced South and is indispensable here, that the plants may be ready to set in the open grounp as soon as the danger of frost is past, and before the potato can be safely planted, which. in latitude forty degrees north, is from the 10th to 20th of May. When it is desired to have plants set in advance of the regular crop, they may be covered with a hoeful of loose earth when frost is anticipated, which, if not too wet, will not injure the plants for a few days, and answers as a first hoeing for keeping down small weeds that may have started. We have known acres of newly set plants saved in this manner, at a trifling expense compared with the cost of re-setting, and the advantage of an early market.

## The Beautiful in a Tree.

Downing says:-"It seems to us indisputable that no one who has any perception of the beautiful in nature, could ever doubt for a moment, that a fine single elm or oak, such as we may find in the valley of the Connecticut or the Genesee, which has never been touched by the knife, is the most perfect standard of sylvan grace, symmetry, dignity and finely balanced proportions that it is possible to conceive. One would no more wish to touch it with a saw or axe, (unless te remove some branch that has fallen into
decay,) than to give a nicer curve to the rain. bow, or add freshness to the dew drop. If any of our readers will give themselves up to the study of such trees as these-trees that have the most completely developed forms that naure stamps upon the species, they are certain to arrive at the same conclusions."

## How to Prune Straggling Grape-Vines.

A grert many people have old grape-vines trained with no system eexcept the general idea of covering in some way a sunny surface of house wall, fence or trellis. The old vines have sent out their roots perhaps fifty feet in various directions, and thus have secured for themselves what we have denied them nearer at hand-very fair pasturage. The vine is capable of producing a good deal of fruit; if left to itself it will yield but little; if pruned with a view to get all the fruit possible, in all probability it will not be able to ripen all that will grow. Moreover when such a vine is made to produce its utmost, the highest branches will produce the best fruit, and it will often ripen on them when that at a lower tevel will not. From each joint (or bud) of las: year's growth we may calculate on getting a shoot which will set for three or four clusters of grapes; and if it has light, air, and sufficient sustenance from the vine, it will ripen them.
Now if the vine covers as much surface as is desirable, it is best to allow it to have no more wood this year than last. So cut away freely. When new wood-strong canes of last year's growth-can be retained and substituted for canes of long standing, it is in many cases best to do so. If the old cane to be cut away is quite long, leave in its place a new one, of three or four feet and calculate to continue the end shoot to make out the length in the course of the next year or two, though such long canes are never desirable. In fact, the whole system of allowing vines to grow in this straggling way is against all correct principles of vine dressing and training. It is best usually to leave spurs of three buds, from which to allow bearing shoots to spring, and to rub off the inferior shoots or those not needed when they come to grow. Thus all the last year's wood, except that needed for permanent canes, will be cut off, only leaving these short spurs.-Homestead.

Insects in Fruit Trees.-A correspondent of the New England Farmer, says:
"For a common sized plum tree, fill six or eight vials about two thirds full of water, well sweetened with loaf sugar, and hang them on different parts of the tree, about the time it is blossoming, and the insects will take that before the fruit. I have filled vials twice in one season, and found among them hundreds of insects such as I never saw or heard of before."

# THE WISCONSIN STATE FAIR FOR 1861, 

To be Held at Madison, September 23, 24, 25 , 26 and 97 .

In preparing the Regulations and Premium List for the Eleventh Annual Exhibition of the Wisconsin State Agricultural Society, the Executive Committee have, as heretofore, been actuated by an earnest desire, first, to answer the great leading demands of the Industry of the State, and secondly, to meet the views, as far as practicable, of all classes of persons directly interested in the objects of the Exhibition.
The great idea kept constantly in mind has been to encourage the several branches of industry in proportion to the importance of their immediate development. It is with this view that the premiums on procreative animals in most of the classess under Division " $A$ " and on Farm Machinery and Implements, have been largely increased.

Competition by Counties which proved so animating and valuable a feature last year will also characterize the next Exhibition, and there will undonbtedly be a spirited contest for the splendid Prize Banner to be awarded.
The Farm Prizes have been increased and should induce active competition.
The Wisconsin Fruit Growers' Association will make their most magnificent show of fruits, and the lectures and discusssions which proved so valuable last year will again occupy the evenings of Fair week.
The Grounds so substantially and handsomely fitted up last fall, will be made yet more inviting than before, by such improvements as have been suggested by experience, and regulations have been perfected which will insure the better convenience and comfort of exhibitors, committees and people.
The Terms of Admission are more favorable than have ever before been adopted by any Agricultural Society of the Union.
On account of the war which exists by virtue of the Southern Rebellion, there is danger that the interest of the votaries and friends of agriculture may be directed into less peacefal and less productive channels; and yet it is hoped that the weighty reasons
fivor of a far more than ordinary zeal and aetivity will not fail of their due force and iniluence upon all the industrial operations of the State. The diminished number of hasbandmen and of field workmen-the consequent largely increased demand for all the products of the farm-and the better prices which such products cannot fail to com-mand-all these are new and powerful incentives to such a work of preparation as should insure the requisite material for the best exhibition ever held in this State. Will not all the true friends of the worthy objects of the Society once again, and with a spirit and energy worthy the cause and the times, give us the benefit of their best cooperation ?

> On behalf of the Executive Committee,
J. N. HOYT, Necretary.

Sfatz Agricultural Rooms, Madison, May, 1861.

# GENERAL REGULATIONS OF THE ELEVETH ANNUAL EXHIBITION. 

## OFFICERS.

## couxct of orneral masagrame <br> EXECUTIVE COMMITTEE OF SOCIETY.

general superintendent,
B. R. Hinkley, President.

CONTROLLER OF OFYICE OF ENTRY,
J. W. HOYt, Secretary.

CONTROLLER OF ticket office,
DAVID ATWOOD, Treasurer.
sUPERINTENDENT OF GATES,
David williams, Memb. Ex. Com.
EUPERINTENDENTS OF THE BEVERAL DEPARTMENTS OF THE exilibition,
[See heads of the several Departments in Premium List.]

## grand marshal.

W. R. TAYLOR, Cottage Grove.

## SCEERVISION OF THE EXHIBITION.

The general supervision of the Grounds and entire Exhibition, is vested in the President of the Society.

Exhibiters or other persous desirous of special privileges not granted in the published regulations of the Society, must apply to him at the Executive Office, and all assistants in the various departments, and all laborers on the grounds must be employed with his consent, and report to him the nature and duration of their services-the statement being certified to by the superintendent in whose department the service may be performed.

The orders of the President will be executed by

## THE GRAND MARSAAL,

Whose regular duty it shall be to have charge of the Police and ree that order is preserved ; to receive Exhibitors on their arrival and direct them to their proper places on the Grounds : to see that there be no lack of forage and water for stock; to see that none of the rules of the Society are violated with impunity, and that the Daily Programme is faithfully and promptly fulfilled by all parties concerned.

## THE SUPERINTENDENTS.

Are expected to haye particular charge of all matters in th ir respective departments, to receive and attend to the proper arrangement of everything intended for exhibition, to attend the Judges in their examinations, furnish them with prize badges, and to see that the Programme so far as it involves their several departments is literally and promptly carried out. With the approval of the President, they may appoint
any assistants that may be necessary to the efficiency of their departments.

They should be on the ground as early as 8 o'clock a. m. of Monday, and every mornthereafter at the same hour.

The Superintendents of the Cattle, Horse, Sheep, and Swine departments, will each have an office in a conspicuous place in their several wards, where either they or their assistants will at all times be found.

## RULES OF ENTRY.

## EXHIBITORS

Are requested to forward their entries, if practicable-particularly such as are to be accompanied by " statements" or pedigrees -before the date of the Fair.

All letters of entry, enclosing the requisite fee of one dollar and directed to the Secretary at Madison, will be by him duly filed and acknowledged.

The special attention of Exhibitors is invited to the following rules and regulations, to which it is the purpose of the Society to strictly adhere:

1. All entries for competition, except for the Plowing Match, Equestrian Display and Trotting Match, must be made before Tuesday evening, as at that time the Office of Entry will positively be closed.
2. All entries must embrace the name of the owner and his post-office address in full, the name of the article or animal entered, the age and sex, if an animal, and the class in which the entry is made, thus:
thomas brown, uniontown, polk co., wis. Animal or Article Entered. Class.
1 Stallion, "Bucepbalus," 5 years old,....Thoroughbred 1 Sorrel Mare, "Flora," 4 yrs old.................Roadsters 1 Tile Machine,......................................... Machivery 25 lbs. June Eutter,.....................Products of Dairy, \&c. 2 Pots Phlox Maculata,.............Amateur List Flowers 1 Pair Mittens (by daughter, 2 yrs old,) Domestic Man'r
3. The entry fee must, in all cases, accompany the entry or entries made, except where the exhibitor is a Life Member, and in that case also if the entry be for a special premium.
4. No article or animal may be entered in any other name than that of the owner, and any person violating this rule will forfeit the premium which might otherwise be awarded.
5. All entries of blooded animals must be accompanied with satisfactory evidence of purity of blood.
6. In the class of Fat Cattle the entry must in all cases be accompanied by a statement of the manner, length of time and cost of feeding.
7. No article or animal can be entered to compete for more than one premium, except
as part of a collection in the same class : Provided, that horses entered for premiums in the general exhibition may also be en, tered for premiums in the Trials of Speed; and provided, also, that the exception shall not be so construed as to allow the same animal to compete for more than one premium in the "Trials of Speed."
8. Prize Animals at the last exhibitions will be allowed to compete for prizes; but they must receive a higher avard, or in a different class, to entitle them to a premium.
9. Where there is but one exhibitor, although he may show several animals in a class or subdivision of a class, only one pre mium will be awarded; that to be the highest, or otherwise, as the merits of the animal may be adjudged.
10. After having properly entered their articles, Exhibitors must themselves see to their delivery to the Superintendent of the appropriate department so that they may be in their places and properly ticketed by Wednesday morning nine o'clock. They are likewise required to attend to their articles or animals while on exhibition, and truthfully to answer such questions as the Judges may deem essential to a correct es . timate of their relative value.
The Executive Committee will take every precaution in their power for the preservation of articles and stock on exhibition, but will not be responsible for any loss or damage that may eccur during either their delivery upon the Grounds, their exhibiticn or their removal; nor will they in any case make provision for their transportation to or from the cars, or be subjected to any expense therefor.
11. No article or animal entered for exhibition may be removed from the Grounds until 5 o'clock p. m. of Friday, except by
written permission of the President written permission of the President.
Forage for Stock and an abundance of good water will be farnished free of charge. Grain to those wishing it at first cost.
For the convenience of Exhibitors who may wish to dispose of animals on exhibition, Public Sales will be allowed on Friday and Saturday, between the hours of $8 \frac{1}{2}$ and $9 \frac{1}{3} \mathrm{~A} . \mathrm{M}$.; and an experienced auctioneer, with reasonable limitations as to charges for his services, will be on the Grounds at these appointed times. It should be under stood, however, that no change of ownership will invalidate the authority of the Society over the said animals during the
Fair.

## RULES OF INSIECTION.

## THE JUDGES

Have been selected with much care from all portions of the State. and as the usefulness and success of the Exhibition depends
more upon their ability and faithfulnes than upon almost any other circumstance, it is hoped that the ladies and gentlemen who have been chosen, will be prompt to attend upon this call of the Society, though it be at considerable sacrifice of personal conrenience. They should be on the grounds by 9 oclock Wednesday morning, prepared to continue in the uninterrupted service of the Society during the hours of the Exhibition, until 12 o'clock, $m$. of Thursday, or until their duties shall have been performed.
They should report themselves, on arrrival, at the Secretary's Office, near the main entrance, where tickets of admission will be furnished them, and as soon thereafter at the Office of the Executive Council, so that any vacancies may be filled before the delivery of their Class Books to the several Committees.

They are requested to give attention to the general regulations and requirements in the Premium List, and especially to the following specific instructions:

1. A majority of the Judges in any Class shall constitute a quorum and be authorized to award premiums; and the first on the list shall be Chairman.
2. Any information that may be needed as to the locality of articles or avimals on Exhibition will be furnished by the Superintendents of the departments to which the classes severally belong.
3. The Judges will report not only the animals and articles entitled to premiums, but also those not thus entitled, when pos. sessed of a high order of merit and therefore worthy of special commendation.
4. They are also instructed, in all cases of an attempted interference on the part of Exhibitors with their deliberations and decisions, to exclude the party so offending from conspetition in that particular class.
5. Premiums will not be awarded when the articles are not worthy, even though there be no competition.
6. No article will be excluded on account of having taken a premium at previous Fairs, except as provided in rule No. 7, "Of Entries."
7. No preminms awarded to barren females shown in the breeding classes.
8. The Class Books should be returned each evening to the Secretary, for safe keeping, and it is especially enjoined that the Judges make their finzl reports of awards at the enriest possible moment after their completion- 12 o'clock, M., of Thursday being the hour, determined by the Executive Committee when said returns must actually all have been made. The more elaborate, written reports, which :he Society expects the Chairman of each Committer of Judges to prepare for publication in the volume of Transactions, may be deferred until after the awards have been declared, or even until the lst of November.
9. Articles and animals properly belonging to the several classes but not included in the list of premiums offered, should be examined by the Judges and, if worthy, favorably noticed in their report. Those which are not easily and naturally classified, scill, in all cases, be referred to the Miscel. Lameous and Discretionary Committee, who will examine and report upon them as their merits shall seem to require.
10. The premium cards'and ribbons shall be placed upon the successful articles and animals as soon as the decision is made.

A blue ribbon or card will represent the Ist premium; a red ribbon or card, the 2 d ; and a white ribbon or card, the 3d premium.

## AWARDS OF PREMIUMS.

The Prizes awarded by the Committees will be announced by the Secretary on Friday, at the close of the Annual Address, and paid on demand, at the Treasurer's Office, on the grounds, during the remainder of the day, and after that at his office in the city of Madison.

The Diplomas awarded will be prepared immediately and delivered in like manner.

But all premiums and diplomas not claimed and called for within six months sfte: the award shall be forfeited.

## ACCOMMODATIONS.

Arrangements will be made with the rail-- zoads of the State for transportation at reduced rates, as heretofore.

Exhibitors in the different departments will find the buildings,tents, stalls, pens, \&c., all well adapted to their several purposes. The handsome and commodious Hall of Fine Arts has proven itself secure against the severest storms ; so that the finest works of art may remain in perfect safety during she continuance of the Fair.

The Ladies' Hall is conveniently and pleasantly situated, and will be provided with female attendants and everything es: sential to comfort.

Editorial Hall will be furnished with pa. pers and dispatches of the latest date, and with every facility for receiving and transmitting intelligence.

To Societies, Clubs and families that may desire to encamp in their own tents during the Fair, pleasant locations will be assigned immediately contiguous to the grounds.
befreshments.
Invited guests, the Superintendents and Judges will dine with the Officers of the Society, daily, at one o'clock. To prevent mistake or confusion they are requested to apply for dinner tickets, each day, at the office of the President.

For the convenience of the public in general, arrangements will be made with respectable parties to furnish refreshments on the Grounds at a moderate charge.

Ardent spirits will not be allowed either upon or near the Grounds.

## TERMS OF ENTRY AND ADMISSION.

## of entry.

The regular entry fee is one dollar, the payment of which entitles the person paying it to exhibit as many articles or animals as he may desire, (except for special premiv ums which require an extra fee) to a ticket which will admit him at the Exhibitors' Gate during the Fair, and if the head of a family, to one Day Ticket for each member in aetual attendance, provided the number of such members shall not exceed foar. Exhibitors are further entitled to "Helpers' Tickets," for such persons as are necessaric ly required to take care of animals or machinery on exhibition. And the Superin. tendent of the Horse Department may give to any exhibitor in his Department "Exit Tickets," when needed, which shall entitle the holder to one exit and one ad, mission of horses, carriage and driver.

Life Members will be required to pay none except the extra entry fees.
Invited Guests, Delegates from other Societies, Editors and Reporters, not supplied with cards of admission, on application at the Office of the Secretary, near the main entrance, will be furnished with tickets and such general directions as will facilitate the objects of their visit.

## OF ADMISSION.

Life Membership Tickets, admitting the lawful holder and his family to all the privileges of the Annual Exhibitions of the Society, and entitling him to the published Transactions, and to a ballot in the election of officers, $\$ 1000$
Single Day Tickets, each admitting the lawful holder to the exhibition for the day on which it is issued,...
Children's Tiekets, admitting children under 15 years once,...........
Children under ten, if accompanied by parent or guardian, admitted free.
Season Carriage Tickets, admitting a double private carriage and driver during Fair, passengers being supplied with tickets,
Season Carriage Tickets, admitting a single carriage during Fair, passengers being supplied with tickets,
Carriage Tickets, admitting double carriage and driver once, passengers supplied with tickets.,.........
Carriage Tickets admitting single carriage once, passengers supplied with tickets,
No ticket is transferrable, and any person detected in the attempt to transfor a ticket issued to or for him by the Society wil be punished by law.

# Official List of Premiums. <br> <br> DIVISION A. <br> <br> DIVISION A. Domestic Animals. Domestic Animals. <br> <br> Department of Horses, Jacks <br> <br> Department of Horses, Jacks and vilules. 

 and vilules.}

## SUPERINTENDENT, BERTINE PINKNEY.

CLASS 1.-Thorovar Bred.
Best Stallion, 4 years old and over,.......................... $\$ 40$
2d do do $\quad$ do.................... 25

Best Stallion, 3 years old and under 4, do............... 20
2d do
Best Stallion, 2 years old and under 3,................... 10

Best Stallion, 1 year old and under 2, $\qquad$
2 d do do

Best Brood Mare, 4 years old and over,......................... 25
$\stackrel{2 d}{\text { do }}$ Best Brood Mare, 3 years old and under $4, \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$
2d do do and under 4,............... 15
Best Brood Mare, 2 years old and under 3,.................. 10
2d do do $\quad$ dest Filly, 1 year old and under 2,............................. 8

Best Suckling Mare Colt,.................................................................................
do do
JudaEs.-Andrew Proudfit, Milwaukee; Platt Eich elscheimer, Janesville; David Junes, Belmont.

CLASS 2.-Roadsters.
[To be shown in harness.]
Best Stallion, 4 years old and ever,
2d do do dest Stallion, 3 years old and under $4, \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$
2d do do wher $4, \ldots \ldots \ldots \ldots \ldots \ldots$
${ }_{2 d}$ Best Brood Mare, over 4 years old,
Best Brood Mare, 3 years
rs old and under $4, \ldots \ldots \ldots \ldots \ldots . .15$

Judger.-Same as for Class 1.
CLASS 3.-Horses por General Purposes.
Best Stallion, 4 years old and over,............................ $\$ 30$
21 do do ............................... 20
Best Stallion, 3 years old and under $4, \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots .$.
Best Stallion, 2 years old and under 3, $\qquad$
2d do do
Best Stallion, 1 year old and under 2,......................... 5
${ }^{2 d}$ do do
Best Suckling Stallion Colt,
2d do do
Best Brood Mare, over 4 years old,
do do Mest Brood Mare, 3 yeers
do
$\qquad$
Best Brood Mare, 3 years old and under 4 .............. 10
2 d do do and under $\qquad$
Best Brood Mare 2 years old and under 3, $\qquad$
do do filly, 1 year old and uader 2,
2 do do do
$\underset{2 d}{\text { Best Suckling Mare Colt, }}$
$\qquad$
 5
3

Judars.-Same as for Class 3.
CLASS 5.-JACKS AND Mules.
Best Jack

$\underset{\text { Best Jeuny }}{2 d}$

10

Best pair working Mules,............................................................................... 5
2d do do ......................................................... 10
Best single Mule,.................................................................. 5
2d do .................................................................... 3
Juzges.-Same as for Class 3.
CLasS 6.-Matched Horezs and Mares.
[No animal in this class allowed to compete for more than one premium. To be exhibited in harness. Spead not to be a governing test.]
Best pair of Carriage Horses or Mares,..................... $\$ 20$
$\begin{array}{ll}\text { do Roadsters,.................................... } 20 \\ \text { do } & 20 \\ \text { Farm or Draft Horses or Mares,.......... } 20\end{array}$
Judazs.-Burnham, Milwaukee; Emery Thayer, East Troy ; J. E. Munger, Oshkosh.
CLass 7.-Geldings or Mares for Single Harnese Saddle, \&c.
Best for single harness, 4 years old and over,........... $\$ 10$ 2d do $\quad$ dest for saddle, 4 years old and over, $\ldots . . . . . .$. Best for saddle,
2d do
d years old and over, .......................... 1
Judges.-Same as for Class 6.
CLASS 8.-Trotters.
[No animal to compete for more than one premium. Exhibitors of Stallions to furnish satisfactory evidence that the horse entered has been kept as a stock horse during the season. Speed to be tested by time not by competition; distance one mile, and but one trial allowed, except in casc of unavoidable accident when the Judges may, at their diacretion, grant such privileges as will ensure fairness and impartiality. Price of each entry in this class. \$5.]
Best and fastest trotting Stallion, over 5 years old, do $\$ 40$
$2 d$
do

| 2d | do | do | do | do 25 |
| :--- | :--- | :--- | :--- | :--- |
| 3 d | do | do | do | .. 15 |

Best and fasteat trotting Mare, over 5 years old,...... 840
2 d
3 d do do do do $\quad . . . . .15$

| Best and fastest trotting Gelding, over | 5 years old, $\ldots$. | 25 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 2 d | do | do | do |  |
| 3d | do | do | do | $\ldots$ |
| 15 |  |  |  |  |

Best and fastest tratting Matched Span over f... ${ }_{0}^{\text {do }} 10$

| 2 d | do | do | 15 |
| :---: | :---: | :---: | :---: |
| 3d | do | do | 15 |

Judges.-H. M. Billinge, Highland: Nelson De... 10 Lancaster; S. S. Daggett, Milwaukee; H. P. Hall, Burke; B. Pinckney, Fond du Lac,

> CLASS 9.-W WLKERS.

No animal in this class will be allowed to compete for more than one premium. Entry iev \$3.] Best and fastest walking Stallion, in harness or under saddle,.. $\qquad$ 2d do do do Best and fastest walking Brood Mare, in harness or under saddle,.................................................... 15
 Best and fastest walking Gelding, in harness or un-
der saddle,.........................
Best aud fastest walking Pair of Herses or Mares... 15 Judgrs.-Same as for Class 8.

## Cattle Department,

## SUPERINTENDENT', BENJ. FERGUSON.

[^4] Summit; James H. Bonney, Belle Fountain.

> CLASS 11.-Devons.

Premiums same as for Short Horns.
Judges.-G. M. Lyman, Ripon; Samuel Pratt, Spring Prairie ; C. H. Williams, Baraboo.

> CLASS 12.-Alderneys.

Judges and premiums same as for Class 11. CLASS 13.-Ayrshires.
Judges and premiums same as for Class 11.
CLASS 14.-Herepords.
Judges and premiums same as for Class 11.
CLASS 15.-Grade Cattle and Working Oxen.
[Working Oxen will be tested on draft.]
Best Grade Cow, 3 years old and over,.................... $\$ 10$


Judges.-Allen H. Atwater, Oak Grove; Pliny M. Perkins, Budington; J. C. Brewer, Hamdon.

CLASS 16.-Milch Cows.
Best Milch Cow ............................................................. 15
$\qquad$ Judges same as for Class 15 .

Class 17.-Fat Cattle.
Best pair fat Oxen, 5 years old and over
2 d do do
Best pair 4 years old and und
Best Fa: Cow, Steer, or Heifer,
do
2d
$5, \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots .$.

2 d do do
Judges.-Same as for Class 15.

## Sheep Department,

## SUPERINTENDENT, JEREMIAH クODGE.

CLASS 18.-Spanish Merinoes.


Class 19.-French Merinoes.
Judges and Premiums, same as for Class 18. CLASS 20.-SAxons.
Judges and Premiums, same as for Class 18.
Class 21.-Silesian Sheep.
Judges and Premiums, eame as for Class 18.
Class 22.-Long Wool, Middle Wool, Leicester.
Judges and Premiums, same as for Class 18. CLASS 23.-Fat Sheep.
Judges same as for Class 18.
Best Fat Sheep, not less than 3 in number,............... $\$ 5$
2 d do do do $\qquad$
Department of Swine and Poultry.
SUPERINTENDENT, H. P. HALL.
CLASS 24.-Swine.
SMALL BREEDS.
Best Boar, 2 years old and over, ............................. $\$ 10$
$2 d$ do do do
Best Boar 1 year old and under 2,.....
 $\qquad$
Best Breeding Sow, 2 years old and over,................ 10
Best Breeding Sow, with litter of Pigs, not less than
6 , under 3 months old,...................................... 10
2d do do do
Best Boar Pig over 6 months old,
2 d do do
Best Sow Pig over 6 months old $\ldots . . . . . . . . . . . . . . . . . . . . .$.
2d do do old,
large breeds.
[To weigh, at mature age, when fattened, over 350 lbs .]
Best Boar, over 2 years old,
Id,..........

$$
1 \text { year and under } 2 \text {, }
$$

$\qquad$
" under 1 year old, $\qquad$
Best breeding Sow, over 2 years old, with litter of
pigs, not less than 6 ,.
1 year and under 2 ,
Best Sow 6 month and under 1 year,
Judges -D. W. Maxon, Maxonville; John Crawford, Baraboo; L. R. Graves, Calumet.

CLASS 25.-Poultry.
Best and greatest variety of Poultry owned by Exhibitor,
Best lot Shanghai fowls, not less than 3,1 cock 2 hens

- Dorkings,
© Bolton Greys, do do
. Bolton Greys, do do
Best lot Spangled Hamburg, one cock and two hens

| " | Black Spanish, | do |
| :--- | :--- | :--- |
| " | Polands, | do |
| " | Bantams, | do |
| " | durkeys, | do |
| do |  |  |

" Bantams,
" Turkeys,
do do
Best pair Ducks
ea Fowls
6. Geese
c Pea Fowls,
" Game Fowls,
Judges.-Chas. Oswin, Middleton; E. P. Allis, Mil wankee ; O. H. Stevens, La Crosse.

## DIVISIONB.

## Products of the Soil, Dairy and Household.

## Agricultural Department,

## SUPERINTENDENT, O. T. MAXSON.

CLASS 26.-Field Products.
[The Products must have been grown by the Exhilitor.]
Best sample Winter Wheat, not less than one bushel, 85 ${ }_{\text {2d }}^{2 \mathrm{~d}}$ do do sample Spring Wheat, not loss than one bushel,
2d do
Best sample Rye, not less than one bushel,
do............
2d
Best sample Oats, not less than one bushel,

Best sample Barley, not less than one bushel,......... 2 2d do do Transactions Best sample Buckwheat, not less than one bughel,... 2
$2 d$

do Transactions | 2 d |
| :---: |
| Best sample Flax Seed, not less than one bushel.... | Best sample Flax Seed, not less than one bushel....

2d do do
$\begin{array}{ll}\text { Best sample Hops, not less than twenty-five pounds, } \\ \text { 2d } & \text { do }\end{array}$ 2d do do do did
Best sample Timothy Seed, not less than one bushel, 2 d
Best sample Clover Seed, not less than one bushel, $\begin{array}{ccc}2 \mathrm{~d} & \text { do } & \text { do } \\ \text { Best sample Peas, not less than one bushel,......... } & 2 \\ \text { 2d } & \text { do } & \text { do }\end{array}$ 2d do
Best sample Beans, not less than one bushel.......... 2 $2 d$ do do Transactions

Best sample Seed Corn, not less than one bushel,..... 3 | $2 d$ | do | do | do |
| :---: | :---: | :---: | :---: |
| 2d | $\ldots .$. | 2 |  |
| Best sample Carter | 2 |  |  | Best sample Carter Potatoes,.............................................. 2 ransactions

2 d Best sample Mercer,
Best sample Pinkeye,
". sample Early,
do ................................. 2
do ..........Transactions
2d sample Early,
Best show of known and excello......Tracsaction
${ }^{2 d}$ dest sample Carrots
rots,
do

CLASS 27.-Garden Vegetablezs.
Twelve best stalks Celery,................................ $\$ 200$ 2d do ........................................ dransactions $^{\text {dix }}$ Six best Cauliflower, 2 .................................................. 200
 Twelve best Beets, ..................................................................................................... Twelve best Parsnips,...............................Transactions $\stackrel{2 \mathrm{~d}}{\text { Best sample Onions }}$ $\qquad$
 Six best heads Cabbage,....................................................................... 60 Twelve best Tomatoes,................................................................... 50

|  |
| :---: |

$2 d$ do .............................. 50
Best sample Sweet Potatues, not less than one
bushel, grown in the State, from Mr. Ten
Brook's seed, one of the barrels of Potatoes
offered by him, valued at.
$\$ 10$
3d do $2 / 3$ of a barrel, valued at.................... $\quad 7$
[Competitors to take the risk of delivery and pay their respective proportions of freight.]
Twelve best Sweet Potatoes,................................ 300
Best half-peck Lima Beans, ............................................ 200

$2 d$ do

2d do ............................ 50

Best and greatest variety Carden Products,................................ 00
$\stackrel{\text { do }}{\text { do }}$ Best and greatest variety Garden Seed raised in
the State,... variety Garden Seed raised in 2d do do do 300
Tan
Eau Claire; Thos. Green, Montfort.
CLASS 28.-Products of the Dairy and Household. Butter.

Where thetitors for premiums must state in writing where the butter was made; the number of cows kept on the farm; the mode of keeping them; the treatment of the cream and milk before churning, winter and summer: the mode of freeing the butter from the milk, and the kind of salt used.

Buttor offured for premiums must be presented iat butter tubs, jars, or firkins.]

Cherse.
 made; the number of cows kept, whether the cheese was made from oce, two, or more milkings ; whether any addition was made of cream, and the quantity of rennet used; the mode of preparing it; th.e mode of pressure; and the treatment of cheese afterward, and the kind of salt used.]

## Flour and Honay.

Best barrel Winter Wheat Four, ............................ \& 5
2d do do ..................................... $8_{3}$
Best barrel Spring Wheat Flour,...................................... 5

| ed do |
| :--- |
| Best sample (not less than 10 lo $\ldots$............................... |

Best sample (nut less than 10 lbs .) Honey...................
do
do
do
[Samples of Honey to be acceompanied by a written statement of the kind of hive used, and of the summer and winter treatment of the bees.
JUDGEs.-Eli Stilson, Oshkosh; J. M. Leland, Bristol ; Chas. White, Wautoma.

## Fruit and Flower Depariment.

## SUPERINTENDENT, THOMAS HISLOP.

[All fruits must be arranged on the tables by Tuesday evening. Fruits receiving premiums in one Class cannot compete in another; and the Judges are instructed to withhold the premiums offered, in all cases where the fruits presented are either not named or have not sufficient merit. Exhibitors, if required, mnst likewise present to the Judges a certificate that the fruits offored were actually grown by them.]
Class 29.-Fruits Grown hy Non-Profersional Cul. tivators.
Best and greatest variety of Apples, not less than
three specimens of each,.......................Dip and $\$ 7$

## $2 d$ 3 d

3 d
do
do 5

2d do ...................................................................... 2

3d do Best Five varicties,.............................................................. 2
2d du 2
Best show of Autumu Apples,......................................................... 7

Best show Winter Apples,................................................ 7

Pears.

Best and largest variety of Pears, not less than three, 7 | 2d | do | do | do |
| :--- | :--- | :--- | :--- |
| 3 d | do | do | do |
| Re | 5 |  |  |

Best two varieties of Pears,..................................... 5

3d do …....................................... 2
PLUMs.
Best and greatest variety Plums, not less than 3 each, 88
$2 d$

| 2 d | do | do | do |
| :--- | :--- | :--- | :--- |
| 3 d | do | do | Transactions |

Best show of Quinces
................................................. 5
 peaches.
Best show of Peaches,...................................................... 85


Best and greatest variety of Grapes, not less than three clusters each,.............................................. 83

| raised by exhibitor,..........................Dip and 10 |  |
| :---: | :---: |
| MELONs. |  |
| Best specimens and largest collection of Watermelons, $\qquad$ |  |
|  |  |
| Judgrs.-3. C. Brayton, Aztalan; L. P. Chandler, |  |
| Burke ; John Townley, Moundville. |  |
| CLass 31.-Fiuits by Profsssional Cultivators. |  |
| Premiums same as in Class 30. <br> Judgas.-Dr. John A. Kinnicott, West Northfield, |  |
|  |  |
| III.; F.W. Laudon, Janesville: Levi Sterling, Mineral |  | Point.

## CLASS 32.-Wisconsin Wines.



Best from any other materials, discretionary,
[Specimens competing must have been made without the addition of spirituous liquors, and be accompanied with a statement in writing, showing whes, where, by whom, and how manufactured, together with its cost per bottle.]
Judgrs.-Same as for class 30.
CLass 32-Flowers by Non-Profeseional CultivaTORs.
Best floral design of Natural Flowers,........................ 85 2d do do ...................... 3 Best display in quality and variety Cut Flowers,.....
2 d
do

do | 2 d | do | do |
| :---: | :---: | ---: |
| Best and greatest variety named | Transactions |  | 2d do $\quad$ do $\quad$ Transactions Most tastefully arranged Basket of Flowers,............ 2

1d do Transactions
do Best and greatest variety of Wild Flowers,............... 3
Best display of Dahlias, not less than ten varieties,.. 2

| 2d | do | do |
| :---: | :---: | :---: |
| Best display in quality and variety of Verbenas,..... 2 |  |  |
| 2 |  |  |

Best display in quality and variety of Verbenas,...... 2
$2 d$
do do
Transactions
Best five named varieties Roses,...
2d do $\quad$ do ................................... 2

| Best variety | and quality Asters,........................... |  |
| :--- | :--- | ---: |
| 2d | do | do ............Transactions |
| Best | do | Gladiolus,....................... 2 |
| $2 d$ | do | do |

Most tastefully arranged Buquet of Flowers,.............. 2
Best Herbarium Plants and Flowers gathered within the year and correctly nained,
evergreens.
Best show of Evergreens, nursery grown, in boxes 21 or tubs,.................................................
Judges-Mrs. B. R. Hinkley, Summit; Mrs. II. P. Hall, Burke; Mrs. P. H. Smith, Appleton.
CLASS 33.-Flowers by Professional Cultivators.
Best Ornamental Design of any desirable material,.. $\$ 5$
2d do do do
Best and greatest variety Green House Plants,.......... 3
" twenty variet, es in bloom.
" twelve Geraniums...
" and greatest variety of Dahlias,
" twelve named
" seedling
do
" and greatest variety of Verbenas
" twelve named sorts
" seedling
" six Fuchsias in pots,

- do
do
" six Petunias do
" six Phloxes do
4s six Asters do
*s six Carnstions named,
46 dieplay in quality and varioty of Rotes,
st twelva named sorts
do
and largest cellection of cut Flowers
Best pair Round Buquets,
${ }^{6}$ pair Flat
do
* and greatest variety of Phloxes,

and greatest varlety 0 : all sorts of flowers
raised by exhibitors..........................Dip and 5 Judges.-Chas. Gifford, Milwaukee; Mrs Z. P. Burdick, Janesville; Mrs. Nelson Dewey, Lancaster; Mrs. B. Pinckney, Fond du Lac ; - Barwise, Madison.


## GLA8S 34.-Delicacies.

[Process of preparation, kc., to be given in all cases in writing.]

## PRESERVES.

Best and greatest variety, not less than 10, one
exhibitor,............................................................ $\$ 5$
" Apple preserves not less tnan one quart.
" Peach
" Strawberry
do
do
do
do
"Gooseberry
" Currant
" Cherry
" Plum
" Tomato
"Grape
" Quince
" Pear

* Catsup do do do
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Best and greatest variety, not less than 8,1 exbib'or, $\$ 5$
"Apple Jelley, not less than one quart,
4) Peach do

6 Plum
do

* Grape
do

6 Straw berry
6 Geoseberry
6 Quince,

* Cherry
* Currant
$\begin{array}{lll}\text { " } & \text { Currant } & \text { do } \\ \text { " } & \text { Cranberry } & \text { do } \\ \text { Crab Apple } & \text { do }\end{array}$
© Raspborry Jam do
* Black Currant Jam
* Apple Butter do
"Peach do do
" Tomato do do
............... 1
$\qquad$ $\ldots .1$

PICKLIS.
Best znd greatest variety not less than 8 ,................... 85
" Cucumber Pickles.
.1
6 Apple do
${ }^{6}$ Plum do
"Cherry do
" Artichoke do
Pear Mrs E W .................................................... 1 Daggett, Milwankee; Mrs. O. T. Maxson, Prescott,

## DIVISION C

Machinery, Manufactures, and Works of Art.
[Every machine and implement will be tested so far as practicable, by actual trial. The premiums will in all cases be awarded upon the basis of economical value.]

## Department of Machinery \& Implements.

## SUPERINTENDENT, C. W. OLNEY.

## CLASS 35.-Machinery a Implements for Agricultoral Purposes.

[All heavy machinexy must be upon the grounds as early as Monday.]
For that Machine which shall satisfactorily and the most thoroughly disintegrate the soil, and
with the greatest economy of labor, power,
time and money,............................................ $\$ 200$
Best Threshing Machine, power included,....Dip. $\& \$ 25$
21 do do .............. 15 Best Tread Power with Separator,.....................Dip. \& 15

Best Reaper, hand-raker,.......................................... Dip

[Articles in the above collection shall not receive individual premiums.]
Judgrs.-Ira Miltimore, Janesville; A. B. Smedley', Oshkosh; Thos. Falvey, Racine; J. W. Stewart, Mon roe; Henry Ruble, McGregor, Iowa.

## CLass 36.-Machinery for Manupacturing Purporss.




Best Stationary Engine not over 4 horse power, particular reference being had to security from fire, economy of fuel, aud compactness, adap-
2 d ting it for printing presses,.....................Dip \& 10 Best Siding Mill in operation.........................Dip $\pm 10$ Best Shingle Machine in operation..................Dip \& 10 Best Planing. Tongueing and Grooving Machine, in operation,.........................................Dip $\& 10$ Best Machine for Surfacing only,.........................
Best set of Hachinery for manulacturing sash Best set of Hachinery for manulacturing sash,
doors or blinds, in operation,..................Dip \& 10
Best Morticing machine.
.Dip \& 5
Best Sewing Machine for family use
..Dip \& 5
Judges.-J. I. Case, Racine; W. H. Prentice, Sheboygan; Z. P. Burdick, Janesville; Gardner Meigs, Arena; A. J. Craig, Palmyra.

Class 37.-Machinery for the Manufactlre of Sorghem Syrup and Sugar.
Bost mannfacturing apparatus complete upon the Fair Grounds, for Sugar and Syrup making comprieing grinding aud boiling fixtures, par-
ties to furnish canes and be at the whole ex-
pense of fitting up and working same on Fair
$\underset{\text { Best }}{2 d}$
Best sample do do 25
Best sample Sugar, not less than 20 pounds,......... 10
$2 d$
do $\begin{array}{ccc}2 d & \text { do do do } \quad \text { des...... } 8 \\ 8\end{array}$ Best sample Syrup, not less than 20 gallons,........... 5 2d do do do ..........
[The above premiums to be awarded only on the exhibition of a superior establishment for the manufacture of suzar and syrup and a full and elaborate statement of the whole process, suitable for publication in the Transactions of the Society.]

Judars.-J. G. Krapp, Madison; A. G. Tuttle, Baraboo; E. T. Gardner, Green County.

## Department or Manufactures.

## SUPERINTENDENT. DANIEL DAGGETT.

[Articles in this Department to be manufactured or produced within the year and within the State; and in all cases Exhibitors to furnish a written certificate to Chairman of Committee that the articles were so manufactured.]

CLASS 38.-Carriages, Stoves, Harness, etc.


## HARNESSES, ETC.

Best Carriage Harness,........................................ \$7


2d do
Best Single Harness,
2 d do
Best Gent's Sadale
sTOVEs, FURTACES, ETC.
Best Cooking Stove for wood
${ }_{\text {Best Cooking Stove for coal }}^{2 \mathrm{~d}}$
2d do
Best Cooking Range for families
2d do
Best Ornamental Parlor Stove, $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots . .$.
2d do ................................ ${ }^{2 d}$ donsactions


Best sample Hollow Ware,
Fire Grates
Transactions


Best specimen Flour Barrels,................................. 83


BOOTS, shoEs, ETC.
Best Leather Hose, for fire engines,
Dip and
Best Gent's Winter Boets,
2d do
Best Gent's Fancy Boots,
$2 d$ do
Best Gent's Gaiters,.........

Best Gent's Gaiters,
Best and neatest Ladies' Winter Boots, anti-consumptive do do do
Best ladies every day Gaiter Shoes, not too thin sol'd 2 d do do do
Best Ladies' Fancy Shoes, 2 d do
LEATHER, INDIA RUBBER GOODS, ETC.
 lin; D. J. Spaulding, Black Karth.

DLASS 40.-Best Lightitg Aparatus, Etc.
Best portable Gas Works, for hotel or family use,
not to exceed $\$ 250$ in cost.................................D D
Best aparatus for Burning Fiuid,
Dip
.. Lamp for burning Kerosiae or Paraphin oil..... do

* and most econonomical of the above kinds of
lighting apparatus for family nee................ do
Judaes.-E. S. Carr, State University ; A. I. Bennett, B-loit.

CLASS 41.-Mubical Ixelrumente.
Best grand or semi-grand Piano-forte,.........Dip and $\$ 5$
". Boudoir Piano,................................................ do ${ }^{\text {. }}$ do
". Square Pinno. do 3
4. Parlor Piano.
do 3
4. Parlor Organ,...................................... do
. Melodeon.............................................. do 3
Judses.-A. Pickarts, Madison; Mrs. E. A. Tapan.
CLAS8 42.-Silver Ware, Cutlery, Britania Ware-
Best exhibition Silver WaFe,
Dip
do Silver Table Cutlery,...................... do
do Table Cutlery,.................................. do
do Pocket Cutlery, Amer. manufacture do
*. Specimen Silver Ware, with agricultural design suitable for premiums.
do

- specimen A,gentine or Britania Warge,............. do
set Surgierl Instruments................................. do
" set Dental od ................................ do
". set Mathematical Instruments,...................... do
" set Surveyors " ..................... do

" Khronometer Clock...................................................... do
"t Watch, ...................................................................................................

Judges.-Chas. Eslinger, Manitowoc; Thos. Davey, Mineral Point;-Grover, Oconomowoc.

CLASS 43.-Paper, Printing, Book-Binding, Etc.
Best specimen Print Paper, exhibited by mannfacturer,

Dip

| $2 d$ | do |
| :--- | :--- |
| Best specimen Writing Paper, do | do |
| do | Dip |
| do |  |

2 d do do do 5
Best specimen Book Printing, $\quad$.................................. Dip


2d do da............................... ${ }^{2}$
Best epecimen Circulars and Bili-heads,..................Dip
Best specimen Card Printing, c.........................................Dip

Best specimen Blank Book Binding.................................
2d $\quad$ do Best specimen Law Book Binding.................................. Dip

9d do do .................... 2
Best specimen Fancy Book Binding, ..................... Dip
Best specimen Book Work, all in all,..............................Dip
2d do do - Chas. D. Robinson, Green Bay; M. Frank,
Kenosha; J. Walworth, Richland Centre.
CLASS 44.-Textile Farrics, Cloting, Etc.

Best piece of Woolen Carpet, not less than 10 yards... $\$ 5$ | 2 d | do | do |
| :---: | :---: | :---: |
| Best piece Satinet, | do | do |
| do | ... 5 |  |

2d $\frac{\text { do }}{\text { dit }}$
Best piece Blanketing,
2d do
Best piece Flannel,
2 d
do do do ... 3

2d
2d
Best Ladies' Blanket Shawl
$\underset{\text { Best assortment of Machine Knit Hosiery. }}{\text { 2d }}$
.
2 d

Clothin, Hats, Furs, etc.
Best exhibition Men's Clothing,.....................Dip or \$2
Boy's Clothing, ..................... d
Men's Hats and Caps,............ do
Childrens' Hats and Caps,..... do
Hat Case, ................................ do
Furs
Gent's Fur Gloves,
do
Ladies' Fur Gloves,................. do do
Judans.-Jas. M. Calloway and wife, Marietta; R. E.
Gillett and wife, Sparta; Jas. Hosford and wife, Wautoma.

## CLASS 45.-Domestic Manufactures.

Best 12 skeins Sewing Silk,...................................... $\$ 2$ " specimen Cloth or Ribbon, $5 \mathrm{yds}, \ldots$
" Woolen Kersey blanketc,

## 10 yards Flannel,..........

" 15 yards Wool Carpet,
Rag Hearth Rug
Embroidered Hearth Kug
" Rng of other materials,
" 15 yards of Rag Carpat.
. Wool Stockings,
" Wool Mittens,
" 10 knots Woolen Yarn,
". 10 yards Linen Cloth,
4. 10 do Diaper,
" 10 yards Towel Cloth,.
" pair Cotton Stockings,
" pair do

* Pound Linen Sewing Thread
" Patch Quilt,
". White Quilt,................
" single do
" 6 Knit Counterpase,
* Wrought do
" Crotchet Wool Cape,..
White Wove Counterpane,
.....
exhibition of taste and skill in cutting and mak-
ing Boys' Clothing, by other than professional Manufacturers,
do Gent's Clothing,
do Ladies dresses,..
Gent's Shirts.
Best specimen Straw Hat,
$2 d$ do
Best do Bonnet
juvenile.-Girls sixteen tears and under.
Best pair Woolen Socks,
2d do
Best six skeins Woolen Stocking Yarn,
2 do do
Best pair woolen Fringe Mittens.
2d do do
$\begin{array}{ll}\text { Best } & \text { Patch } \\ 2 d \\ 2 d & \text { do } \\ \text { 2d }\end{array}$
Best specimen Darning,
Judges. - Mrs. H. J. Starin, Whitewater; Mrs. A. K.
Darling, Eond du Lac ; Mrs. E. C. Sage, New Lisbon.
Class 46.-Millenary.
Best Silk Bonnet, domestic manufacture,..........Dip or $\$ 3$

| 21. do | $\mathrm{C}^{1} \mathrm{O}$ | ................... 2 |
| :---: | :---: | :---: |
| 3 d do | do |  |
| Best Straw Bonnet, | do | ..........Dip or 3 |
| 2 d do | do |  |
| 3 d do | do | ........... |
| Best Ladies' Cloak, | do | ................... |
| 2 d do | do | .................... |
| 2 d de | do | .................... |
| Best Ladies' Dress | do |  |
| 2 d do | do |  |
| 3d do | do |  |
| Best Bonnett Flowers, | do |  |
| 2d do | do |  |

Best and greatest variety of the above and other arti-
cles of Millinery, manufactured by exhibitor in this State.

Dip and ${ }^{5} 5$
JUdGes.-M. S. Gibson, Hudson; Mrs. C. H Williams,
Baraboo; Mrs. J. I. Case, Racine.


| Best Crotchet Tidy,................................................. |  |
| :---: | :---: |
|  |  |
| Best Wrought 81 |  |
| 2 d | do |
| 2 d | do |
| Best Piano Spread, |  |
| 2 d | do |
| Best evidence skill and taste in Embroidered Hhadk'f |  |
| 2 d | do do do |
| Best | do do Hem-stitched |
| Best Ottoman Cover, tufted on cloth, |  |
|  |  |
|  |  |
| 2d do do dore |  |
| Best | do plain on canv |
| dd | do do | Best evidenee skill and taste in Lamp Mat of any kind 1

" " Erotchet Lamp Mat,........................................ 1
". Embroidered Lamp Mat,
" Fringed Lamp Mat,
"4 Fringed Lamp Mat,............................................
". evidence skill and taste in fancy Work Basket,...


> JUVENILE.-UNDER FOURTEEX YEARS.

Best evidence of skill and taste in Crotchet Work. $\$ 200$ 2d do do do 100 Best plain Needle Work,.......................................... 200 2d do ...................................... 100 Best spec.men of Darning and Repairing,....................................... 00 2d do do No......... 100 Best Skil and taste in Ornamental Needle Word,.. 200 $\begin{array}{cccccccccccccll}2 d & \text { do do } & 100\end{array}$
Best Knit Mittens do. 100
2d Kit do ........................................................ 50
Best Knit Socks, .......................................................... 100
2d specimen Hair Work 50
2d specimen do Work .................................... 150
Judges.-Mrs. Chas. Dunn, Belmont; Mrs. H. L.
Palmer, Milwaukee; Mrs. Chas. Billinghurst, Juneau; Mrs. Jas. H. Bonney, Belle Fountain; Mrs. Eli Stilson, Oshkosh.

## Department of Fine Arts.

## SUPERINTENDENTS, J. C. PıCKARD AND WIFE.

## CEASS 48.-WORKS or Arts.

[Articles exhibited in this class, except "Paintings by the Old Masters," will not be entitled ta a prize unless produced by the competitor.]


> orl painting.


| Best | do | do | Landseape,............Dip |
| :---: | :---: | :---: | :---: |
| 2 d | do | do | do ........... \$2 |
| Best | do | do | Animal,...............Dip |
| 2 d | do | do | do ................ \$2 |
| Best | do | do | Fruit, .................Dip |
| 2 d | do | do | do ................... \$2 |
| Best | do | do | Flowers,...............Dip |
| 2 d | do | do | do ................ $\$ 2$ |
| Best | do | Wiscons | dscape, ................Dip |
| Best | ectio | r | tings,........Dip and \$3 |

grounds after the work is commenced, until the Committee leave the ground.
6. Each plowman to strike his own land, and plow entirely endependent of the adjoining land.
6. Within the fourth of an acre plowed, each plowman will be required to strike two back furrows and finish with the dead furrow in the middle.
7. Premiums awarded for best work with. in reasonable.
Junges.- Eli Stelson, Oshkosh; Geo. Robbins, Green Lake; Almon Osborn, Metemen.

## Department of Equestrianism,

## SUPERINTENDENT, J. V. ROBBINS.

CLASS 51.-Ladies' Riding.
First Premium,

4th do
10
5
[The Executive Committee wish it distinctly understood that the above p-izes are offered, not for the fastest riding, but rather for superiority of ease and grace in the saddle, and for skill in horsemanship.]
Judges.-Gov, A. W. Randall, B. F. Hopkins, Madison; Chas. Billinghurst, Juneau; G. W. Hazelton, Portage; L. H. D. Barron, Pepin.

## Exhibitions by Counties,

For the largest and most creditable contribution to the Exhibition made by the citizens of any one county, exclusive of Dane, a prize banner worth $\$ 100$
[The Judges are to be selected by the Executive Committee at the time of the Fair, and will be required to base their decision upon such circumstances of population, remoteness from the locality of the Fair, amount, quality, \&c., \&c., as will ensure equal advantage to all the counties in competition. The award will be made to the Agricultural Society of the successful county, and notice of an intent, to compete must be filed by the competing societies with the Secretary as early as the first day of August. The articles and animals exhibited will not be classified by counties, but each exhibitor from counties competing, will be furnished with a card bearing the name of the county to which he belongs, so that the Judges appointed will be enabled to decide after an examination of all the articles thus labelled in the several clasess. No entry fee required.

## Farms,

For the best Cultivated Farm of not less than 40 acres, exclusive of wooded and waste land, $a$
Silver Pitcher, value,.................................... $\$ 75$ $\begin{array}{lll}2 \mathrm{~d} & \text { do do a pair Silver Goblets, value, } 50 \\ 3 \mathrm{~d} & \mathrm{do} \\ \text { do a Silver Goblet, value }\end{array}$ Judgrs.- B. R. Hinkley, B. Pinkney, David Wil liams.
[The Judges will visit farms between the 15th of June and the 15 th of July, and in awarding the premiums will have regard to the general arrangement, the quantity and
quality of the produce, and the manner and expense of cultivation. Competitors will be required to furnish a report of their system of management, together with a statement of the expenses and profits for the year ending January 1st, 1861. Entries for competition must be made by the 15 th of June. Fntry fee, $\$ 5$. Farms that received premiums last year will not be entitled to compete.]

## Field Crops.

Best onc acre Winter Wheat not less than 35 bush. $\$ 15$ 2d do do West......................................... 10
 Best one acre Oats, not less than 75 bushels,.............
2 d
do
do 10 $\stackrel{2 d}{\text { do }} \stackrel{\text { dost }}{\text { dene acre Indian Corn, not less than } 100 \text { bush. }}$
 Bost one acre Potatoes, not less than 300 bushels, 10 2d do do do do do 5 Best one quar'r acre Carrots not less than 400 bush. 10 Best one acre Hops,...


| 2 d | do | do | do | do | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 3d | do | do | do | do | 5 |

[Competitors must file a notice with the Secretary by the 15th of June enclosing the $\$ 1.00$ and a specification of the crop or crops so entered. The final report must be made before December 1, and must embrace a verified statement of the character of the soil, and the manner of preparing it, the character and quantity of manare, \&c., the variety planted or sown, time and manner of harvesting, the measure of the entire crop and the weight per bushel, (if grain,) and full particulars of the expense from first to last, and the statement must be accompanied by samples for the inspection of the Committee.

The Executive Committee will award at their meeting in December, but will withhold the premiums it either the quantity or quality of the crop is not deemed creditable or worthy.

The following are forms of affidavits for surveyor, applicant and assistant, which must be appended to the statements of competitors:

[^5]true, te the best of his knowledge and belief; and that the sample of grain exhibited is a fair average sample o? the whole crop.
C. D. Swo.n thole crop. Swo.n to before me, this
$$
\text { duy of }-, 1860 .\}
$$

County, ss.-E. F. being duly sworn, says, that he assisted C. D. in harvesting, getting, out and measuring his crop of $\longrightarrow$, referred to in the bbove affidavits, and that the quantity of grain was bushels, as stated in the affiidavit of C. D.
E. F.

Sworn to before me, this
_- day of ——, 1861. $\}$
-, Justice.

## SCIENTIFIC AND STATISTICAL.

## Population of the United States.

The following table furnished by the Superintendent of the Census, at Washington, for the purpose of apportioning Members of Congress in the various States, will be found correct and valuable. The ratio of Representation for a Member of Congress is 127,216 :

| Free <br> Population. <br> 619.958 | Slave Population. | 87th Cong. Rep'tives. 5 |
| :---: | :---: | :---: |
| New Hampshire,.. 326,072 |  | 3 |
| Vermont, ............. 315,827 |  |  |
| Massachusetts,....1,231,494 |  | 10 |
| Rhode Island,...... 174,621 |  | 1 |
| Connecticut, ....... 460,670 |  | 4 |
| New York, ........3,851,568 |  | 30 |
| Pennsylvania,.....2,916,018 |  | 23 |
| New Jersey, ......... 676,084 |  | 5 |
| Delaware, ............ 110,548 | 1,305 | 1 |
| Maryland,............ 646,183 | 85,382 | ${ }^{6}$ |
| Virginia,...........1,097,373 | 495,826 | 11 |
| North Carolina, ... 679,955 | 328,377 | 7 |
| South Carolina,... 303,186 | 407,185 | 4 |
| Georgia, ............. 615,336 | 467,461 | 7 |
| Florida,............... 81,885 | 63,809 | 1 |
| Alabama,............ 520,444 | 435,473 | 6 |
| Mississippi,......... 407,051 | 479,607 | 5 |
| Louisiana,........... 354,245 | 312,186 | 4 |
| Arkansas,........... 331,710 | 109,065 | 3 |
| Texas,................ 415,999 | 184,956 | 8 |
| Tennessee, ........... 859,528 | 237,112 | 8 |
| Kentucky,......... $92,377,917$ | 225,490 | 19 |
| Ohio,.................2, 2, 377,91702 |  | 111 |
| Illinois,..............1,691,238 |  | 13 |
| Missouri.............1,085.465 | 115,619 | 9 |
| Michigan,........... 754,291 |  | 6 |
| Wisconsin, ......... 768,485 |  | 6 |
| Iowa,................ 682,002 |  | 5 |
| Minnesota,.......... 172,793 |  | 1 |
| Oregon,.............. 52,566 |  | 1 |
| California,......... 384,776 |  | 1 |
| Kansas,.............. 143,645 |  | 4 |
| Total, ........27,384,789 | 3,999,853 | 234 |


| Nebraska,........... | 28,893 |
| :--- | ---: |
| New Mexico,........ | 93,024 |
| Utah,............... | 50,000 |
| Dakotah.,........... | 4,839 |
| Wrshington,...... | 11,624 |
| Dis. of Columbia, | $\mathbf{7 5 , 3 2 1}$ |
| Total of Ter'ries,..262,700 |  |
|  |  |
| RECAPITULATION. |  |

Tofal population of all States and Territories
in the United States,............................... $27,647,489$
Slave population, $31,647,342$
Total population, free and slave ${ }^{6} \ldots \ldots . .$. a cost of $\$ 2,500,000$; one-half propelled by steam, remainder by water. They cut annually $500,000,000$ feet of lumber, worth $\$ 15,000,000$.

- The whole number of regulars enlisted for the Continental service, from the begin-
ning to the close of the great struggle for independence, was 231,350 ; of these 67 ,907 were from Massachusetts. Every State south of Pennsylvania provided but 59,493, or 8,414 less than this single State. New England equipped and maintained 118,350 , or above half the number placed at the service of Congress during the war.
Immgration of 1860 . -The total number of immigrants who have landed at New York during the year ending December 29th 1860 , is 103,621 . Of this number, 46,659 are Irish; 37,636, German; 11,112, English; 1,506, Scotch; 1,470, French; 1,336, Swiss; other nationalities are represented in smaller numbers. Of the number of passengers arrived, about 44,000 have avowed their intention to locate in New York. 14,000 in Pennsylvania and New Jersey, 14,000 in New England, and 4,000 in the Southern States; to Ohio, Indiana, Illinois, Michigan, Wisconsin, Iowa, Minnesota, and California, 20,000; Kansas, Nebraska, New Mexico, Canada, etc., 10,000 .


## THE HOME.

From the New York Independent. Russia.
BY MRs. HOYT.

We have heard of storms in the days of old, That howled down the Polar Seas,
And shook the cliffs like demons bold; And leaped the hills with a fearful glare, And whirled and shrieked in the desolate air. 'Till the wrath of the ghouls was stirred.
And there are things of which we have heard More terrible than these.
Thesun that climbed that northern zone, And walked the skies in red,
Saw many a bannered host o'erthrown, And far, and wide, o'er all the lands,
Saw Arctic snows, with muffled hands, Sheet the uncoffined dead.
There many a calm and holy night Has arched the conqueror's way,
And hung o'er scenes of wild affright, From Baltic surge to Caspian shore, And heard the battle's bellowing roar For millions more to slay.

Man reads to mourn. A mightier One Than he had kept the gains
Where Scythian horde, and Goth, and Hun,
Like whirlwinds loosed in blood and flame, Swept o'er Sarmatia's plains.

Then looked the Eternal Sire from hearen And saw an Empire born.
Nine hundred years and ninety-seven
Count back the avenging strokes of Time To that barbaric morn.

Sternly since Russian Rurik reigned, And many a Mogul khan,
The grinding centuries have gained
A stronger light and steadier hand To point the coming man.

What though they darkly lie between ? Go to, with coward fears;
The hands of Time, in time, are clean. Truth cannot fail nor falsehood shun; 'Tis eighteen hundred sixty-one, The royalest of years.
And there, the first of Christian czars, Great Alexander stands, R--crowned with twice ten million stars, And swears, that, where her banners wave, Russia holds not a single slave In all her mighty lands.
Now, drunk with joy, the golden day Arches a jubilee,
From Arctic cliffs, still hanging gray Above the unending roar;
From where Pacific waters plash On Asia's ancient shore; Beyond where Ural thunders crash, Where valleys slope and mountains soar; From Baltic surge to CaspianAnd every man is there a man, Sacred to Liberty.

Oh it is solemn, glorious, grand! Even we, who weep and pray,
Feel, as we clasp our native land, 'Tis something more than just to live, To live to see this day.
Nine hundred years and ninety seven, Before old Russia's slaves Could win the right, decreed in heaven, To own the bread was wrung from toil, And, when they tilled no more the soil, To rest in freemen's graves.

Courage my sonl! Faith in the Good, And good is for thee still; Sure as the oppressed are seen of God. All evil shall be undertrod. Our country's future has a date, And he may work for it and wait, Who hath the faith and will.
Madison, Wisconsin, 1861.

## A Word to Mothers and Daughters.

These are times which demand of every member of society untiring industry, close, economy and heroic sacrifice. The fathers husbands and sons are needed as never before since the days of the Revolution, and no man is true to the interests of his country or his race who is not stimulated by the call of Constitutional Liberty to devote himself with a new energy to his duty, either on the field of battle or in the flelds of industry, according as his country may require his services here or there.

It was sentiments like this, and heroic deeds based upon those sentiments that won us the victory in the war for Independence; 2nd the same spirit of self-sacrifice and devotion to principle can alone achieve a tri-
umph now that shall be worthy of the sacred cause of the Constitution and the Union.

But there were heroic women in the days of the Revolution as well as men, and there must be heroic women now-women ready to labor with new zeal and energy, and to sacrifice the luxuries, and, if need be, the comforts of life for the furtherance of the great work of preserving unimpaired the blessed inatitutions bequeathed to us by our Fathers, and of thoroughly vindicating before the nations of the Earth the authority of the best government the world ever saw.

War cannot be carried on without immense expenditures of treasure, and some, at least, of the money required must be the product of a more active industry at home. Property will be destroyed and hnndreds of families will be left to the christian and patriotic charity of the people of every State.

Will not the mothers and daughters of the logal North, begin, therefore, at once, that retrenchment, close economy, and yet more active industry which are sure to become necessary, and which will only be more difficult and burdensome if postponed?

There is nothing, in times like these, more noble and beautiful than a patriotic emula tion among women in matters of economy and unselfish benevolence, There is much of it already, but let there be more. Let the hands of those who are saving and in. dustrious by habit be yet more active and careful, and let such as have not learned the useful art, nobly strive to rival even the most industrious and skilled.

Such as always have virtue in their mouths, and neglect it in practice, are like a harp, which emits a sound pleasing to others, while itself isinsensible of the music. --Diogenes.
A pleasant and cheerful mind sometimes grows upon an old and worn out body, like mistletoe upon a dead tree.
The true test of friendship is to be able to sit or walk together for a whole hour in perfect silence, without wearying of one another's company.

An ignorant man who "stands upon his dignity" is like the fellow who tried to ele. vate himself by standing upon a piece of brown paper.

Irish Sargeant.--" Attention, company, and 'tind to rowl call. All of ye that are presint, say Here, and all of ye that are not here, say Absint."

Woman has many advantages over man ; one of them is, that his will has no operation till he is dead, whereas hers generally takes effect in her lifetime.

## The Three New Territories.

Colorado comprises a portion of Kansas, Utah and Nebraska, and it is between the 1024 and 109th dagrees of west longitude, and the 37th and 41st degree of latitude. It contains 100,000 square miles and a population of 25.000 .
Nevada lies between California and Utah on the East and west, and Oregon and New Mexico on the north and south. A portion of it is taken from Calfornia, provided that State gives its assent. It includes the fa' mous Carson Valley.
Dacotah is bounded on the north by British America, east by the States of Minneso ta and Iowa, south and west by Nebraska. Its length from north to south is 550 miles, its average breadth is about 200 miles, and it has an area of 70,000 square miles. It was formerly a part of the territory of Minnesota, but was detached when that became a State. It is at present chiefly inhabited by Indians.

## D0MESTIC ECONOMY.

## A Substitute for Preserves.

[The following recipes accompanied the communication on the early sprouting of corn, published in last number, and were omitted by mistake.-Ed.]
Boil moderately a pint of molasses from five to twenty minutes, according to its consistency, then add three eggs well beaten, hastily stirring them in, and boil a few minutes longer. Season with nutmeg, or good essence of lemon.
E. M. D.

French Pancakes.-Take six eggs, separate the yolka frotn the whites; beat the whites on a dinner plate to a snow; beat the yolks with two table-spoonfuls of sugar, two of flour, and one of cream; add a little salt, and a very little carbonate of soda ; stir in the whites of the eggs, and mix gently. Put a spoonfnl of butter in a frying pan; when hot, pour in the whole pancake. Let it cooin slowly for fifteen minutes, with a moderate fire. Put any kind of preserved fruit over it. Serve hot. Nice for tea.
E. M. D.

Cracker Pie.-Eight crackers pounded fine, on which pour boiling water to soften, eight teaspoonfuls of vinegar, eight of sugar, one lemon; if too stiff add water.

Rice Pudding.-Half.pint of rice boiled ; drain off the water, and let the rice get cold -two ounces butter, four ounces sugar, one quart rich milk, five eggs beaten very light, a teaspoonful of nntmeg and cinnamon. Stir all together.

Hard Sugar Cakes.-Two cups of white sugar ; 1 cup of butter; two-thirds of a cup of water; one teaspoonful of saleratus; spice with nutmegs. Roll these thin, and bake quick.
Country Crullers.- One bowl of cream; 1 coffee cup of sugar; 1 egg; a little salt; 2 teaspoonfuls of saleratus. Mix rather stiff.

Funs.--Fine furs should be kept in a cold place. An experienced dealer will tell the moment he puts his hands on a piece of fur, if it has been lying iu a warm dry atmos phere; it renders the fur harsh, dry and shabby, entirely destroying the rich smooth softness which it will have if kept in a cold room.

## NEWS DEPARTMENT.

## THE DOINGS OF AGRICULTURAL SOCIETIES.

brown county agricultural society.
At the annual meeting of the Brown County Agricultural Society the following officers were elected:
President, Wm. Scott; 1st Vice Presidents, J. Ingalls, D. Cormier, G. G. Hannon, N. Goodell, Otto Tank, Jonas Leroy; Recording Secretary, M. P. Lindsley, Corres ponding Secretary, A. C. Robinson ; Treasurer, D. Butler.
There was also electel a Board of Directors, consisting of one member from each town in the county.
The Treasurer's account shows the Society to be in a sound condition.

The editor of the Advocate says: "We believe there is not a society in the State, no longer established than this, whose prospects are better."

## Kewaunee, March 14, 1861.

J. W. Hoyt, Editor Farmer:-Below please find the list of officers for the Kewau. nee County Agricultural Society for the the present year :

Joseph Wilmot, Coryville, President ; Barney Hanson, Franklyn, Vice President; E. Derker, Kewaunee, Treasurer ; D. D. Garland, Kewaunee, Secretary.

Directors, Fred. Bohne, Kewaunee ; J. A. Defaut, Ahnepec; Jesse Ericson, Carlton; C. A. Feiker, Franklin; Thomas Paddleford, Montpelier ; John Smithwick, Coryville; David Decker, Casco; Joseph Lemienx, Red River; James Pierce, Pierce. Truly Yours,
D. D. Garland, Sec'y.

## Prescott, Feb. 26, 1861.

Prof. J. W. Hoyt.-Dear Sir:-The adjourned annual meeting of the Pierce County Agricultural Society was held in this city on Saturday, the 16th inst., and resulted in the choice of the following officers for the ensuing year:
W. C. Denison, President ; M. W. Barb, M. H. Fitch, Recording Secretary ; J. M. Bailey, Corresponding Secretary.

Yours truly,
J. M. Balley.
J. W. Hoyt, Esq., Sec'y W. S. Ag. Society.-Dear Sir:-The officers of the Winnebago County Agricultural Society are as follows:

President, A. H. Cronkhite; Secretary, B. S. Henning ; Treasurer, J. W. Ball.

Board of Control, G. W. Lathrop, J. Hotchkiss, W. H. Scott, John Hewlett, Samuel Charlesworth, James Adams, and E. D. Smith.

The premium (a first class Fanning Mill) for the best acre of wheat raised in Winnebago county, was awarded to Mr. Bushnell, the last President of the Society, for sixty. five and three-fourtus bushels.
We shall contend for the Banner at the next State Fair, and shall go in to win.

Yours respectfally,
B. S. Henning, Sec'y.
J. W. Hoyt, Esq--Dear Sir:-At the annual meeting of the Jefferson County Agricultural Society, held at the Jefferson House in Jefferson, on the 19th day of Feb., the following officers were chosen for the ensuing year:
H. H. Welds, of Koshkonong, President; A. B. Smith, of Lake Mills, and Justus Car. penter, of Palmyra, Vice Presidents: A. H. Van Norstrand, of Jefferson, Treasurer; James Barr, of Jefferson, Secretary.
E. B. Fargo, Lake Mills, Geo. C. Smith, Oakland, E. D. Masters, Jefferson, Milo

Jones, Koshkonong, Nelson Fryer, Cold Spring, J. R. Dye, Hebron, H. E. Coon Palmyra, W. W. Woodman, Farmington, Joseph Lindon, Watertown, D. Folsom, Waterloo, J. D. Waterbury, Ȧztalan, Execu' tive Committee. Yours truly, Jas. Barr. Sec'y.
Prof. J. W. Hoyt.-Sir:-The follow. ing are the names of the officers of the Monroe County Agricultural Society :
R. E. Gillett, Tomah, President ; R. H. McMahon, Sparta, Vice President; H. E. Kelley, Sparta, Secretary ; B. Northup, Leon, Treasurer.

Executive committee. F. B. Tyler, Chairman ; S. C. Lyon, P. Webster, Wm. Baker, H. Campbell, A. W. Gibbs, S. Wood, J. M. Farr, T. N. Rier, P. Van Alstine, Joha Stevens, P. M. Carpenter, L. E. Griswold, L. M. Huntley, J. J. French, A. Emery, Draper. Respectfully yours,
H. E. Kealey, Sec'y.
J. W. Hoyr, Esq.-Dear Sir:-At the annual meeting of the Green Lake County Agricultural Society, held at Princeton, Jan. 7th, the following officers were elected for the year 1861 :
Ira Sherman, Princeton, President; A. Nichols, Markesan, Vice President; M. H. Powers, Dartford, Secretary and Treasurer.
Executive Committee, M. H. Howard, J. Davis, A. Bailey, S. M. Knox.
Next Fair to be held at Markesan in September. Respectfully, M. H. Powers, Sec'y.

## manitowoc county.

The annual election of officers of the Manitowoe County Agricultural Society, took place at the Court House, on Monday, January 21, and resulted in the choice of the following persons:

President, John F. Guyles; Recording Seeretary, R. H. Hoes; Corresponding Secretaries, Chas. Esslinger and Wm. Bacb.

Executive Committee, Giles, Hubbard, Jacob Leups, J. E. Platt, G. W. Burnett, Geo. W. Adams.

Vice Presidents, one from each town.

## Town Clubs.

the sheboygan farmers' club.
Is one of the most prosperous in the State. Its meetings are well attended, and the dis-
cussions as published in the county news paders, are fall of interest. The sessions are held in succession at the residences of the members and are represented as being socially agreeable and professionably profitable.

The offleers, for 1860, are Nathan Sargent, President; Chas. L. Gould, Treasurer ; and E. F. Barrows, Secretary. We shall endeavor to publish portions of their proceedings from time to time.

## STATE MATTERS.

The Military Spirit is still intensifying. The roll of the drum has become as familiar as the rumbling of wagon wheels. Two full regiments are now in camp-one at Milwaukee and one at Madison-and companies enough have tendered their services for five or six more.

The people of Wisconsin are loyal. The Badger heart is choke full of patriotism. Let the Secretary of War but say the word, and twenty regiments of a thousand men each will be eager for battle. We never were so proud of our adopted State.
Finding a need for further legislation with reference to the defense of the State and the equipping of men in sufficient number to answer the future calls of the Government, the Governor has convened the Legislature in extra session, which will commence to morrow (May 15th). Many of the members are already here, and the belief is that there will be a perfect unanimity in the making of ample provision for every emergency.

The ladies, in all parts of the State, are zealously engaged in providing for the personal comfort of the volunteers, and there is scarcely anything too Herculean for them to undertake. Within the last few days 1500 fiannel shirts have been made by the patriotic ladies of Madison, and we doubt not that the noble women of other towns have been equally prompt and energetic in the performance of what their hands have found to do.
The Weather and the Crops, though secondary, just now, in the thoughts of the masses of the people, have not, we trust, lost their interest to the farmers of Wisconsin. A little untoward in some respects, it is our opinion that the season will nevertheless prove favorable to agriculture. It
has ccrtainly been as good as could be asked for wheat already in, and we believe $i_{t}$ will not long continue unfavorable to the planting of corn.

The reports from all parts of the State indicate that the farmers have appreciated the extraordinary demand of the times. The quantity of wheat sown is probably unparalelled in the history of Wisconsin, and all early sown crops are looking unusually well.
The farmers of Minnesota are also wide awake, as we learn from Col. G.F. Hastings, who has just returned from a tour through the more thickly settled counties, and are determined to beat the world if they can.
In a word, the agricultural prospect is good. Let the farmers of the Northwest but join hearty hands with Providence, and they may ensure results that will astonish the world.
National.--Since the issue of the last No. of the Farmer nothing of startling importance have transpired. Tennessee and Arkansas has seceded, as expected, The ports of Virginia and North Carolina have been blockaded and very decisive measures have been adopted to hem in the rebels by the military occupation of important points along the line. Cairo is strongly fortified and further protected by several thousand troops.
The Union men of Tennessee, Kentucky, and Western Virginia have responded to the call of the President with one or two regi ments each of troops, and seem to be daily gathering strength. Western Virginia holds a Convention to-day, and, in case the ordinance of secession should be ratified by a majority of the people of the State, will probably secede from the eastern portion.
St. Louis has twice been the center of much interest since the preparation for war began-first when Capt. Stokes of Chicago, by a most skillful "coup de main," received 21,000 stand of arms at the Arsenal in that eity, under the very noses of an immense secession mob, and under cover of night transported them to Alton, thence to Springfield, IIl.-the second, when on the 11th of the present month, Gen. Lyon, commander of some 5000 U . S. troops surrounded and took Camp Jackson (a seeession camp in the suburbs of the city) capturing some 1400 prisoners and about 5000 muskets. The mob which followed and attacked the U. S. troops in the streets, with a loss of about 20
killed and mortally wounded, and the cold blooded butchery of 9 inoffensive Germans the following day and night, simply because it was Germans who fired upon and killed some of the mob as related, gives evidence that there is a very dangerous element in St. Louis that should at once feel the strong arm of military power. Gen. Harney is there now, however, in command of the troops, and his characteristic energy and courage are a good guaranty that prompt and efficient measures will be used to overawe and, if need be, crush out the traitorous villains who would fain drive the city and State into the whirlpool of secession.
Gen. Scott, who has removed his headquarters to Philadelphia, in order to operate with more promptness and efficiency, is doing all that mortal man could do to organize the army, and when the time comes to strike, will prove by his success, the wisdom of getting well prepared before making demonstration of the designs and power of the Government.

Troops in immense number are drilling in all parts of the North and thousands more are clamoring for admission inte the army.
Large numbers of Southern troops are said to be collecting at Richmond. Ft. Pickens is pronounced safe against any force which the rebels can bring against it. Sereral ships of war are lying off, prepared to aid in the defense of the Fort, if attacked, and probably also with orders to recapture the Navy Yard when the right time comes.
Nine thousand U.S. troops recently sailed from N. Y. under sealed orders and will doubtless give an account of themselves in a few days.
Maryland has not seceded and probably will not, now that Baltimore is under terror of Government cannon, and Annapolis is occupied by a strong military force. The railroads connecting Washington with the North are now repaired and strongly guarded, so that our troops no longer go around Baltimore.

The Southern Commissioners find but little favor thus far at foreign courts and will find less and less as the old confidence in the inherent strength of the Gcvernment of the U. S. is gradually restored. Mr. Dallas, Minister to England, refused to present the rebel Commissioners to the Queen, and Mr. Faulkner, though he very improperly did them that honor at the Court of N:apoleon, requested the French Government to wait until the
arrival of Mr. Dayton, his successor, before taking any steps towards the recognition of the new Confederacy. The French Minister, M. Thouvenel, assured Mr. Faulkner that France would not recognize any new government until it became a fixed and unquestionable fact ; and President Lincoln, through the Secretary of State, has given such instructions to Mr. Dayton as can hardly be mistaken by Napoleon or any other of the reigning monarchs of the Old World. The language of Mr. Seward is as follows : "Tell M. Thouvenel that there is not now, nor has there been, nor will there be any-the least-idea existing in this Government of suffering a dissolution of the Union to take place in any way whatever, and that it is high time that this idea was dismissed by statesmen in Europe."

Thank God, we still have a Government !
Foreign.-There is yet no war in Europe. The Pope is still Pope and his temporal power has not been formally dissevered from his spiritual, still the thunders of the Vatican are fainter and fainter and are nolonger terrible even in Italy.

The spirit of revolution seems not to be so rampant just at the present, but the consolidation and independence of the 1 talian States, with Victor Emanuel on the throne of the Eternal City as King, may almost be considered historic facts. The following extract from the late
speech of the king victor emanuel,
On opening the Chambers at Turin eloquently sets forth the present position and the hopes of Italy. The King said :

[^6]as a proof of our consdideration, as well as our sympathy for the noble German nation, which, I hope, will be more and more convinced that the constitution of Itailian unity cannot injure either the rights or interests of other nations. (Loud applause)
Senators and Deputies : I am certain that you will not hesitate to give my Governmenment the means of completing warlike preparations by land and sea Thus the kingdom of Italy, placed in a position not to dread an attack, will find more easily, in the consiousness of its force, reasons for opportune prudenee. Under other circumstances my language was bold; for wisdom consists not less in knowing how to dare opportunity, than to temporise opportunely. Devoted to Italy, I have never hesitated to risk for her my life and my crown, but no one has a right to risk the fate and existence of a nation. (Applause.)

After signal victories, the Italian army, whose glory increased every day, has just acquired fresh titles by rendering itself master of one of the most formidable citadels. I feel the consolatory idea that this feat of arms will close forever the painful series of our conflicts. The naval forces have proved in the waters of Ancona and of Caeta, that the sailors of Pisca, of Genoa, ond of Venice, are received among us. A valiant youth, led on by a captain who bas filled the most distant countries with his name, has shown that neither servitude nor long misfortune has weakened the nerves of of the Italian people. (Loud applause.) These are facts which have inspirud the nation with great confidence in its own destiny. I am happy to manifest to the first Italian Parliament the joy which fills my heart an a King and as a soldier. (Renewed Applause.)

Austria is arming, however, and at the same time organizing constitutional governments for the provinces, so that Italy may be called to suffer another baptism of blood ere Providence will permit her to again take her position among the great nations of the Earth.

Poland and Hungary are becoming more and more imbued with the spirit of independence and are likely to make their Russian and Austrian masters some trouble, should an opportunity afford. In Warsaw trouble of a serious nature has already occured, an unarmed procession of the people, singing national hymns having been flred upon with fatal effect, and many of them most inhumanly butchered by the Russian soldiery.

France is still carrying on her military and naval preparations on an immense scale-being, evidently, determined to make herself, if she is not now, the strongest power in Europe-stronger than Russia and Austria on the laad, stronger than England on the sea. She is opening a new route to India, through the Isthmus of Suez, which will place her great commercial seaport ten days nearer the great marts of India and China than London, and make Marseilles the great entrepot for the commerce of the East.

England is chafing with constantly increased in patienceat this attitude of her ancient rival, and is now considering whether it would not be wiser to make the attempt at once to cruch this great and growing power, than to let it go on and ruin her commercial supremacy.

## EDITOR'S TABLE.

## The Present Number.

Owing to the amount of space oocupied by the Regulations and Premium List for the next State Fair, this number does not present the usual variety of matter, some two or three departments being omitted entirely. We presume, however, that all our readers are interested in the plans and operations of the State Agricultural Society and will be pleased with this convenient opportunity of examining the official arrangements for the next Annual Exhibition.

This number is also a little late, but the Publisher is making an effort to catch up, and expects to be able to issue the Farmer regularly again at the appointed time on and after the lst of June.

## The State Fair.

We hear the question occasionally asked, "Will there be a State Fair this year ?" Gf course there will' and a grand one too. There never was a time when there was greater demand for effort on the part of agri. culturists, and the spirit with which they have undertaken the labor of the season indicates that they intend to bring that effort into the field.

Thereare more men ready to follow tha lead of Mars than are needed; let the remainder renew their devotion to Ceres.

## The Premium List.

Examine it carefully from beginning to end. Every enterprising farmer will find much to interest him, and perbaps something to blame. If the latter, remember first, that it is hardly possible for all men to agree, and secondly, that the best intentioned and even the wisest are liable to err in some particulars. When you find anything of which your judgment, does not approve, stick a pin just there, and before the issue of another list, give the Ex.Committee the benefit of your advice. Except in the judicious increase of some of the premiums and in the new ticket system, it does not very essentially differ from the Premium List of last year, but all in all, is, as we think the best hitherto issued by the Society.

## The Prize Banner.

What county will have it? We understand that several of the old counties feel a little ashamed that one of the newest, most remote and hyperboaenn counties should have taken the magnificent banner offered by the citizens of Mrdison last year, and are rathor of the opinion that that same thing will not be allowed to occur in 1861. We shall see.

## That Silver Pitcher, and those Goblets.

Who wants shem this year? There are many good farms in Wisconsin. If the owners think them worthy of the handsome prizes offered by the Society, let them be prompt to enter them for competition as provided.

## Field Crops.

Enter them early and give the Society an opportuni. ty for once to award at least half the premiums offered.

## Kirby's Reaper.

See New Advertisament and Testimonials of this popular machine in this number.

## Something of a Scolding.

Have our readers forgotten that, in the February No., we proposed to make the Farmer the organ of the practical farmers, gardeners, mechanics and ofhers in the Northwest who have experiences and views that ought to be made public? If they have, we hope they will wake up and hear us say again, that we moant just exactly what we said. But how many have responded to that call? Five or six of the thousands who ought to keep our drawer crammed with the carefully writton results of observation and experiment.
The best practical and scientific Editor in the world cannot give that variety and spirit to a periodical which are really requisite to its highest success.

He may have practiced farming (as we have) for the greater part of an active life, and may have studied the whole subject, moreovar, so thoroughly that he could write straight along, a steady stream, until the crack of doom, aad yet he will not be able to supply the places of correspondente, who, by their frequent communications from various localities and with different experiences, give life and spirit and added value to an agricultural journal.
Friends, will you not reform? WILL YOY NOT WRITE FOR YOUR PAPER?

## Enquiries.

Hancock, Waushara Co., Wis., March 10.
Mr, Editor:-will you do me the favor to inform me through the Wisconsin Farmer, or by letter where I can obtain a few Cotswold and South Down Ewes, and at what price, for the different kinds of ewes and bucks, aud oblige.

Yours Respectfully,
L. M, Halcomb.

Arcadia, Trempaleau Co., Wis., May 7, 1861.
To J. W. Hoyt, Editor Wiseonsin Firmer, Madison :
Sir-Having seen an advertfsement in the Wisconsin Farmer of a machine for milking cows, I shall be obliged by your informing me if you can recommend it; and also, at what establishment I can purchase the same?

I have the honor to be sir, Yours Truly,
George H. Mareham.
[Have no faith in any but the old fashioned maching. Sorry not to beable to give the address of any one who keeps them for sale. Will try to ascertain.]

## Madison Mutual Insurance Company.

We are indebted to the General Agent of this flourishing company for its first quarterly report for the current year. The principle upon which the company is based is certainly the true one, and we are glad to find that its business has increased beyond all precedent during the quarter just closed. There can be no better evidence that the farmers of Wisconsin are coming to appreciate the importance of insurance in general, as well as the soundness of this particular organization. An intimate acquaintance with most of the officers enables us to speak with assurance of their ability to manage its affairs with success, and we accordingly feel safe in recommending it as eminently worthy the confidence of all interested parties.

## Literary Notices.

The Illustrated Horse Doctor, by Edward MayEEW, M. R. C. V. s., author of several works on animals. and amether Veterinary Art, with over 400 Pictorial Representations. Published by Appleton \& Co., New York.

This is a magnificent work - the finest, without question, of the many that have enriched tho Literature of the Veterinary Art and Science. Its science is accurate, its style popular, its illustrations masterly and profuse.
Dr. Mayhew has long been known as an able writer on this and kindred stabjects, but in this work he has entirely outdone himself, both as author and artist. Nearly every disease discussed is presented to the eye in a most graphic cut, as, also, are the methods of handling and treatment; so that to have studied this book, is almost equivalent to having had extenaive experience in the numerous diseases of which it treats.
The publishers, too, have done themselves great credit by rendering a work of so much intrinsic value yet more attractive by reason of its fine mechanical execution.
The Principles and Practice op Land Drainage. Illustrated by nearly 100 engravings. By J. H. KLIPpart, Esq., author of the Wheat Plant, \&c., and Necretary of the Ohio Board of Agriculture. Robert Clark \& Co., publishers, Cincinnati, Ohio. Price $\$ 1,25$.
The subject of Drainage is daily acquiring importance in the estimation of the scientific and practlcal Agricultarists of this ceuntry, and works which pointedly and roliably teach the principles and the art must rapidly come into demand.
The book before us, after a careful examination, is cordially recommended. The able author modestly declares that it has not been his aim to produce an original work, but he has certainly produced one of great value, and one that ought to be in every farmer's library.

Possessed of a 'knowledge of the principles it contains, and of the methods which it decribes, and illustrates, any farmer, however wanting in experience, can easily perform the work of draining in the most approved manner.

Tare Princtples of Breediva; or Glimpses at the Physological Laws involved in the Reproduction and Improvement of Domestic Animals. By S. L. Goodale, Secretary Maine Board of Agriculture. Published by Cresby, Nichols, Lee \& Co., Boston.

We are indebted to the author for a copy of this admirable little book. It has leng been a desideratum, and the great stock-growing public are under obligations to Mr. Goodale for the able manner in which he has met this felt want.
Too much of the breeding of domestic animals in this country is of the hap-hazard, blundering sort, as if there were no cirdinal and immutable principles to govern the business at all. This work will have a tendency to correct many tatal errors and establish a scientific system. The contents have been found exceedingly interesting, and we shall take the liberty of quoting therefrom, from time to time.
Our acknowledgements are also due to Mr. Goodale tor copies of his Secund, Third, Fourth and Fifth Annual Reports, as Secretary of the Maine Board of Agriculture. We have not yet had time to examine them minutely, but anticipate much pleasure and profit from their perusal.
The Rural Animal and Horticultural Directory for 1861. Illustrated with 80 engravings. Joseph HarRIs, Rochester, N. Y. Price 25 cts .
This little book is rich in suggestions, and is worth
many times the price to any farmer, gardener, or mechanic. Send the stamps and get a copy.
Prof. Jayes Hall, Geologist and Palreontologist. etc., will please accept our thanks for copies of "Contributions to Palæontology, 1858, gnd 1859, with additions in 1860," and the "Twelfth Annual Report of the Regents of the University of the State of New York, on the Condition of the State Cabinet of Natural History, and the Historical and Antiquarian Collection connected therewith.
The "Contributions" have much scientific value and the Report is replete with interest.
Transactions of the R. I. Society for the Encouragement of Domestic Industry, in the year 1860. Our acknowledgements are due to W. R.' Staples, Esq., Secretary, for a copy of this Report. It is handsomely published in pamphlet form, and contains valuable papers.
Report of the Annual Meeting of the Fruit Grower's Socizty op Western New Ycri, held at Rochester January 9th and 10th, 1861.
A pamphlet with the above title shows the Society of Western New York to be in an active and flourishing condition. The discussions of various important subjects are interesting to fruit-growers, and we shall give our readers the benfit of them from time to time.
Discriptive Catalogue of the Columbus (0mio) Nursery.

- Messrs. Batheam, Hanford \&Co., Proprietors will accept our thanks for this, the first Nursery Catalogue that has come to our table this season. We have known this Nursery in other years, and can recommend it with assurance.

Transactions of the Mass. Hort. Society for the year 1860. Eben Wriaht, Secretary.

This Society has had a corporate existence for 33 years, and its list of active 'members includes many of the most distinguished Horticulturists in the United States, The volume before us consists of a pamphlet of 95 pages, 8 vo , and furnishes satisfactory evidence that there is an increase rather than a decline of interest in the objects of ihe Society.

Smithsonian Contributions to Knowledge.
The learned and accomplished Secretary of the Smithsonian Institute, Prof. Henry, has been kind enough to furnish the State Agricultural Society with a copy of Twelfth Volume of the "Contributions;" which for interest and value to the scientific world, is quite equal to its predecessors. The most important papers are: Astronomical Observations in the Arctic Seas, ${ }^{\text {,F Fluetna- }}$ tions of Level in the ;North American Lakes. Mateorlogical Observations made at Providence R. I., and Researches upon the Venom of the Rattlesnake.

## State Editorial Convention.

The Fifth Annual Convention of the Editors and Publishers of Wisconsin will be held at Watertown, on the 3d Wednesday of June prox. An Oration will be delivered by E. A. Calkins, Esq., of the Argus ac Democrat, and a Poem by H. M. Thomson Esq, of the Home Lisague Mr. Harrison Reed of the State Journal, will also read his completion of the History of the Press of Wisconsin.
The ability of these gentlemen is ample guaranty that the more public exercises will be highly interesting, and we trust that this fact, together with the centrality and accessibility of the place of Convention, will insure a universal attendance of the members of the Associa tion.

## EIREY'S

 AMERIGAN HARVESTER.

## FARMERS!

HAVE YOUTETORDEREDAREAP.

## ER: IF NOT, COME AND SEE

 KIRBY'S BEFORE YOUBUY:WE HAVE SPECIMEN 3ACHINES NOW SET CP ready for use, and for examination, in nearly all the principal localitios in the State, and solicit the examination and scrutiny of all good judges of Reapers.

THE KIRBY, as we have often said before, is ns much more NEATLY AND THOROUGHLY MADE than most other of the common machines, as a Yankee uxe is akead of common, rough blacksmith work, or a complete patent lever watch of an old bull's eye,

THE KIRBY is the Reaper of the age beyond all dispute. What may come after it we cannot say, buc it is certain that nothing yet equals it either in beauty or compactness of structure.
15. In workmanship and durability, (it being uear ly all iron and steel,)-
to In lightness of draft. (We warrant any ordinary span of horses ample at all times, and for a whole season,)-

E9. In having no side draft at all, nor downward weight upon the tongue-
tes As boing the easiest machine in the world to rake from-
vil It being a very common and perfectly easy thing for a careful man, with a good, steady team, to both rake and drave.-
en As being by far the cheapest machine in the world, on every account.-
EGTHEKIRBY will last any careful farmer twenty years, with the renewal of such parts as the sickle, and those parts subjected to extra wcar.

HS THK KIRBY can be taken to pieces in ten minutes, so as to be packed up in a space three by four
feet square for storage. feet square for storage.

FQ THE KIRBY, all in all, is the best combined machine in the world, and gives universal satisfaction to all who use it.

By) THECKIRBI will be varransed fully to every purchaser, to be a first rate Reaper and a first rate Mower, in every spot and place-and to both reap and mow upon rough ground, better than any other machine in existence.
tif) Our stock of KIRBY'S for Wisconsin is running out fast, and cannnot be promised certain after the early part of next month.
v3) No man should wait late this season before buying a Reaper, as the probability is strong that the entire stock of every kind will be exhausted before the harvest.

1 Attend to it gentlemen, the sooner the better, aach and all of you.
no THE KIRBY may be seen set up at the Dane County Store, Madison, at Eldred's Janesville, at N. A. Wright's, Prairie du Chien, at Plattville, Grant Co., Buscobel, Lone Rock, Avoca, Mazomanie, Prairio du Sac, Stoughton, Milton, Edgerton, Lima, Whitewator, Palmyra, Ft. Atkinson, Cambridge. Watertown, Colcmbus, Sun Prairie, Pardeeville, Herseyville, Sparta, La Crosse, Albany, Green County, Monroe, Broadhead, Darlington, Mineral Puint, Dodgeville; and many other places in the State.
About 180 were sold in this State last year, and about 6000 in the United States, and uniformly gave excellent satisfaction.

492 Extras of every kind will be kept constantly on hand for machines at all the principal towns in the State.

En. Send to the undersigned or apply to local agents for Yamphlets and Circnlars, if any further infurma-
tion is desired.
D. J. POWERS,

General Agent, Madison, Wis.
Madison, May 1, '61.
tf
A Few Testimonials for the Kirby, Se-

## lected at Random from a large $N$ umber.

Mount Pleasant, Green Co., Wis.
Gentlemen:-I purchased Kirby's American Herves. ter on trial, for thie harvest of 1860 . Gave no note or money until giving it a thorough trial. My horses were 4 year old colts. Theyoworked on the Reaper to cut 100 acres of grain and 40 acres of grass, sand they came out in better order than when I begun, and my farm is quite uneaven. The Reaper gave me entire satistaction, and also my neighbors, I think, and know it to be the best combined machine I ever saw. The machine is more valuable than any wooden machine can be. All I have to do in the fall is to take off pole, seat, platform and reel, then 1 have no wood work'to rot down or warp and derange the geering. When I get another machine, which I think I will do this year, because of
a large larm, I shall unhesitatingly get the Kirby.

Respectfully, THOMAS FENTUN.
I used Kirby's American Harvester through my Harvest of 1860. My farm is new and full of stumps and trees. I found it to be the best machine to use among stumps, trees, roots aud uneven surface I ever saw. I cut 80 acres of grain and 65 acres of grass with a span of colts, and they handled it with perfect ease through the wole harvest. It is decidedly the best combined machine I ever saw, and I am well pleased with the machine after using it one harvest, and can safely recommend it to the farmers.

Respectfully, SAM MITCHELL,
Albany, Green Co., Wis.
D. J. Powers, Esq.-Dear Sir:-F. E. Shandrew, the gentlemanly agent at Watertown, for selling Kirby's American Harvester, put one of them up for me, and as it works entirely to my satisfaction, I am prepared to give you my opinion (as you requested) ot its merits. I think, as a mower, it cannot be beaten; it mows clean and handsome; the contrivance for separating the cut from the uncut grass, is admirable-it leaves a littlo path for the off horse to travel in, which he soon learns to follow, and is just the place for him to go to cut the full width of the knives, and no more. It works well in the harvest field; there is no need of whipping up the team to get motion enough to cut the grain.

The draught is light-a pair of horses can work it as easily as to haul a plow or drag, and its machinery is so simple, and it is built so strong, there is very little danger of its getting out of order. Upon the whole we think it is the best combined reaper and morer we have seen.

MARK R. CLAPP,
Milford, Jefferson Co., Wis.
D. J. Powers, Esq:-In compliance with your pubblishee request that those who had used the Kirby Reaper would give their op!!nion of it, I would say that I purchased one of Kirby's American Harvesters of P. L. Carman \& Co., on trial. I cut one hundred and twenty acres of grain with my team, cut it with ease and did the work admirably. I cut that which was stumpy and stoney and rough, uneven and lodged, and tangled grain and grass, b yond expectation. I cut fifteen acres of grass which was quite rough and uneven, and the Rreaper gave me entire satisfaction; so perfect and satisfactory is its working, so durable and substantial is their structure From my experience I would recommend the Kirby to the farming community as one of the best combined Reapers and Mowers now offered for sale in the State.

ABRAHAM MURPHY.
Lake View. Dane Co., Wis., Feb. 25, 1861.
Albany, Green Co., Wis., Jan. 19, 1860.
Dear Sir:-I used Kirby's American Harvester to reap my last harvest of 1860 . It gave entire satisfaction. I like the raking off the best of any machine I ever saw, and can willingly give my voice in recommending it to the farmers as the best combined machine in use Furthermore it is decidedly a two horse reaper. Respectfully Yeurs,
mayltf
K. DOOLITTLE.

## THE

## WISCONSIN FARMER.



VOL. XIII.
MADISON, JUNE 1, 1861.
NO. 6.

## The Sinews of War.

Money has long been styled the sinews of war. But whence comes money? Out of the industry of men. There is no other source. Not a dollar of the millions of the wealth which to-day flows so freely into the lap of the Government had other origin. ${ }^{\circ}$ Money always and everywhere presupposes labor-not necessarily, indeed not often, by those who hold the most of it in their hands, and at pleasure, meanly hoard, or munificently give; get labor by somebody, somewhere and somewhen.
But war is a most destructive agency, sométimes in a single twelve-month, sweeping into wreck and nothingness the grand results of centuries of slow and painful toil. There is but little probability that this present war will cost the Government of the United States less than one thousand million dol ${ }^{\circ}$ lars ; and millions more will be consumed by fire and pillage.
It becomes a question, therefore, of the first importance, how this immense amount of treasure is to be supplied. There can be but one answer: By a more active and eco: nomical industry.
First, all able-bodied who have been accustomed to live at ease upon the industry of others, should either patriotically take their places as soldiers in the army of the Union, and thas leave the agriculturist and mechanic to their legitimate work as producers of the materiel of war, or else themselves engage in some form of producive labor. The number of producers should,
by no means, be allowed to diminish; unless, perhaps, temporarily, and for a bold and overwhelming stroke that shall end the war at once.

Secondly, all industrial effort must be economically, put forth. Not an ounce of power should be lost. The meahanic should make the brain help the hand as never before, and the farmer avail himself of the best helps furnished by the practical sciences and the mechanic arts.

The press of the country has, with marked unanimity, urged upon agriculturists the seeding of the largest possible area of land; and there is reason to believe that they have followed their advice, perhaps even to the extent of seeding more acres than can be properly tilled.
Laborers will be scarce and wages high. It behooves the farmer, therefore, to provide himself with the means available, in order to the largest possible yield of the various crops grown.
It is no time to waste effort upon antiquated machinery. Get the best that can be had, and early, so that manufacturers may be able to supply the demand. Implements of all kinds were never so cheap, and were never so badly needed.
Machinery for harvesting, should especially be looked to before it is too late. If not, crops in sufficient quantity to more than pay the cost of harvesters will inevitably be lost.

But the soil and its immediate products should not receive the exclusive attention of the farmer. Pork, beef and mutton-
these will also be in great demand at good prices. They are produced, moreover, without the aid of so much manual force as grain crops require, and, hence, within a reasonable limit, are more economical at such a time as the present, when so many laborers have left the field and workshop for the soldier's camp. Let stock-growing receive its due share of attention.
Industrial men of the Union! There never was a holier war than that which is waged against the traitors to this Republic. It is a war of Government against Anarchy -of Civilization against Barbarism - of Cbristianity against Diabolism. Should the Union fail, the Democratic-Republican Idea will have received a blow from which it may not hope to recover in centuries. The Government looks to you for the means necessary to a speedy and victorious issue of the confiict. See that they be not wanting.

## Practical Suggestions for Juner

The quantity of wheat sown this year is probably unprecedented in the history of the State. Still, in view of the great demand for all classes of farm products which is sure to grow out of the existing war in this country and the probable European wars, it behooves every farmer in the land to tax his energies and the productiveness of the soil to the utmost.
The Corn Crop.-Planting has been considerably retarded by the unfavorableness of the weather, but has doubtless been com pleted ere this. See that the weeds do not get the advantage. There is nothing like taking them at the right time, as by this means the labor is often reduced one half and the crop proportionally increased. Sow broad-cast for green fodder. Two bushels to the acre is a fair quantity.

Potatoes.-It is not yet too late for the main crop; seed is abundant, and the season prospectively favorable. Let the ground be deeply plowed, well pulverized and well manured, if not new and rich. Wellrotted barn-yard manure distributed in the hill will give a good account of itself. Ashes are also good, inasmuch as they supply the alkalies which are especially necessary to the potato; and a spoonful of plaster in the illh is very sufe not to damage the crep.

Of the numerous varieties which are urged upon the attention of the farmers we know of none which of late have commended themselves so highly as the Carter and the Prince Albert. Both are large and of handsome shape, and accerding to our notion, quite unexceptionable in other respeete,

Hungarian Grass is yet upon the witness stand undergoing a pretty sharp crossexamination by counsel pro and con, but yet has character enough to warrant further trial. We can't exactly endorse it, and yet are no tfully prepared to condemn it. It has this advantage: that it may be sown later in the season than any other forage crop, and hence serve a very important end when the haycrop is likely to be short. Seearticle in this number from an Ohio farmer who has tried it two or three years.

Sheep-Washing and Shearing. - Thebe important operations should be attended to as early in the present month as the westher will permit. See articles thereon in Stock Register.

Stock Breeding. - Attend to all your hnimals promptly when in season. Barrenness is often the sure reward of a little carlessness. Secure the use of the bat males. This is true economy and any other kind of policy is the worse kind of strpidity.

The Orchard. - All planting, grafting, inarching and pruning having been done, it now remains to look after the bugs, and to see that all shrubs, and trees do not lack a proper mulch.

Thousands of evergreens and fruit trees die annually in Wisconsin for want of a little protection from the sun. Coarse straw manure, half decayed chips or saw dust answers a good purpose, and something of the sort is indispensable. Don't heap it all up around the trunk, but spread an inch thick, as far as the roots extend.

Destroy Caterpillers nests by means of a brush tied to a pole and subsequent washing with strong soap suds. Suds made of whale oil soap and water in proportion of one pound of the former to a gallon and a half of water, will be found best.

Look out for the borer around the roots and lower portion of the trunk. A little punching now will do more good than a good deal of whinning after your trees are dead!
The Kitchen Fruit and Flower Gab-

DEN.-The principal labor of this month will consist in keeping the soil clear of weeds, well stirred, and in some parts, at least, always moist. Watering must never be done while the sun is shining, as it will be likely to do more harm than good. Before sunrise or after sunset - in the former case, drawing a little dry dirt over the moistened earth to prevent baking - is the only safe rule. Strawberries and other transplanted plants require especial attention.

## Look out for Thistles and Snap-Dragons.

For some years there has been a law in this State for the destruction of those troublesome pests, the Snap-dragon and Canada Thistle; but being defficient in some respects, and but little attention having been called to the importance of its enforcement; it has practically been a dead letter. Accordingly, the Committee on Agriculture, of the Assembly, at the last regular session of the Legislature, introduced and secured the passage of a new act, which we are inclined to think will prove effectual.
It is to be hoped that these noxious weeds have not fastened themselves upon any considerable proportion of our lands in Wisconsin, but the fact that they have become a serious nuisance in any section or sections, should be a warning to the farmers of the whole State. It is hoped, therefore, that every enterprising farmer and friend of the Agriculture of Wisconsin will do everything in his power to make the present law fully operative.
The following is a true copy of the act as taken from the records of the Secretary of State:

## CHAPTER 206.

AN ACT to prevent the spread of noxious weeds.
The Psople of the St te of Wisconsin. represented in Senate and Assembly do enact as follows:
Section 1. It shall be the duty of any and all Persons residing upon or occupying any lands within this State, either as owner, lessee or otherwise, to destroy thereon all weeds of the species known as the snap-dragon and Canada thistle at such time and in such manner as shall effectually prevent their bearing seed.

Soction 2. It shall be the duty of every overseer uf highways within the State to destroy at such timeas will prevent their bearing seed, any and all noxious weeds of the description named in section one of this act, that may be found growing either on the highway or any unoccupied lands within the distiict fur which he was appointed, or on occupied lands, if the person thertou shall neglect to so estroy, and he shall be entitled to the same compensation for the time actually spent in such service as for the discharge of the ordinary duties of the overseer or pathmaster, payable out of the town treasury, upon order of the

Section 3. Any person of the class referred to in section one, who shall fail to fulfill the requirements of said sect, on, and any overseer of higl ways who shall not fithfully discharge the obligation imposed by the second section of this act shall be deemed guilty of a misdemtanor, and on conviction of such failure or neglect, shall be punished by a fine not exceeding fifty do lars, nor less than five dollars.
Section 4. It shall be the duty of the snpervisors of each town whenever any person or persons of the class named in section one, or any overseer of highways of such town has refused or neglected to perform the duties required of him in sections one and two of this act, forthwith to prosecute such person, or persons, or overseer, for the recovery of such penalty; and in case any overseer in such town shall have dsstroyed any of the aforesaid noxions weeds upon any occupied lands in obedience to the requirements of section two of this act, by reason of the refusal or neglect of the occupant or oceupants of such lands to destroy the said noxious weeds, then it shall be competent for auch supervisors to likwise prosecute the said ecenpant or occupants for the "recovery of the cost of such destruction incurred by said overseer.
Section 5. It shall be the duty of the Secretary of State, on or before the first day of May next, to forward printed copies of this act to each county clerk in the State, who shall cause the same to be published at the earliest practicable date, in at least one newspaper in the cunnty in which he revides.
Section 6. Chapter 53 of the Revised Statutes, and all laws inconsistent with the provisions of this act, are hereby repealed.
Section 7. This act shall take effect and be in force from and after its passage.
Approved April 11, 1861.
It will be seen that the law is very stringent, and it leaves no loop-holes through which the land-holders or the town officers may hope to escape. This is just exactly as it should be. It would hardly be possible to compute the damage that would result to our agriculture, if these miserable pests are allowed to spread until thoroughly rooted in every portion of the State.

## MODE OF DESTRUCTION.

Where the plants are found but scatteringly, they may be destroyed by digging up as thoroughly as possible, and as often as they appear on the surface of the earth. Some claim to have succeeded by simply cutting them off just below the surface about blooming time, and putting a spoonful of salt upon the crown of the root. The experiment is worth trying.

But when the plants are thick and thoroughly established in possession of the soil, nothiug will answer but deep plowing several times during the dry weather of summer and the cultivation of some hoed crop the subsequent year.

## Hungarian Grass.

Much has been published in reference to this grass, and upon apparently good evidence it has been both commended and condemned. Farmers are generally incredulous, and inclined to look upon anything new with a suspicious eye. Hungarian grass when first introduced, was represented as something wonderful, and I
think there has been at all times a disposition to condemn it as a humbug without giving it a trial.
In 1859, I sowed about two bushels of seed on three acres of ground, soil a black loam, on a hill-side incling to the east, and rather moist than dry, although not wet land. I sowed in May and harvested in August, cradied it, let it lay in the swath a day or two, and then bound and shocked it like oats, had one hundred dozen large bundles; it was cut when fully matured and beginning to die out and dry a little. I fed it in the winter to horse stock, colts and brood mares, and some little to my work horses; they all seemed very fond of it, and did well upon it. In 1860, I raised about the same amount, and fed it to the same stock, with a like satisfactory result. In the early part of the past winter, my colts were fed about as much good hay, clover and timothy mixed, as they would eat, and four ears of corn per day ; when we commenced on the Hungarian, we gave them two sheaves each morning and evening with nothing else, and they improved perceptibly in ten days, not perhaps that they gained much flesh, but their hair was more bright and lively. After feeding them in this way for some weeks, we changed to oats, giving them two large sheaves each morning and night to those two years old and upward, and three sheaves to two yearlings. The straw of the oats was bright and clean, harvested without rain ; we thought they did not do quite so well upon it as the Hungarian.

From the above experience I conclude there is not much difference between a dozen good sheaves of oats and an equal amount of Hungarian grass as food for horses, but I would much rather have one hundred dozen each of oats and Hungarian, than two hundred dozen of the best oats. We fed a pair of working mules upon Hungarian several weeks; they did well upon four sheaves each per day, without any other food. I expect some persons have injured their stock by feeding it as they would hay and grain with it; it is too strong food to be fed in large quantities with clean oats and corn. Turkeys and chickens are fond of the seed and get very fat upon it. Some think it is a strong feeder, and rapidly exhausts soil; my little experience would not justify such conclusion. I raised a very good crop of corn after my crop of ' 59 , and the ground is now in rye of a strong growth for the season. My crop of last year was followed by wheat, which looks equally well with another part of the same field, which was in oats. I have noticed however, that it does not grow tall enough on a thin soil to be harvested conveniently.

If I were raising horses upon a flat, rich farm, inclined to be too wet, I should certainly raise :Hungarian grass for their winter food, in a preference to any other crop.-Cor. Ohio Farmer.

## Shade Theory.

A cerrespondent of the American Farmer, R. T. Baldwin, claims to be in possession of facts which warrant and sustain the follow. ing propositions. We would be pleased to see the facts in full :
"Proposition 1. Of the various changes which vegetable and mineral substances undergo during their decomposition, the product of the one only which has proved to be the aliment of plants is the residue of pq trefacation.
2 Each change is a distinct and peculiar chemical process, differing not only in the circumstances requsite to produce it, but also in the nature and chemical composition of each production.
3. The value of each product depends materially upon the attention paid to the circumstances necessary to generate each peculiar process. This is known to be true with regard to the vinous and acetous fermentations, and is equally true with regard to every other.
4. That a close, cool, dark and damp location with a contact of air is indispensable to the generation of the putrefactive process. All organic substances experience this change only, when located thus.
5. No substance whatever, will undergo the putrefactive process when exposed to heat, light, and free circulation of air.
6. The decay or eremacausis, is a distinct chemical process, differing essentially from the putrefactive, in the circumstances which produce it, as well as the qualtity of the product which is invariably destitute of fertilizing qualities.
7. Putrefaction may be considered the ultimate result of vegetation and animal decompositions, because it forms the only product incapable of any other chemical change, and is consequently indestructible.
8. That the excrement of animals is not manure; like the bodies of animals it never becomes the food of plants until subject to putrefaction.
9. The value of manure depends materially upon the perfection of the putrefactive process that is the strength or fertalizing qualities of the mannre may always be estimated by the density and duration of the shade to which it has been subject.
10. That the surface of the earth itself will readily undergo the putrifactive process, if favorably located, that is, if densly shaded, which of necessity implies r cool, dark, and damp location.
11. That the fertility imparted to the earth by shade - that is manure made of the earth, itself is more durable and therefore more valuable than that made by aay other substance, whatsoever.

I2. It is not true that the impoverished condition of any soil. proceeds from

3 defficiency in one or more of its mineral constituents, because all soils alike may be made exceedinly fertile by shade alone."

## How to Make Barn Yards.

As your correspondent Tyro has asked this question I will answer it by giving my plan. First, make the yard level, (large or small ;) then commence in the middle and scoop out in the form of an apothecary's scale, deepest in the middle, to the depth of one foot in the deepest place. Then collect straw, leaves, old hay, bog grass, saw-dust, or anything that can be made into manure, fill it uplevel, with a row of mangers around the outside ; then have living water in the yard, and when you commence foddering, shut the bars or gate, and keep every creature in the yard when not in the stable; then fill up with litter to give them a good bed, and keep doing so until spring, and the manure is three feet deep or more if posible. Then dispose of it as best you can. Some let it remain until fall, and use i: for top dressing. Others cart out in the spring, and commence filling up again to keep the weeds from growing.
A dry yard is good for nothing to make manure in, while one made from six to twelve inches dishing, will always be dry around the outside, and the dish will hold water enongh for the mass above to suck from. Have good eve troughs on all the buildings, to keep out all the water possible. Spread the horse manure for the stables over the yard as fast as made. Sprinkle in ashes, plaster, muck, turf, chaff, \&c., and waste nothing, and you will soon have a pile of manure that will greatly astonish some that falsely bear the name of farmers. -L. F. Scott, Co. Gentleman.

## [From the Ohio Farmer.] <br> Carrots and their Culture.

R. G. Smith, of Florence Pennsylvania, writes that he is convinced of the value of carrots for stock, and that he has repeatedly tried to raise them, and though he always made the ground mellow and though the did enough to deserve success, yet he has never succeeded. He writes to us for information.
Asswer.-We advise no farmer to undertake the culture of carrots, who is not willing to comply with all conditions necessary to their growth. Unless he does this, not partial, but total failure must be the ineritable result. Some little thing neg. lected, will make much labor, otherwise well directed, of little avail. It may not be necessary that the work be performed with the nicety of a chemical experiment, or the care required in making a loaf of bread; but more pains should be taken than in the raising most field crops. The following rules will be found valuable to those who wish to raise the most valnable crop.

Sorl.-Never sow on foul land, or that which is a hard, shallow or stony. A rich, sandy loam is perhaps most desirable, but: we have seen excellent crops raised on heavy clay soil, made rich and underdrained.
Preparation of the Soil.-Deep culture pays well. If the ground is not underdrained, it should be of such a nature as toallow of being plowed very deep and thorough. A good crop of carnots cannot be raised with shallow culture. Manures should be applied abundantly, and well mixed in. Raw manure should not be used, but that which is well rotted, and if composted all the better. If special manure is used, such as hen manure, guano, or bones ground or treated with acid, it should be applied in the drill.

Sowing. - Carrots should be sowed the same time that corn is planted, or immediately after. It is not always easy to get the best of seed, so it is best to test it, by a small quantity previous to sowing. Never sow broadcatt. The drills should be perfectly straight, and if for horse culture, at least twenty inches or two feet apart, for convenience in cultivating them. If it is expected to cultivate by hand, (this is not best, unless the quantity is small), they may be drilled in, eighteen inches apart. In the rows they should not be less than eight, nor more than twelve inches apart. The proper depth is as near half an inch as you can get them. If much more than this, they do not germinate well, and if less than this, the surface is liable to become so dry that germination is retarded a long time, if not wholly prevented.
It takes from two to three weeks for carrot seed to come up, so that the ground can be cultivated. During that time, weeds often get such a start, that it is difficult to clean them. For this reason it is best to sow with the carrot a little mustard or radish seed, which grows at once, and indicates the location of the row so that it is not necessary to wait for the carrots before cultivation is commenced. These must of course be removed before they interfere with the growth of the carrots.

The seed grows much quicker if it is soaked a short time before sowing. Buried a few days in a bag in a moist place, but not long enough to sprout it, answers the purpose. The drill is the best implement to sow the seed with; if done by hand, mix well with sand before sowing. If the seed has been soaked, sow at once, after taking it from the ground ; a little drying will injure it materially.
Cultivation.-All that is necessary now is to see that the ground is kept free from weeds, and well stirred. It can be done with the hand hoe and garden fork, but takes more time and labor than with the horse hoe and cultivator; whichever is used, however, should be used with thoroughness.

Don't wait for the weeds to get a start unless you wish for a pror crop.
Quantity per Ácre. - This varies, as with all other crops. Less than five hun dred bushels per acre, ought to be considered a poor yield. If eight hundred bushels are raised, it may be considered a success; while it is not uncommen to get one thousand or fifteen hundred, and in one or two instances, over two thousand bushels have grown. In these latter instances, however the amount of ground cultivated was small.

Another Way. - It is said that in Flanders, carrots are sown in the spring with winter grain, and as most of their growth comes late in the season, after the grain has been harvested, very good crops may be raised. We do not know that it has been tried in this country. We think sowing with` spring grain would be prefer able. Cannot some of our enterprising farmers try it?

Hints for the Farmer. - The white ${ }^{-}$ washing of cattle and horse stalls as well as the inside of hog cotes and henneries, not only renders them more healthy, but pre vents the animals and fowls from being infested with troublesome and filthy vermin. Keep your stables and barns well littered. Nothing that will make good manure should be wasted, but carefully saved. Never undertake to fat an animal until you have first made it comlortable in bed and board. If you wonder why any other people's catthe are gentle, try the disipline of kind treatment on yours, and you will soon learn the secret.-Am. Cotton Planter and Soil.

## Sorghum.

If the cultivation of Sorghum will ever pay in Wisconsin, it ought to do so this year. Sugar and molasses are bound to be higher priced than for many years past perhaps higher than ever before since they were first extensively produced in the South.

There are two reasons for this conclusion: First, the war excitement must result in a diminution of product ; and, secondly, by way of retaliation upon the Government for refusing to supply them with provisions, the South will adopt stringent regulations to prevent its transportation North.
Accordingly, if it should not be too late when this suggestion falls under the observation of the reader, it may be well to plant additional acres.

The machinery for manufacture is now easily obtained, and the farmers of each town by combining could well afford to provide themselves with mills and evaporators.

## STOCK REGISTER.

## Cattle-1 he Best Dairy Breeds.

## No. 2.

the alderney cow.
Among the pure bred milch cows we have already assigned the front rank to the Aryshires, believing them, for general dairy purposes-for the production of milk, butter or cheese, as preferred-fully entitled to the post of honor.
If we make less account of quantity, however, and attach special importance to poality of milk, then the Alderney should rank first, for in this respect she probably has no equal.
The Alderney cattle seem to have origunated on the shores of Brittany and Normandy in France, where, as early described, they possessed fine milking and butter making qualities, though "ugly, scrawny, ill-shapen, diminutive animals." But in the latter part of the 18th century numbers of them were imported by the dairy-men of the Cbannel Islands, situated between France and Eng. land ; since which time they have there beea very carefully bred and increased to the erclusion of all other breeds.
The islands, Alderney. Guernsey, and Jer. sey, of the Channel group, are at present noted for nozhing of more importance that the improvement of this interesting race of Normandy cattle, in which they vie eack other, and to modifications of which they have given their own names respectively. The importations from the several islunds do not very essentially differ; indeed but for the circumstances of size and hardiness-in the former of which the Guernseys excel, while the Jerseys and Alderneys are superior in the latter-they might be considered quite identical, and the names are therefore often used indiscriminately. For some reason, however, Alderney, though the smallest of the three islands, has especially given name to the race, and the names, Jersey and Guernsey are coming to be regarded, in tho popular mind, rather as subordinate varieties of the family of Alderneys, instead of co-ordinate branches of the same family or race, which they really are. It is becuuse of this popular nation that we have alopted the name whi.h stands, as representative of the breed, at the head of this chapter.
characteribtics of form and appearancia
The form and general appearance of the Alderney is remarkably distinctive. No,
eae, having once seen an animal of this breed will ever after be at loss to identify the blood, even though reduced by crossing, to one third pure. The one word fawn-like conveys an excellont idea of the Alderney e0W ; but in order to furnish a more accurate description and, at the same time, furnish a atandard of perfection as determined by the Agricultural Society of England, we subjoin the following scale or points, omitting 1 and 2, which relate to pedigree on male and female side, and 34,35 and 36 , which refer to "growth," "general appearance," and "condition :"
3.-Head small, fine, and tapering.
4.-Cheek small.
5.-Throat clear.
6.-Muzzle fine and encircled with a light solor.
7.--Nostrils high and open.
8.-Horns smooth, crumpled, not too thick at the base and tapering, tipped with black.
9.-Ears small and thin.
10.--Ears of a deep orange color within.
11.--Eye full and placid.
12.--Neek straight and lightly placed on the shoulders.
13.-Chest broad and deep.

14-Barrel hooped, broad and deep.
15.-Well ribbed home, having but little apace between last rib and hips.
16.-Back straight from the withers to the top of the hip.
17.-Back straight from the top of the hips to the setting on of the tail, and the, tail at right angles to the back.
18.-Tail fine.
19.-Tail hanging down to the hocks.
20.-Hide thin and movable but not too loose.
21.--Hide covered with fine and soft hair.
22.-Hide of a good color. [Light reddish with irregular and large white spots. or still better, deer or fawn color, with spots as above.-Ed.]
23.-Forelegs short, straight and fine.
24.-Fore-arm full and swelling above the knee and fine below it.

25 - Hind-quarters from the hock to the point of the rump, long and well filled up.
26.-Hind-legs short and straight (below the hocks), and bones rather fine.
27.-Hind-legs squarely placed, and not too close together when viewed from behind.
28.-Hind-legs not to cross in walking.
29.-Hoops small.
30.-Udder full in form-that is well in line with the belly.
31.-Udder well up behind.
32.-Teats large and squarely placed, be-
ing wide apart.
33.-Milk veins very prominent.

By the Society which established these points, no cow is reckoaed worthy of a prize which has less than 29 of the 36 points.


The cut herewith presented (our old readors will pardon its second appearance for the benefit of such as were not subscribers Then it appeared in 1859,) is a fair illustration of the Alderney and will bear a close comparison with the above scale of points.

She received the first prize at the Fair of the Mass. Board of Ag. in 1857, "which," in the language of Flint, from whom the cut was obtained, "brought together the largest and finest collection of Jersey cattle ever made in this country."

CONSTITUTION AND DIBPOSITION.
The climate of Normandy where they originated, as also of the Channel Islands, to which they have been chiefly confined for the past half century, together with the clever treatment they have received during that time, with a view to the perfection of their milking qualities would naturally warrant but little presumption of hardiness. Still some of those imported from the higher and rougher districts of these Islands, in the language of Nicholas Biddle, a late importer of pure bred Guernseys into Pennsylvania, "with the ordinary care and shelter given to stock by farmers, [Penn. farmers, not Wisconsin !-ED.] have shown great hardiness, perfect adaptability to the climate and the best qualities claimed for them in their native islands."

As it regards disposition, the general appearance and the mild and peaceful expression of the cow are convincing proof to the mind of any one who has once seen her, of remarkable quietness and docility. The bulls are spirited and require some care and firmness to keep them in good subordination.

## early maturity.

The early age at which this breed of cattle mature is very remarkable. The æstrum or heat is said, on good authority, to commence at six or seven months, and well authenticated cases are on record in which pure Alderney heifers have given birth to good sized well formed and vigorous calves when less than thirteen months old. Of course no judicious breeder will approve of as early bearing as this, but the facts nevertheless show a capacity which within proper restrictions is of very great value in a breed intended chiefly for dairy use. Use gives development, and there can be no question in the mind of any physiologist, that the early bringing of the lacteal organs into active use must tend to improve the milking qualities $f$ the cow. A breed which will allow of the commencing to give milk at two years old, without detriment to either dam or calf, is certainly valuable.

QUANTITy of milk.
In respect to quantity of milk, especially during the most favorable season of the year, the Alderney is unquestionably inferior to the Ayrshire and other breeds; though we have perfectly authentic accounts of very extraordinary quantities being produced-even as high as thirty-six quarts per diem. Twenty quarts of milk daily in the spring and sum-
mer is considered a pretty large yield, the general average for the whole year being about one half that.

It must be apparent, therefore, that for the demands of a mere milk market, the Alderney would not be profitable, Quantity being then, the chief consideration.

QUALITY OF MILK.
In respect to quality of milk there can be but one opinion among those who are acquainted with the different breeds of cattle. Indeed all testimony on this point is so concurrent and strong, that we could scarcely doubt, had we no practical knowledge of the matter whatever.

The amount of butter contained in a given quantity of milk is beyond all comparison. The average ratio of butter to milk, for other breeds than the Alderney, is about one pound to twelve or fourteen quarts; while the Alderney average may be correctly stated at one pound to eight or nine quarts. Numerous cases are on record in which less than six quarts have yielded a pound of butter, but these should be deemed exceptional rather than general.

The Committee on Dairy in Hampshire County, Mass., (report published in Trans. Mass. B'd of Ag.) says :
"The Alderney is universally admitted to produce the richest milk in quality."

Col. B. P. Johnson, Sec'y N. Y. State Ag. Society, says: "The milk of the Alderney Cow will give much more butter from a given quantity of milk, than any other breed with which we are familiar."
In the Report of the Mass. Board of Ag. for 1854, we find the statements of several responsible parties, all of which confirm the opinions above expressed. For example, a Mr. Dixwell, in his report on Ccws says : "On several trials a fraction less than five and a half quarts of milk gave a pound of butter."

In the report of a Committee appointed by the Philadelphia Society for the Promotion of Agriculture, with a view to ascertain the relative value and adaptation of the Alderneys, we find the following statement to Dr. L. H. Twaddell, West Philadelphia, of his imported Cow Europa. The account was published in the Farmer and Gardener, July 1860: "She is seven years old. Two lbs. and ten ounces of butter have been made from her milk in one day, the amount of milk being sixteen and a half quarts. One pound and eight ounces have been made from a
single milking. Two months before she calved, upon trial, she yielded five quarts of milk per day from which one pound of butter was made."
The average yield per annum is also higher than that of any other breed of which we have knowledge.

One hundred and sixty to one hundred and eighty is the ordinary average for other breeds, while the Alderney average is said, on good authority, to nearly or quite double this. Thus the Governor of the Island of Jersey has said that "in summer nine to ten quarts of milk would produce a pound of butter, and in winter, when parsnip fed, the same may be obtained from seven quarts. The general average yield of each cow, old and young, is rather more than three hundred and sixty-five pounds of butter in a year, or about eight quarts of milk per day."

Mr. Motely of Mass. (See Rep. of Mass. B. of Ag., 1854, ) says of his cow Mina : "When four years old, she milked within thirty days of calving never less than three quarts, and from May 18 to Nov. 9, twentysix weeks, gave three hundred and sixteen and seven-sixteenths pounds of buttertwelve pounds three aunces per week;" of Flora, four years old and dam of the cow Flirt, illustrated on previous page, that "from May 18 to March 8 she gave four hundred and sixty three pounds of butter, and next year gave five hundred and eleven pounds."

As to quality of butter, the testimony is equally concurrent, but we shall stop to quote but two authorities upon this point. Mr. Flint, in his work on Milch Cows and Dairy Farming, says, that no breed can surpass them in richness of milk or in the fine yellow color and peculiar flavor of the butter made from it.

And the Committee of the Philadelphia Society, from whose Report as published in the Farmer and Gardener, we have already quoted, says :
"They are unsurpassed for the richness of their milk, the large yield of butter, its deep, yellow color, fine grain and sweet taste.'!

Our own experience confirms these statements. The flavor of Alderney butter is peculiarly excellent, and the rich color is so characteristic that at almost any season of the year it seems to distinguish it from other butter. Indeed, so marked is this yellow hue that the milk of one Alderney is sufficient to beautifully color the milk of four or five other cows.

## ALDERNEY BEEF.

As beef cattle, the Alderneys cannot, of course, be compared with the Durhams and some other large breeds-that is for profit to the breeder. Their inferior size precludes their being profitably raised for this purpose. They fat very readily, however, and when old and of little value for milkers, they may be quickly and economically converted into excellent beef.

Mr. Lawrence, in his treatise on cattle, remarks that ' the island cattle (referring to the Alderneys, Jerseys and Guernseys) make fat very quick, and for their bulk arrive at considerable weight (often thirteen or fourteen hundred pounds.-Ed.) The beef is of the first class, very fine grained, in color yellow, or of a high color, with a blueish cast and elastic feel, which denotes the closest grained, most savoury and finest meat."
It appears, therefore, that the Alderney is not to be despised even by the butcher ; but at the same time it should not be forgotten that "a cow is for milk and not for meat."

## PRACTICAL DEDUCTIONS.

Having thus pretty thoroughly canvassed the characteristics of the Alderney breed of cattle, the question naturally comes up as to whether they should be extensively imported into our State. To which we answer no, not yet. Not until their adaptation to our climate has been thoroughly tested by a few of the leading stock breeders.

Our own opinion is, that they may not prove sufficiently hardy for both the severe climate and rough usage which must become their lot if, at once, generally introduced into Wisconsin. We doubt not their great value, however, as milkers, under favorable circumstances, and would be glad to see at least a sprinkling of them in every well ordered dairy. The herd imported two or three years since by Mr. J. V. Robbins, of "Rock Terrace," near this city, appear to have done well and are reported to have given great satisfaction. He has but comparatively a small number in his dairy of some hundred and twenty cows, and yet the mark which they make in the premium butter sent out from his well-regulated dairy is interesting and emphatic-so much so that we have again and again been pleased to recognize it on the best public tables at Chicago and Cincinnati.
To enterprising dairymen; therefore, we say, obtain a few Alderneys and make for yourselves the experiment so suceessfully
made by others. And if any gentleman provided with simply the conveniences for keeping a single cow or two, as every cow ought to be kept, feels inclined to take a little pains to insure to his family the richest and best milk the world can afford, let him also procure an Alderney.
[From the Journal of the Bath and W est of Eng. Society.]

## Breeding and Management of Pigs.

Management of Pigs whilst Breeding. Guided by the principles and practices already named, we may presume that the boar and sow have been selected according to the requirements of the bręeder. We may, therefore, proceed to notice their management whilst breeding. Two farrows in each year will be sufficient for the strength of the sow and for the prosperity of the progeny. The first tarrow should be produced in Maren or A pril, and the second farrow in September-or October. Whilst the sow is breeding, she should be moderately fed, but not allowed to get fat. It will be better to $k$ epp her with other sows, which are also breeding; but, after the second month, she should be kept apart from the stores, so as to ensure quietness, without being cramped up in a sty. A week before her time is up (which may be calculated as 16 weeks), she should be put in a cotnfortale sty, with but little bedding, and this should be in a small and broken con ition: she should be fed upon the dairy waste, warm wash, with bran, or some similar foodwatery, but still nutritious. This will encourage the milk and favour the birth of the offspring in other ways. It is very seldom that sows require any assistance in farrowing. After the birth, the sow should be fed with a similar food to that she has already been receiving: tl is should be goorl, but not heating. For this purpose, bran is as good as anything; but meal has a tendency to produce fever in the svstem, and is therefore, unfavourable to the milk.

Management of Young Pigs.-Attention to the food of the sow, together with a dry, well-littered, and clean sty, are the early es sentials to health. When five or six weeks old the young pigs should be castrated.Yo:ng sows are not so cenerally operated upon as formerly. One reason for this is, that the increasing delicacy of our improved breeds renders the operation more bazardous and the losses by death are consequenly greater; the necessity, also, is diminished by some cause, for their breeding powers are weaker. It is, however absolutely neces sary in the case of young boars: for, apart from the strong flavour which the meat would acquire if the operation were neglected, great inconvenienes would be experienced among the stork. If a low trough be put in the sty, the young pigs may have
some wash or scalded bran in it, and this will get them into the way of eating. After this they may be gradually got to the use of meal in the wash; and for this purpose a mixed meal of peas and barely, or peas and oats, will be very desirable. They should not have any meal when suffering from the effects of castration, as it would favour inflam mation, but at snch time there would be no objection to bran. When they are about eight weeks old they may be weaned from the sow; after this their food should be liberally supplied, especially the waste milk and whey from the dairy. Their food, which ought to be warm, should for a time be given thrice a day. Afler a short time, and especially when they are turned out into a small yard, a small allowance of clover or vetches occasionally will be a good thing for them. Indeed, a more general use of clover and vetches would be fourd highly remunerative in the case of pigs, for both are valuable to the young growing animals. The autumn farrow would require other sustenance. and the swede or mango'd-wurizel-either boiled or grated by machine -might generally take the place of this green food. If warm tood is necessary, the former plan may be adopted, but the latter answers very well in all other cases; and, if the pigs are tolerably strong they not only thrive equally well, but much labor and fuel are saved. The manner in which the stores are to be kept will depend upon the system adopted. To this reference has already been made; and it may here be added that no system is desirable unless the pigs are kept in an improved state: it may be a slower rate of progress in some cases than in others, but still they should be kept thriving.

## THE POULTERER.

## Summer Care of Fowls.

On many farms it is the custom to leave the fowls of all kinds to themselves. This method of keeping poultry may be the easiest, but it is certainly not the most eco-nomical-unless to have garden fruits and vegetables destroyed, the orchard and the grain and grass fields infested, and scarcely ever an egg in the pantry, be considered good economy.
Hens will undoubtedly lay eggs occasionally, though left to roam in a state of semiwildness all over a farm, but they will be indiscriminately deposited in the meadow, in concealed places in the woods, or inaccessable places under the barn, and more likely find their way into the crop of the crow or maw of the skunk, than into the
fritter dish or custard pan of the swindled housewife.
No, this way of keeping poultry, or, rather of not keeping it, will not answer. It is wasteful and shiftless, and should give way to the system adopted by all thrifty poultrymen - that of fencing a convenient and comfortable poultry house and yard. An arrangement of this kind, will, of coarse, involve some expense, but, if as simple as may be, the cost need be but a few dollars.
The plan proposed on page 200 of the Parmer for 1859 is a good one, but may be modified to suit the taste of any who may sdopt the general arrangement. The yard in connection should be large enough to allow freedom of exercise and be surrounded with a high picket fence. Small piles of ashes, lime and sand are necessary to the comfort of the chickens, and the entire wood-work of the poultry-house and enolosure should be kept well white-washed.
the supply will continue in the basin until the reservoir in the jug is entirely exhausted. The pan may be kept firmly in its place by sliding it between cleets nailed to plank.

A cask of any kind, with a pipe or spout extending down into the basin or trough will answer the same purpose.

## A Good Place for Hen-Coops.

During the early summer, and while your broods are yet quite young, place your hen-coops in the garden. The little chicks will delight themselves in picking off all bugs and insects of every kind that are accustomed to infest the vines and vegetables of the garden, and they will do it so daintily as not in the least to injure the tender leaves.

- When the chicks get too large for the garden remove them and the coop to which they belong and put another brood in their place.


## THE BEE KEEPER.

[From the Ohio Farmer] Beekeepers' Convention.

Thursday, March 14, 1861.
Met in the Son's of Temperance Hall, Cleveland, Ohio. The President, J. P. Kirlland in the chair.
The first business being the election of officers, it was on motion postponed until 2 o'elock, P. M.
The President from the Committee to secure further legislation on the subject of increased protection for beekeepers, reported, which report was laid on the table until next day.

The question for discussion was that agreed to at the last meeting. "What is the best form of hive ?". Which on motion of J. Kirkpatrick, was divided so as to read "whether hives with or without movable frames are best," and then, "which hive of the two kinds is best."
J. Kirkpatrick opened the debate by saying that he was not prepared to bring anything new on the subject before the Assocition, and to his mind it seemed that anything said in favor of movable frames was superfluous, bat would refer to the increased facilities in manipulating the bees, the increase of swarms by division, and the power to supply a queen, if one is lost.

Mr. Smith. Experience is necessary to success in his using movable comb hives. He makes bees pay good interest; he believes it the interest of every beekeeper to let his bees
swarm naturally. It is not natural to divide hives by taking out a sheet of comb, and form a new colony before the proper time. They should be allowed to "secede" at their own time. New beginners, if they commence with the supposition that they can make any number of swarms by division, will lose more than if they let nature do the work. The answer to the question, "what is a proper seized hive," in my opinion, is"one that will hold one bushel. If it is larger, the queen will not lay eggs sufficient to fill it. This has been tested by experiment.

Dr. Kirtland. The object of our association is to elicit information about the culture of bees. We are living in an important epoch, so far as bee culture is concerned. Four years ago, after having tried almost everything, I contracted for a number of old box hives, and determined to go back to first principles; at the time 1 was convinced the old fashioned hive was the best. Four years' experience with moveable comb frames, however, has convinced me that we have since made impor. tant advancement. There were no bee moths in the country till the commencement of the present century; and before that time, bees, did well anywohere. Since that, the moth has made beekeeping almost iur possible. Patents hare been devised to prevent injury from them, and betore the moveable comb hive no advancement had been made. I have been testing these hives, and insist they have made an entire change in bee cultivation. Till now, it was almost impossible to keep the number of your bee colonies good. Under the mova ble comb principle we have bee, honey and comb entirely under our control; you can look at, or handle them, and detect or remedy any want. This you cannot do with other hives. With moveable frames I can discover anything wrong about the hive, without guessing-perhaps the queen is old or dead-you can discover it, and supply the worker-eggs for a new one, or a young queen. This alone is an important gain.Queenlss colonies are numerous. In summer, your queen is liable to be destroyed, but you can detect it at once. Dividing swarms is no doubt overdone. Two years ago, I did it just right, but last year I divided them too much, and some of them are weak. I made three Italian colonies from a mere nucleus, which are now very heavy. Could have done it in no other hive. Ten or fifteen years is about the lifetime of a swarm in an old-fashioned hive, but in the movable frame hive a colony never be comes old. It it is a perpetual corporation.

The census of the amount of bee colonies in different parts of the State, prove that there has been a great increase in number within a few years, and it is greatly owing to
the movable comb frame hives. In no instance do I find large numbers of colonies belonging to persons without moveable frame hives. They are as superior to the old-fashioned bee hive as the threshing machine is to the flail.

Mr. Otis. One of the greatest hindrances to success is a surplus of honey. When this is the case, there is no room for eggs, and without them the stock soon becomes extinct. When weak, the moth enters the hive and finishes the work. They do not this to in. jure the bee, but for food and heat to hatch their eggs. The moth is small and active; has bat's eyes, and works in the night ; but you cannot entrap her in moth catchers. If she cannot enter the hives, she will deposit her eggs in the nearest place, where heat can be obtained, and bees carry them in themselves. I think bees carry more eggs into the hive than moths ever deposit there, Now we want a hive to give us control of the swarm, to prevent great increase of honey, and injury by moths.The frames, while they do not injure the bees, give this control. It makes no differ ence whether the cavity for bees be a hollow log, a box, or a frame hive, but for their control it makes a great difference. Division of hives should be made at such time as bees can get material to work with; at other times, you remove comb that the queen might use in which to deposit the eggs, and may result in other injury.

## AFTERNOON SESSION.

The discussion on this subject being closed, it was
Resolved, That it is the opinion of this Association, that hives with movable comb frames are the best for beekeepers. Carried unanimously.
The second question, "Which is the best form of Movable Frame Hive?" was then taken up and discussed.

Mr. Otis said he would give his opinions of a good bee hive. We have had numerous forms, but most of them have been failures. I will hear no mau's opinion as to the best form, but go to the bee to determine. So far as the bees are concerned, the bees can store honey in one cavity as well as another; but in controlling them, there is much difference. The strongest instinct of the bee is to store honey. They cannot resist this disposition. A swarm of bees in May comes out at just the time to do well. The old saying "that a swarm in May is worth a load of hay;" "in June, a silver spoon ;" "in July, they are not worth a fly," is very nearly true. A kive should be a simple cavity. All divisions in it do harm. The general opinion is, that it should contain about 2,200 square inches of comb surface. Why this is so, I think is because it gives sufficient room for the queen to
deposit her eggs, for bee bread and a little surplus honey. The queen lays about three thousand eggs in a day. They hatch in twenty-three days. During this period, the queen will have filled most of the spare cells in a hive of this size. After one brood hatches out, the same cells can be used again for depositing eggs. For wintering bees, the form of an old-fashioned churn inverted, is perhaps the best. The queen lays her eggs in the highest empty cells, to take advantage of the ascending heat.Boxes for sarplus honey should be placed in the hive as soon as heat can be spared from below to admit of it. These should be made small, so that the cards of honey will be of the right size for the table, and so they can be removed at any time without too greatly shocking the bees, which is always the case if the boxes be large. With several small boxes, one can be taken away at any time without injury. This is why Mr. Langstroth auses small, instead of large boxes on his hive.

Mr. Flanders was in favor of the triangular form. It assists materially in keep. ing the hive clean. Cleanliness prevents the moth from doing so much injury. Strong odors and filth attract them. By using reversable comb frames, he could change the working economy of the bee, but not their instinct. He had yet to see combs on the triangular frame, built irregularly.
Mr. Merriman stated that he had frequently seen irregular comb in such frames.

Mr. Kirkpatrick stated that he used Langstroth's hive for several years, and it had met his expectations in every respect. The triangular hive allowed the manipulator to do several things, but are these things necessary ?-There is no need of reversing the frames, for the bees are always clustered around their brood, and this secures sufficient heat; indeed, reversing the frames fails to secure extra heat, as intended.
Mr. R. C. Otis said that comb is always more or less irregular in form. Bees make it so, to secure great strength. Comb for brood always has the same depth; for honey it has not. When a frame is once filled with good brood comb, it will last for years. I have referred frames in hives, and could never induce queens to deposit eggs in them. I believe such a course will ruin any colony. Any place in a hive, where a worm can find harbor, and a bee cannot follow, is objectionable. The queen will never go to a surplus honey box to deposit eggs, if all is right below. It ought to be nnderstood that no form of hive will do for bees what was intended that man should do for them.-We can make steam engines and intricate machinery, but it won't run of itself; so with bee hives; the best of them must be looked after, and kept in good condition, or failure is certain.
Dr. Kirtland said that in twenty-three of

Langatroth's hives, placed in a cellar this winter, with only three holes for ventilation, and closed at the bottom, be found sufficient carbonic acid gas accumulated to extinguish s candle. This gas is so heavy that it sinks to the bottom of the hive, and here I found a good many dead bees. This fact may be useful to patent hive makers.
[The forenoon proceedings of the second day consisted of discussions in relation to the wintering of bees, and are therefore omitted for the present.-ED.]

## SECOND DAY-AFTERNOON.

The subject of bee hives was continued :
Dr. Kirtland said that he had only two forms of hives ; one Langstroth's, and the other Flanders'. I have expressed no preference for either of them, and have not tested the Fladders' hive, but shall do so as soon as I have an opportunity. I would not give a snap of $m y$ finger for most of the fine model patent bee hives which have been presented to the public.
Mr . Otis. The amount of money that will be expended within six months in purchasing hives will be large, and it is important to know which form is best. The decision of this convention will be looked to with interest.

Mr. S. C. Brown said that his experience with the Langstroth hive indicated that it was too shallow. If I make them deeper, however, I cannot remove the frames, on account of the moving of the comb. One objection to the triangular frames is that there is not sufficient room for brood. It is stated that the inclination of the sides faciliates cleaning of the hive, but it is unnecessary, for bees are not sluttish in their habits.

Mr . Otis said he had made great improvemept in his colonies, by selecting the most perfect queen cells. Those which are small should never be used. We can improve bees as well as cattle.
Dr, Kirtland said this was no doubt true. He once used a small queen cell colony, but the queen was very weak.
fter the discussion, the following resolution was adopted :

Whereas, At this meeting of the Beekeepers' Association, there were but two forms of movable comb hives exhibited, the Langstroth Movable Comb, and the Flanders ${ }^{2}$ Triangular Self.Cleaning Movable Comb Hives-

Resolved, That the majority of the mem. bers of this Association have tested the Langstroth Hive, and are satisfied that it gives the apiarian entire control of his bees, and is worthy of adoption by all beekeepers. That the Flanders Hive has not as yet been tested so as to enable the members to give an opinion of it, based on practice.
It was also Resolved, That this conven, tion recognize the importance of a Bee

Journal for apiarians, and that we recommend to beekeepers the "American Bee Journal," published at Philadelphia, Pa., by A. M. Spangher \& Co.
At the close of the meeting, Dr. Kirtland read an address on the Italian Bee.

## HORTICULTURE.

## Pears.

The general distrust of our climate has been the occasion of but comparatively few fair and sufficient experiments in pear culture.

Dr. Weeks, Dr. McVickar and Col. Crocker, of Milwaukee, Mr. Hanford, of Wankesha, and a few others, have demonstrated the possibility of producing
fine luscious pears of the most hardy varieties; but the majority of the fruitgrowing farmers have attempted but little, for the last few years, in this direction.

In our opinion, they will hardly be grown with success, except by the more experienced and careful.
J. V. Rotbins, of Rock Terrace, has one of the finest young pear orchards that we have seen in Wisconsin, and the fine thrifty appearance of his trees indicates success, should there be no more such winters as '56 and '57.

Among the varieties recommended for trial here, the Beurre Bose, figured below, may be mentioned.


BEURRE BOSC.
Hooper describes it thus: Color, dark yellow, with russet dots ; form, obovate, acute, pyri-form ; size, 1 ; use, table; tex ture, juicy, melting sweet; quality, 1 ; season, September and October.
Fruit, always fine. Tree, vigorous, long, brownish, olive shoots. Very fine, though
a wild grower. * * * Will not do on quince stock.
Mr. Laudon, of Janesville, names it among the "hardy pears" which endured the winters of 1856 aud ' 57 ; and Mr. Barry, of Rochester, includes it with "valuable varieties that should be grown exelusively on pear stock."

## The Apple Worm.

The Apple Worm is a mischievous fel low, and must, this month and the next be gaarded against with care. He is the offspring of the codling or frait moth, (Carpocapsa pomonella,) one of the most beantiful of the family to which it belongs.
The head and thorax are brown, mingled with grey; and the abdomen and hind-wings are light yellowish brown, with the lustre of satin. Its fore-wings expand three quartere of an inch, and " when seen at a distance, have the appearance of brown watered silk." They are marked hy numerons gray and brown cross-lines scolloped; and near the hind angle there is a "large, oval, dark brown spot, the edges of which, are of a bright copper color." The following eut illustrates the insect in its several transformations.


APPLE MOTH AND WORM.
In the month of July, or as soon as the young apples are formed, the moth devotes its evenings to laying eggs in the hollow or blossom end of the fruit, where the skin is most tender. In a few days the eggs begin to hatch, and the young caterpillar burrows into the apples, making its way towards the core, and soon causing the fruit to blast, or wind-fall. The worm now -sometimes even betore the apple fallsgnaws his way out, finds a hiding place in chinks or crevices of the bark, hollowing out a place adapted to his shape, and spins for itself a silken case, or cocoon of the most deliçate nature, and there remains until the following summer.

One of the best ways to get rid of them is to gather up and destroy or feed to the pigs all the wind-falls as fast as they drop. It has also been recommended to put old elothes into the forks of the tree: the worm
makes its nest there, and when cocooned, may be easily destroyed. The burning of weeds, \&c., under the tree about the time of laying the eggs has sometimes beea tried with success.

## The Borer.

[The following extracts from a discussion of the borer by members of the Wis. Fruit Grower's Association at the Annual Meeting in the winter of ' $59-60$, are appropriate at this time, ard will be read with interest.]
J. C. Plamb - The home of the borer is not in healthy wood, but diseased portions of the tree would prune the tree from frost cracks und keep in healthy condition; they never kill a tree directly. Apply a peck of good ashes immediately around the tree.

Congar-Anything that will destsoy the eggs, will be effectual. Apply lye wash.
A. G. Hanford. There are several kinds of Borer met with in our orchards.The one concerning which most alarm is now felt throughout the West,I am inclined to regard as distinct from any described by Entomologists as " Apple Tree Borer."On the south and south-west sides of apple trees, especially those with long, naked trunks, strips of bark, extending the entire length of the body, are discovered; which, upon removing numbers of borers are found, having entirely destroyed the inner bark and sap wood. The depredations of the borer, are regarded as the cause of the injury, which I think is not true. The injury was occasionod during the winter or spring, and very largely during the severe winters of ' 55 and ' 56 . I am disposed to regard this borer as working in dead or diseased wood. The remedy will readily suggest itself, Low tops, which shall shade the trunks, and thus prevent the injury-remove the bark, and cover with grafting wax. Another borer, which works in the healthy tree, and is often very destructive, is usually met with near the ground, though occasionally near the ground, though oceasionally higher up, sometimes in the forks and limbs of the tree. The eggs are deposited by a striped beetle in June and July, upon the bark, and the worm, when hatched, eats its way into the inner bark, where they remain the first year, working their way the socond into the wood, and the third it emer ges in the form of a beetle, to again propagate its species.

Remedies - build brush fires in the orchard in the evening. during June, which will allure the beetles, as well as many other insects to their destruction ; and wash the same trees at same season with soft soap. Examine the bark for the worms, which in young trees may be readily dis-
covered in the first year by the dark, dead appearance of the bark ; afterwards, by the dust thrown out by the worm. They will slmost be found on the south-west side; prompt attention will be found economy. With a knife, shoe-maker's sewing awl, or flexible wire, out, or insert a small piece of comphor, and close the hole with grafting wax. Another species works only in the small limbs and branehes, entering the heart and working downward. As the period of this change to a chrysalis approaches, it cuts off the limbs as neatly as it could be done with a saw, and thus enabled to enter the ground and emerge a parent beetle. Use the knife as before, and gather up and burn the limbs which fall.

## MECHANICAL.

## Wisconsin Manufactories.

In a previous number we announced the intention of publishing a series of articles on " The Manufactories of Wisconsin." Hitherto the duties of our office have so confined us at home, that, not until this month have we found time to make the preliminary observations necessary to the first of this series.

We are now prepared to begin the work of inspection, and in the July number shall give some account of the mechanical operations of Milwaukee.

## To Protect Fence Posts from Decay.

There are various methods in use, such as coating with coal tar, charring, soaking the ground end in antiseptic preparations.None, however, have proved entirely satisfactory, although there can be but little doubt that each of these methods has a favorable effect upon the preservation of the wood.

A correspondent of the Country Gentleman suggests the coating of the post with a thick paint of water lime and oil. The experiment will cost but a trifle and is certainly worth trying.

## The First Steam Engine.

It is half a century since Fulton gave the signal to go ahead, and the wheel of his steamer, the North River, just made a half revolution in the waters of the Hudson, and stood as still as the pulse of the dead. Steamers fluttered in the air; cannon had sounded their notes of admiration ; a doubting sneering multitude had gathered, adorn-
ed here and there, indeed, with those who honored Fulton as the horizon maker of the age.
And there she stood, dumb as the tomb of the Capulets. One gush through the iron veins, one beat of the feverish heart, and the craft was motionless.
We know not if it be true, but what a story that is, they tell, how when Fulton ast upon the deck disconsolate; when his summer friends had left him alone, a lad, about whose brow clustered the golden light of morning approached him, and with enthusiasm of boyhood, declared that he could make the dead wheel turn again. We do not wonder the man repulsed the child ; that like the prophet of old, he deemed the lad had mocked him. But the words were repeated, and the secret was told: Lengthen the lever, Mr. Fulton! Lengthen the lever.

And so that arm which moves the world was lengthened, and the whirling wheels beat the bosom of the Hudson into crested billows, and cut the shadows of the Palisades, and dashed out into the Tappan Zee, and panted around the sea-encircled world.

And what a thought it was, to turn the silver of the fountain into a soul of strength, that with its thews of gleaming brass, and iron arms, should conquer Space and Time. -B. F. Taylor.

## Tensile Strength of Iron Increased by Rolling.

There are some inventions which address themselves to our notice with much elaborate comparison of results between old and new methods of effecting the same object, and there are others which, from their very completeness and self-containedness (to coin a word,) admit of scarcely more than the simple announcement of the fact of their discovery. The invention of James Watt's separate condenser might have been given to the world in a half dozen lines, whilst as many pages are usually dedicated to the introduction of a new brickmaking machine. We feel it necessary' to premise thus much, because we wish to draw the attention of our readers to a fact which will be new to all of them (with the exception of a very limited circle,) and which places us under the disadvantage above alluded to, of giving us no chance of making a long article about it.The fact, then, is simply this :

Given, a bar of common malleable iron : it is possible, by a purely mechanical process, and without the aid of heat, to increase the tensile strength of the bar 50 per cent. "On what principle?" it will be asked. On the same principle that wire is stronger per square inch of section than the bar from which it was originally drawn. To Mr. Lauth, an American engineer, is due the merit of making this particular egg stand
on end, and his process is, as will be seen, of the simplest. Bars of common merchant iron are passed cold between grooved rollers, until the requisite degree of compression is attained. We saw, at the works in Manchester, a bar $2 \frac{1}{8}$ ins. diameter, and 15 ft . long. rolled down to 2 ins. in ten minutes(with practice, this time could be reduced one-half.) This $\frac{1}{8}$ is not lost-as in turning a shaft in a lathe-as the bar is lengthened about $1 \frac{1}{2}$ ins. to the foot. The bar came out quite polished, and parrallel enough for shafting, but not quite straight. It was straightened by hand by two men in half an hour, and might be done by machinery in a few minutes. According to Mr. Fairbairn, "the effect of the consolidation was to in. crease the strength of the har in the ratio of 10 to $15, "$ in the experiments made by him. We think we have said enough to give all our readers a motive for wishing to hear of this invention being made accessible to the public.-London Engineer.

## Tanks for Liquid Manure.

The tank should be built of solid masonry, either rubble or well burned brick laid in the best mortar, and well packed between the walls and underneath with dry brick elay; the bottom should be flagged or laid with brick. If the soil is wet, it must be eomparatively shallow, unless good; drains be laid outside it to intercept and carry off the water; if dry, the tank may be made comparatively deep. The shape must be governed by the site, and may be either round or oblong, more or less wide, and in length according to requirements. It should be arched overhead, to keep out rain or other wate:. The capacity of a tank for thirty cows and sixty pigs depends on the period it is intended to empty them; about ${ }^{a}$ a month is necessary for the contents to ferment and ripen. A tank to contain the quantity of urine voided by the above animals for one month, should contain about 1000 cabical feet, but to effect your object in the best manner, there should be a system of at least three such tanks, one ripened and asing, one filled and ripening, the other filling.-Irish Farmers' Gazette.

## Painting Houses.

The natural disposition of all persons of good taste to clean and dress up their premises in the spring season, leads to the onscientific custom of doing the chief work of painting at that time, when, owing to the high temperature of the weather, the oil penetrates the wood and leaves the lead or other mineral substance of the paint to ad here to the surface with a constatly decreasing force, and finally, to rub or wash off in
the form of a fine powder. The liability to spotting by flies is also a reason against summer painting.

Autumn is really the best geason of the year for this important work, as the slowness of drying at this season allows of a hard, glossy and durable finish.
The subject of color opens a wide field for discussion. In the midst of green foliage, white presents a beautiful contrast, and is therefore, usually preferred for wooden houses. Builders of the best taste, however, prefer some neutral tint, as'being less glaring, and more in harmony with the surrounding world. The bright positive colors, such as yellow and red, should never be used for either brick or wood buildings. A delicate straw color, a pleasant stone gray, or a soft light shade of brown is in much better taste

## Recent American Inventions.

MACHINE FOB digGing UP AND thorovghly disintegratING THE soll-wiscovein aread.
It has long been our opinion that the plow is an unphilisophical instrument, adapted to the firut stages of Agricultnre; that it is destined, in course of time, to give place to some machine which shall more satifactorily disintegrate the soil, and, at the same time be free from the objections which are now valid as against the primitive implement now in use. This is also the opinion of many practieal and scientific minds, and has, of late, given rise to various efforts to supply the desideratum. But thus far nothing has come into the field with working powers adequate to all reasonable demands.

Among those which promise well, in the model, the invention of one of our own citizens, Hou. Clcero Comstock, of Milwaukee, is eminently entitled to the first rank. We had heard much of this machine, and, accordiugly, when in Milwaukee, a few days since, took occasion $t$ call at the foundry where the models were made and examine them.
We were courteously received by Mr. C., whom we found busily engaged in the periecting of his improvement in Propelling Wheels-another very ingenious application of the same principle to the construction of wheels for steamboats and mills. After a full examination of the plan of construction, and an investigation of the working powers of the two somewhat different models, we were compelled to acknowledge that there seemed nothing in the way of success.

Without attempting to describe the machinery at this time, we may remark, that it is censtructed on a rotary plan, and operates some thirty-aix spadestwelve triplets-as perfectly as it would be possible for so many Irishmen to do it by hand, digging up a breadth of twenty-eight inches as deep as may be desired and as rapidly as the team can walk. Each spade, as its turn comes, penetrates the earth almost at right angles, lifte the dirt a fow inches, and then by a suaden turn, as if upon the shank, which brings the blade of the shovel nearly perpendicular to the earth, it throws it off, pulverizing the mase and scientifically mixing the surface with the sub-soil.

It is not expected that this patent Irishman will be adapted to stony ground, but in a soil properly free from these obstructions to good cuitivation, it certainly will do excellent work; and if as Mr. Comstock calculates, it can break up and nicely pulverize a breadth of twenty-eight inghes with the same power necessary to turn a furrow ten or twelve inches wide, and without any of the packing of the soil which cannot be avoided where the plow is used, it certainly will be a great gain to Agriculture and work an important revolution therein.

It is the purpose of the enterprising inventor to have a working machine constructed at once, and to make exhibition of its power at the approaching State Fair.

The following Patent Items are from the Scientific Anterican-a paper which every mechanic and friend of scientific progress ought to take:

IMPROVEMEEXT IN GRAIN SEPARATORS.
The object of this invention is to obtain a simple and efficient machine whereby foreign substances may be thoroughly separated from grain, and different kinds of grain separated from each other, such as wheat, kc. Lewis Merrill, of Janesville, Wis., is the patentee.

## safety hook for harnask.

The patentee, Henry Beagh, Jr., of Philadelphia, claims that this hook cannot be casually detatched or unfastened, and that it thereby serves as a snap or fastening for harness and other articles which require a simple but secure means for fastening or attatching their parts together.

IMPROVEMENTS IN BEEHIVES.
The object of this invention is to pivot the comb frames in the hives in such manner that the pivots will not be accessible to the bees, and the latter be thereby prevented from covering the pirots with wax, a contingency which prevents the swinging out of the comb frames when it is desired to examine the combs and re. move portions or the whole of the same. The invention also has for its object the swarming of bees direct from one hive into another, and also the aiding of the bees to guide the comb during its construction, so that the latter will be built in the same planes with the frames, and the combs of the several frames kept $s^{\text {aparate. }}$
improved machine for making bullets.
The iuvention of all kinds of fire arms and projectiles has been wonderfully stimulated by the war. Every week brings to light numbers of devices for improving the power and range of hand arms and cannon, and even steam guns of several patterns are claiming attention of the public and the Government.
The machine above referred to is thus described in the Scientific American:
This is a machine for making Minie Rifle balls. The bullet is first compressed within a solid matrix and afterwards projected therefrom and held by its base, in which position the required finish is imparted to its exterior by turning. The operation of the machine is automatic throughout, It dispenses with the necessity of hand trimming, and produces bullets with a rapidity and with an accuracy of finish impossible with machines in which two-part molds are used.

## botary enging.

This invention relates to that description of 'a rotary engine whose inner rotating cylinder, a dram to whicn the pistons are attached, is arranged eccentrically within a large stationaryd cylinder, It consists in
certain means of directing and controlling the compound radial and oscillating movement of the piston and packing the same within the rotating cylinder, Patentee, J. B. Root, Battle Creek, Michigan.

## mode of preparing paper stock.

In preparing straw and other flbrous substances for paper stock, the straw or other substance is cut into pieces of suitable length, bleached, and then reduced to a pulp by a suitable machine or engine. These vegetable substances contain, besides a fibrous substance, a hard matter, which is a great detriment to the stock, as it is reduced to powder, and, in preparing the stock, is diffused through the pulp, giving the paper a speckled appearance. The object of this invention is to obviate this difficulty by separating the hard and worthles portions from the useful fibrous part. Invented by A. Randal, who has assigned to J. J. Eckle, of New York City.

SCIENCE, ART, \&C.
-The total free population of the seceded States is $5,671,723$; of the States yet in the Union, $21,712,462$; of the free States alone, $18,950,059$.
-Sheet Zisc, if used for roofing or fo: gutters, should not be allowed contact with either iron or oak timber, as it is thereby liable to rapid oxidation. If iron must be used for supports, it should be galvanized.
-Lead pipes, if perfectly coated inside with tin, are safe, but the least flaw exposing the lead to the water, has been found to be more dangerous than the use of pure lead pipe-for the reason that a galvanic action is produced by the contact of the two metals, by which the lead is rapidly decomposed and made to poison the water.
-The greatest span of suspension bridge yet completed in America is that over Niagara River, below the falls.
-A. M. McCarty of New York, has invented a centrifugal gun capable of sending balls at the rate of 480 a minute. No powder is used.
-By the census of 1860, the free popula. tion of Maryland is 646,183 ; slave, 85,38 .
-Baltimore is the largest city in the Southern States, having a population of 211,039. The population of New Orleans is 170,766 ; that of St. Louis, 161,000 .
-A cubic yard of coal weighs about one tun.
-The discovery of the oxyd of silver, which until recently was beliered not to exist in a natural state, will produce an enormous increase in the yield of silver. In 3 tun of ore in its natural state, where the
former yield would be thirteen ounces, the new discovery will produce an average yield of 113 ounces, the 100 ounces being produced from what has heretofore been considered useless.-London Times.
-Satistics of the Crimean War show with mathematical certainty that 270 lbs . of lead mere shot away to every man that was killed.
-The first cannon ever made (A. D., 1341,) was of wrought iron, longitudinal bars being firmly bound together by iron rings shrunk upon them. After a lapse of centuries, attention is again being drawn to the manufacture of wrought iron cannon, with a veiw to reducing the weight-thus increasing the facility of handling.
-Da. Thomas Antiselle, who has long ably served the Government in the Chemical Department of the Patent office, has been promoted by Commissioner Holloway to the position of Chief Examiner in said Department.
-"A stand of arms," properly speaking, is a complete set of arms for one soldier, including musket, bayonet, and other appurtenances.
Gold Products of California.-The foilowing table shows the amount of gold dust brought from California each year since 1855 :

| 1885. | \$41,682,524 |
| :---: | :---: |
| 1856. | 40,318,929 |
| 1857. | 34,222,904 |
| 1858. | 36,179.244 |
| 1859. | 39,979,759 |
|  | 33,490,409 |

## Total.

.. $\$ 215,869,860$
It will be seen that the gold product is steadily decreasing. It remains to be seen whether Pike's Peak and other regions can make up the deficit.
A Truthful and Cheap Barometer.Take a clean glass bottle and put in it a small quantity of fine pulverized alum.Then fill the bottle with spirits of wine. The alum will be perfectly dissolved by the alcohol, and in clear weather the liquid will be as transparent as the purest water. On the approach of rain or clondy weather, the alum will be visible in a flaky spiral cloud in the center of the fluid reaching from the bottom to the surface. This is a cheap, simple and beautiful barometer, and is placed within the reach of all who wish to possess one. For simplicity of construction this is altogether superior to the frog barometer in general use in Germany.
Eclipses of 1861.-There will be three more eclipses this year as follows:

An annular eclipse of the sun, July, 7th, -invisible in America.
A partial eclipse of the moon, December 17th - 16th in California - early in the morning-visible. Size only 2,22 digits, or about one-fifth of the moon's disc.
A total eclipse of the sun, but only partial in the United States, December 31st. The sun rises eclipsed, and the obscuration will be visible in all the States east of the Misr sissippi river, and those adjacent to it on the west, except Iowa. It ends at Washington at 8 h .36 m . In Texas, Arkansas, Missouri, Illinois, and Wisconsin, the eclipse ends at sunrise. Size in the Atlantic States about six digits.
The Study of Science. - Science is worthy of study by all men, because it so intimately associated with all the pursuits of life. The whole animate and inanimate creation is embraced within its folds. It affords ample scope for the exercise of the most comprehensive and refined intellects, as well as those of moderate and low pretensions. The mechanic and chemist, the poet and scholar, the manufacturer and merchant, can find in the pursuit of science, a boundless source of pleasure and profit.
Canals in Great Britian. - There are 5,000 miles of canal in Great Britain, representing a capital of $\$ 200,000,000$, and since the adoption of steam as the propelling agent, the traffic has increased last year 25,000 tons.
-Tin is increasing in value yearly. The British exports last year amounted to 2,804 tons, and the mean average price for the year has been $£ 130$ 18s, ( $\$ 63446$.) There has been an increased speculation in the tin mines of England.

Coal in Utah. - Coal is believed to exist in large quanties in the Great Basin of Utah. On the Weber river, a tributary of Great Salt Lake, from the western slope of the Wahsatch rantge, coal is now regularly mined and selling at the pits for $\$ 5$ per ton.

How to Foretell the Weather. - The sensibility of many animals and plants to the varying conditions of the atmosphere is so great, that a careful study of their movements will often indicate with certainty approaching changes in the weather. When a storm is impending the spider shortens the thread of his web, and lengthens them again when the storm is about to pass off; careful observers even pretend to foretell how long fine weather will last, from the degree to which the web is extended. If the spider is quiet, it is a sign of rain, but when he goes to work during a shower, be sure it will clear off. The swallow is also an infallible barometer, flying low almost touching the earth, and uttering a low, plaintive cry, before a rain, but sailing back and forth
high in the air, during settled weather; when a violent tempest is about to break out, he soars even to the clouds, and adopts a slow, majestic motion, very different from his ordinary one. In pleasant weather the erow will, at any time, leave ber nest in search of food; but if she feels a storm ap. proaching, nothing will tempt her off till her mate takes her place to protect the young. The peacock foretells rain by its frequent cries; the wood-pecker, by its cooings ; the paroquet, by its chattering; and the gainea-fowl by going to roost. The goose manifests great uneasiness, plunging into the water, and rapidly returning to the land.

The sea-gulls seek the shores, and are only seen far inland in settled weather. The petrel on the contrary, dashes out boldly into the midst of storm and tempest. The chirp of the cricket is a sign of fair weather, but the cry of the tree-toad indicates rain. When the air is overcharged with moisture, the odor of flowers is strong and penetrat. ing, and in dry weather, is soft and agreeable.

## EDUCAIONAL.

## Teachers' Institutes.

The importance of normal instruction for such persons as propose to engage in the business of teaching is no longer questioned by an intelligent public. For, if a man needs to take lessons in the strength and other propertie3 of building materials, in the principles of mathemathics and the harmony of proportions before he is qualified to as sume the duties and responsibilities of an architect, how much more important is it that the professional teacher should understand the nature, powers and laws of development of the immortal minds, whose upbuilding and fashioning are committed to his charge.

To be able to teach and govern wisely and successfully, is the highest accomplish. ment attainable by man. Teaching should therefore be regarded as the noblest of all occupations. Indeed, when Socrates and Plato, and Aristotle taught, it was so esteemed: because they were masters of their profession. .

But how is it now, even in the most enlightened country of the world? Quite otherwise. True, the Faradays, the Liebigs, and Agassizs hold high and honorable positions in the estimation of mankind, and are doing much to elevate the profession; but
the relative number of these is so small, the preponderance of mere quacks and pedagogues so large, that the profession is really ranked fourth or fifth in the descending scale.

The remedy is threefold : education, purgation, remuneration.

The work of professional education will eventually be done in extensive, nobly endowed and ably officered Normal Schools. It will be some years, however, before we may reasonable hope to have such institutions in Wisconsin. But, meantime, let us have the best substitute that can be devised and then support and encourage that agency or inatitution with a zeal and liberality proportionate to the great ends to be accomplished.
It has long been our opinion, that, for the present at least, no system could be planned that would so effectually do the needed work of instruction as the Teachers' Institute. Especially is this true in a new country, where the sparseness and comparative porerty of the population naturally result in inferior schools and ill-qualified teachers. Under such circumstances, if we had the best Normal School in the world, the small compensation grudgingly offered in very many localities would not warrant such an expenditnre of time and money on the part of teachers there employed as would be necessary to the attendance upon such an institution. The mountain cannot come to Mshomet, and Mahomet must therefore go to the mountain.
This is just what is done by the Teachers' Institute. Thousands of teacners who could not attend upon a central school are annually visited by this itinerating missioniary and benefitted thereby to an aggregate extent beyond the power of computation.
Such would be a proper inference from a correct knowledge of the ends to be accomplished and of the means employed; and we are glad to have had an opportunity to prove, that the practical working of the Institute justifies an increased estimate of the advantage it is calculated to confer up. on all teachers and communities where it is temporarily located or held.

As an educational institution, the Institute proper was first introduced in Wisconsin by Dr. Barnard, ${ }^{\text {agent }}$ of the Normal

School Board, and Chancellor of the State University ; but the labor of organizing in particular localities and conducting the sessions, has chiefly devolved upon Prof. Charles H. Allen, late Principal of the Nor mal School at West Chester, Penn. This gentleman happily combines the practical knowledge, tact and energy requsite to success in this peculiar and most interesting field of labor.
From the Wisconsin Journal of Educa, tion, we learn that, during the year 1860, thirty-niue lnstitutes were held, with an average attendace of about 59 teachers, or an aggregate of 1,950 . In commenting upon these facts, the Journal properly remarks: "If we suppose that one.fourth of those who attended in the Fall, attended in the Spring, we have about 1,700 different teachers whohave been called out. This is but about one fourth, indeed, of the whole number employed in a year; but they, in turn, have imparted, and will impart to others the benefits of instruction received; and though it is in a sense unfortunate that the better class of teachers is that which the Institute generally draws out to its ses, sions, yet they is turn will not suffer the work of improvement to stand still."

Each Institute continues one week, and consists of thorough, practical instruction apon both the scope of common school educution and the best methods of teaching; the information and stimulation being im. parted by demonstrative drills during the day, and by pointed practical lectures from competent educators in the evening.
After an attendance upon several of these sessions in different localities, we are fully persuaded that they are doing more for the cause of popular education than any other institution now in operation, and that they have won the good will of all intelligent communities in whose midst they have been beld. In every instance, so far as we have observed, a very marked interest has been awakened on behalf of schools in the localities where the Institutes have been held, and the cause of popular education has received a most decided impulse; and the County Teachers' Associations, which, in many por tions of the State, have resulted from this awakening of the public mind, will also, in turn, accomplish great good.

Such, in brief, are our views of the practical value of the Institute. We do not as, sume to say that the system of which it is the chief part is perfect, or that an efficient Normal School Board might not be more economically organized than at present, but we do believe that no instrumentality now in operation within this State is calculated to accomplish so much, with the same amount of means, for the advancement our great educational interests.
School Teachivg.-With regard to the practice of giving scholars lessons to be studied at home, an indignant writer says:
The whole systens of merely hearing lessons recited in public schools is a cnnning fraud of teachers, falsely so-called. Those teachers teach nothing. They sit majestir cally enthroned in their school chairs, to decide, daily, whether the parents have done their-that is, the teachers'-work at home, and to punish or reward the scholars for the parent's ability or ignorance.
When we pay taxes for public schools, or enormous fees for private ones, we want tutors, not magistrates, for our moner; we want the men and women in our schools, to do something more than sit up in state and ask questions - we want them to teach our children something they did not know, and not send them home to be taught, that they, the teachers, may diurnally go through the farce of hearing them recite, what parents have taught them, and they know already.

Languages of the World.-Of the 863 distinct languages enumerated by Babi, fiftythree belong to Europe, one hundred and fourteen to Africa, one hundred and twentythree to Asia, four hundred and seventeen to the Americans, and one hundred and seventeen to Oceanica-by which term he distinguishes the vast nember of islands stretching between Hindostan and South Americca. Of dialects, there are about 5,000

Parents, attend as much as possible to the education of your children at sohool. Show your faces occasionally in the school room, if but for a few moments. You will searcely miss the time, and the encouragement of teachers and children will a thousand times repay you. Much of the dullness and inefficiency of our common distriet, and, indeed of all schools, is attributable to the fact that parents and the public generally manifest no interest in their prosperity. Think of this and improve upon the past by dropping in to your neighborhood school the first time you pass during school hours.

## THE HOME.

## The Home Materiel.

What the body is to the soul that is the outward home-the tenement itself and all its material surroundings-to the whole being of the child. The influences of both are inevitable and in their results eternaleither dwarfing, distorting and corrupting, or expanding, elevating, purifying.

It is a question, then, of great moment, whether the homes for our children shall be of the first named or of the latter class; whether they shall be mere places to stay, where the delicate and beautiful child-flower must waste its sweetness on the desert air, and stinted and choked by noxious weeds, produce a gnarled and acrid fruit, or rather homes of beauty for the best growth, blossoming and fruiting of the little immortals committed to our care.

Words are but trifles, nay they are but
mockery and sham, if our acts belie their meaning. Let us prove to our children by our deeds that life is not a mere quartz crusher, good for nothing, only as it can yield us gold, but rather a garden for our most careful cultivation, a school of discipline, where mind and soul are to be educated and prepared for the vast responsibilities of the now and the hereafter. Let us make our homes so attractive by inward furnishings and outward adornment that they will not only happily influence our children ere they go out with our blessing to engage for themselves in the struggle of life, but likewise be to them afterwards remembrancers of days and scenes the most delightful on earth.

Such homes will not be readily forsaken for the glittering baubles of unnatural and corrupting city life, and their felt power ts elevate and beautify the character will res. der both them and us sacred and precious forever.


## Another Neat Gothic Cottage.

The above engraving of the residence of H. Sheldon, Esq., near Tarrytown, on the Hudson, and in the immediate neighborhood of the quaint and beautiful " Sunny Side," which bas been made classic by the pen of Washington Irving, presents another style of the raral Gothic Cottage.
It is built of wood, and, though less sabstantial and tastefally sutrrounded than the Tudor Cottage, illustrated in the April No., it nevertheless has a pleasing and animated sppearance. If relieved by one or two
handsome trees in front, it would be exceed. ingly expressive and pieturesque.

Character is Power. - It is often said that knowledge is power, and this is true.Skill or faculty of any kind carries with it superiority. So, to a certain extent wealth is power, and rank is power, and intellect is power, and genius has a transcendent gift of mastery over men. But higher, purer, and better than all, more constant in its influence, more lasting in its sway, is the power of character - that power which emanates from a pure and lofty mind. Take any community, who is the man of the most in fluence? To whom do sll look up with reverence? Not the "smartest" man, nor
the cleverest politician, nor the most brilliant talker; but he who, in a long course of years, tried by the extremes of prosperity and adversity, has proved himself to the judgment of his neighbors and all who have seen his life, worthy to be called wise and good.

- Time. - Whether we play, or labor, or dance, or study, the sun passeth and the sand runs. In all the actions a man performs, some part of his life passeth. We die without doing that for which our sliding life was granted.-Nay, though we do nothing, time keeps on in his constant pace, and flies as fast in idleness as in employment. An hour of vice is as long as an hour of virtue ; but the difference which follows upon good actions is infinite from that of ill ones. The good, though it diminishes our time here, yet it lays up a pleasure for eternity, and will recompense what it takes away with a plentiful return at last.


Baby.
BY T. HULBERT UNDERWOOD.
On tiptoe I entered the bed-room of Baby;
My fingers were tingling clear out to their tip ends With blissful expectancy's luscious sweet fever; As trembling I parted the gossamer curtains Where Baby lay, fair as a fresh morning-glory, Soft cushioned on folds of the bluest of velvetA rose-bad dropped down on a bed of blue lilies.
Like petals of purest and pinkest petunias, Pour delicate fingers crept out of their nestling, Transparent and chubby, to rest on the crib's edge;
And draping the fingers a fringe of crochet-work,
As glossy and light as a net-web of snow-lace,
Lay, kissing them daintily-ever so daintily!
Nails soft, and 80 tiny, and tinted like pink-buds,
Looked up to me temptingly-ever so cuuning;
And asked me to kiss them, and oh! how I longed to,
But dared not, for BABY was smiling so sweetly
I knew he beheld an angel-face near him.
Loose-ringed on his temples of pure alabaster,
Lay curls of the softest and lightest of textare,
As akctehed by a crayon of delicate gold-tint;
Soch curls as the gode gave to CuPD and PsYcHs!
Thono kisable curls, with their live, springing tendrils,
Came up to my lips and went down to my heart-strings.
Those eye-lids so flipay, translucent as amber,
Were tinted and toned by the blue eyes beneath them, Tosoftest of purple. 0 marvelous eye-lids !
Ah I what is this clinging so close to my heart-stringe ?

Tis fear-that I know by the thrill of by bosom;
Tis born of these ringlets a ad fingers and eye-lids ; Born of this beauty too precious for mortals ; It tells me I look on the face of an angel That lies there deceiving my soul by concealiug Its pinions beneath the blus waves of the velvet.
Ill wake him!-with kisses that even an angel For such rareanjoyment would fold its wingagladly Would cling to mortality long for the love of I

There! there! I have reddened the white brow of BABY Between those two limnings of delicate lace-workThe rarest of eye-brows; his laugh reassures me! I'll crush him down hard, wings and all, on my bosona, And punish the darling with rods made of kisses !

## The Moss Rose.

The Angel of the flowers, one day, Beneath a rose-tree sleeping layThat spirit to whose charge is given, To bathe young buds in dew from heaven. Awakening from his slight repose, The Angel whispered to the Rose: " Oh , fondest object of my care, Still fairest found where all is fair, For the sweet shade thou'st given me, Ask what thou wilt, 'tis granted thee." Then said the Rose, with deepening glow : "On me another grace bestow." The Angel pansed in silent thoughtWhat grace was there the flower had not? Twas but a moment-o'er the Rose A veil of moss the Angel throws; And, robed in Nature's simplest weed, Could there a flower that Rose exceed ?

Rest.
TRANS. FROM THE GERMAX OF GOETHE.
Hest is not quitting The busy carear;
Rest is the fitting Of self to its sphere.
'Tis the brook's motion, Clear without strife,
Flowing to ocean: After ita life.
'Tis loving and serving The Highest and Best:
Tis onward, unswerving, And that is true rest.

## WIT AND WISDOM.

a Streak of Human Nature.-A good story is told of Bouvart, a celebrated French physician. On entering one morning the chamber of the marquis, whom he had attended through a very dangerous illness, he was accosted by his noble patient in the following terms: "Good day to you, Mr. Bouvart, I feel quite in spirits, and think my fever has left me."-"I am sure it has," replied Bouvart drily. "The very first expression you used convinces me of it.""Pray explain yourself." Nothing is easier. In the first days of your illness, when your life was in danger, I was your dearest friend; as you began to get better, I was your good Bouvart; and now I am Mr. Bouvart. Depend upon it, you are quite recovered."
H. As soldiers in the march of life, we may never learn to mark time, but time never fails to mark us.

Practice what you preach, or your preaching is worse than a lie.

『 $D_{0}$ not trust to a weak argument because you think you have a weak adversary ; remember, a donkey will eat through his rope if you only bind him with a hay band, and be all the stronger for it.

E(3)Men wounded by the explosion of bomb-shells are wounded mortar-ly.

I'm glad that this coffee don't owe me anything," said Brown, a boarder, at at breakfast.
"Why ?" said Smith.
"Because, I don't believe it would ever settle."
Aङ Examiner.-" Who was the strongest man ?" Smart Boy. - "Jonah." "Why so?" "'Cause the whale couldn't hold him after he got him down."

A money lender serves you in the present tense, he leaves youin the conditional mood, keeps you in the subjective, and ruins you in the future.
歯 There is a firm in Elgin, Illinois, known as "Gray and Lunt." Half the letters come to them directed to "Lay and Grunt."
Some slanderer asserts that paper makers are the greatest magicians of the age, inasmuch as they transfer beggar's rags into sheets for editors to lie on.
An Irish lover remarked that it is a great pleasure to be alone, especially when your "swateheart is wid ye."
(a) A young gentleman lately advertised for a wife through the papers, and got answers from eighteen husbands, stating that he could have theirs.

## DOMESTIC ECONOMY.

Boiling Meat.-The rule for boiling meat is to allow one hour for every four pounds of beef or mutton ; pork or veal will require one hour and a half for every four pounds. All meats should be boiled slowly.

Cocoanut Custard.--Take one half pound of butter, one half pound of sugar, threefourths of a pound of cocoanut; grate it and add the whites of ten eggs. Cream the butter and sugar together. Stir all these together and add a glass of wine and rosewater mixed. Bake in a crust.

Lemon Custard.-Three lemons grated, one pound sugar, eight eggs, a piece of butter size of a walnut. Beat the yolks, sugar, lemons and butter together, the whites to a froth, which are not to be added until ready for the oven. Bake on pie-crusts.

Lemon Cake.-One cup butter, three cups sugar, four cups flour, five eggs, one cup thick milk, one teaspoonful of soda, the rind and juice of two lemons; Bake in broad

Whips.-A pound of sugar, the juice of six lemons, mixed with a quart of rich cream, and whipped to a strong froth. Serve in glasses. If a pine apple be cut in thin slices and sprinkled with sugar and allowed to stand over night, and strained into the sugar through a seive in the morning, it will add very much to the goodness of the whip.-Mrs. Horace Mann's Cook Book.

## HEALTH AND DISEASE.

## Digestibility \&cc. of Beef, Mutton and Pork.

There are differences in the nutritive power as well as digestibility of some of these meats. Beef is regarded as more nourishing, and as enabling a person accustomed to flesh meat to bear more fatigue and disply more strength than if he were to eat mutton. Humphries, an English Pugilist, was for a mhile fed on beef, but as he got too much flesh in consequence, he was obliged to change to mutton. On the other hand, I am fully persuaded that beef is not nearly as digestible as mutton, by dispeptics and other invalids ; and hence, by these persons, whether they refer their sufferings directly to the organs of digeation or to oppression at the chest and palpitation of the heart, or to violent headache, or remote pain of the limbs, mutton should have the preference over beef. They who are predisposed to convulsions, or to apoplectic seizure, will incur no little danger by careless and imperfect mastication of beef, and swallowing the pieces without adequate comminution. I have known fatal apoplexy to be brought by a full meal of beef in an old person, who had scarcely masticated the meat ; and on another a fatal return of disease from the same cause.

When animal broth is allowable, the lean of good beef is better than that of mutton, as less greasy, and with more osmazome in its composition.

Pork, classed with the fibrinous meats, has less tenacious fibre, and more fat both external to the muscles and interposed between their filaments. Except the Jews and Mohommedans, the people in most parts of the world, are eaters of the flesh of swine. Pork was considered, by the ancients, as the most wholsome and nourishing meats; and hence Galen has remarked after Hepocrates, it is the best food adapted to the strong and robust, and to those habituated to violent exercises. It formed the animal aliment of the athletro of Greece and Rome, who complained of a sensible dimunition of their strength, when they abandoned its use for any length of time. To the laborer in the open air, pork, in moderate quantities, is a nourishing and wholesome aliment, on condition that a full proportion of esculent roots, or of boiled cabbage, or spinach, be eaten with it. The addition of a little vinegar to the salt will not be amiss. But the artizan, and the citizen generally, who takes little out-door exercise, and whose digestion may, from other causes, be enfeebled, had better avoid pork.-Dr. John Bell.

If troubled with weak back, have on hand half a pint of beef-gall and a half pint of alcohol, bottled, which shake together, and rub the back with, before retiring for the night.
To Cure Warts.-M. Blaschko recommends the following formula as one of certain operation even in very old standing and inveterate warts: Chromate of Potassa, $1 \frac{1}{2}$ grains; lard, one drachm; mix. To be rubbed in night and morning.-Jour. Rational Medicine.
Wes Dr. Abernethy's prescription' to a wealthy patient was, "Let your servant bring you three pails of water, and put it into a wash tub; take off your clothes, get into it, and from head to foot rub yourself well with it; you'll recover." "This advice of yours seems very much like telling me to wash myself," said the patient. "Well," said Abernethy "it is open to that objection."

## ANECDOTES AND FUN.

FUn is a most beautiful element of social life, and ought to be encouraged by all lawfulmeans. People never plot mischief when merry. Laughter is an enemy to malice, a foe to scandal, and a friend to every vitue. It promotes good temper, enlivens the heart and brightens the intellet. Let us laugh, then, when we may.
-A native of Western Africs, who visited this country, when asked what he would call ice, said, "Him be water fast asleep;" and when asked what he would call the railroad car in which he was riding, said, "Him be $a$ thunder-mill.

- A cat caught a sparrow, and was about to devour it, when the sparrow said :
"No gentleman eats till he washes his face."
The cat, struck with this remark, set the sparrow down, and began to wash his face with his paw, but the sparrow flew away. This vexed puss extremely, and he said :
"As long as I live I will eat first and wash my face afterward," which all cats do to this day. How many children do the same?
- A young fellow up in Attala county, Miss., having wooed and won the heart of a young lady, and being too bashful to "ax" the old man face to face, penned and sent him the following:


## As the moonbeams love the ocean, <br> And fisbes love the water, <br> Just as she loves me, <br> Old man, 1 love your daughter.

In the dreary winter time,
When all was mud and water,
As I was 'bobbing round,'
Islily woed your daughter.
And now I want to marry,
Being as Ive caught 'er,
And as 1 love her, and she loves me,
Don't you think we orter ?
Did the horseman who scoured the plain use soap?
What vegetable is anything but agreeble on board a ship? A leek.

If an empty pure could speak what lovelike speech would it make? "You'll find no change in me.'

Why is a beefstake like a locomotive?It's not of much account wi thout its tender

Why is the Union like a crab-apple? Because to be worth anything it must be preserved.

Size of tife Ambrican Flag.-The standard of flags for the army is fixed at six feet six inches in length by four feet four inches in width; the number of stripes is thirteen-seven red and six white. The blue field for the stars is the width and square of the first seven stripes, four red and three white, and these stripes extend from the extremity of the field to the end of the flag. The eighth stripe is white, and forms a pleasant relief to the blue ground of the field. The number of stars is thirty four ; one being added on the admission of each State.

## Puzzles.

A young reader of the Farmer offers the following solutions of the puzzles that appeared in the April No.:


The dotted are the added lines which give the solution.

He proposes to reduce the six squares made by the matches or pencils by removing the dotted lines, as seen below :


But the removal of these, leaves one odd line, does it not? He must try again.
For the following puzzles proposed by this same friend, we are much obliged :

1. From six take nine; from nine take ten; from forty take fifty-and six will remain.
2. Substract forty-five from forty-five so as to leave forty-five remainder.
[The following communication furnishes a correct solution for the puzzle in the April Farmer, Charles H. Watson, of Albion, also gives the solution.]

Lake View, May 1861.
Mr. Editor :-I have been much pleased
with your column of Anecdotes and Fun; particularly with the puzzle concerning the direction of the letter. I would direct it thus:

> JOHN UNERWOOD, Andover, Mass.

If that would not carry it to its destination some one else must try.

> Yours truly
> LOFTUS FOX.

## YOUTH'S CORNER.


small quadrupeds in the vicinity of his haunts, but is also ambitious of large game; often preying upon the fleet and noble deer, which he takes by dropping, from the branches of some friendly tree, under whose shade it may chance to feed, upon its neek, and clinging there, until having torn open its throat and sueked much of its blood, the poor victim is compelled at la $\sigma_{\text {, }}$ to lie down and die.
The Lynx feeds almost exclusively upon the blood and brains of its victims, devouring the flesh only when compolled by neces sity. His natural abode is in the colder countries of the Netr and Old World.

In reading ancient history. you have doubtless seen occasional mention of a wonderful lynx in those times whose eye had the power of penetrating solid and opaque bodies. In other words, it could see thro a mill-stone whether there ws any hole in it or not! Out of this fabled keenness and porer of vision, grew the common phrase, lynx-eyed. But unforthnately for those old stories no such lynx ever had an er-

## The Lynx.

Take care there! take care, children, he's going to jump! !-But then it's probably only at some rabbit, or other quadruped, as he is said by all naturalists to be afraid of the human face. So, be composed, and let us tell you something about his appearance and habits.
The Northern ${ }^{\text {Lynx }}$ properly belongs to the feline or cat family, being about three feet long from tip of nose to tip of tail, and sixteen inches high. General color, reddish, with oblong brown spots on the body, and small, round spots on the limbs. His head is thick and round, the ears sharp, black on the outside, with an angular space of shining ash color, and tipped with a taft of black hair. The cheeks are marked by small undulating dark bands; the lip whiskers are white. The legs are large and powerful, with terrible, sharp claws. The tail is short-six or seven inches long, only -and tipped with black.
Fierce and subtle in character, he is not only the terror of all the more inoffensive
istence outside the wouder-loving brains of the ancient story-makers.

## The Little Frock and Shoes.

A little frock but slightly worn, of blue and white delaine,
With edging round the neck and sleeves, Lay folded neat and plain, Beside a little pair of shoes, With here and there a flaw;
Lay half concealed among the things In mother's burean drawer.
Summer had passed away from earth, With all its sweetest times;
The birds had left their summer haunts, For more congenial skies ;
The twilight breezes softly played Among the dews of even-
An anget left his home on high To gather flowzrs for Heaven.
The angel near and nearer came, Whero sister sick did Ho;
And gently fanned her faded clieek, And pointed to the sky;
The morring shone ope upo the bed, The autumn wind blew free-
The angel moved his silvery wings, And wuispered-" Come with me."
We gathered round her dying bed, With hearts to weep and pray;
And many were the toars we shed When iditor went taway;
"No bittor teara had she to weep," No sin to be forgiven;
But closed her intilo eyos in sleep, To open them in hearen.

We laid her in the earth's green breast, Down by the village green,
Where gently sweeps the dewy grass, And summer flowers are seen;
And often when dear mother goes,
To get her things to use,
I see her drop a silent tears On sister's frock and shoe.

## NEWS DEPARTMENT.

## DOINGS OF AGRICULTURAL SOCIETIES.

Notwithstanding the war excitement, there still seems to be much interest manifested in the various branches of industry, and large preparations are making for the usual Fall Exhibitions, State and Courty. This is as it should be. This is no time to allow industrial enthusiasm to cool off and die out.

It is probable that more than ordinary effort will be necessary to make the Agricultural Exhibitions successful, but the friends of Agricultural improvement are capable of putting forth that effort, and it now appears that they intend to do it.

The Minnesota State Fair is to be held at Fort Snelling, Sept. 24, 25, 26 and 27. Horace Greeley delivers the Annual Address.

Quite a number of the County Societies have sent us their premium lists.

## Town Clubs.

Editor of the Wis. Farmer :-The Hammond Farmers' Club held their annual meeting the 8 th inst., and elected the following officers for the coming year :

President-E. P. Scribner.
Vice President-A. G. Peabody.
Secretary-M. Herrick.
Treasurer-John Thayer.
The Club holds monthly meetings from farm to farm, criticising the operations of the member visited, and discussing such subjects as may be of interest or utility. Considerable pains is taken to improve seed and stock, and to make agriculture a pleasing and profitable pursuit.

Yours for Agricnltural Progress,
The Secretary.

## STATE MATTERS.

## Weather, Crops and Fruit.

The Calumet Republican of the 5th inst., says, crops in that county never looked better than at present, and that more grain has been sown than at any previous season in the history of the county. Also, that pige-
ons are more abundant thereabouts than ever $k$ nown before.

The people of St. Croix Valley are making large calculations on having the finest Agricultural Exhibition that has ever been held in that part of the country.Success to their efforts.

A correspondent who resides at Hammond, St. Croix Co., writes as follows of crops, stock, \&c., about the middle of May :

Mr. Editor:-The principal crops under cultivation are wheat, oats, barley, corn, potatoes, and the root crops. Much of the wheat is up and looking well. The farmers generally have sown the most of their ground to wheat, as this is the crop that brings the most dimes.

The weather has been very favorable for farming operations. We have had but little very hot sultry weather, which is so hard on teams; yet it has not been too cool for healthy germination.
Stock generally, has come through the winter healthy, and in good condition. Mr. G. Peabody drove in a large flock of sheep last summer, which he wintered through with but little trouble, and has turned them out to grass, looking well. Sheep raising will pay well in St. Croix County.

We are expecting considerable imigration to this town during the summer. The breaking to be done this season is laid by some at a thousand acres, or more.

There is yet considerable wild land for sale, both timber and prairie, which can be had at reasonable prices. The quality of our soil, the convenience of meetings, schools, stores, post offices, grist mills, and timber for fence and fuel, offer inducements to the seekers of homes, which should cause them to visit the town of Hammond before investing elsewhere in this upper country.

Yours, truly,
M. H.

Hammond, May 10th, 1861.

## AGRICULTURAL ITEMS.

The wheat crop of the more Eastern Southern States is reported to be very fair, but in those lying more strictly within the Mississippi Valley, the army worm is committing extensive ravages.

Complaints are also made in Southern Illinois of the destructiveness of this scourge of the farmer.

Portions of Arkansas lying on the Mississippi river are suffering greatly from an inundation.
Plowing up Cotron and Planting Corn. -The Oxford (Miss.) Mercury says: Many planters in this and other counties of Mississippi are now plowing up their cotton and planting corn instead. We have no doubt there will be corn enough raised this season, in this county, to last two years.There will be little cotton raised.

Interior Lovisiana papers speak of the growing crops as among the most promising ever seen. Since the embargo upon western commerce, many planters have plowed their cotton fields and planted corn.

The Hessian fly is committing great ravages in some western portions of OhioThe fruit crop in Northern Ohio is said, by the Cleveland Herald, not to be very promising.

Reponts of crops in the Northern States generally favorable.

Green Lake County.-There is nothing thus far in the appearances to discourage liberal anticipations for the growing crop.Courant.
Walworth County.-Hon. David Williams, of Springfield, writes as follows June 10th:
"I have never seen winter wheat look as promising as this season. Crops generally look well, but are something later than last year. Yet I must own to anything but sanguine faith in the productiveness of 1861.
The excess of wet has, in most cases, soddened the land too much for a free spread of roots. And should the excessive wet be followed by hot and showery weather, the condition will be favorable to the production of russ and blight. I believe I am, in no sense, a croaker, but I cannot resist the teachings of the past. I may as well own to being a little nervous on the matter of our crop prospects this year."

## Monetary.

Since the agreement of the bankers at the Bank Convention, recently held in Milwaukee, to receive the bills of certain banks on deposit until Deoember 1st, money matters have been a little more steady. Bill holders are a little less nervous, and a few of the more daring are said to have slept soundly for a single night with small sums undeposited except in their wallets.

The following is a complete list of the banks endorsed by the Convention above referred to :

Bank of Beloit,
" Oolumbus,
i. Green Bay,
" Interior,
" Jefferson,
" Madison,
Milwaukee, Moneka,
" Monroe,
" North West,
" Oshkooh,
". Portage,
c. Prairie du Chien,
$\begin{array}{ll}\text { "/ Racine, } \\ \text { " } & \text { Ripon, }\end{array}$
" Sheboygan,
" Sparta,
" Watertown,
" Whitewater,
" Weyauwega,
Wisconsin,

## City Bank of Kenosha,

Oolumbia Commercial County Bank, Commercial Bank, Corn Exchange Bank, Corn Planters' Bank, Dodge County Bank, Dane County Bank, E. R. Hinkley's Bank of Grant County, Exc. B'k, Darling \& Co., Wieconsin Bank, Madison, Elkhorn Bank, Ins. Co.,
Hin Mk, Wisconsin Pinery Bank.
Hard Money Meetings.-Alarmed at the condition of our currency in Wisconsin, the farmers of Dane County met at the Court House on the 25th ult., to determine what course should be pursued in reference to the sales of their wheat and other staples.
The following report of said meeting is copied from the Argus \& Democrat :
The meeting of Farmers of Dane County, on the rubject of the currency, at the Court House, on Saturday aftsinoon, was well attended. John Y. Smith, Esq., vas called to the chair, and C. W. Stewart appointed Wecretary. Messrs. John Keenan of Fitchburgh, Dr. W. H. Fox of Oregon, and \&. Jowett of Cottage Grove,
were appointed a committee to draft reoln were appointed a committee to draft resolutions.During the absence of the committe, brief and interesting speeches weae made by the chairman, and by Prof Hoyt, editor of the Wisconsin Farmer. The report of
the committee was as follows: the committee was as follows:
Resolved
Resolved, That while we have the utmost confidenee in the ability and integrity of the managors of the Banks located at Madison, yet, inasmuch as it is dfficult to obtain any of their bills, and the currency thrown into circulation is generally of the poorest description, we therefore pledge ourselves to use all
fair and honorable means to fair and honorable means to discountensince such eurrency, and to accept nothing in exchange for our produce except specie or such Bank bills as from the nature of their securities and the character of the parties conducting such Banks may entitle them to be considered as the equiralent of specie.
Resolved, That ws consider our principal staple-Wheat-to be of specie value, and that in exchange it should command the specie, and that we will use all
honorable efforts to hold our wheat until we can obtain honorable efforts to hold our wheat until we can obtain
specie or its equivalent therefor, and that from and after the 10th day of June next we will refuse to receive any Bank bills in exchange for our produce.

## Military.

Since our last issue four additional regiments of Wisconsin militia have been accepted by the President, and are now being put in a condition for service as rapidly as possible. The First Regiment has gone to Washington, and on Thursday, June 20,
the Second, now in camp at this place, will proceed to the same destination. The Third Regiment is ordered into camp at Fond du Lac, the Fourth at Racine, and the Fifth and Sixth at Madison. In order to final acceptance, these four regiments must be ready for service by the 4th of July.
The following is a list of the officers of the six regiments :
pirst reginent.
John C. Starkweather, Milwaukee, Colonel. Charles L. Harris, Madison. Lt. Colonel.
David H. Lain, Kenosha, Major.
sECOND REGIMENT.
s. Park Coon, Milwaukee, Colonel.
H. W. Peck, Green Co., Lt. Colonel.

Duncan McDonald, Milwaukee, Major.
third egaiment.
Chas. S. Hamilton, Fond du Lac, Colonel, Thomas H. Ruger, Janesville, Lt. Colonel Bertine Pinkney, Rosendale, Major.
gourth regimist.
Halbert N. Paine, Milwaukee, Colonel. Sidney A. Bean, Waukenba, Lt. Colonel. Fred A. Boardman, La Crosse, Major.
tiftit regiment.
Amasa Cobb, Mineral Point, Colonel. Harvey W. Bmery, Portage City. Lt. Colonel. Charles H. Larabee, Horicon, Major.

SIXTH REGIMENT.
Lysander Cutler, Milwaukee, Colonel, Julius P. Atwood, Madison, Lt. Colonel. Jenjamin J. 8weet, Clinton, Major.

## POLITICAL.

Legislation.-The Legislature convened in extra session on the 15th of May, extended its labors through a period of two weeks, and adjourned on Monday, 28th.
The acts passed are in substance as follows:
An act authorizing the Board of Superrisors of any county, or the proper authorities of any town, city or incorporated village to levy a tax for the support of the families of volunteers in the United States service.
An act placing ten thousand dollars at the disposal of the Governer for extrordinary expenditures growing out of the necessities of the war.
Asts providing for the organization and equipment of six regiments of troops for the United States service.
An act to prevent rendering sid to rebels.
An act to exempt all volunteers from civil process during the term of their service.
An act to provide for borrowing money to the amount of one million of dollars.
An act amendatory of the General Banking Law-providing, that from and after
the 1st day of December 1861, the Bank Comptroller shall not receive as security for circulating bank notes any other public stocks than those issued by the State of Wisconsin and the United States; that he (the Comptroller) shall issue for such public stocks as have ranged at or above par value in New York, during the last six months previous to application, circulating notes up to par value of said stocks, but for all other stocks deemed secure, notes only equal to ninety per cent. of either their average value during the last six months or of their market value on the day of deposit; that no bank shall hereafter be established whose bona-fide cash capital paid in, and actually employed in banking at the place of business, shall not equal fifteen thousand dollars; that no bank shall receive of the Comptroller circulating notes to an amount exceeding three times its bona-fide cash capital; that all banks outside of Madison and Milwaukee, shall have a publicly au-. thorized agent for the redemption of all circulating notes that may be presented; and that after the 1st of December next, no banker, broker, association, or corporation shall attempt to circulate as money any note or other evidence of debt issued by any bank or association gut of this State, which, for the last six months preceding such attempts to circulate shall not have been redeemable in New York or Boston, in current money of the United States, at a rate of discount not exceeding three-fourths of one per cent.
This act also provides that the Banking Law thus amended, shall be submitted to the people at the next General Election in November, for adoption or rejection, and that it shall not become a law unless approved by them.

## National-Progress of the Government.

Although there has been as yet, no great battle fought, no stunning blow dealt upon the doomed head of Treason, the Government has nevertheless accomplished wonders within the last thirty days. Gen. Scott, as before remarked, is famous for getting fully ready before he goes ahead, and the thorough organization of an immense army, of a quarter of a million of men, such as the "Grand Army of the United States" will be in a few weeks at the
farthest, is a great work for the greatest Commander.

But the Government has not been merely organizing. Several very significant and important forward movements have been made within the lines of the enemy. General Butler is occupying Fortress Monroe, (the most impregnable of all our national defences, and situated on a point of land in Hampton Roads but a few miles North of Norfolk, ) with some 15000 men, thus prepared, not only to coffmand the entrance to Norfolk Harbor and James river, but also at the right moment to throw an army into Richmond.

General McDowell is in command of Alexandria and Arlington Heights, near Washington but on the Virginia side of the Potomac, and the former recently in possession of the Rebels. General Cadwallader holds Annapolis and Baltimore. Gens. Mansfield, Patterson and McClellan, are said this mement to be marching from the east north and west, respectively, with sufficient force to take Harpers Ferry and capture the Rebel army collected there under command of Gen. Johnston ; and Gen. Lyon is in position to crush out rebellion in Missouri.

Meantime the blockade of all Southern ports has progressed to almost if not entire completion. The Government has discontinued the mails to all seceded States, prohibited the transportation of all sorts of supplies thereto, and authorized the confiscation of slaves escaping from treasonable masters the same as other property-a measure which has already secured to Fort Monroe some 450 laborers who are performing good service for Uncle Sam, whose kindly control they seem very much to prefer to the unrestrained domination of their long hated masters.

But, sadly enough, all this important work of capturing and occupying the posts of the enemy has not been accomplished without a loss of some of the best blood of the Patriot Army.

First on the honored list of those first slain is the noble and gallant young Ellsworth, originator of the Zouave system of miltary drill in this country, and the able and beloved commander of the Zouave Regiment of New York Firemen. He was among those detailed to capture Alexandria and was shot in the most dastardly manner while in the act of removing a Secession Flag from the Marshall House in that city.

A young man of large promise and of great immediate usefulness, his loss is deeply lamented.

Next in honor is Major Winthrop, who was killed at Great Bethel after deeds of valor that won the admiration of the enemy. Lt. Grebel, of the Regular Army was also killed in this same conflict, which was miserably managed on the part of the Federal troops by a Brigadier Gen. Pierce, who we are happy to know, is likely to be court martialed for his stupidity. In other skirmishes between advance guards and reconnoitering parties, several Federal soldiers have lost their lives. Let their memories be gratefully and tenderly cherished.
The several military departments have been confided to the ablest men in the nation, and every movement of the Government is calculated to inspire the public mind with confidence in its wisdom and in the ultimate glorious triumph of the Constitution and of the Union.

The untimely death of Mr. Douglas has deprived the courtry of the services of one who was intended by the President for a post of honor and responsibility, and who would probably have made himself as distinguished in the field as he has long been in the forum. May the mantle of his patriotism and power have fallen upon one worthy to bear it.

Mr. O. H. Browning, Judge of the Supreme Court of Illinois, has been appointed his successor in the Senate, and will take his seat at the extra session, which meets July 4th.

## Progress of Treason.

Accounts from the South throw but little light upon the movements of the Rebel leaders and army. If reports can be relied on, the bogus Government has left Montgomery and located itself at Richmond, which henceforth, (until its eapture by the Grand Army of the Union) will be headquarters of the C.S.A. Southern papers and escaped citizens of Virginia talk of the concentration of large bodies of troops in Virginia, and of a still cherished plan to capture Washington and "scalp" President Lincoln. At present the strongly defended points are, Aequia Creek, about 45 miles below Washington, on the Virginis side of the Potomoc, Manassas Junction, 27 miles belọw Alexandria, at the
junction of the Alexandria and Orange $R$. R., and the Manassas Gap R. R, Riehmond itself, Harper's Ferry, in Virginia, and Paducah, Memphis, and Randolph, on the Mississippi river.
The storming of Fort Pickens seems to have been given up as a bad job, and Missouri, until just recently, had become quite docile and loyal. Within a day or two, however. Gen. Jackson has issued a proclamation calling for troops to resist and drive out the Federal troops. To-day's dispatch says he has packed up his traps and cabinet and left for some stronghold up the river.Gen. Lyon is after him with sharp steel, and will be pretty apt to run lim out of the State, or run him through.

Gov. Houston of Texas, has finally yielded to the pressureand becomea traitor with the rest. His language now is: "The time has come when a man's section is his country. I stand by mine. All my hopes, my fortunes, my affections are centred in the South."

Kentucky still claims to be neutural, but is doubtless playing into the hands of Jeff. Davis. The idea of an armed neutrality between the Government which she has sworn to protect and defend and an enemy in open arms against that Government, is fast becoming ridiculous, however, and old Kentucky will soon be compelled to decide whom she will serve.

In pirating the C. S. A. seems to have been quite successful, having captured over fifty vessels and steamboats, to wit :
Off the different ports.
12
In port. .................................... 30
Steamers on Mississippi. ................. 15
Total..................................... 57
The fifteen million loan still appears to drag, and there is beginning to be a good deal of dissatisfaction among their troops as well as anxiety among the leaders of the rebellion.

Foreign.-No grand upheavals yet in the old World. Great interest is felt by all the European Powers in the war in this country.
The Emperor Napoleon and the French Press have expressed decided sympathy for the cause of the Union, and all the other Great Powers, so far as heard from--except England, who still remembers the Revolution and recognizes the truth that a vindication of the strength and permanency of our

Republic must hasten the wreck of her own rotten and creaking monarehy-appear also to be friendly. But even sour and grugding Johnny Bull is getting ashamed of himself, and although neutral, as he ought to be, will probably have honor enough neither to open his ports to the Confederate pirates or be in hot haste to recognize the independence of the so called Southern Confederacy.

Owing to the active part taken by Mr. Burlingame, late appointed Minister to Austria, in getting Sardinia made a first class mission, he has been rejected by the Aus_ trian Government, and transfered to China by the President. It is reported that Spian will reject Mr. Schurz, but the reports are not authentic.

In parts of Russia, some little trouble is experienced with the liberated serfs, owing to a misunderstanding, on their part, of the conditions of their emancipation.

## EDITOR'S TABLE.

The Farmer Henceforth.-After two or three months of vexatious irregularities in the issue of the Farmar, we are able to assure our readers that the remaining numbers of the Volume for 1861 will appear according to programme. It was the intention of the Publisher, when he purchased, to devote his time and energies to the mechanical improvement of the paper and the increase of its circulation. He has been unable, however, to disentangle himself from other important business engagements, and has accordingly given the Farmer but a share of his attention, and now, as will be seen by his announcement, relinquishes it entirely.
The friendliness of our relations and the conviction that he has endeavored to do justice to the paper and all partios interested in its success, occasion regret that his connection should so soon cease; but at the same time we rejoice that the Farmar has fortunately fallen into the hands of parties who have the time, the energy and the will to drive it ahead in a business-like manner.
After the July Number, which for important reasons, will not appear until the 4th, our readers may expect it promptly and in better "shape" than ever before.

Farmers, white for your Paper!
The July Number will begina new era in the history of the Farmer. The Proprietors have ordered new type, a better quality of paper and numerous valuable engravings, and are intending to add eight more pages of matter to each monthly issue. Twelve thousand fivegthundred copies of the first number will befprinted. Will not all the old friends of the Farmes. make a grand rally for an increase in the number of subscribers ? Subacriptions recieved for six months or one year. Terms same as heretofore.

Noxlous Weeds.-Look to them at once. Read article on "Thistles and Snap-dragon" in this No. A single plant of the Canada Thistle often yields from
five to six thousand winged seeds, and besides this rapidly extends itself by creeping roots. Cnt them down just as they come into bud, several times in succession, and the root will after a time be exhausted and give it up. Make thorongh work of it this year, and leave no trace of this worst evidence of slovenly farming. See that the law is enforced in your neighborhood.

Horticulturalists of wisconsin, write for the Farmer!

Sheep-Washing.-The following communication on sheep-washing arrived too late to secure its appropriate place in the Stock Register, and is accordingly published here. Have not space for lengthy comments, but will simply say, that we about threefourths agree with him as to the expediency of the practice :

Sumeit, May 31st, 1861.
Friend Hoyt :-In the course of reading a while ago, the following article from the Ohio Parmer upon Washing Sheep was met with, which so fully expresses my own views upon the subject, that I enclose it for publication in the Wiscomern Farmer, in the hope that it may induce an exchange of opinion between the farmers and manufacturers among us, which may perhaps result in a salutary change of custom in this matter.I have for years desired that the nuisance of sheep washing might be abated. But in order to accomplish it, a combination among the wool growers is essential, for when but few dispense with the washing, the bayors take undue adrantage of it and deduct more than the actual difference between the ordinary washing and the unwashed fleece. There is no doubt about the injury frequently received by sheep in the process o washing, and its subsequent effects under certain cir enmstances. The best fine wooled flocks of Europe are not washed-and some of the best flocks of Vermont are not permitted to undergo the dangerous process.Why should not the farmers of Wiscousin be as careful of their flocks? Surely our weather is changeable enough to warrant extra care of so tender an animal as the fine wooled sheep.
If you publish this, please accompany it with copious motes of your own, and thus oblige many of your farmer friends.

The lack of time alone has prevented my urging this matter upon our wool growers at an earlier day, and more fully. Believe me as ever,

> Yours, \&c.,
> E. M. DANFORTH.

Should we wash Sheep.-Humanity, at least, says No!. With the natural fear a sheep has for water, it must be cruel to subject them to such treatment as they sometimes get by the process familiarly called "washing;" yet, in truth, it is not only a detriment to the wool, but to the sheep.

We take it for granted, that what is good for the health of man in the way of care, holds good with the sheep; and who among all our shepherds would think of tollowing his sheep home from the mill pond, without a change of clothes, when sometimes it is cold enough to make his teeth chatter. How can we oxpect it would benefit our sheep, especially when we have a week's rainy weather just after washing, and very often, in this climate, is is cold and unhealthy for $\mathrm{ma}_{\mathrm{n}}$ and beast. Yet some will say it does the sheep no barm ; but the facts prove that this is not the caseboth your sheep sind lambs suffer materially.
But this is only one feature. It coste a great deal of time and money, which could be spplied to a better use in cultivating our spring crop. It is no trifle to wash 3,000 sh6ep every year.
But the most potent argument in faror of not wash-
ing sheep, is, we can shear from three to four weoke sooner, and thus give the more time after shearing for the growth of wool to protect them from the fall raine and the cold in the winter, which is no inconsiderable item. How often do we delay washing on account of the water being too cold when the weather is abundantly warm to shear. The shoep will not suffer with the cold in May, if they are cared for during the three days immediately after shearing. We would gain onesixth more clothing to protect our sheep from the cold of winter, besides a atronger constitution and a healthier sheep, than if we had frozen our sheep in May, by washing them.
Finally, manufacturers would rather have the wool unwashed. They have to re-wash it after us. Why not let them do their own washing, and then if it is not well done, fthey will know who to complainfof. Omehalf of the wool in some sections of country where they have no clear running water, is actually damaged by, the attempt to wash it on the back. It is made a bug-bear of in the market, and thus the producer is foced to take less than his wool is really worth. Wool-growers ! - we stand in your own light upon this subjeet. But taking unwashed wool to market cannot be practised by one here and there. It must be a general reform. How then shall we beet and most directly get at it ; It can be done by "countr organizations." 8hall we make the attempt? By 80 doing we shall practice humanity, save labor, save time and money, improve our sheep, and benefit the manufacturer.-Ohio Farmer.

Mbchanics, writz for tour dhpartmant of yte Farmer!

Premium Farms.-We commend the sentiments and example of the following communication to all enterpriaing farmers in Wis., and extend the time for making entrien to the list day of July:

Delavax, June 12, '61.
J. W. Hort, Sec. Wis. Agricultural Society:

Drar Sir:-Inclosed please find five dollars, the entry price for the best cultivated and arranged faras. It seems as though there should be more men in this State who have $\mathbf{\$ 5}$ worth of confidence in their faria management than there were last year. Farming boing one of the leading features of industry in this State, I certainly think we should manifest some little confidence in our knowledge of the business we follow for a livelihood. As I take the Fazmer, I have looked over your promium list and the regulations generally, and am pleased to see several alterations in both, which I think cannot fail to please.

Very Respectfully,
Your Ob't Servant,
A. H. TAGGART.

Beg-kerpars, write for the Farmer!

## QUERIES AND ANSWERS.

Watonwan, Mink., April 30th, 1861.

## Ditehing Plows.-

Editor Wisconein Farmer:
You will confer upon me a favor by giving, at your earliest convenience, any information you may be in possession of, respecting Ditching Plows for draining low prairie, \&c.
Where can they be purchased? What will be the probable cost? What sized ditch will they cut? \&c.
Please give me the desired information, and send mo a specimen copy of the Wisconsin Parmer, and I wili try to return the favor by increasing your list of sulseribers.

Yours Respectfully,
W. K, GREREWWOOD.
[Will endeavor to farnish the information in next number.]

Scratches.-How can I cure the scratches on my horses feet?-E. L., Kenosha, Wis.
[By washing them clean, on stabling at night, with warm soap-suds, and then washing with a solution of copperas in vinegar-abont one ounce of copperas to one pint of the vinegar. Washing off first with strong suds and then with beef brine is also said to be a sure cure.]
Gate and Fence Posts-Which end up.-Can you help your readers to a solution of this much vexed question ?-C. Brown, Dodge Cb., Wis.
[We are sorry to say that we have not experimented sufficiently to be able to pronource oracularly upon it. Philosophy would seem to favor setting the small end down, and not a few experiments confirm the theory.]
Confound the Dogs !-Frienj Hoyt:-Is the old Dog Law, introduced and carried though by Senator Taylor, still in force. There is some talk of a new law having been passed. I go in for sheep, and or course am "death on dogs."-E. L., Dodge Co., May, 1861.
[There were sundry attempts last winter to amend the Dog Law, which last year operated so well whererer the farmers had grit enough to see it enforced, but we are informed by the Assisstant Secretary, who has looked the matter up, that none of them succeedw. The old law stands, therefore. Look to its enforcement.]

Prictical Holesekbepers, write for the farmer!

## LITERARY NOTICES.

The Young Farmers Manual; Detailing the manipulations of the Farm in a plain and intellisible manner, with practical directions for laying out a Farm, and Erecting Buildings, Fences and Gates, embracing also the Young Farmer's workshop, \&c., kc. By S. Edwards Todd,-C. M. Saxton, Barker \& Co. No. 25, Park Row, N. York, Publishers.

We are much pleased with the book. Within its four hundred and sixty handsome duodecimo pages, it contains a vast amount of valuable matter. Purely practical and simple in its subject matter and in the method of its treatment, and illustrated, moreover, with hundreds of well-executed engravings, it can hardly tail to strongly commend itself to every young farmer, and there is scarcely an experienced farmer, anywhere who would not be benefitted by its perusal toan extent ten times exceeding the cost.

The Currency Question is being quite extensively discussed in the papers and among the people. Sumerous farmers ask our advice. We reply : For immediate use and the payment of debts, the notes of the Banks endorsed by the Bankers' Convention, are doubtless as good as gold. But such farmers as are fortunate enough to be out of debt, who wish to lay up the profits of their business for a time, and yet know not what banks to trust, would do well either fo fusist on the gold or clse keep their wheat and other preservable products in store.
So long as New York exchange is 6 to 10 per cent., and gold has a premium of several per cent., it is silly for any man to talk of paper being as good as specie. Admitting the integrity of the Bankers' Convention (which we should be sorry to donbt) and the soundness of individual bankers here and there, (which it would hardly be safe to do, it is nevertheless true that the
securities of three-fourths of the Banks are actually scarcely worth more than 50 cents on the dollar, with a prospect of running down considerably lower yet; and it is certainly wise to ask ourselves the question: Who is to have the loss of the difference between the then real, and present nomfnal value, when the Bankers' Convention shall have fulfilted its pledge, and the members there of are no longer bound to receive the notes of such banks as are not perfectly sound.
We have no prejudice against banker's-believe them " neither better or worse than other men," but it would be very remarkable if they should look first to the farmer's interest, and secondly to their own.

See notice of "Hard Money Meetings," in News Department.

## PUBLISHER'S CORNER.

## To the Patrons of the Farmer.

I doubt not the readers of the Farmer will be glad of any change in the business management that will insure greater regularity in tl:e publication thap has attended it for the past few months. Arrangements for such a change have been made, and my connection with it as proprietor ceases with this number.
A few words of explanation is due to myself as well as those who support the Farmer. When I assumed the proprietorship of it last January, I had nearly completed arrangements for severing my connectionwith the Argus \& Democrat, and fully expected to be able to take the FArmer, make a clean business of it, and give my whole attention to it. My calculations failed, and instead of getting out of the Argus office, I had to remain, and to attend to matters in the office, that it taxed my utmost efforts to keep up with. The State work that came on to our hands, taxed every effort, and every type in the office, and being under heavy bonds we had to do that work, whatever else hung back. I struggled along with the Farmur under these difficulties, hoping when the Legislature adjourned, to get more time to attend to it. With the close of the session, however, came the military excitement, then an extra session, and if anything more work for our office force than before. So that instead of getting better, prospects for a regular issue of the FARMER grew worse. Under these circumstances, and feeling that I could not do it justice, I set about making arrangements for putting it into hands that would carry $i_{t}$ through.

The parties who will now take the Furmer have the means, the time, and the energy to make it what it should be. They will announce their arrangements in the next number. We are also happy to state that Prof. Hoxy will remain as editor, and will give renewed energies to his work.

Asking the pardon of our readers for errors and short-comings that we could not avold, aha assuring them that we feel no ordinary pleasure in being relieved of what might have been pleasant and profitable to us under more favorable circumstances, we bid them adien.

## Subscribers

Who have paid for the Farmer for the curreut year, will receive the paper to the expiration of the time paid for. Hereafter all letters connected with the business of the paper must be addressed to

The Wisconsin Fabmer,
4 Madison, Wis.

## Singer's New Family Machines.

IN ORDER TO PLACE THE.

## Best Family Nachines in the World.

within the reach of all, we have reduced our Letier A., or Transverse Shuttle Machines, bcautifully ornamented, to $\$ 50$.

## THESE LETtER A MACHINES

## Contain Recent Valuable Improvem'ts

And will sew the

## FINEST FABRICS

As well as materials of coarse texture. We would ask for them (before purchasing elsewhere,) the special attention of Vest-Makers, Dress-Makers, and all those who want Machines for light manufacturing purposes.

## The Singer Machines

Make the interlecked stitch, which is the best stitch known. They are of great speed, easily understood, simple in construction, of great durability, adapted to the heaviest and lightest goods, are finished in the most perfect manner, may be used for several years without requiring repair, and if they do not give entire satiefaction, the money will be refunded.

## The Standard Machines

For Tailorirg, Boot and Shoe-making, Harness-making, Carriage Trimming, etc., etc., will do more work, earn more money, and are cheaper than those of any other maker as a gift.
We have always on hand, Hemming :Guages, Silk, Twist, Linen and Cotton Thread on Spools, best Machine Oil in bottles, ctc., etc.

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## 1. M. Singer \& Co.'s Gazette,

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458 Broadway.
All letters should be addressed to
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No. 50 Clark Street, Chicago. FOR BALE BY
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MERCHANT TAILOR,
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## JOFET P. ROS.

Imparter and breeder of pure bred Durham Cattle and Southdown Sheep, offers for sale at prices to suit the times, a few superior young Bulls and Rams of the above breeds, from animals of my own importations. P. . address, Union Chureh, Racine Co,
Muskego, Waukenha Co., Wis.
[12;9:3

## Wanted,

ACTIVE RELIABLE AGENT IN EVERY
Connty in Wisconsin to take orders for Wisconsin rown Fruit Trees, to be delivered the coming Spring. Te anch a liberal per centage will be paid. Catalogues eratio to all applicants. For particulars address,

14
PLUMB, WILLEY \& CO.
Vine Hill Nursery, Madison, Wis.

## CAHOOJNS

## Patent Broadcast Sower, For Sowing all Kinds or GRAIN AND GRASS SEED.

HAND MACHINE, four to six acres per hour. HORSE MACHINE, Ten to Fifteen Acres per hour HVERY Farmer should have one of these great Labor Saving and Seed Saving machines, for with the HAND MACHINE, weighing 6 lbs ., he can sow four Acres an hour of Grass Seed and Oats six acres an hour of Wheat, Rye and Barley, and distribute the seed with perfect regularity and evenness; saving thereby one quarter of the seed and three quan ters of the time and labor over common hand sowing.

## THE HORSE POWER MACHINE

scatters the seed much wider, and saves nearly all the labor, sowing from ten to 14 acres an hour.
The machine is made of iron, and will last a long time, with ordinary care. The following Agricultural Societies have awarded it the highest premiums, viz: The United States, Maine, Vermont, Pennsylvania, Michigan, Missouri, Kentucky, Virginia, North Carolina, Iowa, Califoruia, and numerous other State and County Societies.
The best premiums are the testimonials of the farmers themselves, who have used them, hundreds of which have been received. A circular containing many of them will be forwarded by mail.
Price of Horse Power Machine.. $. .835,00$
GEO. CAPRON, Agent,
apr-1t
Madison, Wis.

## Vine HIll Nursery,

, 76 Place, Madison, Wisconsin.
$\mathrm{F}^{\mathrm{R} \text { RUIT, Shade and Ornamental Trees, Small Vines }}$ Flowering Shrubs and Evergreens,lof first quality well grown and wood thoroughly $r_{i}$ pened, to be sold at the lowest living rates. See wh olesale and retail catalogues-sent free to all applicants. Orders solicited. Packing done in the best possible manner to ensure safe carriage.

Address,
PLUMB, WILLEY \& CO.,
Vine Hill Nursery, Madison.

## Apple seeds.

APRIME lot of the last season's growth, frozen and all ready to sow, will be sold in quantities of quart, peck or bushel, to suit the purchaser. A small quantity of Pear Seed, at low rates, by the pound-seed warranted good. Also select list of well rooted Apple Trees, Pear, Cherries, small fruits, Roses and Evergreens.
408 See six other advertisements.
PLUMB, WILLEY \& CO.,
Vine Hill Nursery.

## SEED POTATOES. <br> MATHEWS EARLY BLUE.

ASUPERIOR early potatoe, white flesh, productiv Arice sl hardy, never rots. The best very early sort price $\$ 1$ per peck; $\$ 3$ per bushel.

## GARNET CHILI.

A superior late sort, white flesh, very large, exceed ingly productive and hardy. Price 50 cents per peck $\$ 1.25$ per bushel.
A. G. HANFORD, apr.ly

Waukesha, Wis.

## The Thorouhg Bred Horse PRINCE OF WALES!

WILL serve a Limited Number of Mares the coming season, at the stable of the undersigned, in Lako Mills, Jefferson county. The Prince was bred by Col. Johnston, of Appleton, Wis., and sired by King of Cymry, in 1854. The King of Oymry was imported ted same year by Capt. Mackinson from England. The dam of the Prince was sired by the imported Wapy Pope, and out of a full-blooded Messenger mare.
Good pasturage will be furnished for mares from a distance and the best of care taken to insure foal. apr2t

STEPHEN FAVILL.

# THE WISCONSIN FARMER 

J. W. HOYT, : : : : : : : : EDITOR.

Vol. XIII.
MADISON, JULY 1, 1861.
No. 7 .

## Haying and Harvesting.

What charming rustic scenes do these words suggest to the poet, what solid work and needed gains to the farmer! Unfortunately, how ever, too many of our farmers devote more labor to the operation than is necessary, and derive much less profit therefrom than they should.

It is scarcely a mooted question any longer whether hay or grain should be cut a little early, or after the seed has entirely matured. The experience of nine-tenths of those who have carefully tested the two practices is on the side of early gathering. Science also is on this side and urges important reasons in its favor.
cetting and ouring of grass.
The first and most important of these reasons as applied to the cutting of grass, is the phy-sio-chemical fact that in the last stages of the development of the plant certain substances which at an earlier stage constitute a very considerable proportion of the plant and are nutritious, afterwards change their character, and becoming insoluble, are no longer fit to contribute to the nourishment of the animal bodj. This is true of starch, mucilage and sugar. They are all soluble, and therefore capable of entering into the composition of the blood, at a certain period of the growth of the grass plant, but afterwards are transformed, for the most part into hard, woody fibre. That "certain period," for most grasses, is when they are in blossom.

There is a difference, however, between the various grasses in this respect, some requiring to be cut when but partly blossomed, and oth-
ers when past the period of blooming and the seed-forming stage.
For the more common species, the following rules may be observed with safety :

1. Swale or low marsh grass, being liable to become woody and wiry at an early period in its maturing, makes better hay when cut even before blossoming, or at least as soon as the blossoming has fairly commenced.
2. Clover should be cut when about half the heads are in blossom.
3. Red Top, June, Blue, and other grasses of this description when in full blossom.
4. Timothy, when the seed is in the milky or doughy state-first, because the starchy and saccharine matters in this grass are not so early converted into fibre, and secondly, for the reason that the tuber upon which the subsequent life of the plant must depend does not receive that development which is essential to the renewed growth of the plant the following year until the seed-forming period.

If you would have sweet, tender, and nutritious hay, therefore, do not fail to cut enrly.
As to the hight at which the grasses should be cut, it may be remarked in general, and of Timothy, in particular, that the policy of cutting elose is not well supported. The best authorities agree that it should not be cut below the second joint above the tuber.
Other grasses, especially the finer species, as Blue grass, and Red Top, may be cut lower, indeed quite close. And for all species the rule should vary according to the season. The present summer being rather dry, we unhesitatingly recommend high mowing, as in a drouth the lower joint is not so valuable for hay, and, at such a time the close shaving is
liable to result in little or no after-growth and even in permanent injury.

But the curing is also an important part of the general work of haying-a portion too, in which the practice is quite as commonly erroneous. Most farmers dry their grass to death. The methods of curing are doubtless familiar to all. But the fact that long exposure to sun and dew and rain is absolutely ruinous seems to be utterly ignored by many who claim to be good farmers.

In fair weather, clover may be cut in the morning and got in at night, and the hay thus made will be worth more than twice as much as if allowed to lie out for two or three days and nights exposed to the weather. If obliged to cut in showery weather, so that he cannot finish the work of curing in one day, the farmer should at least gather up into winrows or small cocks before the fall of dew at night. These may be opened early the following' day and as quickly prepared for hauling as possible.

Timothy and the other grasses, whose stalks are straight and which by their compatness afford less circulation of air, require either more time or more labor in the spreading and stirring to cure sufficiently for stacking or mowing in the barn, but the same reasons stand in favor of prompt and energetic work, and we accordingly lay down this rule for hay-making in general :

Cure quickly, and with the least possible exposure to moisture and sun.

If obliged to be put into mow or stack before being thoroughly cured, a few quarts of salt to each load will ensure its preservation, and even cause it to be relished better than otherwise.

## HARVESTING GRAIN.

The harvest practice is obnoxious to objections similar to those urged against the more common method of haying.

Most farmers allow the grain to get too ripe before cutting. This is especially true of wheat, which in order to make the best flour, should always be cut while the kernel is yet in the doughy state, and capable of being ea-
sily crushed between the thumb and finger. A better straw, the preservation of waste by shelling in the field, and the possible avoidance of loss by lodging, and the various forms of blight are additional reasons in favor of early harvesting.

The curing should be done in the shock, and in order to prevent damage by rain, too much care cannot be given to the binding, the "setting up" and putting on the cap-sheaves. Nothing looks more shiftless, and certainly nothing can be less economical, than every third shock fallen down and exposed to the weather. If the sheaves are properly grouped and braced against each other, it will require a very hard wind to blow them over, and if the caps are blown off, they should be promptly replaced. The standard sheaves, if wet, should be separated, or, in twos, stood upon end, dried and again placed in the shock. Thousands of bushels of grain are every year wasted in this State for want of proper attention to these simple but important directions.

A capital definition of good farming was given by a Mr. Kane, at an agricultural discussion in England. He said he fed his land before it was hungry; rested it before it was weary ; and weeded it before it was foul.

## Insect Foes of the Wheat Plant.

Fortunately for our farmers and our State, the wheat crops of Wisconsin have not yet been made the prey of the tiny but terrible insect foes, which, in other States of the Union and in other countries of the world, have so often made futile the best efforts of the agriculturist. Still, we have no immunity from their attacks at any time, and so long as they are committing such ravages in our sister States we cannot but feel a deep interest in their character and habits, and the best methods of preventing their inroads upon our own fair fields.

For the descriptions which are here introduced, and especially for the illustrations, we are under obligations to the able author and the enterprising publishers of "The Wheat Plant, its Culture, Diseases, etc.,"-a work
which we have several times taken occasion to commend, and which we more highly esteem the more we have occasion to test its value.*

## the hessian fly.

The Hessian Fly (Cecidomyia destructor) is believed to have been introduced into this country by the Hessian allies of the British troops in the year 1776, but was known on the European continent long before that period.

From Long Island, where it was first found in the United States, it has gradually made its way westward, until it has finally reached Iowa and Minnesota. It has never yet attacked all portions of our country simultaneously, but rather particular and often widely separated districts, continuing its ravages for two or three years and then disappearing for a time and making its attacks upon other localities.

As seen in the accompanying cut, and as

Figs. 1, 1, Male Fly, natural size and magnified. Figs. 2, 2, Female, natural size and magnified. 3. Larve in "flax seed" state. 4. Dorsal view of larva magnified. 5. Ventral view of larva magnified. 6. Lateral view of larva magnified. 7. Pupa. 8. Base of leaf sheath swollen from worms having lain under it, and perforated by parasites coming from these worms. 9. Place where the larve are found in autumn. a. Stalk of wheat attacked by the Fly. b. c. Healthy wheat plant.
accurately described by Dr. Asa Fitch, the male and female have the following characteristicts respectively :

Female.-Head and thorax black. Antennæ

[^7]
about half the length of the body and composed of sixteen joints, each with a cylindric oval form, the length being about double the diameter; each joint clothed with a number of hairs surrounding it in a whorl; joints separated from each other by very short, translucent filaments, having a diameter about one-third as great as the joints themselves. Thorax oval ; poisers dusky. Abdomen of a dark color above, more or less widely marked at the sutures or joints, with tawny yellowish lines and furnished with numerous fine, blackish hairs. Ovipositor rose-red. Wings slightly dusky. Legs pallid brown, feet black. The several pairs of legs equal to each other in length, being about one-fifth of an inch long when expanded.

Male.-Antenna three-fourths the length of besides the terminal one, which consists of a transversely oval joint, giving off two robust processes, armed with incurved hooks at the tips. In the living specimen the abdomen is of a brownish-black color, more or less widely marked at the sutures with pallid yellowish or smoky whitish lines.
The female deposits her eggs between the minute ridges of the blade in the early stages of growth. They appear as minute redish specks.

The fall-deposited eggs, hatch out a white maggot in one to three weeks, which makes its way down between the leaf and stem to the first joint, and there remains as a dormant larva, enduring the extremest cold, until in the spring it is transformed into a pupa or chrysalide (7), which, after ten or twelve days, bursts and allows the perfect winged insect to emerge, deposit its eggs in turn upon the same or other stalks. These eggs hatch in a few days, becoming, after the transformations above described, a complete
fly about the last of July or first of August, when they are prepared to make another attack in the fall.

The spring-hatched maggots attach themselves to the second or third joint of the plant, which is better able to resist their injnries.

The damage done to the plant seems to be due more to the exhaustion of its juices by the worm than to any mechanical injury. In other words, the worm does not bore but sucks. The pressure may also have the effect to prevent a healthy flow of the sap upon which the growth and origin of the plant depend.

In a field suffering from the ravages of this insect, many of the plants or one or two stalks of a plant will look pale, withered and broken, the break occurring at the point of concealment of the worm and being due to the prevention of a deposit of the silicious matter necessary to give support to the stem.

The proposed remedies or means of preventing the ravages of the Hessian Fly are several, though it is by no means certain that any or all of them are fully adequate.

Klippart says: A fertile soil, rich in all the constituent elements necessary to a healthy growth of the wheat plant, is of the first importance.

Late sowing is good, as the fly perishes before the late sown wheat has made its appearance. But this remedy cannot be adopted with safety to the crops unless pains have been taken so to drain and manure the soil and facilitate the germination as to ensure its coming forward in good time when once sown.

Considerable importance is also attached to the selection of those varieties of wheat that tiller a good deal, inasmuch as it is very seldom that more than one stalk of each plant will be attacked.

Burning and plowing up the stubble after harvest has been recommended, but will hardly amount to much, unless quite universally practiced throughout an extensive locality.
the midge or red weevil.
The little insect (known to eutomologists as the Cecidomyia tritici) belongs as the scientific name indicates, to the same family as the Hes-
sian Fly. The name, wheat weevil, by which it is known to some persons is inappropriate, applying properly to the Calandra granaria.

The Midge is a small yellow fly which makes its appearance about the Middle of June and continues its work until the middle of July. It is less than one-twelfth of an inch in length, has a slender body, long transparent wings, large jet black eyes and an ovipositor (eggplacer) of great length and delicateness.


Fig. 2.

Figs. 1 and 2 represent the female fly and the ovipositor, both much enlarged.

About flowering time these little gnat-like creatures collect in great numbers upon the wheat plants remaining upon the lower part of the stalk during the day and sallying forth about sunset to begin their work of destruction, which they accomplish by depositing their eggs within the upper end of the glumes or kernel sheaths. Here the eggs are sheltered, hatched and nourished.

The larvæ, when they first appear, are white, but they soon become yellow. Sometimes fifteen or twenty are found upon one kernel, in which case its entire destruction is entirely certain; or rather its development is impossible, since the larvæ or worms consume all the juices that are thrown into the glume by the plant for the production of the seed. If the number of larvæ be small, however, the kernel
will be partially developed and present the appearance illustrated by Fig. 3.

The presence of the larva may be suspected in the early stages of its operations, by the yellow and faded appearance of the glumes. Fig. 4 shows the larvæ surrounding the young grain.


Having fulfilled their mission, the larva
 bow themselves up, like the measuring worm and spring upon the ground, where they conceal themselves, and in the chrysalid state spend the winter, assuming the perfect insect form as before stated about the middle of June, when they are in turn prepared for the destructive work of their "illustrious predecessors."
In making search for the Midge, it should not be forgotten that the male differs somewhat from the female-so much so as to lead those unacquainted with the distinctive marks to mistake it for a different insect. It is more rare than the female, and is distinguished by a shorter body, a less brilliant, and brownish color, absence of the ovipositor, more distinctly nervured (veined) wings, and by the spheroidal form of the little lead-like joints which consti-


Fig. 5.-male midae.
tute the antennæ (feelers) and which in the female are more elongated. Fig. 5 illustrates some of the foregoing distinctions.

How may its ravages be prevented ? This is an important question, for since its first appearance in this country about the year 1820, it has destroyed many millions of dollars worth of wheat; the annual loss by it often exceeding a million in a single State. Thus far it has not attracted much attention in the West, but this is no reason why much of the weather blasting of wheat may not be ascribed to it.
The most effective destroyers of the Midge hitherto discovered are certain parasite insects created by that same inscrutable but mereiful Providence which has ordained the law of successive destructions for the myriad races of the animal world. Some of these parasites are worthy of our special attention.

One of them is shown in Fig. 6. It is nearly of the same size and though black and possessed of four wings, four colored legs, and a more wasp-like body is often mistaken for the Midge. Cases are recorded in which because of its supposed destructiveness to wheat, its appearance has been a source of great anxiety to the farmer; whereas the observations of entomologists have shown that it was created for the very purpose of protecting the wheat against the ravages of the Midge, the Hessian Fly and other insect foes. This it accomplishes by thrusting its long lance-shaped ovipositor through the glumes of the grain, into the enemies' eggs and depositing therein a number of its smaller eggs; the very minute maggots from which, though they do not prevent the hatching of the Midge larvæ, nevertheless have their growth and development within the bodies of these larvar and finally destroy them-in the pupa state, if not before-eating their way
 out, and, themselves in process of time, becoming winged insects like those from which they had their origin.
$b$ represents the ovipositor of the Platygaster largely magthe platyaster punctiger. nified, and $c$ the more largely magnified extreme end of the ovipositor.

When the parisites are numerous, they are sure to result in a diminished number of the Midges each succeeding year until for a brief period of years they are quite run out.

But there are also partial remedies subject to the will of the farmer. One of these is the earlier or later sowing of the wheat so as to ensure the blossoming either before or after the Midge is obliged to do his work.

Another is the plowing under of the larves or their chrysalids soon after harvest; taking care not to bring them up to the surface again in the spring by too deep cultivation. It has also been recommended to burn off the stubble, and occasionally harrow the ground, thus exposing many of the chrysalids to the hot sun, which is fatal.

There are doubtless other means of protecting ourselves against this foe of the world's most valuable cereal, but it is for the entomologist and the farmer to determine what they are.

## The Cultivation of Corn.

The lateness of the season and the poor prospect for a large wheat crop should prompt every farmer who has corn growing to make the most of it by a thorough process of cultivation. The weeds should not be allowed to show their heads, and the soil should be kept well stirred, especially during dry weather. For however absurd it may appear to the unscientific farmer who has not learned the reasons for his daily practice, there is nothing truer or more easily demonstrated than that frequent stirring and thorough pulverization are the best means of ensuring a moist condition of the soil and the healthy and rapid growth of the plant. Science teaches this directly and we have so often proven it in actual practice, that we feel bound to urge it upon the attention of our readers from year to year.

Give the plow, the cultivator and the hoe no rest, has always been our motto, and its adoption by every farmer in Wisconsin would result in a large increase of all our cultivated crops.

As to the implements best adapted to the work, there will, of course, be some difference
of opinion, but the general principles which must govern may be laid down with accuracy. Our own practice has been to first go through with a harrow or small-toothed cultivator, so constructed as to allow it to run directly over the row without tearing up the corn-in which case two horses were of course necessary-or a lighter implement of like character adapted to one horse and passed between the rows. This operation thoroughly broke up the surface and destroyed all weeds that had started since the planting. We next used the shovel plow, going twice between every two rows and putting the blade in deep. This did the work well and left the soil in an excellent condition; but it involved rather more labor than was desirable, and Yankee ingenuity has more recently produced an implement capable of doing more economical work. It is properly called a Cultivator, and has three light steel blades or plows, the two posterior ones separable to a greater or lesser distance according to the width of the rows apart. We have ourself used one of these improved cultivators and found it a capital thing, stirring the soil to a considerable depth, and yet leaving the surface sufficiently level to obviate the too rapid drying in hot dry weather, and the escape of water when it rains; both of which objections lie against the old method of so cultivating as to leave deep furrows in the centre between the rows.

After the corn has attained the hight of three or four feet it should be worked more superficicially than when small, so as not to destroy the fibrous roots which at this stage of growth will have made a complete net work a few inches beneath the surface.

Concerning the practice of late cultivation our views will probably be deemed somewhat radical, but we shall not, on that account, be prevented from strongly urging the policy. We have often seen corn very greatly improved by running a light shovel through it-two furrows in a row-even after the silking out. Especially is this important in a dry season; and if the dust rise so as to nearly suffocate the plowman, so much greater the necessity for the work.

Again we say, cultivate, cultivate!

## Buokwheat Worthy of More Favor.

Despite the prejudice which exists in the minds of some vegetarians against the use of the flour of buckwheat as food for man, it is really a very valuable plant and ought to be more highly appreciated.

Introduced by the Saracens into Spain immediately after the crusade, it thence spread gradually over Europe and America, and though not grown as a chief crop anywhere, is cultivated to some extent in almost all parts of the world.

There are several varieties of the genus Polygonum to which it belongs, but the fagopyrum is the one commonly cultivated. The name Buckwheat is of German origin, the original being buchweizen or beechwheat, owing to the resemblance in form of grain to the beechnut.

If we were to enumerate the more prominent characteristics which recommend it, we would mention-

1. The lateness of the season at which it may be sown. In this climate it matures if sown as late as the middle of July or even after the wheat crop has been harvested. This is sometimes a matter of great importance when the cereals proper have partially or totally failed.
2. It succeeds well upon poor soil, even preferring a light sandy soil incapable of yielding remunerative crops of corn and wheat. It is not averse to a good soil, however, or to any of the ordinary manures. In a word, it does well on any soil except a cold, wet clay.
3. It requires but little labor to get it in, and none to cultivate it when grown.
4. It serves to cleanse the soil for cereal crops and leaves it in good condition in other respects.
5. It makes an excellent fallow crop for plowing under. This peculiarity is worthy of especial attention to those who occupy poor lands difficult to get into clover. By growing two crops in one season and plowing both in, the soil may be sufficiently enriched to yield very good crops that could not otherwise be grown. But one merely will amply pay for the seed and trouble.
6. The flour manufactured from the grain makes the best pancakes in the world, light, spongy, splendid: Mixed with wheat flour or with Indian meal, it makes good bread; and in almost any form is easy of digestion and nutritious. According to Fresenius, the grain consists:
Of organic flesh-forming matter, such as
gluten and albumen, ..................... 8.58 per cent. Of fat-for ming and heat-produ- $\left\{\begin{array}{l}\text { Starch, } 51.91 \\ \text { Pibre }\end{array} \frac{4}{63}\right.$
cing matter, ................... $\{$ Fibre, 2312 ". 2.20 ".
 of water 4
7. It makes an excellent food for milch cows, eattle generally, swine and poultry.
8. For those who keep bees, as every farmer should, the flowers afford a fine pasture.
9. With the present limited amount raised, it can be made to pay.

The quantity sown on good rich soil should not exceed two or three pecks. Poor soil will bear one bushel or more.

## Give us a Good Turnip Crop.

The root crops of Great Britain form the basis of her agricultural prosperity, constituting as they do, the best winter feed for her large stock of animals intended for the meat market, and also completing that system of rotation without which her husbandry must inevitably fail.

In this country, too, they are beginning to secure a share of the attention they deserve, and are annually growing more and more in favor with intelligent farmers.

But it is not our purpose just now to discuss the value of root crops in general-simply to urge the importance of doing what we can, this very month, to make up for the deficiencies which now appear certain in the cereal crops of this part of the country.

If in England, the Turnip is esteemed the "sheet anchor" of her husbandry, is it not reasonable to presume that it may be made profitable to us. For the fattening of cattle and sheep, there is scarcely anything better, and the amount that may be grown upon a given area of land, with good preparation and proper cultivation renders it one of the most economical of all our crops-and this, too,
independent of the advantage it brings in the improvement of the soil for grass and grain crops.

## THE VARIETIES

Are numerous, but all may classified into The Swedish and The Common. Some authors further divide the Common into Yellow and White.

Sucedish Turnips are characteristic as a class from the Common, by the darker color of their leaves, which are almost bluish; by the greater solidity of the root; by a slower growth and the ability to resist frosts ; by containing less water and being more nutritious-though their tendency is to produce fat rather than milk, as compared with the Common varieties; by being less laxative in their effect upon animals; and by leaving the soil in better condition for wheat. This is the verdict of Morton, and other English authors, and our own experience warrants its endorsement.

The Common varieties yield a larger amount per acre and are much better adapted to table use. In this latter respect the "White Russian" is so superior to all others we have ever tried that we cannot leave the subject of varieties without urging all who have not tested it to do so.

## SOILS BEST ADAPTED.

There is no soil so good as a deep, rich, and calciferous (lime-bearing) sandy loam-one which furnishes the required vegetable and mineral matter, and at the same time a porous, peuetrable bed for the unrestrained development of the tubers. A heavy clay soil, especially if wet and cold is the poorest. Soils of an intermediate character will vary, of course, in productiveness according to the presence or absence of the qualities above named.

PREPARATION AND MANURING.
Generally there is too little pains taken in preparing the soil for a crop of turnips. The old method of very carelessly plowing, sowing without the application of a particle of manure, no matter how poor the soil, is yet too common.

Some of our best adapted virgin soils may require no manure, but there are few that will
not be benefitted after having cropped a few times with wheat and other cereals.

Light sandy and heavy clay soils should be fiberally supplied with barn-yard manure; those in which vegetable matter already abounds,-particularly if wet and sour-with caustic lime.

Bone dust is a very valuable manure, and if applied in the drill, a small amount will accomplish a great deal for the crop.

## THE BEST METHOD OF SEEDING

Is with the drill. This machine is quite commonly in use for grain, and, if of suitable construction, can be readily adapted to turnip seed. Besides the convenience of depositing mineral manures with the seed and thus getting the full and direct effect of such manures, drills afford a much better opportunity for thinning out, cultivating and gathering. One team with a good drill can easily seed ten or twelve acres in a day. Two and a half pounds of seed per acre will be sufficient.

As to time, it will answer well after wheat harvest, and such fields as have not done their full duty in the production of grain may, with great propriety, be drawn upon for a liberal crop of turnips.

> "The twenty-fifth of July
> Sow your turnips, wet, or dry,"
is doubtless a rather arbitrary rule, but generally speaking, the twentieth to the last of this month will include the best period.

## Species of Clover.

Professor Beckman, in some remarks on the herbage of meadows, in the Farmers' Magazine, states that he considers the Trifolium medium specifically identical with what is usually classed as T. perenne, zig-zag, or cow-grass clover, the difference being attributable to the influence of cultivation on the former. Referring to certain descriptions, he says:-
"These show us the botanical descriptions of the two plants in their wild state; but if we take up their cultivated forms with a view to make out those differences, it is astonishing what an amount of confusica we shall get into, the fact being that the one has so merged into the other that it is oftentimes next to impossible to make out any decided botanical charac-
ters; and this is so well known to seedsmen, that they have for some time ceased to pretend to supply Trifolium medium under that name, but now adopt the term Trifolium pratense perenne, to distinguish their agricultural cow-grass from broad clover.
"We quite think the term fully justified, as there can be but little doubt that they are, after all, only varieties, and both the T. pratense and the T. medium forms become so much changed by cultivation, that if either is to possess the permanency it once did, seed must be newly obtained from the original wild sources. Still, as we meet with them in pastures, the T. pratense will indicate calcareous soils, and the T. medium no less those of a silicious nature; and they are, therefore, no bad indicia of the nature of the soil.
"The Trifolium repens is a plant of good character in herbage. It usually increases where lime has been added to the meadow, and more especially if well trodden by depasturing, and it should be periodically rolled. In laying down permanent pasture it should never be left out, and indeed this, and either of the preceding forms, according to the nature of the soil, should never be omitted.
In all examinations into the nature and condition of meadows, care should be taken to ascertain if the species be really the $T$. repens, white Dutch clover, or the T. fragiferum (the strawberry-headed species) as the latter is fond of wet clays, in which we are inclined to think it is oftener present than is generally conceived; but if depastured, its head of persistent colored calyces, which has the aspect of a strawberry, is seldom perfected; still the white flowers just blushed with pink are sufficiently characteristic.

## Facts for Farmers.

If you invest money in tools, and then leave them exposed to the weather, it is the same as loaning money to a spendthrift without secu-rity-a dead loss in both cases.
If you invest money in books, and never read them, it is the same as putting your money into a Bank, but never drawing either principle or interest.
If you invest money in fine stock, and do not feed and protect them, and properly care for them, it is the same as dressing your wife in silk to do kitchen work.
If you invest your money in choice fruits, and do not guard and give them a chance to grow and prove their value, it is the same as putting a good hand into the field with poor tools to work with.
If you invest your money in a good farm, and do not cultivate it well, it is the same as marrying a good wife and so abusing and enslaving her as to crush her energies and to break her heart.

If you invest your money in a fine house,
and do not so cultivate your mind and taste as to adorn it with intelligence and refinement, it is as if you were to wear broadeloth and a silk hat to mill.
If you invest your money in fine clothes, and do not wear them with dignity and ease, it is as if a plowman were to sit at a jeweler's table to make and adjust hair-springs.
If you invest your money in strong drink, it is the same as turning hungry hogs into a growing cornfield-ruin will follow in both cases.
If you invest your money in every new wonder that flaming circulars proclaim, it is the same as buying tiekets at a lottery office, where there are ten blanks to one prize.
If you invest your money in the "last novel," it is the same as employing a tailor's dandy to dig your potatoes.- Valley Farmer.

The Glory of the Farmer.-His glory is to create and construct. Other men may fetch and carry, and exchange; all rests, at last on his primitive action. He is close to nature. The food which was not he makes to be. All nobility rests on the use of land. Tillage is the original calling of the race; many men are excused from it, yet if they have not something to give the farmer for his corn they must return to their planting. The farmer stands nearest to God, the first cause.-Edward Everett.

## Market Fairs.

The advantages of Market Fairs are thus concisely stated by the Massachusetts Board of Agriculture, after a thorough examination of the system:

1. Greater convenience in buying, selling and exchanging.
2. Greater saving of time.
3. Cash for all things sold.
4. The removal of middle men or speculators, giving better prices to producers and less expense to consumers.
5. The abolition of the peddling system.
6. More uniform knowledge of market prices.
7. Increase of social intercourse among farmers.
8. Increase of knowledge by comparison and experience.
9. Greater division of skillful and profitable agricultural labor.
10. Stimulus to higher culture and better products.
11. Bringing the remote farmers into competition with those nearer.
12. Greater facilities for emplying laborers and transacting business generally.

## Hymn of the Harvesters.

We gather them in-the bright green leavesWith our scythes and rakes to-day,
And the mow grows big, as the pitcher heaves, His lift in the swelt'ring hay.

0 ho! a-field! for the mower's scythe, Hath a ring as of destiny,
Sweeping the earth of its burden lithe, As is sung in wrathful glee.
We gather them in-the nodding plumes of the yellow and bearded grain, And the flash of our sickles' light illumes Our march o'er the vanquished plain.
Anon, we come with a steed-drawn carThe cunning of modern laws:
And acres stoop to its clanking jar, As it rocks its hungry jaws.

We gather them in-the mellow fruits, From the shrub, the vine and tree, With their russet, and golden, and purpie suitd, To garnish our treasury.

And each has a juicy treasure stored, All beneath its painted rind,
To cheer our guests at the social hoard. When we leave our cares behind.
We gather them in-this goodly storeBut not with the miser's gust;
For that great All Father we adore, Hath but given it in trust.

And our work of death is but for life, In the wintry days to come:-
Then, a blessing upon the reaper's strife, And a shout at his Harvest Home.

## Practical Utility of Agricultural Societies.

*     *         * There are self-conceited men in every community, who never attend a Fair or Cattles Show, who shrink back with holy horror when invited to become members of such associations, and who oceasionally offer pharisaical thanks that they are not such fools as to join a company of horse jockeys and sporting men. They affirm, with comic gravity, that the farmers are independent men, that individually, they are able to take care of themselves, that agricultural societies are the biggest kind of humbug, and that their prime object is to furnish office and premiums to a few idlers. Such men may think themselves honest, but they are in fact self-deceived. True, societies are often mismanaged, but this is no argument against their utility. They misapprehend both the character and spirit of farmers' societies. They take such selfish and one-sided views of the subject, that nothing is satisfactory unless it brings personal emolument. Patriotism is a word they may utter, but its meaning they do not comprehend. If the same principle were carried into religion and politics, there would be neither higher nor lower law. Barbarism would soon take the place of civilization and human life would be without protection.
Agricultural societies, we affirm, are patriotic institutions. They have done, and are doing great good to the farming interests. Farmers, as a class, are isolated men, and have too little intercourse with each other. Associations for collecting facts, comparing experiences, and
diffusing information, are indispensable to their progress. Meny of the improved farms, much of the excellence in farm stock and implements, all over the world, are directly traceable to these societies.
Until recently, farmers were delvers, men of routine, workers without ideas. Following the beaten tracks of their fathers they were led to believe that muscular energy alone, was necessary to success. The bigger the ox one could knock down with his fist, the better the farmer. Previous to the present century, the advantages of agricultural societies were not felt, and where was the progress? The world, with its teeming millions engaged in agriculture, toiled on for more than 5000 years, without making the advancement of the last 50 .
The backwardness of farming in Wisconsin is attributable to the obstinate conservatism of some of her cultivators, brought with them from the eastern states, where such things are done in spinning-wheel style. There is no class of men better in their breeching than old school farmers. They hold back instinct as well as principle. Like snags in a freshet, only give them a footing, and they try to turn the current.

But the river of agricultural progress, we rejoice to say, is rising. The farmers are beginning to think. Few ideas and suggestions are floating everywhere on the surface. Agricultural journals, like eddies, are disseminating facts collected from the common storehouse of organized societies. Some of the details of agricultural societies in the progress of the race may be changed, but the first great patriotic principle, never. The time is coming, when the farming interest as a power, by means of organization, will be felt, when it shall have a state recognition and patronage, commensurate with its importance and needs. Intelligent association will be the motor.-Brodhead Weekly Reporter.

Drying Rhebarb.-Rhubarb dries very well, and when well prepared, will keep good for an indefinite period. The stalks should be broken off while they are crisp and tender, and cut into pieces about an inch in length. These pieces should then be strung on a thin twine, and hung up to dry. Rhubarb shrinks very much in drying-more so than any plant I am aequainted with, and strongly resembling pieces of soft wood. When wanted for use, it should be soaked in water over night, and the next day simmered over a slow fire. None of its properties appear to be lost in drying, and it is equally as good in winter as any dried fruit. Very few varieties of rhubarb are suitable for drying, as most of them contain too much woody fibre. The best variety of rhubarb for any purpose is the Victoria, when grown in a suitable situation. The Mammoth is worthless, owing to its fibrous nature, as are also some other kinds.-Prairie Farmer.

## STOCK REGISTER.

## Better Horses---The Thorough-Breds.

We have long been intending to say a few words concerning the improvement of our stock of horses in this State-not that we are ashamed of Wisconsin horses when compared with those which characterize the other Western States, but that we see how easy it would be, with the
beginning already made, and with the favorableness of our climate, to place our enterprising young State in the front rank with such as are already distinguished for the production of fine horses.

Thus far, our efforts at improvement in the breed of our horses has been chiefly confined to the introduction of the Morgans and Black Hawks. These are excallent horses for certain kinds of service, and are, moreover, handsome


BEST THOROUGH-BRED STALLION AT THE STATE FAIR, 1860.
and of a pleasant disposition. They posses unmistakable marks of blood, and have done much to improve the scrub race which a few years ago was almost the only horse to be found. They are small, however, and are wanting in both the power and speed requisite to some uses. By careful breeding they may be modified, it is true, in respect to size; still it is probable that an effort of this sort would unfavorably influence them in some respects, in which, for particular uses, they are almost faultless. It would seem best, therefore, to perfect them, as far as possible. by a judicious system of breeding, and for the ser-
vice to which they are not adapted look to some other strain or breed.

Unfortunately there is an idea prevalent among farmers that blood is no particular advantage to them, and consequently an indisposition to obtain the best stallions for the improvement of their stock. Price of use has too often been the first, and in many cases almost the only, thing considered. The result has necessarily been an inferior strain of horses, ugly in form, wanting in all desirable qualities-such as strength, endurance, action.

But there is cause for congratulation and en-
couragement. Within the last thirty years great improvement has been made. Some of the finest horses of the world have been introduced and the effects of the diffasion of their better blood is now visible in all parts of the country. While we rejoice at these improvements, however, let us not forget that the work is but just fairly begun.

What we especially want in Wisconsin and throughout the West is a larger admuxture of the thorough-bred with our best stock of common horses, themselves derived, more or less, directly from the bsst English and Canadian stock.
"But for our use, as farmers," says one, "the ordinary horse will do just as well as your thorough-breds. We plain, hard-fisted men of the country can't afford to risk twenty, thirty, or fifty dollars in an attempt to get a colt which may possibly trot a little faster, but will most likely be good for nothing else. We are not sporting jockeys, ready to stake our all upon a thing of mere chance !" Hold on, ncighbor. There is no mere chance about it. If you employ a fine-blooded and well-bred horse you will just as surely get a better colt, as "like produces like;" and you stand a chance to get one many times more valuable than any or all you may have on your farm. Two, five, ten, and even twenty thousand dollars have often been paid for horses in this country within the last few years, and even as many hundreds would pay a better profit on the money invested, than the miserable "cocktail" or "plug" that is contemptible to look upon, that requires goading at every step before the wagon or plow, and that can only travel 45 miles in a day and then sinks in strength, flesh and action, in spite of all that you can do to keep him in good condition.

The truth is, blood will pay, whether on the turf or in the field.

Something has been done in this State, by a few enterprisingstock men to improve the blood of our horses, and while the great majority of the famers ignore the efforts of these men, we feel like thanking them in name of all horsedom and in behalf of the better system of agriculture that is to be, for the spirit and zeal they have manifested for the advancement of this very important branch of husbandry.

Prominent among these gentlemen are Messrs. Simon and Henry Ruble, of Beloit, owners of the fine thorough bred stallion illustrated above, owners also of "Buckshot," the thorough-bred which took the first premium at the State Fair of 1858, and of other fine horses.

Princeton was foaled in 1852, the property of John M. Clay, of Lexington, Ky. Sired by Imported Yorkshire ; he by St. Ntcholas. According to the American Turf Register, he has likewise a pedigree on his mother's side of which any blooded horse might well be proud. Color, a beautiful chestnut sorel ; hight. 151/2 hands ; weight, 1050 pounds; and he is in all respects a splendid appearing horse; while the history of his many brilliant performances on the turf and his successes at State and National Fairs give evidence that he is made of the right kind of stuff.
The Messrs. Ruble have done good service to the State in importing him from Kentucky, and we trust their encouragement by the public will be such as to warrant other importations from the, Hoe-cake State, which for many years has been famous in this country for its wellbred horses as well as for its noble Durham cattle.
Mr. J. V. Robins also has a fine young horse from the same locality. But all told, the number of this class of horses in Wisconsin is very small.
If we could bring about a more extensive exchange with Kentucky, giving for her thorough breeds, which we very much want, some of our own Margans and Black Hawks, which are needed by her, the arrangement would be an admirable one all round. Will not our stock men look to this matter?

Be Kind to the Dumb Beast.-It is an evil thing needlessly to cause a human being pain, but it is a fearful thing to inflict it on a eature that cannot speak, for it must be that there is always somewhere a tongue to tell, a mysterious witness to bear testimony.

Scratches on Hozses.- Wash their feet and legs clean, and when dry, paint them with white lead. One or two dressings will suffice for s cure.

## Pork-Raising Profitable.

On the pork question, so far as the eating it is concerned, we are frank to admit that we are a Hebrew of the Hebrews. But the question of profit is another thing; and as it is our business to look to the pecuniary as well as the physiological and spiritual interests of our numerous farmer readers, we cannot consistently withhold the opinion that pork-raising may be made to pay in Wisconsin quite as well as nothing but wheat.

A correspondent of an excellent country paper -the Baraboo Republic-is of the same opinion, as will appear by the following extract:
"I think pork really costs less for what it brings than any other farm product, except colts and mules, and perhaps they are not an exception. The labor of rearing hogs and fattening them is all performed as 'chores,' and does not hinder a man's day's work. And the growing of corn is at a season in which harvesting and baying are not interrupted, and so is the husking and the cribbing.
*We all know that harvesting and threshing are onstly affairs; not so with 'harvesting pork the ruffage pays the cost aud labor of that. And then the cost of transporting a load of pork to market, whether far or near, is only one-fourth the cost of transporting the same value of wheat, and the value of a lond is four times the value of a lond of whent-that is, one lond, or twentyfour hundred, at five dollars per hundred, is worth four loads of wheat, each of forty bushels, at seventy-five cents per bushel, and the transportation of the whent costs four times as much money,time and labor as one load of pork. The average price of pork for the last sixteen years in Wisconsin generally, I think, has been highly remunerative, and no donbt but it will remain so for a long time to come."

Slobbersin Horssg.-Green Burdock leaves it is said, will cure the s?obbers in horses in fifteen minutes, if he will eat them, as he usually will, if thus troubled.

Whipping Oxan.-Thoughtless men will whip. whip, whip. They do it from a habit-a very bad habit; and we tind it difficult to correct that habit. We are trying to teach our hired men better manners than to put on the whip befire giving an invitation to the brute animals "to go on "We have oren that will "go" as soon as they are invited. withont the endorsement of the whip. Yet we find it a difficult matter to control the whip. It is surely a savage practice to npply the lash before inviting the an muls to move by the proper words.-

PG The Fife Journal says the milking of cows on the eve of calving, exclusively in the morning, will ensure the delitery of their young in the day time, and thus save night watching on the part of the careful farmer.

Profit of Sheer Farming.-A correspondent of the Columbus Field Notes, who keeps an account with his sheep, says, "the increase of my flock and the wool makes a profit of about three hundred dollars a year, from 112 acres of land and about 20 acres of that in woods, besides keeping enough other stock for my own use I consider sheep the most profitable stock that I can raise; they give sure and quick returns."

Heaves.-The Farmer and Gavdner gives the following as a cure for the heaves in horses : Take smart-weed, steep it in boiling water till the strength is all out; give one quart every day, mixed with bran or shorts, for eight or ten days. Give green or cut-up feed, wet with water, during the operation, and it will cure.

## Remedy for Garget in Cows.

I had, a few days since, a new milch cow whose bug was very badly caked-so much so that the usual remedies of cold wnter, soap-suds, spirits camphor, \&e., had no effect upon it. I asked our family physician for a prescription, who gave me this: 1 part aqua ammonia; 2 parts sweet oil, well rubbed in, twice daily. In two days a cure was effected.

W, J. Petteb.

## THE POULTERER.

## The Dorking Fowl.

For size, handsome form, and beautiful plumage, there is scarcely any fowl superior to the Dorking. With short legs, a full, brond breast, a weight of body equal to five to ten pounds, a thick coat of variegated feathers, delicate head and a splendid comb, they are the beauideal of the enthusiastio breeder.
The original color is said to have been white; but they are now oftener variegated with white, gray, brownish red, green, and yellow, though not unfrequently found with a uniform shade from light cream color to almost black.
Their legs are always either white or flesh
colored, and each foot is provided with five, instead of four toes, the fifh protruding from the same root as the heel toe in ordinary varieties.

The cock-of which a fine specimen is seen herewith-is a most magnificent fellow, worthy to be king of the best stocked poultry-yard.

## The Poultry Question.

At a recent meeting of the American Institute Club, the following interesting paper was read by Mr. Carpenter :

There are but few who are aware of the great importance of poultry to the inhabitants of the United States. It is estimated that there are annually raised and consumed for food in this
 country one hundred millions of fowls, affording a luxury for the table that could hardly be dispensed with. Admitting this estimate to be true, and that the stock preserved for layers is equal to one-half the amount raised, which would make fifty millions of hens; it is estimated that the production in eggs will average for each hen 75 cents, producing from eggs alone $\$ 37,500,000$ One hunired millions of fowls for food, at 20 cents each, $\$ 20,000,000$. making a total of 857 ,500,000 . It can be proved that much better results may be obtained from hens than is shown in the above estimate. A good hen will lay, if provided with proper food, two hundred eggs in a year. Valued at one and a half cents each, this would show a result of $\$ 3$ for ench hen. A friend of mine, having a stock of 45 hens, determined to keep a correct account of the number of eggs laid in a year; the result was 6,036 eggs, which is 134 for each hen; these sold for $\$ 90.54$, beside raising 80 chickens. The hens consumed 56 bushels of mixed grain, costing 30 cents per bushel, beside vegetables from the garden, and scraps of meat, that were valued at $\$ 10$-making a total expense of $\$ 54.30$, showing a net profit of \$35.74. By experiment it has been found that large companies of fowls do not do as well as a smaller number; fifty is found to be about the right number to produce the best results. It is said that fifty hens will produce more eggs than twice that number if they are allowed to run together. When a hundred hens are kept on the same farm, they should be divided into two comphnies Great loss is sustained by neglecting to furnish good warm apartments for the hennery, which should alWays front the south, and a portion of the front should be in glass to give plenty of light and warmith to the apartment by the rays of the sun.

It is also important that the roost should be properly constructed; the best plan is to lay the poles similar to a flight of stairs, commencing about two feet from the floor and continue them to the peak; the poles should be about two and a half inches in diameter, and always cut from the woods, and the bark left ou. Great care should be taken to eradicate lice from the hennery; they are destructive to a healthy condition of the fowls; when infested with lice they will not lay well, and these little pests often become so numerous that their attacks so exhaust the hens that many of them die.

As a preventive in the hennery, the roosting poles should be well greased at the ends where they rest on the uprights; grease should frequently be put in these joints ; the house should be thoroughly washed with lime, spring and fall; and a box four feet square and ten inches deep should always be provided for the hennery, and kept hulf full of wood ashes; this is highly necessary for winter, as they delight to wallow in this, and at the same time it will free them from lice. Feed, and the manner of feeding, is another important consideration. A box should be provided for feed in the hennery, and should always contain something for them to eat ; their feed should be varied; no one kind should be given them for more than a week at a time The number of eggs depends much on the feed that is given them. It is only in winter that poultry needs our especial care. It is highly necessary that they be provided with meat and vegetables; nature does this for them in sum-mer-the angle-worm and insects for their meet, and the grass for a vegetable diet, is abundantly supplied These are as necessary in winter as in summer, and should always be supplied, if we expect them to furnish us with eggs. For
winter use a few cabbages should be stored for them, which they are very fond of ; also onions and carrots are good ; pigs' and sheep's harslets may often be furnished on the farm. A very excellent article may be procured here from packing houses. called scrap-cake, at a very cheap rate. With this attention, hens will lay as many eggs in winter as in summer. It is said that two eggs furnish as much nutriment as a pound of beef. Eight eggs weigh one pound; a good hen will produce her weight six times in eggs in one year. She does not lay as many the second year, and the third year nearly censes laying; therefore, hens should not be kept more than one year on the farm for profit. Eggs should be set in March ; these chickens will commence laying in August, and then all old hens should be sent to market. Great improvements have been made in the size and quality of fowls within the last few years. The itroduction of Shanghae fowls has done much to improve the size and quality of our native stock but the pure Shanghae cannot be recommended as a profitable variety. I have a cross between the Shanghae and Leghorn, which is a great improvement. They are of fine size, great layers, and very superior for the table. There is a vast difference in fowls, as is known by every one who has paid any attention to the subject; while some are hardy and proftable, others searcely pay their way under the most favorable circumstances and the best,management possible. It is always a judicious plan for the farmer to keep a number of fowls of some kind on his premises, as there is always enough waste or spare matter to feed them ; and, besides, they are serviceable in protecting the crops by destroying numerous insect depredntors. To render poultry profitable, it is essential that great care should be exercised not only in the selection of valuable breeds, but in feeding and raising the young. If we are remiss in these points, no profit will result from the enterprise.

Barley yor Hens.-There is no one grain so well suited as food for hens Barley when fed with oa's and corn, will offen be gathered first by the fowls, and hens fed with more or less barley, are said to lay more freely. We have used barley and peas mixed, and our return of eggs is evdence of the suitableness of the food. $-E$., in Ohio Farmer

Rose Bugs.-I have never seen a better way to rid trees of these pests than to smoke them. Take an iron vessel, put in coals, and set it under a tree on the head of a barrel and then put in some scraps of leather; as this smoke is very offensive to them, they will soon leave the tree; by giving it a good smoking they will not return. These fellows, as soon ns they have shed their yellow wings. attack horses; being the small horselly which is so troublesome through the summer.-Correspondent of the Neto England Farmer.

## THE BEE KEEPER.

## The Honey Bee.

Says the American Bee Journal: Never has there been a creature, unless it be perhaps the sweet-toned nightingale, that has lent inspiration to the poet's muse more frequently than the little honey bee. And wherefore has she received such tributes of praise? Let us answer in the words of one of her admirers :
" Not a flower can be found in the fields, Or a spot that we till for our pleasure,
From the largest to least, but it yields The bee, never wearied, a treasure.
Scarce any she quits unexplored, With a diligence truly exact;
Yet, steal what she may for her hoard, Leaves evidence none of the fact.

Her lucrative task she pursues, And pilfers with so much addrese, That none of their odor they lose, Nor charm by their beauty the less.

Not thus inoffensively preys The canker-worm, in-dwelling foe:
His voracity not thus allays The sparrow, the finch, or the crow.

The worm, more expensively fed, The pride of the garden devours; And birds pick the seed from the bed, Still less to be spared than the flowers.
But she, with such delicate skill, Her pillage so fits for our use,
That the chemist in vain with his still, Would labor the like to produce.

Then grudge not her temperate meals, Nor a benefit blame as a theft,
Since, stole she not all that she steals, Neither honey nor wax would be left." Cowper.

Poets are often apt to exaggerate, but in the case of the bee we cannot lay this fault to their charge. There can be no doubt that this insect is, in every respect, one of the most interesting of all living creatures ; and as the little denizen of the hive is the companion of man, and renders him essential service, it is but natural that it should receive a large share of his attention. This too must be our excuse for endeavoring to give fresh interest to the story that has already been related by so many able writers.

## How to Manage Bees Without Getting Stung.

It is not generally known how to manage bees without having them cross, and sting the person managing them. Take an old pan and put some fine chips in it and take some coals. and make a good smoke; now raise up the front side of the hive and blow the smoke among the bees until they run up into the comb, and they will at once commence filling themselves with honey. Now you can take your hive and turn it over; place a box or half bushel over the hive, bottom up; wind a sheet or some
other cloth around, so as to prevent the bees from coming on to the outside of the hive and stop the common entrance. Now, rap smartly with the stick in each hand on all sides of the hive for about ten minutes; unwind your cloth and take off your box or half bushel gently, and set it up edgwise against the fence or some convenient place; it now contains the queen and a large share of the bees. This done, you can cut out comb, examine, take out honey, clean out the moths, or do anything necessary without the least danger of stings. Or you can stir up the bees in the box or half bushel, with your hand, a table spoon or anything convenient, and find the queen; or you can set the old swarm on the stand where it formerly stood, take your bees in the box and hive them in an empty hive and set them two or three rods from the old hive, and you have as good a swarm as though they swarmed naturally. If you drive them for the purpose of examining the old swarm, after the examination, empty the bees into the stand by the old hive, and they will soon find their way into the old hive.

Bees are never cross when they are filled with food. If bees are inclined to be cross when they swarm, after they have clustered, sprinkle them plentifully with sweetened water, you will see the effect immediately.

On Wednesday, the 29th day of May, 1861, I had a weak swarm of bees, and my other bees commenced robbing them. As soon as I discovered it, I drove about six quarts of bees from a strong colony that were hanging out; found the queen and returned her to the old stock; then I took the weak colony and smoked them so as to prevent their being cross, and took the six quarts of bees which I took from the strong colony and put them into the weak one. This was just at night; on the next morning the robbers were on hand, but they soon found the reinforcements too much for them. Now (June 2nd) my weak swarm is as strong as need be. The reinforcements work just as though they always lived there.

I have tried patent humbug hives sufficient to satisfy me on that head. The Langstroth hive I have not tried; if they can be fixed so
as to winter the bees well, they are constructed on the most nearly correct principle of any that I know. Yours, \&c.,

Elisha Gallep.
Prasdon, Wis., June 2, 1861.

## Young Queens,

The proceedings of a young queen are singular. After leaving her royal cell, the first effort of a newly hatched queen is, by teeting or piping, to incite the workers to destroy all the embryo rivals which other royal cells may contain. Not till this is accomplished does she make her hymeneal excursions. But if the weather is remarkably fine, pasturage abundant, and much vacant room in the hive, it occasionally occurs that the zeal for honeygathering overpowers the swarming propensity of the workers, and some of the embryo queens are permitted to mature. The first emerged queen will then fly out to meet the drones, and drone brood will be carefully fostered. Such cases, however, are rare-though they serve to establish the rule that young queens will not make their excursions till all rivals are disposed of. The same thing takes place, if a virgin queen confined to a cage be suspended in a hive containing one just emerged from her cell. The latter will hot leave the hive, though at liberty to do so, till her fancied rival is removed. A different result sometimes occurs when a strong second swarm, which happens to be accompanied by two queens, is placed in a large oblong hive. Here the swarm may divide into two parts, each retaining a queen, and the one take up its abode in the front, and the other in the rear part of the hive. Each of these queens, thus situated, will issue, and if fecundated, commence laying. The singularity in such case is that the queen and workers of each portion will make peaceable use of one common entrance.

䏦 Young queens do not usually make their hymeneal excursions till the eighth day after leaving their cells; sometimes, though seldom, on the fifth day; and early in the spring commonly not till the tenth or twelfth day. Very small queens, or such as were bred in unusually small cells, are still more dilatory.

Young queens which were unsuccessful in meeting drones, and have once commenced to lay drone-eggs, will not afterwards repeat their excursions. If a second swarm be put in a hive furnished fully and exclusively with worker-combs, a young queen may be confined to it for many weeks without beginning to lay drone-egge. Nay, she may still become fertile, if permitted to fly, after a confinement so prolonged that it would seem to render such a result utterly hopeless.

## THE HORTICULTURIST.

## The Gardener and the Mole.--A Fable.

BY W. 8. LANDOR.
A gardener had watch'd a mole, And caught it as it left its hole,
"Mischievous beast!" cried he, "to harm The garden as thou dost the farm ! Here thou hast had thy wicked will Upon my tulip and jonquil,Behold them on this tumbled bed, Dishonor'd, drooping and half dead I"
The mole said, meekly, in reply:
"It was my star, it was not I.
To undermine is mole's commission, We hold it justly from tradition, And all the earth that lies near ours Is given by the Higher Powers.
We hear of conies and of hares, But when commit we thefts like theirs? We never touch the flowers that blow, And only bulbs that luck below T is true, where we have run, the ground Is raised a trifle-not quite sound: Yet after a few days of rain, Level and firm it lies again. Wise men like you will rather wait For these than argue against fate, And quarrel with us moles because We simply follow Nature's laws. We raise the turf to keep us warm, Surely in this ye see no harm; Ye break it up to set thereon A fortress, or perhaps a crown. Ye in the cold lie all the night Under thin tents, at morn to light. Neither for horn'd or fleecy cattle Start we to mingle in the battle, Or in their pastures shed their blood To pamper idle churls with food. Indeed we do eat worms-what then? Do not these very worms eat men? We never kill or wound a brother; Men kill by thousands one another; And, though ye swear ye wish for peace, Your feuds and warfire never cease." Such home-brought truths the gardener, Though mild by nature, could not bear. And, lest the mole might more have said, He cropped his head off with his spade.
[From the forthcoming Report of the Wisconsin Fruit Growers' Association.]

## Grapes in Cold Vineries.

by jomi c. ure, of the grapeton gardens, near chicago.
THE BORDER.
I have a sandy soil. In making a vine border, I never allow its depth to be more than two feet, which I place above the original surface. This will leave the surface of the border elevated twenty-four inches above the surrounding ground, giving partial drainage.
I put the richest soil near the surface; the roots seek it, or are content to feed in it, and are more directly under the control of the gardener. If the old method of trenching the ground, burning carcasses or other putrid matter, \&e., be adopted, the roots go down, away
from the sun and air in search of food; and when it is desired to cheek the growth in the fall, by withholding water or moisture, and lowering the temperature, in order to ripen the wood before winter, it is found more difficult to do it. The roots are not so sensitive to exterior influences. The importance of a well ripened cane cannot be over-rated. If ripe, a cane will withstand a great amount of freezing, and unless it is well ripened, we need not look for much suceess in vine culture.
The soil to be used in making a border will depend upon circumstances. I will give an instance: On the 28th of May, 1847, I agreed to erect a small grapery for J. N. Arnold, of Chicago. It was not desired to incur any expense that could be saved. I had no compost heap to make the border from. The site chosen for the vinery was the south side of a barn; the soil, lake shore sand. I sent a team to haul the top spading or surface of the black prairie soil. As it was dumped on the surface of the border, I mixed some fresh barn yard manure, and a few bushels of lime and ashes from a soap factory with it. After the vines were planted I procured ten bushiels of bone dust which came from a button factory, which I sprinkled upon the surface and raked in and pulverized. This produced the best of results. But if I had time to prepare compost, I should certainly do so. When a vinery is to be erected on short notice-as has been the case most frequently in my experience-the above mode of making a border will be found to answer.

As the border decomposes and settles, a top dressing of compost may be given. It may be made of ten wagon loads of prairie sod cut four inches deep, put in a heap, mixed and cut fine to be kept moderately dry, and worked with three or four bushels shell lime, slaked with from one half to one bushel of coarse salt dissolved in water, or about the same proportion of pickle. The salt kills grubs or insects in the compost. To the above add six to eight bushels of unleached ashes, or twelve to sixteen bushels of leached, all the soap suds from the house. Do not turn or work the compost when wet. If you do, it becomes like clay
worked for brick. To the whole add two or three loads of barn-yard manure.
I have hitherto recommended the use of salt, lime, and ashes, applied to the surface of the border without being mixed in compost. I have used them thus. But it is better that the inexperienced mix it with the compost. If oyster shells or bones can be got easily and crushed or broken, a few barrels may be added with advantage for a permanent border compost. the border outside.
Vine borders should be made to extend outside the house. I make it five or six feet wide outside, when it is practicable to do so, and extend it annually, until it is twelve or fifteen feet wide, sloping from the wall of the vinery down to the surface of the adjoining ground. The roots of the vines find their way outside the vinery under the cells and luxuriate in the outside border.
If then there is three or four inches of compost scattered over the surface, although the border be poor, the compost will be given the soil in the form of liquid, washed from it by the water applied.


THE VINERY.
The above drawing represents the plan of a small vinery made by myself in 1857 , which will serve to give the reader an idea of the best and cheapest mode of constructing such a
building. Its reputation is established, it having been in competition with several very expensive vineries, and receiving the premium over them all, not because of its cost and beauty, but because of its practical utility, demonstrated by the crops grown in it.
The following is the description of the drawing $A$, by which the amateur and his carpenter may make one very cheap: 1 , cap board for the upper sash to slide under. 2, upper sash with four small rollers, to facilitate sliding, and one small flat iron bar across and under the center, sunk into the sash, flush with the surface, to strengthen it. 3 , lower sash, eleven feet long, three feet six inches wide; the upper sash slides over it. 4, front sash in two divis-ions-the upper portion stationary, the lower hung with hinges to afford ventilation at certain seasons. 5, Post or stud, from the ground to the rafters, from one inch to two and a half inches square, on which to train the center row of vines, as seen in the drawing B. 6, post or stud four by four and a half inches, on which to rest the back or wall plate. 7, elevated walk down the center, made with two scantlings and narrow pieces of boards. 8, iron rods, one foot long, to support the wire that supports the vine-may be purchased ready made, with eye on one end and screw on the other, ready to screw into the rafter, for eight cents each. 9, wire passing through the eyes of the rods (8), on which to train the vines; this keeps the 14 vines one foot from the glass and wall; wire is cheaper, obstructs less light and is more durable than wood. 10, pipe to conduct the water from the eave trough to the barrel. 11, barrel to hold water, which is kept of the same temperature as the atmosphere. 12, pipe to carry off the surplus water from the barrel outside under the sill. 13, pulley screwed into the back post, over which passes a cord (14) with which to work the upper sash, for purposes of ventilation, \&ce., and fastened to a hook (15) still lower in the post. 16, trough, of zinc, tin or wood.
The size of the short front stud is two by six inches. The rafters should be two by six inches, with ways nailed or mortised to them, for
the sash to rest or slide on. The wall plate is two by six inches, with the inside edge bevelled to one inch, so that no water may rest on it.

The sill may rest upon either cedar posts or brick or stone, leaving room for the roots to find their way outside under the sill. Raise the border two or three feet above the ground level, keeping the manure near the surface, that the roots may be under your management. The above is drawn to a scale of three feet to the half inch.

Such a vinery may be built as a "lean to" against another building, and at small cost comparatively-say $\$ 5$ the running foot. It is not the most costly house that is the most profitable, but the one best adapted to our climate.
[ro ie continued.]

## Madison Horticultural Society.

This institution has been in active operation since 1858. Its beginning was small, however, and the few enterprising gentlemen who originated it have been compelled to labor zealously and persistently in order to awaken much interest in the praiseworthy and really important objects for the promotion of which it was formed. But there has nevertheless been a steady progress on the part of the Society, and the results are now apparent, not only in the improvement in quantity and quality of our vegetables, fruits, and flowers, but likewise in the horticultural taste and interest of the public generally.

At first the exhibitions of the Society, though very creditable, all things considered, and gratifying to those who have felt a special interest in the objects of the organization, were but very thinly attended. Now, the large hall -in which the exhibitions are usually held is thronged by our best citizens and the show is really magnificent. Still there are scores of citizens, such as should be expected to identify themselves with the Society, who have never done more than to attend an occasional exhibition.

If once enlisted, they could hardly fail to take a deep interest in the discussions of the members at their semi-monthly meetings and
to find them economically valuable. Public interest and a laudible pride in the adornment of their beautiful city, added to private good and that personal gratification which would result from a regular attendance, should certainly prompt them to give the Society their co-operation.

Last winter the Society obtained a charter, and will doubtless, after a time, be in possession of beautiful grounds and a building suited to its commendable plans.

The recent exhibition of plants, flowers and small fruits, was exceedingly fine, and, in consideration of the drouth, highly creditable to individual florists and to the Society.

One lady-Mrs. S. D. Carpenter-exhibited some seventy varieties, many of them rare, and all very fine indeed.

The conservatories and gardens of several others were also very worthily represented.

Would it not be well for the friends of Horticulture in all our villages and cities to organize similar Societies.

## Ravages of the Curculio.

Waupus, Dodge Co., Wis., June 15th, 1861.
Dear Sir:-I have about one hundred wild plum trees set inside my fence for shade and fruit. They will average twelve feet in diameter of the bearing wood. Last year the curculio used the fruit up. In the Fall I treated each tree to a good coat of ashes (from maple wood) as far as the branches extended. This Spring I went over the same ground with salt, and when the blossoms were beginning to show I put a peck of slacked lime around each trunk. The trees blossomed as fine as could be desired; the fruit formed, and now my trees are loaded with the article enclosed. I am out of patience. Were it not for the shade, I would dig every one up. Can you throw any light on the subject; if so, please let me hear from you.

Respectfully yours,

## Walter Burke.

Remarks.-The foregoing letter was handed us by a friend, with request to answer the inquiry. The question is one so often asked and answered that we can hardly reply with any new light upon the subject. We do not yet understand the habits of the curculio well enough to determine how its ravages may best be guarded against.

Throwing air-slacked lime on the branches at the time of the setting of the fruit, and several
times thereafter, has proved useful. Allowing swine to run in the fruit grounds to pick up the fruit as it falls, is good. Paoking the ground around the tree for some distance is also recommended. It has been observed that trees which stand near frequented paths are less liable to the attacks of the curculio.
The curculio is shy in its habits; hence the effect of many passers by is to frighten it from the tree under which a much frequented path lies. It is said, also, to rise from the earth in the Spring. The severe tramping of the ground around the tree would retard this passage. Its habit of flight is said to be nearly in a vertical direction, yet it is known, also, to move from tree to tree in some instances. Lime is offensive to it. Hence, the occasional sprinkling of the tree when the dew is on serves as a preventive. Lime-water mixed with suds of whale oil soap, onl applied with a syringe a few times early in the season, is preferred by some. The only snre way known, however, to get rid of this troublesome insect, is to spread sheets under the tree at the time it makes its appearance, shake them off and kill them.
nearly white ; fine grained; rich sub-acid flavor; growth of tree moderate; it is inclined to overbear, and at such seasons the fruit is small.

Its great value arises from its late keeping, good quality, productiveness and its habit of blossoming a week or more later than most other varieties, and thus escaping late spring frosts. It might be proper to say that the outline is from an extra large specimen. D. M.

## Chestnuts! What to Plant?

Mr. Editor:-Your correspondent in the April No advising "what to plant for timber," condemns the "Chestnuts," but does not say which or what. Now if he means the Horse Chestnut, (Æsculus) of which there are several varieties, he is perfectly right in his opinion of them as being tender, and those acquainted with them will not be at all surprised to hear his decision. The most of the varieties are but shrubs, and so classed by writers, though Æsculus Carnea makes a low tree, sixteen to twenty feet high where it succeeds, but have never seen a specimen more than half that hight in the west, and even those "grow beautifully less" every year.But with the American Chestnut (Castanea Vesca) the case is quite different. This is sometimes called the sweet Chestnut erroneously, the latter being a Spanish variety from the South of Europe. The true, edible American Chestnut, is perfectly hardy and easily grown from the nuts, and in open situation, with an abundance of room I know of no tree that will compare in benuty with the roundness and symmetry of its head. They are natives of western New York, and for aught I know, may be in some parts of the west, but I have not yet seen them. The nuts should be planted where the tree is wanted, as they are difficult to transplant, and with the ordinary care in planting deciduous trees not more than ons in fifty will live. If this is the variety your correspondent refers to, his location must be bad, low, clayey, springy and wet. They love a dry, sandy, warm exposure, and there they
will bud and blossom and in due season bring forth their fruit.

## O. S. Wileky,

Vine Hill Nursery.

## Golden Rules for Amateur Gardeners.

When watering, particularly newly planted crops, in dry weather, give a good soaking of water at the roots, and in all mild weather sprinkle over the whole plant at the same time, to prevent excessive evaporation.

Liquid Manure, for growing vegetable crops, may be given twice each week, and for developing flowers as soon as the calyx or flower cup begins to burst, it should be applied but once a week. A cloudy atmosphere is the best condition for giving water, and early in the evening the best period in summer months.

The liquid which soaks from common farm and poultry jards, with some soot added, is the cheapest. The soot is an essential ingredient as a manure, and as an antidote to insects.

Soft Wuter.-Where rain or soft water is not procurable for watering plants, it should be known that caustic lime is a useful element in reducing its hardness. The proportions are, one of lime water to five of common water to the same degree as that of water after being boiled; or one pound of chalk calcined will produce nine ounces of caustic lime, which will make forty gallons of lime water, and be sufficient to mix with five hundred and sixty gallons of ordinary water.

Bone Dust, mixed with dry sifted loam or soil, and sown thickly broad cast, (with after-rollings) forms an excellent ingredient in restoring and quickening the verdure of decaying grass plots in gardens and pleasure grounds, \&c.

Mixing a small portion of pure bone dust in the soil in which various plants have been grown has proved very beneficial, and caused them to produce stronger and more healthy growth. The effect is particularly noticed in plants of a slender, delicate habit. By thus enriching the soil it was proved that plants thrived in smaller pots better than usual, and did not apparently suffer in the same degree for want of shifting to larger pots. As a fertilizing agent, (in due proportions,) it appears to be applicable to a greater variety of plants than almost any other yet noticed, by acting as a mechanical agent in adding a greater porosity to the soil by slower decomposition.

Surface Manuring with manure or enriched soil is of great advantage, and essential for ensuring good crops on poor soils.
Surface Horing among all crops should, for its benefits, be uniformly attended to in admitting the free action of the atmospherical agencies of light, heat, \&c., upon vegetation, and without which, in a proportionate degree. plants will not grow, flowers will not exprnd, nor fruits ripen

Clearliness, from all weed and rubbish, should be considered as essential among growing vegetable crops in the kitchen garden, as among the more fragile productions of the flower garden. In both cases every green leaf of a weed or
intruding plant is absiracting the " life blood" of the sorl, both from the present and following crop.

## How the Japanese Restore Flowers.

A Nagasaki correspondent of the New York Herald writes :
After a bouquet is drooping beyond all remedies of fresh water, the Japanese can bring it back to all its first glory by a very simple, and seemingly most destructrive operation. I had received some days ago a delightful bunch of flowers from a Japanese acquaintance. They continued to live in all their beauty for nearly two weeks, when at last they faded. Just as I was about to have them thrown away, the same gentleman (Japanese gentleman) came to see me. I showed him the faded flowers, and told him that though lasting a long time, they had now become useless. "Oh, no," said he; "only put the ends of the stems into the fire, and they will be as good as before." I was incredulous; so he took them himself, and held the stems' ends into the fire until they were completely charred. This was in the morning; at evening they were again looking fresh and vigorous, and have continued so for another week. What may be the true agent in the reviving process, I am unable to determine fully; whether it be the hent driving once more the last juices into every leaflet and vein. or whether it be the bountiful supply of carbon furnished by the charring. I am inclined, however, to the latter cause, as the full effect was not productd until some eight hours afterwards, and as it seems that if the heat was the principal agent, it must have been sooner followed by visible changes.

Sulpher vs. Vine Mildew.-As it appears that mildew on grapes is still spreading through the country, I am anxious to bear testimony to the efficacy of sulphur as a preventive and also a cure for this very troublesome disease. Last year it made its appearance here, for the first time, and, being quite unexpected, made some progress before it was perceived; after, however, a good deal of trouble and anxiety, I succeeded, principally by dusting, in saving the greater part of the crop. This year, however, as a preventive, I syringed all my vines, just previous to their expanding their bloom, twice over with a strong mixture of sulphur and water, and with the exception of two or three bunches, all my grapes have been entirely free from its attacks during the season. The following facts are, therefore, I consider, fully established: 1. That sulphur is a certain remedy for mildew after it has made its appearance, but that there is considerable trouble in its application 2. That it is a sure preventive, with but little trouble, provided it is applied with the syringe, previous to the blooming season. 3. That little or no injury is caused to the vines by its application when mixed in water.-A. Saul, in London Gardeners' Chronicle.

## MECHANICAL \& COMMERCIAL.

## Industrial and Commercial Towns of Wisconsin.

Ne. I.-Milwauker.

What Boston is to New England, or New York to the whole country, that is the city of Milwaukee to Wisconsin and the North-west.

Handsomely and most eligibly situated on the Milwaukee Bay of Lake Michigan and on Milwaukee river, its seems to have been designed by nature for the commercial metropolis of a vigorous young empire, such as the State of Wisconsin and its western tributaries are bound to become in the early future.

It is not within the scope of this article to speak of the early settlement and rapid growth of the city, nor to herald the praises of the enterprising pioneers, who, quick to discover the germ of commercial importance in the natural advantages of the location, were resolute and persevering in their efforts to realize for it that development, wealth and greatness of which these very advantages were a sure prophecy. That belongs to the historian. Our business is to make a few brief notes on the Milwaukee of to-day, its industry and its commerce-notes such as a few days of inspection and inquiry, added to the statistics furnished by the able report of the Secretary of the Chamber of Commerce, have enabled us to prepare.

Notwithstanding the retardation of growth and industrial progress consequent on the revulsion of 1857 which came like a paralysis upon all the stirring villages and cities of the country, and despite the national upheaval which to the eye of the careful observer of events has been imminent for some time, the course of Milwaukee has been steadily upward, and portions of the city evidence a degree of activity, energy and business confidence worthy of the most prosperous times. Within the past year, magnificent blocks for stores and workshops have been erected, and whole streets, subject to inconvenience during seasons of high water, have been graded up to a desirable
level and lined with buildings worthy of Broadway in New York.
as a manufacturing city,
Milwaukee will not, of course, rank with such as are eminently of that class, but she is nevertheless doing much for a young city, commercial by virtue of her location and restricted, as to manufacturing, like all our western towns, by the hindrances which naturally attach to a new country. Indeed we were surprised to find so many branches of manufacturing carried on and yet more astonished at the extensiveness of a number of the most important establishments. From the tile necessary to drain our lands, the agricultural machinery for cultivating our fields and gathering the great harvests of our State, the brick for her houses and the doors, sash, blinds, locks, cabinet ware, \&c., to finish and furnish them, to the garments, hats, boots and shoes with which to clothe a large population in city and State, and the paper for a teeming newspaper and book-making press, there is scarcely anything which she does not manufacture.

The statistics, unfortunately, are not complete, but sufficient data have been furnished to warrant the estimate at $\$ 10,000,000$ per annum, as the aggregate value of manufactured articles.

The manufacture of Brick is carried on to a greater extent, probably, than in any other city of the whole country. The superior clay from which they are made is found in immense beds within the city limits, and numerous establishments of mammoth proportions are regularly engaged in giving it form and solidity. When finished they have a peculiar creamy tint, almost unimitable by paint, which has won for Milwaukee the title of the "Fair White City," and even secured their importation at a large cost for transportation, into several cities East and West.

The Drain Tile Works are those established somemonths since by Dr. L. W. Weeks. Himself properly appreciating the importance of drainage, and anticipating a growing appreciation on the part of other intelligent farmers and gardeners, he erected works and procured
machinery adequate to a very large demand. But owing to the stringency of the times and a reprehensible ignorance of their economical value for the improvement of lands of almost every character, much of the very large stoek first manufactured is still on hand. The prices demanded are as low as any of which we have knowledge, and these immense stacks of tile, of all desirable sizes and descriptions, are a reproach to at least the farmers of Milwankee county.
Agricultural Machinery of some kinds is manufactured by a number of companies, but there is room for much more to be done in this interesting department of mechanical enterprise. There is no State in the Union that employs a larger proportionate amount of machinery for agricultural purposes, none that is better provided with all the natural resources and facilities for the manufacture of all sorts of implements needed by the cultivators of the soil, and yet a very large proportion of all those in use-perhaps it would not be amiss to say nine-tenths-are manufactured out of the State.

Of the Milwaukee Threshing Machine Works were are able to speak from personal observation. They are located on the corner of Reed and Virginia sireets, and Messrs. Kirby, Langworthy \& Co., the proprietors, are preparing to push the business of manufacturing Pitts' Improved Patent Separator, several of the best horse-powers, straw stackers, \&c., with commendable energy. Already they employ sixty men in the various departments of their business, and the ring of hammers, the music of saws and planing machines, and especially the excelleney of the work done, made us feel proud of their enterprise, and hopeful for the future of our manufacturing interests. Next year it is the purpose of these gentlemen to turn out three hundred of their admirable separators and horse-powers.

The Planing Mills, of which there are six, are doing a brisk business and consume vast quantities of lumber. We are not in possession of any statistics, however, illustrative of the precise amount of their business.

The Flouring Mills, in eonstant operation, number ten or twelve, Some of these mills manufacture flour on a large scale, and the city brands generally enjoy the confidence of the home and foreign markets, The business of milling, in the early part of last year, was energetically and profitably carried on, but the fluctuation of prices after the new crop began to move, so far diminished the security of flouring that the amount done has since not been so great.

Of Iron and Brass Foundries there are some fourteen in active operation-eight of the former and six of the latter class-besides the extensive machine and repair shops connected with the La Crosse and Mississippi rail roads. The foundries are devoted to the manufacture of a great variety of the ordinary castings and employ, when pushed to their full capacity, over a thousand hands. The railroad machine shops turn out excellent rolling stock for their respective roads, and have also built locomotives of unsurpassed strength and beauty of workmanship.

The Type Foundry, owned and conducted by Edward Miller, is an establishment of much interest, and the character of the work done therein, so far as we are able to judge, entitles the enterprising proprietor to the confidence and patronage of the public.

Safe and Lock Factory.-The principal factory of this kind is conducted by Messrs. Shommacher \& Johnson, at No. 245, East Water street, the firm who have repeatedly carried off the prizes at our own and other State Fairs. When in full foree they employ a large number of hands. Practical and ingenious mechanics themselves, they have invented some of the best locks that have ever been produeed in this country, and their work of all kinds is such as cannot fail to secure to them a very liberal patronage at home and abroad.

Tanneries to the number of eight are in active operation, and the leather manufactured is said to compare favorably with that brought from the Eastern markets. Last year there were consumed in these tanneries 50,000 hides; from which it will appear that the amount of
business done in this single branch of manufacturing equals several hundred thousand dollars annually. And the consumption is yearly increasing. But the receipt of hides by the different sources amounts to some 75,000 per annum, thus showing that the tanneries now established consume but two-thirds received at the Milwaukee market. There is room, therefore, to extend this branch of business also.

Of the manufacture of soap, candles, \&c., \&c., we have no reliable data for a statement. We are informed, however, by gentlemen who have visited several of these establishments, that a very large business of this kind is carried on in the city.

Boots and Shoes.-A personal inspection of this branch of business has convinced us that its magnitude, as carried on by Milwaukee is by no means fully appreciated by even her own citizens. People in the West have so long been accustomed to suppose that everything in that line comes regularly from Massachusetts or Connecticut, that they too often overlook and fail to encourage enterprising manufactories in their midst.

In passing down East Water street we had often noticed the store of Messrs. Bradley \& Metcalf, No. 191, but had no idea that they were extensive manufacturers as well as traders. Happening to enquire, however, whether they made any portion of the large stock offered by them for sale, we were surprised to find ourself ushered into spacious and numerous apartments where the work of cutting, pasting, crimping, stitching, soling, dressing and finishing off was done on a scale that we had scarcely before witnessed even in the eastern cities.

Just at the period of our visit the enterprising and energetic proprietors were engaged in fulfilling a heavy contract with the State for the supply of two or three Wisconsin Regiments of Volunteers with shoes, and the work was being orowded forward with a despatch almost incredible. Ten large rooms, each twenty by one hundred feet are regularly occupied by their working force, which amounts to three hundred hands, and, in all departments
of the work the latest and most approved machinery is employed.

The quantity of leather consumed in a single week is immense, amounting to an average of nimeteen hundred pounds of sole leather, twen-ty-three dozen cow-hides, fifteen dozen calfskins, and large numbers of kip, sheep, and moroceo skins. Iron and zinc nails, pegs and thread are consumed by the bushel.

The average amount paid every Saturday night to the hands employed is about $\$ 800$.

The work bears the most rigid inspection and the vast stock, in boots and shoes of all descriptions, turned out by this establishment, is fast gaining for the proprietors an enviable popularity throughout the north-west.
The Manufacture of Paper is extensively carried on at two mills by Messrs. Noonan \& McNab. The amount of rags annually consumed is estimated at $1,250,000 \mathrm{tbs}$.

The Humboldt Paper Mill is advantageously located at Humboldt on the Milwaukee river, some three and a half miles above the city. Its practical operations are managed by competent men, and the paper compares favorably with any manufactured in the West.

The amount of rags purchased by this mill last year was 750 tuns-amount of sales of paper for the year ending June 1st, 1861, equal to $\$ 103,50000$.

About 40 hands, male and female, are regularly employed, and the paper manufactured is princirally confined to the different qualities of printing and wrapping papers.

The Match-making business, which we had supposed to be quite exclusively confined to the eastern cities, has also a place in the stirring " City of Bricks," as any one must admit who may spend an hour at the manufactory of Daniel Daggett \& Co., in the north-western part of the city. This establishment covers a large area of ground, employs 50 hands, consumes 200,000 feet of the best pine lumber, per annum, and turns out 230 caddies, and 100 gross of gross matches per diem. Machinery of the most approved pattern is used, and the matches made are gaining a wide popularity, being shipped not only to all parts of the north-west,
but also to the Eastern States and Canadas. The sales for 1860 amounted to $\$ 45,000$.
Other branches of manufacture of an economical and wealth-producing character are likewise carried on in Milwaukee; but the limits of this article will not admit of their enumeration.
Nor is the manufacturing business of the city confined to branches of this sort. The devil will have his due, and accordingly, with his usual enterprise, has set up and is vigorously carrying on immense breweries and distilleries, wherein the good gifts of God are converted into damning poison, suited to the morbid cravings of suicidal men. These establishments loom up to the wondering eye of the stranger like splendid palaces, or noblyendowed charitable institutions, or the magnificent workshops of industry, in almost all parts of the city, and give one a most monstrous notion of the immeasurable capacity of the stomachs of beer, ale and whiskey drinkers in this western country.
The capital invested in the twenty breweries alone is estimated at over a million dollars, of which three firms own $\$ 300,000$. The quantity of barley consumed per annum amounts to 150,000 bushels; of hops, 75,000 pounds. The quantity of beer and ale has equalled 49,800 barrels in a single year, which, at the wholesale price of five to seven dollars per barrel, amounts to over a quarter of a million dollars.
The amount of whiskey distilled in 1860 is estimated at 12,000 barrels, and the recent erection of another very large distillery renders a large increase certain for the present year. In 1859, 30,000 barrels were distilled and rectified.

Cut Tobaceo, too, has its manufactory, where thirty hands are constantly employed in putting the confounded, filthy weed into the most palatable and smokable form for the unnatural and most depraved appetites of that class of poor oreatures whose brains and hands, unmoved by any or all the natural inducements to manly effort, Will not perform their duty without at least this baneful stimulant. The
polite proprietor, Mr. F. F. Adams, informed us that thirty hundred weight of raw Kentucky tobacco were worked up per diem, and put into salable condition.
But we must close this hurried sketch of Milwaukee as a manufacturing city. If it do not surprise many of our readers, who have looked upon her as a commercial city merely, we shall ourselves be surprised. We are proud of the numerous evidences of her mechanical enterprise, and trust that the return of better times, financially, will give her an impulse in this direction that shall place her, in the front rank, among the industrial cities of the North-west.
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## EDUCATIONAL.

## County Superintendents of Schools.

The attention of all friends of public education is called to the new law. The old system of toren superintendents has always been open to very serious objections on the ground of too frequent unfitness on the part of incumbents to thoroughly examine and correctly judge of the qualifications of applicants for the important post of teacher, and it is believed that the new system of having connty superintendents-whose duty it shall be to supervise the educational interests of the several counties, and who shall be paid a reasonable compensation for such services -will be a very great improvement.
We are sorry, however, that these connty superintendents are not made appointive by the State Superintendent, as their election by the people, at the time of electing other county officers, will almost surely drag this purely educational office into the meserable cesspool cf party politics.
It is the duty of the people to see that this calamity be avoided, as far as possible. There is nothing so important to every community as that the children be furnished with the best means of education, and every parent should consider himself, in all matters thereto pertaining, under the most sacred obligations to his offspring, his country and his God.

## Tribute to Teachers.

The conquerer mores on in a march. He stalks onward with the "pride, pomp, and circumstance of war"-banners flying, shouts rending the air, guns thundering. and martial music pealing to drown the shrieks of the wounded and the lamentations for the slain.
Not thus the schoolmaster in his peaceful voeation. He meditates and prepares in secret the plans which are to bless mankind; he slowly gathers around him those who are to further their execution; he quietly though firmly advances in his humble path, laboring steadily. but calmly, till he has opened to the light all the recesses of ignorance, and torn up by the roots the weeds of vice. It is a progress not to be compared with anything like a march; but it leads to far more brilliant triumph, and to laurels more imperishable than the destroyer of his species, the scourge of the world, ever won.

Such men -men deserving the glorious title of teachers of mankind-I have found laboring conscientiously, though perhaps obscurely, in their blessed vocation wherever I have gone. I have found them, and shared their fellowship, among the daring, the ambitious, the ardent, the indomitably active French; I have seen them among the persevering, resolute, industrious Swiss ; I have found them among the laborious, the warm-hearted, the enthusiastic Germans; I have found them among the highminded but enslaved Italians; and in our country, God be thanked, their numbers everywhere abound, and are every day increasing. Their calling is high and holy; their fame is the property of nations; their renown will fill the earth in after ages, in proportion as it sounds not far of in their own times. Each one of these great teachers of the world, possessing his soul in peace, performs his appointed course-awaits in patience the falfillment of the promisesresting from his labors, bequeaths his memory to the generation whom his works have blessed -and sleeps under the humble, but not inglorious epitaph, commemorating "one in whom mankind lost a friend, and no man got rid of an enemy "-Lord Brougham

## The Education Most Needed.

The idea too commonly prevails that a mere knowledge of books is the beginning and end of education. The sons and daughters, especinlly of the rich, grow up with little idea of the responsibiiities that await them. Their natures revolt at the mention of "labor," not dreaming that their parents before them obtained the wealth they are so proud of by industry and economy. How many young men, college bred though they be, are prepared to manage the estate which their fathers possess, and which it may have required a lifetime to acquire? How many young women, though they have acquired all the knowledge and graces of the best schools, know how to do what their mothers have done before them, and which the daughters may be compelled to do at some period of their lives?

The children of the poor have to labor or starve, and as far as that goes they are educated to be practical. The education that scoffs at labor, and encourages idleness, is the worst enemy for a girl, man or woman. Instead of ennobling, it degrades; it opens up the road to ruin. The education which directs us to do what we are fitted to do-that respects labor-that inculcates industry, honesty, and fair dealings, and that strips us of selfishness, is the education we do need, and that whieh must become the prevailing system of the country before we can become a people either happy or prosperous.-Newe York Express.

## "You are a Stupid Blockhead!"

Are you sure of that? Is it not just possible that the boy's teacher is a stupid one? Are you quite certain that your questions, or your explanations, are expressed in intelligible language ? Don't you talk so rapidly that none but the brightest scholars can follow you? Does not your severity of manner frighten the poor fellow that he cannot tell what he knows perfectly? Are you not, in your anxiety to make him recite promptly and brilliantly, em. barrass him so that he cannot recite at all? Have you ever done anything to give that boy self-confidence? Have you ever heartily encouraged him, sympathized with him, made him feel that you are his friend? Have you ever earnestly tried to find the avenue to his heart and his head? Say to yourself thoughtfully, "After all, am I not the stupid one?"
But grant that the boy is naturally a "stupid blockhead." Is it his fault? Had he the making of his own brains? And is it not misfortune enough to have been born a blockhead without your repeatedly reminding him of the disagreeable fact? Will your statement make him any the brighter, or yourself the more amiable ?
Will you not do away, then, with all bitter words, assured they do no good, but much harm.-Massachusetts Teacher.

School Apparatus. - A great share of school houses are wofully deficient in apparatus. If a man were sent upon a farm, or into a shop, to work, with as little of the needful helps to his business, as teachers find, not much would be accomplished. Many school-houses have not even a black-board, or one so small as to be of little use. Districts will do well to get a catalogue of the apparatus advertised by Mr. Sherwood, on the cover of this number. The ink-wells save a world of annoyance, as well as ugly stains; and the Primary School Tablets should be in every school where there are little children, which is the case especially in all the summer schools in the country districts. -Wis. Journal of Education.
The training of a child, so far as obedience is concerned, ought to be over by the time it is five years old.-Miss Sewell.

## THE HOME.

## The Soldier's Wife.

BY MRE. D. B. CURTIS.
Go gaze within that stilly room, How holy seems the air!
For there upon her bended knee, The young wife kneels in prayer.
First thought of her o'erllowing heart, Her husband, far away;
And ere one blessing for herself, For her I hear him pray.

Oh, holy Father, Thou, whose eye Pierceth each fond disguise ;
I come to Thee, to Thee I prayOh, let my prayer arise!
Guard him, oh holy Father Guard! And wheresoe'er he stray;
Still hold him fast by thy strong handFor him-for him I pray.

A year agone, and that young wife Before the altar stood,
And vowed obedience, honor, love, To him who long had wooed. Our country's waving stripes and stars Did beckon him away;
And strong in heart, she bade adieuFor him she yet could pray.

That husband in his country's cause Battles on fields afar;
Go seek him in the pressing vanThe foremost rank of war!
Oh sollifer, thou art doubly armed, Tracking war's bloody ways;
A shield is held-the shield of prayerThy wife still lives and prays.

## The Reaper and the Flowers.

by hexry w. Longrellow.
There is a Reaper, whose name is Doath, And, with his sickle keen,
He reaps the bearded grain at a breath, And the Howers that grow between.
"Shall I have nought that is fair?" saith'he; "Have nought but the bearded grain? Though the breath of these flowers is sweet to me, I will give them all back again."
He gazed at the flowers with tearful eyes, He kissed their drooping leaves;
It was for the Lord of Paradine He bound them in his sheaves.
"My Lord has need of these flowrets gay,"
The Reaper said and smiled;
"Dear tokens of the earth are they, Where he was once a child.
"They shall all bloom in fields of light, Transplanted by my care,
And saints upon their garments white, These sacred blossoms wear."
The mother gave, in tears and pain,
The flowers she most did love;
She knew she should find them all again In the fields of light above.
0 , not in cruelty, not in wrath,
The Reaper came that day;
'Twas an angel visited the green earth,
And took the flowers away.

## Parlor Dungeons.

It is not every farmer in our new State who is yet provided with the luxury of a parlor. Sorry for that, good neighbor, and espeoially for you, hard-working, amiable and patient farmer's wife; obliged, as you are, to receive your company into the only room in the house, and to entertain them in the midst of rattling dishes and pots and kettles. Be hopeful, however. There's a better time coming. The farm and all its necessary improvements will be paid for one of these days, and then your husband-if he is a civilized man and loves his family, and has any just pride in the good appearance of his neighborhood-will put up a neat little cottage, with at least a kitchen, dining-room, spacious and well-ventilated sleeping apartments, and a pleasant, cozy parlor for your comfort, and the more agreeable entertainment of guests.

But then there are thousands of farmers, even in "woodsey Wisconsin," who have parlors already. We said parlors; perhaps it would have been truer to the facts if we had said dungeons We have been invited into a few of these parlor dungeons and know whereof we affirm. With windows still nailed down since the driving storms of winter, and heavily blinded by deep green or blue paper curtains (both the abomination of all people of good taste), they were as dark as a caye when we entered and cautiously felt our way to the offered chair. But this was by no means the worst feature. Tightly locked up for weeks, and perhaps months-at all events since the last visit of the parson, or meeting of the sewing circle, the air was as musty and strong as the hold of a slave ship, and almost stopped the action of the lungs. The furniture was in good keeping with the characteristics evidenced by the pent up condition of the room -stiff as possible in style, and arranged about the room as if the several articles were a file of soldiers drawn in battle array. The booksif there were any at all-were a few "holiday gifts," or "offerings," and some senseless trifling serial; and the only work of art or nature for adornment was, perhaps, a miserable, excrutiating boquet of stiff, gaudy paper and muslin flowers. All such parlors are a reproach to the
semi-civilization of their owners and should be indicted and-burnt.

Farmers ! work is not the only virtue in life; gold is not the only end. If it brings you hard, drudging labor, receive and despatch it like a hero, and then strive to fill up its few leisure hours with earnest endeavors to make your homes beautiful and your family wiser and happier. Have no dungeon in your house-no room to be opened once a year, or as often as you may have a pastoral visit or a funeral. Let the place of your abode-the nursery home of your children-be such that when they have gone out to share in the labors and trials of life -perhaps to endure the hardships and miseries of a wounded soldier in an enemy's land, the thought of the quiet, cheerful homestead-shall come to him across the wide desolation like a ministering angel of hope and love.


## Beecher on Children.

The following beautiful sentiment, in regard to the future condition of children, is from the pen of Henry Ward Beecher:

When God gives me a babe, I say, "I thank God for this lamp lit in my family." And when, after it has been a light in my household for two or three years, it pleases God to take it away, I can take the cup, bitter or sweet; I can say, "My light has gone out; my heart is sacked; my hopes are desolated; my child is lost-my child is lost !"-or I can say in the spirit of Job, 'The Lord gave, and the Lord hath taken away; blessed be the name of the Lord." It has pleased God to take five children from me, but I never lost one, and never shall. When I have a child Christ covets, with a divine coveting, and he says to me, in words of tenderness, .Will you not give me the child, and let me take care of it, instead of yourself "'" my flesh may remonstrate, but my heart says, "Lord. take it and adopt it." I have lived long enough since the taking away of my children, to find that it is better as it is, than that they should have remained with me. I have seen a great many cares and troubles for a person of my years, but I bear witness that God has put no trial upon me which has not been good for me to endure.

As believers in Christianity, which reveals God as our Father. and heaven as our eternal home, it is our privilege to feel that, when our children are taken from us, they are not lost to us, but only pass on before us to the spirit world, to become angelic beings around the burn-

## A Home for Comfort.

Having published cuts of several handsome and rather expensive dwellings of the Gothic style, we herewith present to our readers a plain but neat little cottage designed for a farmer of moderate means. Costing but a few hundred dollars, it nevertheless has an air of comfort, that a sensible prince might envy.

Rolling up Bandages. - This may be done in the most expeditious manner by simply attaching ${ }^{a}$ piece of strong wire to the driving shaft of a sewing machine, and rotating the shaft so as to wind the bandage upon the wire. Ladies, take notice. We have seen excellent specimens of rolled bandages done in this way. -Scientufic American.
ing throne of God and the Lamb. Jesus declared that of such is the kingdom of heaven. They have gone from us, to live with the crowned immortals, to be watched for and cared for by the angels of light, and we doubt not that they will be among the first to welcome us among the shining courts on high."

What a glorious world this would be, if all its inhabitants could say, with Shakspeare's Shepherd: "Sir, I am a true laborer; I earn what I wear ; owe no man hate ; envy no man's happiness ; glad of other men's good ; content with my farm."

- Men's lives should be like the day, more beautiful in the evening; or like the summer. aglow with promise, and the antumn, rich with the golden sheaves, where good works and deeds have ripened on the field.


## HEALTH AND DISEASE.

## Be Carefal in the Use of Cold Water.

We don't mean that you should be careful in any anti-temperance sense. Too many are careful that way already, judging from the infrequency of their use of it without the addition of some fiery element. By cold water we mean very cold, and are, therefore, in earnest when we say, be prudent in your use of cold water during the hot summer months.

The matter of frequent drinking is very much a habit, and we may easily, and with advantage to our bedily health, accustom ourselves to the taking of water very occasionally and with moderation as to quantity. Ice water, as often used in great quantities while the system is heated up to a high degree, is most pernicious in its effects, resulting very often in fevers, dysenteries and rheumatic diseases, and not unfrequently in sudden death. No sane man would think of pouring a tierce of cold water into a steam boiler heated to redness, and yet such an experiment is scarcely more dangerous to the boiler than the sudden pouring into the heated stomach a tumbler full of cold ice water. It is almost impossible that it should not reverse or at least disturb the electric currents, and produce a serious derangement. It is certainly much better to deny yourself the luxury of an ice-cold draught than to run a serious risk of damaging your health for life.

Pouring the water first upon the wrists and then supping slowly and cautiously is safe, to say the least. But even this precaution is hardly sufficient for men whose blood has been heated in the harvest field. An adulteration with sugar and vinegar makes a pleasant drink, and one that may be moderately used with safety.


How to Get a Good Framb Cirar,-Live temperately, be abstemious, cultivate early hours, rise with the lark instend of going to bed after one. take plenty of exercize, dyn't be afraid of lots of cold water. make a practice of always being cheerful avoid debt, draught, bad compiny. bills, and wet feet, and you will get a good frame cheap, and it shall be a frame. moreover worth more than its weight in gold, such as shall inclose the very picture of health.

## WIT AND WISD0M.

- God often works by earthquakes, and though deep is their plowing, sometimes less will not suffice for the agriculture af God. Upon a single night of earthquakes he may build a thousand years of pleasant habitations for man.
- Tears that will not fall in Vain.-Any of the Northern Volunteers.
-To what decision must the South soon come? To Dred Scott.

The Best Campaign Paper.-Cartridge paper.

On the Parade.-" Dress up, there, dress up!" shouted the drill sergeant to a squad of likely looking recruits.
"How the deuce can we dew it, on eleven dollars a month $\}$ " rejoined an impertinent laggard.
-Meteorological Aphorism.--When the clouds are Rent, and coming down with the Dust, look out for some Change.

- Laughs Best who Laughs Last.-The Southern journals say, "President Lincoln's threats are received with a laugh of Derision." Good! but when our turn comes to laugh, we will treat the Rebels to a Minnie-ha! ha!-Vanity Fair.
- You may make you affections too cheap, or too dear, in dealing with your children or your friends. If too cheap none of them will value them-if too dear, all will despair of securing them. Affections are so many moral objects, to be accorded to justice, not to favor, and never to be withheld when due, nor bestowed when undeserved.-Simms.
- Some Yankee, famous for guessing, wants to know if "C.S. A." means, "Cant Stand Abe."
- Men will wrangle for religion; write for it. fight for it; die for it; anything but-live for it.
-The man who lives for himself alone, lives for a mean, unworthy fellow.
- The horse "warranted to stand without hitching." was soon offered for sale by his purchaser with the further guarunty that he "would not move without whipping."


## DOMESTIC ECONOMY.

## Rules for Cheese-Makers.

A correspondent of the Country Gentleman gives the following rules which may be useful to young cheese-makers:

1. To ascertain how much cheese you ought to get from your milk.
Multiply the number of pounds of milk by eleven. Then point off two right hand figures for decimals, and the product is pounds and decimals of a pound of cheese fresh from the press.

Example.-Given 495 pounds of milk, how many pounds of cheese ought it to yield ? $495 \times 11=54.45$ pounds, or fifty-four pounds and forty-five hundreths.

It has been found that this rule applies to the milk in summer. In October the milk is said to contain a little more cheese in it. The rule is founded in experience.

Of course this green cheese will lose a great deal in curing, since both the butter and casein constitute but about 8 per cent. of the milk.
2. For ascertaining the quantity of salt for cheese.
Multiply the number of pounds of milk by three. Then point off three places for decimals. Your answer is in pounds and decimals of pounds.

Example.-How much salt for the curd of 495 pounds of milk ? $495 \times 3=1.385$, or one pound and three hundred and eighty-five thousandths. This may be reduced to ounces by multiplying by 16 and pointing off three deci-mals-1 pound 6 ounces, 1-16th.

## Batter Making and Paokng.

The farmer should ascertain the character of his cows' milk seperately, fattening for beef those whose milk does not yield good yellow butter.

Then his firkins should be made of sweet wood, ash, maple, oak or spruce, and thoroughly saturated with strong pickle ; work out all the buttermilk with a wooden ladle, then take for seasoning one pound of good salt, one-half pound pure white sugar, and two ounces saltpetre ; mix thoroughly together, and use one ounce of this preparation for every pound of butter. The above quantity is sufficient for 26 pounds of butter. The butter should be put into the firkin solid, beating it down smooth with a wood pestle, cover with a linen cloth, saturating the cloth with sweet hot tallow or beeswax, taking care to wring out all the tallow or beeswax, you can after dipping the cloth. This cover will exclude the air. No salt should be put between the layers; simply stamp down each layer smooth with the pestle. and cover with the cloth until the next layer is ready.

Butter packed in this manner will neither grow soft in warm weather nor crumble in cold weather, and is better one year old than when first made. It will sell for from five to six cents per pound more than common butter. -N. Winslow, in Maine Farmer.

Delicious Vral Cuthrt.-First take your cutlet and beat it with the flat side of the cleaver or rolling-pin. Beat it for about five minutes, then, having thrown a quantity of butter, eggs and flour into a frying-pan, when the mixture is hissing hot, put your cutlet in, and there let it stew. The mixture will penetrate to the core, and is imbibed in every part.

## Drying the Common Red Currant.

We copy the following method from the last number of the Horticulturist. Hanty of our readers will find it just in time to give it a fair trial. The editor of the Hort. having examined the currant prepared in this way, highly com. mends it :
The eurrants should be quite ripe when gathercd, with the stems nttached, and washed or rinsed effectually and drained off. Then stem them and wash them thoroughly, and to each pound of currants add a quarter of a pound of good Havana sugar ; then place them in a preserving kettle over a fire until they come to a scald heat, when they are turned out into white earthen dishes, and exposed to the action of the sun until, by evaporation, they become hardened on the upper side. Then they are turned over, and there remain until they become so on the other side, and so alternate until they become a sort of leathery texture, when they are put away in earthen jars or boxes until wanted for use. Care must be taken to keep them from the dews of night and rains during the process of drying; finally, the utmost cleanliness should be observed from first to last.
When used, enough hot water is required to dissolve them or render them to any consistency suitable for tarts, jelly, so At the same time, more sugar is required to make them quite palatable, which must of course be governed by taste. Currants in this way have kept well with us for three years, and the presumption is, that they will keep for a longer time if well cared for.

Mrs, Gro. H. Hits.
How to Purify Rancid Lard.-A correspondent of the Country Gentleman furnishes the following receipe: "We had some 40 Hs . rancid lard, which was valueless as it was. Knowing that the antiseptic quality of the chloride of soda, I procured three ounces, which was poured into a pailful of sof water, and when hot the lard added. After boiling it thoroughly together for an hour or two, it was set aside to cool. The lard was taken off when nearly cold, and was subquently boiled up. The color was restored to an alabaster white, and the lard was as sweet as arose."

To Wish Cotrox Srockings.-Lay them in cold water at night; next day boil them in a copper kettle with some water and soda soap; stir them well about, and they will become quite elean without any rubbing; rinse them well in cold water, and bleach them ; when nearly dry, draw them smooth, folding them straight over the instep. Place them under a heary weight, or iron them.

Glass Chment. - Dissolve isinglass in tin until it "ropes."

## YOUTH'S CORNER.

Bumble Bug and Bumble Bee.
BY MRS. HOYT.
Bumble Bug and Bumble Bee Agreed to fight a battle,
For Bumble Bug said Bumble Bee Had lighted on his apple.
So Bumble Bug to Bumble Bee Cried out, "Come, Sir, right down, Or I will take you on my horns And toss you out of town."

But Bumble Bee told Bumble Bug Apples were his to eat,
And bade the Buggy get away With all his ugly feet.
Then Bumble Bug began to swell And Bumble Bee to buzz,
And soon they had their little heads All in a little fuzz.

And Bumble Bug began to climb The apple round and red,
And as he went a-bugging up To Bumble Bee he said,
"I'1l show you, Sir, old Bumble Bee Whose apple you are eating;
F'll push you off upon the ground, And give you, Sir, a beating."
Then Bumble Bug and Bumble Bee Began the famous battle,
Whereon both tumbled headlong down From off the big round apple.
But Bumble Bug soon scrabbles up And opens wide his eyes,
And Bumble Bee shakes out his wings And at Sir Buggy flies.
The Bumble Bug tried hard to scratch, The Bumble Bee to sting;
The Bee put out the Buggy's eye, The Bug tore off Bee's wing. Then Bumble Bug and Bumble Bee Both took a little rest;
Sir Bug laid down upon his back, Sir Bee upon his breast.
"Come Bumble Bug," said Bumble Bee, "Let's talk this matter over,
As we are resting here a bit, Under this shady clover."
"T was all your fault!" cried Bumble Bug,
"'T was yours!" said Bumble Bee,
"I found the apple first," said Bug,
"Under the apple tree."
"Ah ha! ah ha!" cried Bumble Bee, "Just like a great black Bug,
I'll warrant you from out the ground Your dinners oft have dug."
"But I, I found the apple Up in the apple tree;
I get my dinners clean and sweet; I am a Bumble Bee."

Then Bumble Bug said he'd get up And kill the Bee outright;
And Bumble Bee began to buzz, All ready for the fight.
Oh't was a fearful sight to see, As Bug with lifted horns,
Went dash with all his might at BeeWith great black shining horns.
Just then a tiny Ant spoke out, From off her little hill, And said, "Alas, most noble sirs, My heart with grief you fill! To see a Bumble Bee and Bug, As much alike as brothers, Go scratch and sting at eye and wing, Till each has spoiled the others!
"The apple, big, and red, and round, Is sure enough for all;
T would last a little Ant like me The summer and the fall.
There Bumble Bee could slp the fuice, While Buggy nibbed the skin, And I with hundred other Ants, Could tit-bit out and in.
" "T is yours, 't is mine, behold how fair, With wealth for each untold,
This rounded sphere of juicy pulp, This rind of red and gold!
How pleasant, too, as we have read, How good a thing 't would be,
Together, here, as brethren, To dwell in unity."

Then Bumble Bug and Bumble Bee Were very much ashamed,
While thus the quiet little Ant Their wicked conduct blamed; And tears stood in that flashing eye, Down drooped that vaunting wing,
As each pledged each to never more Do such a naughty thing.
But not the tear in Buggy's eye, Nor Bumble's drooping wing,
Can take from out their little hearts Remembered scratch and sting;
And ever when they meet again, On pretty fruit or flower,
They think, with sad repenting hearts, Upon the Battle hour.

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## The Cap of Liberty.

You have often wondered at the meaning of Cap of Liberty, seen in pictures and some kinds of coin. The explanation is this: After the death of Cæsar, the conspiritors, who had secured his death, marched out with a cap, as the ensign of Liberty, carried before them on a spear-the cap without the head indicating that the tyrant had lost his power. From that faet and for this reason it has ever since been an emblem of Liberty.

Words seem like little things, yet they are full of power-falling, if fitly spoken like sunshine and dew upon the garden of the heart -but when unkindly, like frost and hail, and the fierce tempest.

5 Children, this month important matter and the exciting fable poem of Mrs. Hoyt, who has given you so many good lessons in pleasing verse, have left no room for an interesting picture and story and sundry puzzles we had thought to give you. But never mind; learn well the lesson of the poem, and the story, \&c., shall come in next number.

Bea friend to yourself and others will be friends also.

## SCIENCE, ART, STATISTICS.

## The Value of Scientific Men.

Men are estimated in more ways than one. The wealthiest man is not worth the most. Many a poor neglected man of science is of far more value to the world than an Astor, or a Girard.

We have a true saying that "knowledge is power. We may bring it down to the every-day affairs of life and assert with quite as good a grace tha: " knowledge is money." Ignorance, its negative, is certainly the most fruitful source of loss. The positive, then is gain. Ignorance is the parent of superstition, and of doubts and fears Knowledge brings us out to the broad light of day, and makes us walk securely, nothing doubting, as becomes men.

We have a case in hand. Soon after the vegetation started this spring, a gentleman living in Bureau Co., Ill., discovered immense numbers of a certain kind of beetles on his apple trees; he became alarmed and took some of them to a prominent nurseryman, Mr. Edwards, of Lamoille. Mr. Edwards not being able to identify the insect, forwarded them at once to Mr. B. Q. WalsH, an accurate entomologist of Rock Island. Mr. W. immediately recognized the "bug" as the Hippodamia Maculata, a natural enemy of the bark louse, so that the farmer was terrified about an army of his best friends. It was found in great numbers on the apple trees among the bark lice, and we are assured that it is owing to its increase and its consequent ravages upon the bark louse that that pest of the orchard is so rapidly disappearing in some portions of Illinois. They were most prevalent just at the time that the larva of the bark louse made its appearance upon the limbs of the trees, and the farmer instead of resorting to any measures to destroy them, should defend them from the birds or any other enemy . They were after the enemies of the apple trees-not to harm the trees in the least.
c. т. c.

Chicago, May, 1861.
TG The following figures show the aggregate lengths of railroad lines in what, by way of distinction, may be called the Railroad States: Ohio, 4,133; Pennsylvania, 3,972; Illinois, 3,561 ; New York, 3,445 ; Texas, 2,669; Indiana, 2,622..

## The Great Flains of America.

Mr. Gilpin, in a recent book on the Central Gold region, advances and maintains the idea that the great Western plains, where he has spent twenty years, instead of being a dexert, as is the common impression, are the opposite, forming the pastoral garden of the world and the basis of the future empire of commerce and industry of this continent. They occupy a longitudinal parallelogram of less than 1,000 miles wide, extending from the Texan to the Arctic coast, and from the Rocky Mountains to the western border of Louisiana, Arkansas, Missouri, and Iowa, an equal area to the surface of the twenty-four States between the Mississippi and the Atlantic, without a single abrupt mountain, timbered space, desert, or lake. There is no timber on this area, and single trees are scarce. The soil is not silicious or sandy, but a fine calcareous mold. The country is thickly clad with grasses, edible and nutritious, through the year, and swarms with animal life. The climate is comparatively rainless ; the rivers, which abound, and which all run from west to east, serving, like the Nile, to irrigate rather than drain the neighboring surface. From their dimensions and position, the author thinks they are to be the pasture-fields of the world, and that upon them pastoral agriculture will become a separate department of national industry. On this belt of perennial pasture are found the infinite herds of cattle peculiar to North America, whose aggregate number, it is estimated, exceed one hundred million, the buffalo alone being as numerous as the American people. The plains embrace an ample proportion of arable land, which may be easily and cheaply watered by the various systems of irrigation, and the soil being alluvial and calcareous, returns a prodigious yield. They abound in fuel, and materials for dwellings. The climate is favorable to health, longevity, intellectual and physical developement.

Population of Wisconsin Cities and Vil-lages.-By the last census, the cities and villages of Wisconsin rank as follows:

| waukee . . . . . . . . 47,101 | Hudson |
| :---: | :---: |
| Racine. . . . . . . . . . . 7,826 | Delavan.............. 1,651 |
| Janesville............ 7,705 | Stevens Point. ........ 1,511 |
| Madison.............. 6,619 | Baraboo ............. 1,471 |
| Oshkosh.............. 6,056 | Berlin |
| Watertown........... 5,307 | Menasha. ............ 1.438 |
| Yond du Lac......... 4418 | Jefferson............. 1,370 |
| Shebaygan .......... 4,266 | Two Rivers........... $1,3+03$ |
| Beloit................ 4,050 | Neenah .............. 1,2293 |
| Kenosha .... ......... 3,996 | Sparta.............. 1,285 |
| La Crosse............ 3,714 | Dodgeville........... 1,224 |
| Mineral Point........ 3,193 | Columbus............ ${ }^{1,190}$ |
| Manitowoc . . . . . . . 3 3,065 | Fox Lake............ ${ }_{1}^{1103}$ |
| Portage (ity......... 2,877 | Geneva ............. 1.105 |
| Beaver Dam.......... 2,773 | Prescatt.............. 1,023 |
| Whitewater .......... 2,702 | Burliagton ........... ${ }^{\text {g73 }}$ |
| Appleton........ ... 2,355 | Oeinto............... ${ }^{889}$ |
| Green Bay.......... 2.278 | Mnaroe.............. ${ }_{604}^{654}$ |
| Monroe ............... 2,171 | Mazomanle........... ${ }_{513}^{604}$ |
| Waukesha ........... 2,113 | Depere............... ${ }_{\text {L66 }}$ |
| Ripon. . . . . .......... 2,085 | Pepin. |
| Waupun............. 1,658 |  |

## WAR MISCELLANY.


[From the Atlantic Monthly.] Army Hymn.
by oliver wendell holmes.
"Old Hundred."
O Lord of Hosts ! Almighty King! Behold the sacrifice we bring!
To every arm Thy strength impart, Thy spirit shed through every heart!

Wake in our breasts the living fires, The holy faith that warmed our sires; Thy hand hath made our Nation free; To die for her is serving Thee.
Be Thou a pillared flame to show The midnight snare, the silent foe; And when the battle thunders loud, Still guide us in its moving cloud.
God of all Nations! Sovereign Lord! In Thy dread name we draw the sword, We lift the starry flag on high That fills with light our stormy sky.
For treason's rent, from murder's stain, Guard Thou its folds till Peace shall reign, Till fort and field, till shore and sea Join our loud anthem, Praise to Thez!

## Colors Most Frequently Hit During War.

It has oceurred to us that many of our military companies are making a graat mistake in the selection of their uniform. Bright colors are gay and attractive, but afford a better mark for the enemy and are therefore the most unsafe that can be used. Any one can convince himself of this by putting up a scarlet or crimson red eloth at a distance, by the side of one of a dull or neutral tint, as gray, and drawing sight upon it with a gan. The first appears clear and distinct, the other wavers before the eye with a dimness and indefiniteness.

The Zouaves have more grossly disregarded this philosophic fact by covering their heads
and vital parts of the body with brilliant scarlet caps and coats.

Scarlet has the advantage, to be sure, of being the most exoiting of all colors, and therefore, best caloulated to stir the blood and atimnlate the bravery of the soldier. Its effect is the same upon the lower animals; witness the red cloth used in the Spanish bull fights, and the effect of the same color upon the tarkey and other fowls. But then this argument is open to the objection that it equally rouses and maddens the opposing foe.
A great number of observations made by scientific and military men, have determined that soldiers are hit during battle according to the color of their dress in the following order:
Red, the most fatal ; Austrian gray, the least fatal. The proportions are: red, 12 ; rifle green, 7; brown, 6 ; Austrian bluish gray, 5.

The Austrian gray is a beautiful shade of faint blue, and should be universally adopted by our volunteer troops.

## History of the Stars and Stripes.

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BY ALPRED B. STREET.
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The most interesting incident connected with the battle of Saratoga, was the unfurling, for the first time, the Stars and Stripes at the surrender of Burgoyne.

Bunker Hill was fought under a red flag bearing the motto, "Come. if you dare," but on the 14th of June, 1777, the Continental Congress resolved "That the flag of the thirteen United States be thirteen stripes, alternate red and white, and that the Union be thirteen stars, white on blue fleld, representing a new constellation" This was made public on the 3d day of September following. Previous to this our national banner was the Union Flag, combining the crosses of St. George and St Andrew (taken from the English banner), with thirteen stripes alternate red and white. The banner of St. Patrick (Ireland's emblem) was not cumbined with the crosses of St. George and St. Andrew in the standard of Great Britain until 1801, the year of the union with Ireland

The stars of the new fing represented the new constellation of States, the idea taken frum the constellation Lyra, which signifies harmony. The blue of the field was taken from the edges of the Covenant's banner in Scotlund, likewise significant of the league and covenant of the United Colonies against oppression-and incidentally involving vigilance, perseverance and justice. The stars were disposed in a circle, aymbolizing the perpetuity of the Union-the circle being the sign of eternity. The thirteen
stripes showed with the stars, the number of the United Colonies, and denoted the subordination of the States to, and their dependence upon, the Union as well as equality among themselves. The whole was the blending of the various flags previous to the Union flag, viz: the red flags of the army. and the white ones of the floating bat-teries-the germ of our navy. The red color also. which in the Roman days, was the signal of defiance, denoted daring; and the white purity.

What elnquence do the Stars and Stripes breathe when their full significance is known A new Constellation; Union; Perpetuity ; Justice; Equality ; Subordination ; Courage ; Purity.

By the United States law of January 13, 1794. it was enncted "that from nnd after the 1st of May, 1795, the fig of the United Scates be fifteen stripes, alternate red and white, and that the Union be fifteen stars. White in a blue field." This was our National Flag daring the war of 1812.

On the 4th of April, 1818, Congress altered the flag. by directing a return to the thirteen stripes, us follows:
"Be it enertrd. \&-., That from and after the 4th day of July next. the flag of the United States be th rteen horizontal stripes, alternate red and white; that the union be twenty stars, white, in a blue field.
"And be it further enart-d. That on the admission of a new State into the Union, one star be added to the nnion of the flag; and that such addition shall take effect on the 4th day of July next succeeding such admission."

## Strength of the United States Navy.

The strength of the United States Navy, though not large in comparison wi h those of England, France, and Rnssia. is by no means so contemptible as many magine. Its present composition is as follows :


This is the total force of regular ships and guns at the command of the Administration But this is by no means all of our force. Fifly vessels have been chartered for the blockade by the mercantile marine. and furty-one of them are ulready in commission. There are some twenty revenue cutters nuw in the naval service. many of them fine vessels. In all. ther fore, the government has al ont one hundred and fifty vessels" afloit, subject to its orders, carrying two thous and one hundred and eighty-four \&uns,
a very formidable armament indeed. and one which will be able probahly. to maintain a pretty efficient blockade of the Bouthern coast.-Mo. Democrat.


As a matter of considerable importance to military men, and the public generally, we append a statement of the army departments of the United States, corrected up to this date. They are as follows:

Department of the East. - This department has been subdivided into three parts, as follows:

Department of Washington.-The District of Columbia according to its original boundary, Fort Washington and the country adjacent, and the State of Maryland, including Bladensburgh and Baltimore. Headquarters at the National Capitol.

Department of the South.-Eastern Virginia, North Carolina and Tennessee. Headquarters, Fort Monroe, Va.

Department of Annapolis.- The country for twenty miles on each side of the railroad from Annapolis to the city of Washington, as far as Bladensburgh, Md. Headquarters at Annapolis.

Department of Pennsylvania. -The State of Pennsylvania, the State of Delaware, all of Maryland not embraced in the foregoing departments. Headquarters at Philadelphia.

Departmeut of the West.-The country west of the Mississippi river, and east of the Rocky Mountains, except those portions of it included within the limits of New Mexico. Headquarters at St. Louis, Mo.

Department of Texas. -The Government not having issued any new orders relative to this Department, and the forts having been evacuated, it may be said to remain in statu quo.

Department of New Mexico.-The Territory of New Mexico. Headquarters at Santa-Fe.

Department of the Pacific.-The counitry west of the Rocky Mountains. Headquarters at San Francisco.

Department of Utah. The Territory of Utah, except the portion of it lying west of the 117 th degree of west longitude. Headquarters at Camp Floyd.

## NEWS SUMMARY.

## AGRICULTURAL SOCIETIES, \&o.

## State Agrioultural Societies.

With one or two exceptions, the several State Agricultural Societies of the Union are preparing to hold exhibitions the coming autumn. This is as it should be. It will not do for farmers to forget their duty to themselves, their occupation and their country because of the strifes of war. That it will require more effort, however, to get up good State Fairs, we are not disposed to question. But the farmers of our neighboring States, Illinois, Iowa and Minnesoto, are henrtily at work, with a firm determina*ion to make the effurts of their respective societies successful, and we certainly shall be slow to believe that the friends of agriculture in Wisconsin will lag in the rear.
Let us show, farmers of the noble young Badger State, that our commonwealth is competent to fitting out ten thousand men for the war, without at the same time allowing the arts of peace to languish.
The Illinois Society has arranged for a trial of fire arms, as a part of the attructions of their exhibition. We are sorry that any extraneous and disconnected means should be necessary to get out the people. and sincerely hope that the people of Wisconsin do not require the magnetism of clap-trap to draw them out on occasion of the great industrial exhibition of the year.

## The County Societies,

We are glad to know, are bestirring themselves, and appear not in the least discouraged by the destractions of the times.

The currency question continues to engnge the attention of some of them, as will appear from the following communieation :

[^8]counties interested in this subject, on the 15th day of July, at 10 A. M., in the village of Cedarburg. Said convention to be composed of as many delegates as each town may appoint to take the above matter into consideration. Resolved, That the above resolution be published in all the newspapers of this county, and the Wiaconsin Farmer published at Madison. WM. T. Bonnewrli, Sec'y.

## The Weather and the Grops.

The weather of the past month has pretty generally been dry and severe upon most crops.

From some parts of the State, the reports are encouraging, but after some little travel in different counties, it is our conviction that the wheat will yield less than two-thirds as much as last year. 0 wing to its backward condition, it is hardly safe to make very positive calculations ; it may come out much better than we fear, and it may turn out a grent deal worse. The fruit crops are more promising. Indeed we scarcely remember when they promised better.

## Patriotic and Calamitous Fires.

The glorious Fourth of July is being patriotically celebrated all over the State. The turn-out in Madison has never been equalled.

At Milwaukee, the American House, several large buildings in the same block, the Methodist Chureh, and other buildings opposite, are in flames. Origin of fire, some heedless boy's fire-cracker in the American stables. Loss, $\$ 100,000$; insurance small in amount.

MILITARY.
The Fifth and Sixth Regiments, called into Camp Randall, at Madison, are now full.They comprise some of the best companies thus far volunteered and all in all are a sturdy, well-behaved set of soldiers. In point of morals, and in the sterling character and efficiency of their commanding officers, they present a pleasing contrast to the rough and rowdy Second. They are undergoing thorough drill and will soon be ready for active service.

The Third, now at Fond du Lac, are expected to leave the State in a few days.
Prof. Daniels has been commissioned as a Colonel and authorized to raise a regiment of cavalry. He is now closing up his work in the geological survey, and will have his squadron ready for a charge by the commencement of the autumn campaign.

## MONETARY.

## The Currency Troubles

Have not yet all been settled. The riot which broke out in Milwaukee on the 24th of June and ended in the destruction of bank windows, furniture, and some valuable books and papers belonging to a number of the banks in that city, was duly and promptly put down by the strong arm of military power; but the bitterness of feeling entertained by thousands of bill-holders, on account of the throwing out of circulation the ten banks enumerated below, has not subsided even yet.
Banks Rejected by Miliwaukee Banks, June 22 .
Value of security, May 28.
Northern Bank................................ ${ }_{60}{ }^{56}$
Dodge County Bank. 756

| Wisonsin Pinery Bank................................... 8511 |
| :--- |
| City Bank of Kenosha............ | City Bank of Kenoshn........................... 631 E R. Hiinkley's Bunk of Grant County.......... 524


Bank of Green Buy.
Bank of Columbus. 70
Bank of Portage ................................ 75 Waupun Bank................................. 73 я
It is but justice to the Milwaukee banks, however, to say that since there is a prospect of these ten rejected banks making good their securities by substituting Wisconsin bonds for Southern stocks, they are again made current in Milwaukee. Four of these-the Northern Bank, La Crosse County Bank, Bank of Green Bay and Bank of Columbus-have already delivered up their Southern stocks to be sold, and bound themselves to make good the difference between their value and that of Wiscon$\sin$ bonds, which they agree to purchase and deposit as soon as the bonds are ready. Other banks, not included in the list of ten, and previously rejected, will likewise make similar arrangements.

## POLITICAL.

Congressional. - Congress met to-day, at noon. After the presentation of credentials in the Senate, Senator Wilson (of Mass.) gave notice that he should offer, on the following day, a bill to ratify and confirm certain acts of the President for the suppression of the insurrection and rebellion; a bill to authorize the employment of volunteers to aid in enforcing the laws and protecting the publie property: a bill to increase the present military estab-
lishments of the United States; a bill providing for the better organization of the military establishment; a bill to promote the efficiency of the army; a bill for the organipation of a volunteer militia force to be called the United States National Guard.
In the House, Mr. Grow (of Pa.) was elected Speaker on the fint formal ballot, the vote standing: Grow, :8; Blair, 11; Crittesdex, 12; the rest scattering. Whole number of votes cast, 159.
The President's message is expected to-morrow (5th), and there is good promise of promptness in the dispatch of business.

National. - No great battle yet; still the Government is gathering strength and the better preparing itself for a decisive blow when the full time shall come. Harper's Ferry has been evacuated. Gov. Jackson, of Missouri, has fled the State, and is supposed to have erossed the line into Arkansas and to be raising troops.
On Tuesday night (July 2), the Wisconsin First and several other regiments, under command of Gen. Patterson, crossed the Potomac and encamped on Virginia soil, and on the following day had an engagement with five regiments of the enemy, near Martinsburgh, putting them to flight after killing a considerable number and losing two men, with several wounded. The Wisconssn 1st and Pennsylvania 11th had the post of honor.
Several other skirmishes have occurred, but the reports are so conflicting and unreliable that we do not think best to put them upon record.
What the enemy are doing, or intending to do, the Lord only knows. JeFr. Davis is said to have had Huntrr, of Virginia, and Bayard, of Delaware, in New York for the purpose of influencing the more senseless, craven-hearted politicians and commercial men to petition the Government for a compromise!
Foreras:- No late news of importance from Europe. The English government is slowly opening its stubborn eyes to the claims of justice and its own best interests, and all the other Great Powers seem indisposed to show the rebels any favor.

Cavour, the great Italian statesman, and perhaps the greatest statesman in Europe, is dead. He died at Turin, June 6 h , and left the whole Italian nation, and all noble-minded, liberal men to mourn the irreparable lose. Garribaldi can heroically execute, and Victor Emantel can still rouse the people of newborn Italy to deeds of valor and of patriotism by the electric power of his eloquenoe, but the far-seeing eye and unfailing wisdom of the great Cavour is no longer there to disoern the right path and guide therein the fiery course of the noble king and the impetuous general.

## EDITORIAL MISCELLANY.

## The Farmer's New Dress, \&e., \&e.

In the June number we were pleased to announce a termination of irregularities in the issue of the Fararer, and to give assurance that after the 4th of July, it should "appear in better shape than ever before." We now submit whether these pledges, so far as the present number is concerned, have not been even more than fulfilled. Published upon a whiter and much better quality of paper, with superior type, fresh from the foundry, with numerous fine engravings, new rules, borders, \&c., and with a much more artistic mechanical arrangement than previously, the old friends of the Farmer will hardly fail to discover a very marked improvement. Messrs. Caspenter \& Hyer, who, notwithstanding the hurry of getting out so large an addition-twelve thousand five hundred copies-have done their work so well, are thoroughgoing men in the execution of whatever printing contracts they undertake; and L. S. Martin and H. D. Snow, Esqs., the careful, prompt and efficient foremen of their large Job Office and Press Room, respectively, rank among the very best workmen in the West.

0 wing to some unavoidable and rather unexpected delays, in getting together the new materials and in closing up arrangements with the late publisher, this number will be issued three or four days later than proposed; but hereafter these causes of delay will not exist.
When we made the announcement of a change in the Publication department referred to as contained in the June No., we had no intention whatever of assuming the responsibility of that department ourselves. Our time was already crowded full of important duties to the agriculture of the State, and we were reluctant to add to them in the least. Circumstances have seemed to require this new connection, however, and so, having perfected arrangements with one of the most competent, prompt and efficient printing houses in the State, to print and deliver ready for mailing, the several monthly editions on a given day ; with another faithful and reliable party to attend constantly and promptly to the subscription books, the mailing of numbers, and to the business correspondence of the paper; and having, moreover, an associate publisher, Mr. Albert Wood, a prominent farmer of Dane Co., who feels willing to expend any amount of money necessary to make it the Agricultural Journal of the West, we have undertaken its entire supervision.
There are sixty to eighty thousand farmers in Wisconsin alone. May it not reasonably be expected that at least a large minority of these, if the claims of the Wisconsin Farmer, as a sound, practical and attractive home journal, are properly presented, will be pleased to welcome it to their homes?
Farmers, Breeders of Stock, Gardeners, Mechanics, Miners and Merchants-all who really desire the material development and social advancement of the Great North-West-give us the generous co-operation of your pefs and your parsonal influence, and we will guarantee you a
journal that shall be worthy of the important objects for the promotion of which it is its mission to labor.

## Five Thousand Copies of the Farmer in German!

 Desirous of reaching the German farmers of our State, many of whom do not yet read the English language and are therefore deprived of Agricultural periodical literature adapted to their wants, we have ventured the experiment of publishing 5,000 copies of the July No, of the Farmer in German. The work is done at the office of the Dane County Zeitung, and will compare favorably with the best periodical work done in the old country. If the enterprise should receive sufficient encouragement, we shall publish regularly.Intelligent, and enterprising Germans of the Badger State, now is your time to speak! If a few active, public spirited men in the several German localities of the State will pledge themselves to furnish a given number of subscribers, the problem may be solved at once, whether the publication will pay.

## 17,500 Copies of Farmer in English and German!

Are being circulated this month! Some of them go to persons who are not now subscribers. Of such we only ask that they carefully examine the magazine and then ask themselves, whether twelve such numbers, treating of practical farming, gardening, \&c., in their own Stategiving also the pith of all the news of the times-and gotten up by men who are acquainted with the State in all its parts, are themselves practical farmers and appreciate the wants of our Agriculture as no persons not resident here can appreciate them-whether twelve such numbers are not worth the subscription price.

If you decide affirmatively, then show your faith by your works. If negatively, we agree to pocket the insult without a murmur.
Half-yearly subscriptions will be received, either singly or in clubs, and the subscriber may commence with any month he choses. This will afford an opportunity for a cheap and safe trial of the paper.

## American Industry and the American Union.

Thank God, the great crisis in our national mania is passed! For a time it looked terribly uncertain whether its turn would be favorable or fatal. But the hour of real peril is gone by, and the Union is now in the first stage of convalescence. There may bo temporary reverses, but there can be no fatal relapse. The great American heart is true to the sacred institutions of the Fathers, and no power under Heaven is able to move it from its fealty. There will doubtless be some hard battles to be fought ere the hydra monster, Rebellion, is crushed; but the result is no longer doubtful.
Therefore, let Industry again left up her head, gather up her implements and go about her beneficent work with a new certainty of enjoying the fruits of her labor. Further demands will doubtles be made upon her for implements, money, and men for the war; but they may now be given as a sure loan to Liberty, who, in due time, will return for them a liberal and most glorious compensation.

## Oh ho, for the State Fair!

We hope no friend of Wisconsin industay will forget the coming State Fair. In the darkest hour of our country's peril the holding of a successful Fair looked rather problematical to many friends of this society; but the hour of darkness has been illumined by the clear, steady light of our star of netional destiny, and with strong hearts and ready hands we may hopefully welcome the events that lie between us and a peace and prosperity greater than any in the past.
The effect of this favorable change in the affairs of our countrs is not, perhaps, more apparent in any department of effort, than in the operations of societies formed, like our own, for the promotion of the industrial arts. State and County Agricultural Societies that had almost given up attempting to make exhibitions this year, are now thoroughly awake to the subject, and many of them, with a commend able zeal, are working as never before. Shall Wisconsin be behind in this peaceful but spirited struggle? We imagine a voice coming up from the seventeen thousand, five hundred Farmers, to whom this number of journal will be sent, aaying, as the voice of one man, and with an unmistakable emphasis, NO!
The crops of grain are not so encouraging as they were last year; but no sane man expected they would be. They will probably average fairly, as compared with ordinary seasons. And the fruit crop bids fair to exceed anything we have seen in Wisconsiu. Apple trees that have never thought of bearing anything but blossoms, are now loaded with beautiful fruit and must greatly rejoice the hearts of all the fruit-growers in the country.
Let there be acvive preparations made, without further delay, on the part of every wide-awake farmer, stockraiser, horticulturist, and artisan, in the State, for a general turn out in the last week of September.
County Sooieties that have been dreaming over the splendid Prize Banner offered for the best exhibition by any one county, will take notice that all entries must be in by the 1st of August.

## Premium Lists, \&c., for the State Fair

Will be promptly forwarded on application to the Secretary, at Madison. They may also be obtained in a few days by applying to the Secretaries of the County \$ocieties, or to Post-masters in the principal towns.

## The Farmers and the Currency.

Many farmers are still perplexed as to what course they should pursue in regard to the currency. Unwilling to add fever to the excitement, they would prefer to take and pass as currency, the notes of the banks of the State until a sounder medium can be supplied. This sentiment is alike the dictate of patriotism and expediency. We regret that their attempt to carry it into effect has not been followed by entirely satisfactory results,
The farmer is not a financier in the common acceptation of the term. His monied operations do not amount to as much in a year as do those of many other men in a single day. He cannot give his attention to the study of
stocks and exchanges. He observes the ruin that often overtakes men who attempt to carry on several kinds of business at the same time, and confines himself to the study and practice of his chosen occupation. A crop of wheat or of corn, a herd of cattle or a flock of sheep costs him money and labor and time. It is of value to him and he should not part with it without receiving value in exchange.
That our bank notes have depreciated is not altogether the fault of the bankers. Many of these institutions in our State have transacted all their affairs honorably and above board, and yet suffer in the general depreciation of values. This is unavoidable in a great crisis like the present, when Rebellion refuses to permit debtors to pay their solemn obligations and raises its hydra head against all sound government and honest free labor. It becomes us therefore to be lenient in our judgment and to make our expressions those of regrat at what must inevitably be a common loss of bankers and people rather than of fierce denunciation against the former, because of our own individual losses and embarrassments.
As will be seen under the head of "Monetary" in the News Summary, some of the ten banks recently thrown out by the Milwaukee banks have made good their accounts with the Bank Comptroller and are again current. Should all our banks get rid of their Southern Stockswhich in the most favorable issue of our country from its troubles must be for a long time worth but little and always unsafe-and substitute therefor the Stocks of our own State and of the United States, there is no question but that they would be sounder and safer than now. Indeed if they could be guaranteed against any possible closing up and selling out of their Stocks by the Bank Comptroller, then their notes would continue at par and secure either New York exchange or golld at moderate rates. But unfortunately the only way to make good such a guarantee is to continue the present suspension of specie payment, which of itself has the effect to depreciate our currency in Fastern markets. And if the suspension should not be continued, then some of our banks must be driven to the wall and compelled to let their Stocks be sold for what they will fetch in the New York market, where at the present and for a long while to come they must sell at a discount of fifteen to thirty per cent.
In view of all these circumstances and considerations, we do not yet see how it is possible, under the present banking law, to escape all loss in the fature, and our present conclusions are essentially the same as when we last referred to the subject.
While our finances are so unsettled no one is safe in keeping paper money on hand long at a time. He who can manage to keep it a "live bird in his hands" may secure it with impunity. So far as it will serve to cancel a debt or supply a present want we may take and pass it. But the impression is strong in our own mind that to bolster up a circulating medium above its actual value will prove futile, and that our paper money must soon
come down relatively to the standard value of damaged grain. Specie only can be quoted No. 1.

Stocks may advance at the close of the war, and all the lowses be made good. Of this we cannot give assurances now. But the "mint drops" are certainly safe to hold. These are sound, and will ever be worth their face-so long as the American Eagle is upon them and civilization endures.

## The Editorial Convention

Recently held at Watertown, resulted pleasantly and profitably. There were present, notwithstanding the war and currency excitement, some fifty or sixty members of the profession, and the sessions were more than usually interesting. The Address by E. A. Caligins, Esq., and the Poem by A. M. Thompson, Esq., were appropriate and highly creditable to their respective authors.

The people of Watertown did honor to the city by their generous hospitality, and the remembrance of them and their pleasant homes will ever be gratefully cherished.

The next Annual Convention will be held at Racine.

## Thanks!

To0.S. Willet, Esq., of Vine Hill Nureeries, for a box of strawberries, with creamy accompaniments-all of which, owing to absence from home, we did not enjoy-and

To Messrs. Batriam, Hanford, \& Co., of Columbus, (Ohio) Nursery, for a box of plants of rare and beautiful varieties that did come to hand in perfect order, and are now rejoicing in all their freshness and fragrance in the place of honor before our parlor window. Messrs. B., H. \& Co. have one of the finest nurseries in the United Stater, and they are prepared to supply orders to any part of the country with the best satisfaction to all parties concerned. See advertisements.

## CORRESPONDENCE.

## Letter from Milwankee.

Ma. Ediror :-Business lately called us to Milwankee, the "cream-colored city," the commercial emporium of Wisconsin.
We used to think we knew Mi lwaukee, like a book, and were much surprised, on the present oecasion, to find all our former knowledge greatly at fault, so wonderful have been the transformations of the last few years, Of those whom we formerly knew, some repose at "Forest Home"a charming spot, thi; rural necropolis, where many ethers have selected " $1 \mathrm{~s}, \mathrm{~s}$ " tha. cannot remain long unoccupied. Some went $u p$ when the babble of ' 57 burst, ani have not been heard of since; but a good'y number remain, have "made their pile" and now enjoy the fruits of their enterprise.
The city, too, has undergone many changes-all for the better. Even during the hard times of the last three years, extensive improvements have been made, especially in the business streets. it large froportion of the most elaborate and substantial bulldings have been erected during this period. Labor and material have been abunjant and
cheap, and capitalists have employud both to excellent advantage. We hazzard the assertion that no city, east or west, has made more substantial progress and improved its appea ance more during the same time.

The observatory on Mr. Cicero Comstock's mansion afforded us a splendid panoramic view of the city, covering an area of 17 square miles intersected by two rivers, with some 15 miles of excellent wharfage, a magn ficent harbor and a merchant fleet that would bo creditable to an Atlantic part. We also enjoyed a similar prospect from Senator Qugstis's res dence, which is situated in a beautiful park adorned with trees, shrubb ry and flowers, a little paradise, and a together the $m n t$ charming spot we saw.
The city has more than doubl dits population within the last decade. According to the late census it contains 46,000 inhabitants. Those " to the manner born" claim the ascendency, but the foreign element is most numeruus, possesses much of the wealth and enterprise and supplies by far the greater portion of the productive industry. A stranger would readily infer this from the large number of Breweries, which employ a capital of over $\$ 500,000$ and yield an annual product of nearly 50,000 barrels.
The city has 8 daily newspapers, 4 in En;lish and 4 in German ; 40 churches of almost as many different creeds ; several orphan asylums, hospitals, and other charitable institutions ; a splendid building for free schools in each of its nine wards; a female collegé and numerous private schools. The city cannot boast of its Court House, but is justly proud of its "Academy of Music" and other public "Halls" and its magnificent Hotel. The "Newhall House" was erected by Dasigl Nawhall, at a cost of $\$ 160000$, and is one of the finest Hotels in the United States. The Horse Rail Road is another popular institution and is liberally patronized. There is also a Chamber of Commerce, where some 200 merchants, bankers, and speculators meet at 12 v'clock daily, "Sundays excepted," to discuss the market, buy and sell, and when business is dull, consider the s'ate of the nation.

Milwaukee is to be, and perhaps now is, the great wheat market of the North-west. At the present time nearly all the immense grain trade of the Cpper Mississippi centers here.

The indebtedness of the city and its raliroad liabilities have exerted a depressing influence, but most of the latter are now secured by liens on the roads, or otherwise adjasted, and the municipa! debt is to be fanded, the interest provided for, and the interest paid in a reasonable number of years. To'al indehtedness of the city is less than $\$ 1,200,000$, which is not a large sum for a city of nearly 50,000 inhabitants and containing abundant elements of continued growth and prosperity.

Milwaukee has a goodly number of Insurance Companies of her own, and several Eastern institutions have efficient agencies here; but we were kindly received as the representative of the "Madison Mutual" and, alternating business and pleasure, have passed a few days very much to our own satisfaction.
G. 7. 耳.

Milwauker, June 25, 1861.

## NOTICES OF NEW ADVERTISEMENTS.

## Madison Mutual Insuranoe Company.

The Semi-Annual Statement of this Company for the six months ending June 30th, will be found published entire on a subsequent page. It exhibits a degree of prosperity and an increase in business unprecedented in the history of insurance companies, and is to us a most gratifying evidence that the intelligent farmers of Wisconsin are coming to understand the true nature and advantages of the Mutual system, which, in our opinion, is the only of the Mutual system, which, in our opinion,
sure basis for an institution of this character.
It is true that by a reckless and dishonest course a mutual company may ruin its credit and fail, but this same objection lies equally against all companies of every other class; while a Mutual Company has this important advantage-that it is controlled by the very persons who are most interested in keeping it free from any possible taint of corruption or unsoundness.
But we need not elaborate arguments which are ably set forth in the Report itself. We have said thus much from an unselfish desire, first, to enforce the importance of securing all perishable property against risks, which otherwise may bring ruin upon the fruits of a life-long industry in a moment, and, secondly, to direct the attention of our thousands of farmer readers, with whom we sre identified by every interest and ambition of life, to a Company in whose system and Directory we sincerely believe they may repose implicit confidence.

## Prescott City and the Banner County.

Dr. O. T. Maxson of Prescott, publishes an interesting and truthful account of the County of Pierce and its advantages as a location for farmers and mechanics and for men of capital. We have visited this favored portion of our State and are fully convinced that he has not overstated its claims as to beauty of scenery, fertility of soil, quality of timber, \&c., \&c., and the enterprise, intelligence and virtue of its people. His statement should be read by all who desire either to invest their capital for future gain or secure homes for their families.

## Kirby's Reapers and other Machines.

D. J. Powers, Esq., formerly a publisher and editor of D. J. Powers, Esq., formeriy a pubisher is Gen. Agent for Kirby's Reapers, Mowers, the Farmer is Gen. Agent for Krrer's Reapers, Mowers, ac. He knows what constitutes a good machine, and we do not believe he would consent to take an agency for any thing in the mechanical line, of whatever description, that could not commend itself to him as the best of its kind. Read his remarks to Farmers in our Advertiser.

## Woodruffs' Portable Weather Guage,

Advertised on the fourth page of cover is just what has long been wanted. Convenient, accurate, portable and cheap, it should find a place in every farmer's house. Especially valuable during the period of harvest, as a sure index of coming storms. The testimonials and the names of references published are the best guaranty of its value that any man could possibly ask. In the August Number we shall publish a cut of this Barometer, with an article on its value and the mode of using it.

## "One of the Most Desirable Farms in Wisconsin"

Is advertised in this number. We have never seen it, but perfectly reliable gentlemen who have, assure us that every word of the advertisement is true; and our own knowledge of and personal confidence in the Dr. warrant its hearty endorsement

## Milwankee Threshing Machine Works.

This is a large, thriving establishment, and the parties appear to be well worthy the confidence of the farming public. See notice in "Mechanical and Commercial" Departments; also their advertisement in this No.

## The Wis. Mutual Life Insurance Co.,

Have an advertisement in this number to which all prudent persons, looking to the uncertainties of Life and to a proper provision for their dependent families and friends will do well to give attention. The Mutual system of insurance is sound, whether it applies to life or property. As an indorsement of this particular Company it will be sufficient to say we have shown onr preference for it by insuring therein.

## A Splendid Stock of Hardware

Is advertised by Messrs. Ramsay \& Campbell. They are sound men and fair dealers, and are, moreover, determined to win an acknowledged place in the front rank among western hardware merchants. Farmers and country dealers will always find them well supplied with the latest improvements and the best of everything in their line.

## Good Stocks of Hardware

Are also kept by Messrs. C. V. N. Kittredge and John N. Jones, at their respective stores on Pinckney and Main streets. Both of these excellent establishments are advertised in this number.

## State Bonds for War Purposes.

Now is the time for persons who have either large or small amounts of money which they wish to securely invest. The State will undoubtedly be sounder for all time to come than any banks of deposit. See advertisement.

## The Several Brief Business Cards in this No.,

Of which we have no space for more than mention, are those of

Geo. Paine, Druggist, on King St., Madison;
J. C. Schette, Proprietor of a Foundry and Machine Shop;
Casper Meyer, Proprietor of a Farmers' Saloon;
Friend \& Crawford, Clothing Merchants and Merchant Tailors;
A. F. Waltzinger, Fruit Dealer and Confectioner;

Grover \& McClear, Proprietors of Meredith House;
Plumb, Willey \& Co., Proprietors Vine Hill Nursery;
Thos. Chynoweth, of the Empire Harness Manufactory; Thomas \& Stoltze, Dealers in Boots and Shoes;
Albert Wood, who offers a Hay Press for sale; and of Carpenter \& Hyer, Publishers of the Wis. Patriot, \&c.

## Dickinson \& Bartels

Keep a fine assortment of Dry and Fancy Goods. They deal extensively with farmers and are well worthy of a liberal patronage. See advertisement.

## Fuller's Temple of Art

Is usually thronged with good looking people, anxious for the best pictures that can be made in America, and if we are a good judge, they-get them. Try him.

## Sharp Shooters Wanted for the War!

All patriotic Sharp Shooters anxious for a chance at the heart of Secession, are referred to the Adjutant General's notice in Advertiser.

Singer's New Family Sewing Machines
Have an excellent reputation, and for most kinds of heavy work, are deemed best by even the interested friends of other patents.

## Fairbanks' Scales

Are unquestionably the best in the world. See advertisement of Mr. Mrlis, Agent.

## Hamilton Thresh. Machines, Horse Powers, \&c.

Are good machines and give, so far as we have heard excellent satisfaction. See advertisement.

# THE WISCONSIN FARMER. 

## J. W. HOYT,

MADISON, AUGUST 1, 1861.
No. 8.

## Reasons for Harvesting Wheat "While yet in the Doughy State."

Editor Wisconsin Farmer:-Permit me to congratulate you on the fine appearance and superior merit, in every respect, of the July No. of the Farmer. An Agricultural Magazine like this is an honor to our State, and ought to -as I doubt not it will-receive the cordial support of every intelligent farmer and friend of agriculture. I must beg leave to dissent, however, in part at least, from a single point in one of its most important and really valuable Editorial articles. At least I would ask your reasons for advising the cutting of wheat "while the kernel is yet in the doughy state." I have been a farmer for twenty years, but this practice is quite contrary to all my experience. It might make an ordinary wheat for flour, but I should assume at once that seed sown from wheat harvested in this manner would scarcely germinate.

Have called your attention to the matter thus promptly , because it is one of great importance, and your answer may influence many farmers in the present harvest, should it appear in the August number.
. Respectfully yours, A Dane County Farmirr.
Reply.-We are certainly gratified by our correspondent's generous expressions of favor, and are especially glad that he has called our attention to the question of wheat harvesting again. We onitted the reasons for our advice in the July number, because we presumed their statement to be unnecessary. The article on "Haying and Harvesting" was written rather as a reminder and stimulator, and we had no idea that the doctrines therein contained would be considered new and heretical by any intelligent farmer in the country. But, professing to be always able to render a reason for the faith that is in us, we proceed to a brief demonstration of the following propositions :

First-Early cutting affirds a better chance of securing the crop.

This doctrine is sustained by both reason and
observation. For certainly nothing can be clearer, in the first place, than that the beginning to cut while yet the crop is green-say seven to ten days before it is fully ripe-will, in any event of weather, make sure the ordinary period of harvest, and if the weather be good, extend that period by the full number of days embraced between the actual and the usual time of commencing. If the weather of the few days preceding the full ripening be fair, a greater portion of the crop may be gathered before we should otherwise have begun. If not we can wait, and still have as good a chance as under the old practice. But this proposition is further supported by observation. At least it accords with our own experience in another State and our observation in this, that in more than three-fourths of the cases, the weather of the early harvest period has been the most favorable, and that the earlier wheat crops have been best secured. Rust, insect blight, and other sources of loss are, moreover, often escaped by early harvesting.
Secondly-Early cutting of wheat ensures a saving in securing it.
This saving is two-fold-first an actual saving of grain by avoiding the necessary waste by shelling out in reaping or mowing when the crop is fully ripe, and secondly, an indirect saving by enabling the farmer and his regular hands, or a smaller number of extra ones, to do the work. This last reason will apply with great foree the present season when the price of all farm labor will necessarily be very high.
Thirdly-Early cutting ensures a better quality of stravo.
The stalk of the whent plant in common with the stems of nearly all other species of the grass family, consists principally of certain substances
-sugar, starch, \&c., \&c.,-which attain their highest perfection in quality and quantity while the stems are green, but which constantly diminish in quantity and value after the ripening or drying commences. But it is these very substances, especially the saccharine matter, which render the straw either nutritious as animal food or rich as a vegetable manure ; and if the crop be cut while the stalk still contains them in their greatest perfection, they will not be lost in the process of drying any more than the nutritive substances of green grass are lost in the process of careful "haying." It is clear, therefore, that the straw of an early-cut crop must be more valuable for every purpose than of that which is cut when dead ripe.

Fourthly-Early cutting also ensures a better quality of grain.

If by "early cutting" we meant to say perfectly green, the straw and heads in full vigor and full of sap, this proposition would not be so easy of proof. But meaning, as we do, green in the sense of not ripe, it is supported by both reason and fact.

When allowed to stand exposed to the drying sun until dead r pe, a portion of the nutritive juices appear to be either changed into non-nutritious substances as described above, or to be literally dried out of both straw and grain; whereas, if cut when the lower portion of the stalk has changed to yellow and the chaff begins to assume a hue approximating to yellow when closely examined, and then properly put up in the shock, the juices intended for the grain are all passed on by the stalk to their destination during the period of curing, and the surplus is retained in the straw.

If this reasoning be correct, we should expect as the result of early harvesting a superior plumpness of the wheat-kernels, with greater weight of gross produce, of equal measures, and of an equal number of grains, and, consequently , a better quality and market value-all of which expectations have been a thousand times realized by actual experiment, and must continue to be realized for all time to come.

As to certainty of "germination," there is no wheat so sure to germinate as that which has been harvested at the stage of development, and in the manner proposed.

## Saw Fly and Its Enemy.

The Saw Fly infests both the wheat and corn fields of this country. There are a number of families of the order to which it belongs and numerous species.

The one here introduced is the cephus pyg-

mœus-sometimes known as the joint worm, but more commonly as the Corn Saw Ely.
(1) in above cut represents the female, magnified, the natural size being illustrated by the cross lines at (2.) It is a black fly with a yellow membrane on the neek and at the base of the abdomen. Wings of a smoky color, four in number. Hips and thighs black, tips of thighs yellow. Inside of hips, thighs, shanks and feet yellowish.

The females lay their eggs in the stem of rye and wheat, either below the first joint or just under the ear; and the young maggots soon hatched therefrom and which are fat, wrinkled and yellow, with a darker head,-(4) and (5), natural size and magnified-penetrates to the inside of the straw, consuming its substance, ascending and sometimes perforating all the joints while yet the stalk is green and then descending to the base of the straw and cutting it down level with the ground about harvest time. (3) shows the manner of its working.

Having fulfilled its mission of destruction, it wraps itself up in a transparent case within the stump of straw just below the surface, clos-
es its cell, and there remains secure through the winter until March, when it changes first to a pupa and then within a very few weeks to a fly as seen above.

The fly (Pachymesus Calistrator) at (6), is the natural enemy of the Saw Fly, producing a worm which preys upon it in the larva (worm) condition just as the Platygaster, described in last number of Farmer, preys upon the larve of the midge.
Klippart, to whose publishers, (Messrs. Moore, Wilstach, Keys \& Co., Cincinnati, 0 .) we are indebted for the above cut, recommends clean fallowing, dressing with lime, letting alone the birds, and hard rolling as means of aiding the Pachymesus in destroying the Cephus.

## Illinois vs. Wisconsin Farming.

[Wisconsin farmers are great in execution, but unfortunately they seldom report the results of their labor; preferring it would seem, to keep their light under a bushel. Now and then one has sufficient State pride to report himself for the benefit of his country, and many are always "on hand" when cornered. The manner in which Mr. Wililiams of Dane takes up the glove thrown down by one of the best of the Sucker farmers will be gratifying to our more spirited readers. The article published is found in the Prairic Farmer for May, and would have been republished before, had it not been overlooked.-Ed. Wis. Farmer.]

It is an old adage that "competition is the life of business." I noticed, a few weeks since, a challenge from Mr. O. Barnard to any of our Wisconsin farmers to compare notes through the medium of your paper. Mr. B. by adding fifty dollars premiums which he received at the fair, makes the very ereditable amount of seven hundred and twenty-two dollars (\$722.00) as the net proceeds of twenty-five ( $25 \frac{1}{2}$ ) and a half acres of land in Bloomington, Illinois. But I can see in no wise how the fifty dollars premiums can be any part of the product of his farm. I cheerfully accept the challenge and ask a place in your columns, "for the benefit of all concerned." "The strong man armed keeps his house until a stronger comes." Below is a correct statement of the net proceeds from just twenty-six (26) acres which I have under the plow, beside a garden of half an acre. I take no account of the hay (six ers!
tons Hungarian, as I have no meadow land,) oats, corn, potatoes, pumpkins, turnips, stalks, \&c., on which I keep my stock and fatten my hogs, so that the amount is the net proceeds taking the market prices at the time of threshing wheat and harvesting other crops :

$\$ 133.90$ his nineteenth grain, and a few days in cutting corn and stacking grain, which he has more than paid by laboring for others in turn. Mr. Barnard must try again if he wishes to establish the superiority of the soil and productions of the Sucker over that of the Badger State.
J. F. Wililams.

Dane Coterty, Wisconsin, March, 1861 .

## Clean up Your Farms.

We have been annoyed considerably, in our travels, of late, by the patches of mullen, thistles and other noxious weeds found on sundry farms, whose proprietors certainly know better than to allow them to grow and bear seed. It is almost too late now to urge this matter, but something may still be done in the way of destroying them. Let not a moment be lost, then. It is a shame to yourselves and a henious sin against the community where you live to allow noxious weeds of any sort whose spread is so rapid and whose eradication is so difficult, to spread beyond their first place of accidental growth.
"A stitch in time saves nine." Go about the work of their destruction to-day, and a few hours of active labor may save many days that will be otherwise necessary, besides a deal of vexation and disgrace.

Of thistles and snap-dragons we have before spoken. The mullen is already in the seed, but may yet be destroyed by carefully pulling the stalks and burning them in convenient fires.
Again we say wake up, all ye slovenly farm-

## Chinese Sugar Cane.

## LATE OULTIVATION.

On several occasions we have urged the importance of late, though not deep cultivation of Indian Corn, for the reason that at the time of earing, the forces of the plant are directed to the formation of the grain, rather than to to the growth of the stalk. But the same is not exactly true of Sugar Cane, of which the stalk and its sacharine juice are the more important part. It is accordingly thought by many who have carefully observed the effect of cultivation, that late working has a tendeney to stimulate the growth of the stalk fibre to the detriment of the sweet juice. There is some plausibility in this reasoning, but there can be no possible objection to the removal of all weeds. This should be done alvays-by the hoe and hand, if not by the shovel plow.

## BLADING AND TOPPING-

At least blading-should be done a few days before the cutting, as the quantity and quality of the juice will be improved thereby. The stripping off the leaves is rapidly done by the hand, and the tops easily removed to about eighteen inches above the head, with expedition, by means of a light and slightly hooked corn knife. It is a question whether the seedexcept such as is to be kept for planting the succeeding year-should be allowed to perfectly mature, as so much strength will be lost to the juice.

CUTTING AND PREPARING FOR THE MILL.
Cane-growers differ as to the best time for cutting. Some maintain that it should be cut "while the seed is in the dough;" others that the cane should be fully ripe. From the best data we can gather, the cutting for syrup, merely, may just as well be done before the perfect maturity ; but if it is intended to make sugar, then the juice should be as well matured as possible. The juice will not be so large in quantity but better in quality. After the cane is once cut there can be nothing gained by delaying its manufacture. But it may sometimes happen that this cannot be done immediately; in which case the leafless reeds
should be put under shelter and kept as little as possible exposed to changes of temperature. Freezing and thawing is liable to sour the sap. And, accordingly, if circumstances compel a delay until cold weather freezes the canes, they should, if possible, be kept frozen until ready for manufacture.

We have seen some excellent syrup made from cane that had been kept frozen until the warm spell when it was manufactured.

## THE MANUFACTURE

Requires considerable care and good judgment.
The mill, evaporator, wood for fuel, \&c., should all be ready before the time comes for their use, so that there need be no delay; and a number larger than can be certainly accommodated should not depend on one mill, as in that case much cane will be damaged and necessarily produce bad syrup.

The grinding may be done in any of the several mills now in use. The clarifying and evaporation should be attended to immediately, while the juice is fresh. It may be clarified in a number of ways, but the use of bi-sulphite of lime is most approved by those who employ chemical agents. This substance is cheaply manufactured and may be obtained without difficulty in the form of a powder, ready for solution in water, in almost any of the cities. The best evaporator of which we have knowledge is Cook's patent. It answers the purpose admirably and is justly very popular.

The process of boiling, clarifying, \&c., is thus described by Messrs. Hedgas, Free \& Co., of Cincinnati in a treatise on Sugar making:

Where the bi-sulphate of lime is made use of for clarifying, a vessel containing it should be placed on tap in a convenient position, so that a minute stream may trickle from it into the trough which conveys the juice from the mill to the tank or clarifier. A quart of the bi-sulphite temper to one hundred gallons of juice is the usual proportion.
Rather less than that quantity of lime water is generally required when the juice is clarified in the old modes, with a temper made of cummon carbonate of lime. In the use of simple lime water, the same mode of mingling the juice may be pursued as recommended above for the bi-sulphite, or mix your temper with a bucket full, and stir the whole into a clarifier full of fresh juice.

Apply heat until the temperature is raised to $210^{\circ}$ Fahr., or just below the boiling point. This may be indlcated without the thermometer, as the temper and heat cuagulate the fecula and drive it in the form of a dense green scum to the top. At about $210^{\circ}$ Fahr., little white
patches of froth break through the scum, showing that the boiling point is nearly attained. Extinguish or remove the fire, and let the liquid now rest 30 to 60 min move the fire, and let the liquid now rest 30 to 60 min-
utes. Next carefully remove the scum, or with a tube shaped like the letter U, draw off the clear juice, and either strain through flannel or filter, after which the evaporation may proceed until it is reduced to the proper degree of concentration.
A successful clarification can be effected by substituting say six well beaten eggs, or a pint of bullock's blood in place of the (quick) lime temper, or bi-sulphite; and we have seen clear syrup produced without temper of any kind by careful and continued skimming. Syrup made from juice which has not been treated with lime, is lighter in color, but not so easily preserved through warm weather. The proper degree of consistence to which syrup should be reduced is about 35 or $36^{\circ}$ while heated, or 38 or $39^{\circ}$ of Baume's saccharometer when cooled to $60^{\circ}$ Fahr.
To make sugar, boil the syrup to the proper consistency, and in the language of Mr. Lovering, sugar will make itself. It is, however, no easy matter to explain so exactly that an inexperienced person may always, afterward, know when the sugar point is attained. Sugar boilers cannot even show an empiric so that he shall be competent to judge with certainty. Experience is the best teacher, and the touch, as you hold a small quantity between the thumb and forefinger, drawing them slowly apart, and observing the appearance of the thread as it breaks and shrinks back to the fingers-a very good indicator after a little experience has been had. The appearance of the incipient grain on the back of the ladle, or the lazy ebullition of the syrup in the kettle, where the foaming has measurably subsided, and the steam commences to escape in short sharp puffs, are also symptoms that the batch is about done.

If the clarification has been properly accomplished, the thermometer is supposed to indicate the proper time to perform the strike, which should be done as soon as the syrup marks $238^{\circ}$ Fahr.
When ready for making the strike, throw an armful of wet bagasse upon the fire, then open the draw-off cock, or, with appropriate ladles, dip quickly into wooden coolers, and slightly agitate with a wooden paddle until the temperature has been considerably reduced. Syrup will scorch itself in the cooler, from its own confined heat, after being removed from the kettle, and should be stirred frequently until partially cooled.

Three or four, or even more than that number, of strikes of sugar may be made into the same cooler, the whole being well stirred each time a new batch is added. If the grain fail to appear immediately, sprinkle a small quantity of common sugar into the mass, or set it away for a few days in a room heated to 80 or $90^{\circ}$ Fahr. If the mass of sugar when grained is very moist, put it into conical molds, or pots, to drain, or in the absence of these, into bags shaped like a huge pear, and hang in a warm place to drain out the molasses.

Other parties favor methods differing somewhat from the above, but we have seen excellent syrup manufactured in this.way, and hence feel safe in recommending it to the inexperienced.

Mr. J. C. Pluma, who has probably had as much experience in the matter as any one in this State, says, "If you have Cook's Evaporator, there is no need whatever of any alkaline ingredient in the juice to destroy it. Indeed the effect of such ingredient is to destroy the honey-like flavor and to give the syrup a permanent disagreeable taste as well as dark color. The construction of the evaporator is such that it retains the'scum and feculent matter at the ends of the several channels, from which it
can be removed every half hour, and thus performs the cleansing operation better than can be done by introducing alkaline ingredients."

This opinion is corroborated to a considerable extent by the experience of others, but we are not aware that any of these gentlemen have made sugar. If they have done so without the use of any chemical agent whatever, we would be glad to know it.

## Look out for Your Next Seed Wheat.

The old fashioned method of saving the best of the harvested grain for seed and then beating the sheaves moderately with a flail, so as to thresh out none but the better and more easily shelled kernels, is just as sound in theory now as then, and will be found to work equally well in practice. This practice has been followed in England for a long while, and the gradual improvement of their grain in quality and in quantity per acre is a significant fact, worthy of attention.

There can be no question but that much of our seed wheat in these times of machine threshing, is materially damaged by the breaking of the kernels in the process of threshing. Any one may convince himself of this by examining the wheat as it comes from the machine.

We throw out these hints now, that they may be in time, and trust that they will be considered and acted upon.

## Number of Seeds in a Bushel.

A correspondent of the New England Farmer says: "Timothy seed numbers $41,828,360$ grains to the bushel, and if sown on an aere of ground, as recommended by some, would give about 6 to the square inch. Clover of medium size, $17,400,960$ or $2{ }^{3}$ to square inch. Rio Grand wheat, fair and plump, 556,288 to the bushel, or $12 \frac{3}{4}$ to square foot. Rye 898,380, or $20 \frac{1}{2}$ to square foot." Thus it is easy to judge of about the quantity should be sown per acre.

Na- We would be glad to have specimens of the best grain grown in the State this year for exhibition in the State Agricultural Rooms.

## Marl as a Fertiliser.

The following, from the Germantown Telegraph, will show how marl is appreciated down east. We have numerous beds of valuable marl in Wisconsin, and in next number we expect to publish an interesting paper on their localities, uses, \&c., \&c.

There is an old axiom in natural philosophy, that "natare abhors a vacuum." This is also often the case in a geological point of view. We frequently see large tracts of land so rough and barren that they would not pay to cultivate as a gift, yet a few feet below the surface lies, (as if by a wise provision of nature,) the hidden treasure, awaiting the advance of civilization and science to unfold them for the benefit of man. Such are the coal and oil fields of Pennsylvania and the marl beds of New Jersey.

There are very few Pennsylvania farmers who have an idea of the importance of this New Jersey fertiliser, which abounds especially in West-Jersey, in the counties of Gloucester, Salem, Camden, \&c. Marl is so far a grand desideratum, that its effects as a fertiliser upon light, sandy soils have caused a complete revolution in the price of land and the profits of farming in various portions of Jerséy. Land that could be purchased for $\$ 10$ an acre, twenty-five years ago, cannot be had now for $\$ 150$. I have seen marl tried, however, on our heavy soils in Pennsylvania, with no visible improvement; but on light soils its effect on grass, rye, potatoes, buckwheat and truck generally, is like magic. Farmers haul it from five to fifteen miles in Jersey; and a provision is made in letting a farm, taat a given number of loads of marl must be put on during the term of the lease.
There is one peculiarity in this fertiliser, which is, that when it is put on a barren spot of land, the white clover will spring up where no signs of vegetation were ever visible before. A very respectable member of the Society of Friends used to say that he could see the grass seeds in the marl.

Marl, or green sand, is generally found on the banks of creeks and small streams flowing into the land; and though there is a difference in the quality of almost every deposite, yet I believe the presenee of phosphates, iron pyrites, potash, clay, \&c., are the principles of its fertilising power. Any individual that would like to see the effects of marl, let him take a trip to Woodstown, Mulica Hill, or Alawaystown, all pleasant little Quaker villages in West Jersey, and talk with the farmers there, as well as see the manner of digging and applying it to their crops, \&c.

The land owner that has a marl bed in WestJersey, of good quality, his fortune is made. It sells at from $\$ 10$ to $\$ 15$ per square rood, and is uncovered and dug generally by poor working men in the neighborhood.

## The Value of Indian Corn.

For the following interesting information in regard to this king of food, we are indebted to Hunt's Merchant's Magazine :

By those who do not know, or are too scientific to profit by the experience of nations of men and herds of fat cattle, Indian corn, rice, buckwheat, etc., are only considered good fodder. Leibig states that if we were subject to the same degree of cold as the Somoiedes, we should be able to consume the half of a calf and a dozen candles at a single meal. During excessive fatigue in low temperature, wheat flour fails to sustain the system. This is owing to a deficiency in the elements necessary to supply animal heat, and the strong desire for oleaginous substances, under these circumstances, has led to the belief that animal food is necessary to the human support. But late scientific experimentshave led to better acquaintance with the habits of the North American Indians, and show that vegetable oil answers the same purpose as animal food; that one pound of parched Indian corn, or an equal quantity of corn meal, made into bread, is more than equivalent to two pounds of fat meat.

Meal from Indian corn, contains more than four times as much oleaginous matter as wheat flour; more starch, and is consequently capable of producing more sugar though less glutin; in other important compounds it contains nearly as much nitrogenous material. The combination of alimentary compounds in Indian corn renders it alone the mixed diet capable of sustaining man under the more extraerdinary circumstances. In it there is a natural coalescence of elementary principles which constitute the basis of organic life, that exists in no other vegetable production. In ultimate composition, in nutritious properties, in digestibility, and in its adaptation to the various necessities of animal life in the different climates of the earth corn meal is capable of
supplying more of the absolute want of the adult human system, than any other single substance in nature.

## White Clover.

We are satisfied that our farmers do not appreciate the white clover or white honey-suckle, as some call it, so highly as they ought, nor take so much pains as they should to cultivate it. In fact but very few sow it, when they lay down their lands to grass. They trust to nature to supply them with it. When once seeded with it, the soil will retain it a long time, for the low, short stems will bear heads full of seeds, and these become scattered out into the soil, and thus the seed is kept in the ground and springs up whenever circumstances are favorable for its development. A moderately clayey loam is congenial to it, and if this be
dressed with an occasional dressing of plaster it will bring it out abundantly. It affords an excellent pasturage for bees, the best honey in the world being obtained by these little insects from white clover. It also affords the best pasturage for cattle, especially cows from whose milk cheese is manufactured, as experiments have proved that cows that graze upon this species of clover yield milk that contains casein, or cheesey particles, in greater abundance than they do when fed on the common grasses. We throw these hints out for our reader to think of. Four or five pounds, mingled with a due quantity of other grass seeds, will be sufficient for an acre, and it can be obtained at reasonable prices at the agricultural seed stores.Maine Farmer.
[From Vol. V of Trans. Wis. State Ag. Society.] The Farmer Must Honor His Calling.

*     *         *             * The Farmer should love his calling and continue at it through life. If there is a man who should be proud of his profession, that man is the Farmer. As his is the most ancient, so it is the most useful of all arts. It is the ultimate and almost the universal sustainer of human life, and as such, it has in all ages, employed a vast majority of mankind. A recent computation makes the number of persons belonging to the Agrieultural class, more than five hundred millions! But not alone have the masses, the humble citizens of every age and civilized country, chosen your profession for their occupation, but many of the highest fame have turned to it for solace and happiness, when the world's dazzling honors could delight no more. Witness a Timoleon, after that patriot had triumphed for the establishment of laws and freedom, in battles yet splendid in history; a Cato, the Censor, when he had grown as old in honors as in years; a Mirabeau, when the fortunes of Louis XVI. and of an ancient throne and aristocracy were borne, Atlas-like, on his shoulders; and him, "brightest of the bright, and purest of the pure,"-Washington himself! These are but a few of that long line of princes, orators, poets and statesmen, who, by engaging themselves at least casually in agricultural pursuits, have, in every age, adorned your profession, and who-to use the beautiful simile of Chapin, "wear upon their breasts the stars of the Legion of Honor !"

But who doubts that agriculture is honorable? Who can pronounce it unworthy of pride and admiration? Why, its commonest fruits are health, strength of body, vigor and purity of mind, and surely these are enough to entitle it to our love, not to mention those, its renowned votaries from whom fame has been harvested, nor its constant and immeasurable benefits to man. True, there may exist a few lunatics, some dandies or aristoerats, perhaps, some wrinkled old maid, all woe-begone, or
villainous old bachelor without a hat, who affect to despise your calling as humble or low ! But, be it boldly said, every sensible person, every decent and respectable person, will regard your profession with sentiments of both esteem and honor. Without question it is so regarded by the world.
Now, if this be true with mankind generally, with how much prouder honor should it be esteemed by the Farmer himself. He should love his art as Pygmalion did his statue, as Bacon did philosophy-not fitfully, or for a season only, but earnestly and for life. And this, indeed, is most important to success. That man never lived, who disliked his calling, and at the same time prospered in it, whether he began with capital or not. No, "a feeble heart makes a feeble hand," in every pursuit and calling in life. The student, to become eminent as a scholar, must idolize science, must make the midnight stars the sentinel witnesses of his devotion ; the professional man must apply himself with a mind-shaking earnestness, if he seeks to become, not indeed a Chalmers, a Galen, or a Marshall, but to obtain a respectable competence. Just so with the farmer; he mast like his calling, must take an interest and pride in it, if he would not grow poorer every day, and drag along his slow length from poverty to penury, from penury finally to beggary.

Yet it is not enough that the farmer should merely love his calling; besides this he must expect to continue in it through life. You remember the proverb of the "rolling stone ;" there is truth in it. It is not the meteor, flashing from one quarter of the heavens to another that gives us light, that calls forth the delicatefooted Spring, or rolls the harvests of bounteous Autumn; no, it is only that fixed planet, whose place to-day is that of to-morrow, of next year, forever. There is a moral in this; a moral from which men, even in their worldly tasks may learn a practical lesson. To succeed, the toiler must not veer from one pursuit to another-yesterday a farmer, to-day a lawyer, to-morrow a physicien; far otherwise. After choosing his occupation, he must resolve to stand by it unto the end. Only such perseverance is successful, and, depend upon it, the farmer who furrows out for himself a different course in life, will see the "bitter day."

I was reading, yesterday, for the second time, an incident of a little girl, who, in early Spring, went out on the river-side to gather flowers. Not coming back, search was made, when she was found lying near the water on the green bank, drowned. In her little hand were clasped the flowers she had culled; and on her cheek, though chilled in death, still lingered her wonted smile of innocent beauty and hope. So did she die, and so with those same flowers on her bosom, was she placed in her little grave. She died a martyr to the Beautiful, and I have thought that her devoted
aims and spirit were worthy of imitation, and should form a pathetic model. Yes, let that devotion to a pursuit, which distinguished this little child, be a lesson to men in every profession in life, and to you, honest farmers. Stand by your calling! Honor, it, love it! Give it not up, only with life itself! So, shall you, like her, as sweetly rest. So, shall death come as placidly; tears as holy water your tombs; the laurels of a life-long Art bless your sleep, and your children's children point with pride to the graves of their Fathers, where hallowed marbles shall bear on each the beautiful sentiment of Tully :
"Semper mea consilia pacis et togae socia, non belli atque armorum fuerunt."
If, therefore, the Farmer is first a diligent man; if secondly he is an educated man; if lastly, he honors his profession, and ready to stand up for its dignity and general success, he continues a life-long worker in his pursuit; there is nothing to bar him from becoming both respected and happy, both rich and influ-ential-in a word, an enlightened prosperous Wisconsin farmer.-Henry S. Magoon.

## Sandy Soils.

There is a very erroneous but strong impression on some minds, that light, loose sands are valueless for purposes of cultivation. In their natural state, it is true, they are seldom very productive; a few crops of rye or buckwheat reduces their primitive fertility, and so much manure is thenceforth requisite to reinvigorate and keep them in heart that they are either turned out to pasture, or abandoned in despair. I have had some experience in the cultivation of this species of soil, and my success has induced me to attach to them a much higher degree of importance than is usually accorded. And I am fully persuaded that even the lightest and most sterile sands, may, by proper management, and without any ruinous outlay of expense, either in time or capital, be made highly and permanently productive; in short, that our poorest plains land can be redeemed from this unjust imputation of utter worthlessness, and made to yield, not only remunerating crops, but crops equalling in abundance and richness those afforded by the most affluent soils upon which labor has ever yet been bestowed.

In the first place. in order to the suecessful amelioration of sandy soils, it will be necessary completely and thoroughly to cleanse them from stumps. After this is effected, let them be ploughed deeply, with a strong team, in the last of summer, turning in all the wild growth upon them to the depth of at lenst one foot; then hairow thoroughly and roll with as heavy a roller as you can procure. The next thing is to give the surface a good dressing of clay, This earth will generally be found in the near vicinity of the field to be clayed, either in some
neighboring run or water course, or beneath the sand, for the såd and clay are never far apart. The finer it is, and the more greasy, the better and more durable will be its action; and the more liberally it is applied, the more thorough will be the improvement consequent upon its application. The best time for applying it is immediately after ploughing, and to secure its being refined and broken up, it should be deposited in heaps, and spread evenly over the surface, to remain exposed during the winter to the action of the frost. In the spring plough again, not so deeply as before, in order not to disturb the sward; harrow, and again roll. You can now sow on rye, or plant, and the crop will come off in season to allow you an opportunity to give another dressing of clay, which in quantity, should be equal to the first -say forty cords to the acre, and spread as before.

This will entirely change the texture of the soil, and you will no longer have the barrenness of sand to contend with, but a soil endued with all the essential requisites of permanent and vigorous fertility, and on which manure will act with as much celerity and energy as upon the richest loams. It may be thought that the quantity of clay recommended-eighty cords to the acre-is large, but when we reflect that some cultivators bestow this amount of stable manure, and bear in mind the very important fact that while manure is an article for which money has to be paid, the whole cost of clay is embraced in the carting, the objection arising from the quantity requisite to insure a complete and thorough improvement being large, will at once case to retain its force. If the farmer cannot afford this, he can apply a less quantity at first, and add to it year by year; but in this case he must be contented with a much less lucrative return for his annual labors, as a very large percentage of clay is called for, in order thoroughly to improve the soil, and overcome the many and serious imperfections of sand as it naturally exists. Therefore it is much better and more in accordance with policy of enlightened economy, to give enough at first to effect the object desired, and enter at once into the profits of the business, than to occupy years with only a limited annual return.
The great reason-and indeed I regard it as the principal one-why manure never acts vigorously on light sands is, that the extreme porosity which characterises it, causes the dung to $d r y$, and consequently to remain inert. A lump of dry manure is no better in the soil than a chip or a stone, and will produce just the same effeets upon the crop. The clay gives cohesiveness to the particles, unites them by a sort of glutinous attachment and consolidation, and while it favors the absorption and retention of moisture, ensures the fermentation and ultimate decomposition of the dung. In a few years the soil will assume a fine dark appear-
ance, resembling that of garden mould, and the various grasses will find in it a bed capable of affording expansion to their roots, and a supply of moisture and soluble food commensurate with their wants.

To every person, therefore, who is the possessor of sandy soil, I would say, clay them at once! No soil is so easily worked, and from no soil, when managed in this way, will labor secure to itself a more certain and rich reward. -Cor. Ger. Telegraph.

## Wheat Growing Countries.

A late number of the New York Tribune contains an article on wheat culture, from which it seems ours is not the greatest wheat producing country, both France and Britain exceeding it in average yield. Our last year's crop is assumed to be $180,000,000$ bushels, but the average is probably only $120,000,000$-and as our system of agriculture is exhausting the best lands, a diminution of the yield is anticipated. The average yield of other countries is stated as follows :


## Well Rotted Manure.

This is a favorite expression with many farmers. Well rotted, or wholly rotted manure, works so quick that the purchaser thinks he shall have quick returns from it.
Many farmers put a shovelfull of this in each hill of corn and potatoes-and in June they point to the advantages they are having over farmers who use manure before it is well rotted.

Other farmers spread on manure and let it rot in the field-trusting to its doing some service while the operation of rotting is going on. Many farmers dislike to carry manure into their fields till they have become fine enough,
by rotting, to be well incorporated with the soil-not considering that green manures are continually giving out matter which will enrich any soil in the operation.

Farmers are now complaining of the depredations of worms among their corn. Are they aware that well rotted manures harbor twice as many worms as manures that are carried directly from the barm and yard before they have had time to ferment-to heat and breed worms?

On our own field we cannot perceive that the worms have done any more mischief than usual. We never put rotted manure in the hill. But we place a handfull of ashes and plaster on each hill before the corn comes up.

The seed for an acre of corn costs but very little compared with potatoes-therefore, we can afford to drop six or eight kernels in a hill, and let the worms have a share.-Massachusetts Plowman.

## Sorrel and Other Weeds.

The following excellent hints in a nut-shell, we find in the Massaehusetts Plowman, which has always set the example of using no more words than necessary in saying what it has to say :

Many of our papers are giving directions for killing sorrel. It seems to be "a lion in the way" with some farmers, and we have heard the assertion that it cannot be killed short of pulling up by hand and being laid on a dry rock.
But where the soil is free of rocks there is no danger of its prevailing to any extent. A good plow, well held, will bury it deep enough to prevent its appearance through the summer, provided that some valuable plant is encouraged to take its place. Every decent soil will bear something in the course of the summer, and when the farmer neglects to improve his land he must expect to find it green with some kind of vegetable.

A good growth of clover will bury all the sorrel and smother it for the whole season. A growth of buckwheat will smother all other vegetation, and come near killing all foul weeds. And buckwheat will grow in very poor soils.

## Ashes and Plaster.

These articles, mixed, operate well on dry and sandy loams. One gill of the mixture is enough for a hill of corn. When this is dropped on the corn hills, at the time of planting, it keeps down weeds and worms, while it starts the corn early.
The labor of applying ashes before the corn is up is not half so much as when the leaves are in the way. Eight bushels of ashes and two of plaster may be mixed together for an acre.-Mass. Plowman.

## STOCK REGISTER.

## Most Profitable Sheep for Wisconsin.

"Why don't you publish something for the enlightenment of young farmers like me as to the best breed of sheep?"

Such was the language addressed to us the other day by an ambitious young farmer of Dane, anxious to know the best course for him to pursue in all matters pertaining to his business. We have several times already incidentally indicated our views on this subject, and have hoped to have something more at length on the subject from some of the numerous actual and long-experienced growers of sheep in Wisconsin.

rinoes, Spanish, French and Saxon-do not thrive in Great Britain. The Leicesters and the Teeswaters, Cotswolds and Bampton, (which last three are but varieties of the Leicester), and the South Downs, Norfolks, Suffolks, Dorsets, Rylands and Cheviots would accordingly be the best for that country. But it must be presumed that it was the intention of our friend to enquire with reference to this and not any foreign country. But even this is not a sufficient narrowing down of the question; for, in some portions of the United States-in the vicinity of New York and many large Eastern cities for example-the South Down and other middle wool breeds would be most profitable, owing to the large demand for the excellent mutton which they furnish for the great meat markets, while their wool is also in good demand, and bears a respectable price.

If it was intended to enquire, "What is the best breed of Sheep for Wisconsin farmers to raise?" then we would ask the question, "What are the circumstances of locality, climate, use, \&c., necessary to be considered ?"

This may be briefly answered. As to locality, we are far removed from all the great markets of the country, whether for mutton or wool. And inasmuch as mutton is less easily transported than wool, we cannot hope to compete in the great meat markets at all. If we raise sheep therefore, it must be chiefly for the wobl.
The above question as put by our friend opens a pretty wide field, as it is not qualified by any restrictions either as to locality, use or anything else. To answer it fully would require a lengthy discussion therefore.

In England the long and middle wooled sheep are best-first, for the reason that the chief demand is for cloths and fabrics, such as wools of those descriptions will best manufacture, and secondly, because the sheep which furnish the finer and shorter wools,-the Me-

But what kind of wool? If we had manufactories where the coarser wools could find a good market, this question would not be so important. But we have not. The wool that we raise, therefore, must be for exportation. Shall we not, then, produce the best quality, so as to get the most money for the least care of the flock and bulk of the fieece? "Certainly. But do these circumstances decide you to choose the Merinoes?" Undoubtedly. For there is no sheep in the country whose fleece
is so fine, so desirable in its felting qualities, and which is, at the same time, heavy.
"But are the Merinoes hardy?" Quite as much so as any sheep we have. As a general rule, sheep are animals of rather delieate constitution, and being subject to peculiar diseases require more care than hogs or mules. But if we compare this race with others, we shall find them quite as able to endure our climate. The fact that they are crowding out other breeds, until they probably at present constitute three-fourths of all the flocks in the State, is of itself some evidence.
"There are two varieties of the Merino, however, in Wisconsin." Yes, the Spanish and the French. But the Spanish furnishes a more uniform staple and is a little more hardy; we accordingly answer the original question, What is the best sheep for the average of Wisconsin farmers? by saying, Decidedly the Spanish Merino.
If any of our good wool-growers dissent from this decision, we shall give them the privilege of an appeal and of arguing the case to any reasonable extent in the Farmer.

## Shade for Stock.

The following anecdote, with the moral it teaches, is dedicated to those short-sighted inhuman farmers, who, for the sake of saving every inch of land and making " a clean field," cut off all the shade trees that adorn and beautify their openings, and thus leave their poor dependent brutes to bake and swelter in the sun. Read the story and know that "the fools are not all dead" yet:
An old farmer not far from Utica, N. Y., who considered himself pretty sharp in gathering in the pennies, one day said, "boys, come, let us go and cut down the trees in the 20 acre lot. They will make 20 cords of wood, at least; and I don't see any use for them there."
So the boys took their axes, and commenced cutting down the great trees, with their widespreading branches, which had adorned the field for ages, and the neighbors looked on with astonishment and thought the old man was crazy, and they were not far from right.
In about a week the trees were all cut down, and the wood hauled out to the road and piled up, and the old farmer boasted of his sagacity and said that he had cleared $\$ 50$ by the job.

But during the past summer he was obliged to use this 20 acre lot as a sheep pasture, and his splendid flock of merinos ran panting about for some cool nook to protect them from the burning rays of the sun, and found none. It was pitiable to see these poor sheep panting for breath at midday ; and on one occasion the neighbors sent a deputation to the old man, suggesting the propriety of removing the flock to some other field, on the score of humanity to dumb brutes; but he "pooed" at the idea, and dismissed them very summarily.
One day much warmer than usual, the old man found several of his sheep so exhausted from the effect of the heat, as to be unable to walk, and he removed them to a cool place near his dwelling, but they had suffered too much and soon died. On the following day half a dozen were found in the like condition, and they died too. But the eyes of the old farmer were opened at last, and after having lost $\$ 100$ worth of his best sheep, he concluded to remove the remainder of the flock to a field where there was an abundance of shade.
Occasionally some of his neighbors ask him how much he cleared by cutting down the trees in his sheep pasture, when he shrugs up his shoulders, and begs them not to mention the subject again. On one occasion he admitted that he would pay $\$ 500$ if he could restore the trees to his field.

There are hundreds of just such self-conceited, ignorant farmers as the man we here allude to, who dispoil their farms for the purpose of grinding out a little extra cash.-Rural American.

The Whits Chester Hog,-As the merits of this superior breed of swine are daily attracting more and deserving attention, we present a written portrait thereof.
Their characteristics are-large size, remarkably symmetrical form, easy keeping, comparatively little offal, great depth and length of carcass, and producing large quantities of lard.
They possess in an eminent degree the very desirable qualities of early maturity, and fattening at a very early age. As to the origin of this breed, it is said that a shipmaster who used to trade between Liverpool and Wilmington, some thirty-five years ago, procured a couple of hogs from Bedfordshire, England, with the view of introducing them into this country. For several years they were called the Bedford breed, afterwards the County Chester, but now are known as the White Chester. They are pure white.-Eastern (Me.) Farmer.

Scratohss.-A correspondent of the New England Farmer, says his method of curing scratches is to rub on West India molasses a few times. He has never known it to fail. Wonder if here is not a new use fon sorghum syrup?

## Handling Young Colts.

Most farmers make an important mistake in not handling, petting and controlling their young colts while they are following their mothers. At this period, by judicious man-agement-not that kind of fooling and teasing to which mischievous boys are so much given -almost any young colt may be so. educated and trained, as afterwards to require scarcely any of that severe and dangerous work of breakimg now so universal.

Solomon (might have) said, Train up a colt in the way he should go, and when he comes to be a horse he will not depart from it.

## Be Humane to Your Horses.

The following remarks of Mr. Rarey should be pasted in the hat of every man who has anything to do with horses:
"Almost every wrong act the horse commits is from mismanagement, fear, or excitement; one harsh word will so excite a nervous horse as to increase his pulse ten beats in a minute. When we remember that we are dealing with dumb brutes, and reflect how difficult it must be for them to understand our motions, signs, and language, we should never get out of patience with them because they don't understand us, or wonder at their doing things wrong. With all our intellect, if we were placed in the horse's situation, it would be difficult for us to understand the driving of some foreigner of foreign ways and foreign language. We should always recollect that our ways and language are just as foreign and unknown to the horse as any language in the world is to us, and should try to practise what we could understand were we the horse, endeavoring by more simple means to work on his understanding rather than on the different parts of his body."

## Relief of Choked Cattle.

A Wisconsin farmer says that a sure relief for horned cattle, choked with a potato, turnip, piece of pumpkin or the like, may be obtained by proping the animal's mouth open, which is done with a block of wood about two inches long, and one and a half inch square, with a hole bored thoough it, having cords attached to tie to the horns to keep it in its place. The reason of the thing is this; there is no danger from choking but by the swelling of the first stomach, and that is caused by the continual swallowing in the effort to get rid of the obstructions Each attempt to swallow acts like a force pump, and forces down a quantity of air and saliva, which in time will burst the
stomach. The piece of wood prevents this, and also will instantly release any wind accumulated there. In a few hours (sometimes minutes) the turnip will soften and fall into the stomach; but the affair can at times be hastened by unloosing one side and giving s mouthful of hay which may force it down.

Colic in Horses.-John L. Gregg, of Missouri, says in the Valley Farmer: "I can eure by the following receipt any case of colic in horses in twenty minutes. Take 3 ounces tobacco, in small bits; 1 drachm red pepper; $1 \frac{1}{2}$ gallons boiling water; mix and simmer on coals ten minutes, or till the properties of the medicine are extracted. Administer by injection with $\frac{1}{2}$ pint syringe. Repeat every minute till revived. By this method I have cured more than fifty cases withont a single failure. The horse is generally fit for use in one hour. The modus operandi of the medicine is this: Tobacco is a powerful relaxant-Capsicum a powerful stimulant. By the relaxation produced by the tobacco, free exit is given to the collection of wind or gas, and the circulation is equalized; the pepper prevents too great s relaxation.

Washington's Love of Horses.-The President's stables in Philadelphia were under the direction of German John, and the grooming of the white chargers will rather surprise the moderns. The night before the horses were expected to be ridden they were covered entirely over with a paste, of which whiting was the principal component part; then the animals were swathed in body-cloths, and left to sleep upon clean straw. In the morning the composition had become hard, was well rubbed in, and curried and brushed, which process gave to the coats a beautiful, glossy, and satin-like appearance. The hoofs were then blackened and polished, the mouths washed, teeth picked and cleaned, and, the leopard-skin housings being properly adjusted, the white chargers were led out for service. Such was the grooming of the ancient times.-Recollections of Washington.

Horse Shoeing-Forging.-W. H. Ladd, of Richmond, Ohio, writes us that if J. T. T. will have his mare's fore feet pared down as much as they will bear at the toes, and then put shoes on with high square heels and no toe corks, and reverse this with the hind feet, putting on shoes with toe corks, set well under, and no heel corks, the probability is she will quit forg-ing.-American Stock Journal.

Stifle Joint Lameness is apt to affect young colts, and is produced by the wearing away of the toe. It is in fact the dislocation of the patella or knee pan. It is most prevslent when the animal is kept on hard, hilly ground. The best remedy is to have him shod, and remove him to level ground.

## THE POULTERER.

## Dorking Hon.

Last month we furnished our readers with a brief description of the Dorking Fowl and a handsome cut of the cock. He was a splendid fellow and has made all the boys in the State "bung" out their eyes and deelare they would have a Dorking rooster, cost what it would.


We now present them with a picture of Mrs. Dorking; and a most plump, portly and motherly looking bird she is too. Not exactly an "everlasting layer," but supposed to do fair duty in this respect, and especially distinguished for her readiness to "set" when the time comes, and as long as may be necessary. She is also noted for her faithfulness to her young chicks, which are generally brownish-yellow, with a broad, brown stripe down the middle of the back and a narrow one on each side.

The eggs are usually of a clear white, but sometimes of an ashy-grey color, pretty large and rounded at both ends.

Columella and Pliny, who wrote many hundred years ago, eulogize a hen, the description of which quite certainly identifies her as belonging to this breed; from which it would appear that the Dorking has been famous since very early times.
Those who have tested it say, that whiteskinned chickens are best.

## [From the American Poultry Yard.] Preservation of Eggs for Cookery.

"Preserved eggs," says Cobbet, "are things to run from, not after." Perhaps so, perhaps not, as the case may be. At any rate, many articles of cookery, which cannot be made without eggs, are not things to run from. A large proportion of the eggs brought to market during winter, are certainly displeasing enough, quite uneatable as eggs, but only not offensive to the smell. They are saved from putrefaction by immersion in lime water, to which salt is added by some housewives. When wanted, they are fished out of the tub, wiped, and sometimes rubbed with a little sand to give a fresh-looking roughness to the shell.

Cooks say they answer their purpose; but it is assuredly worth while to try for something better.

The three following are cheap and easy modes of preserving eggs for culinary use:-

No. 1.-Pack the eggs in an upright watertight cask, with their small ends down. Take eight quarts of unslaked lime, one half pound of common salt, two ounces of cream tartar ; mix in water so as to bear up an egg with its top just above the surface; pour the mixture into the cask containing the eggs, and they will keep sound and good for two years.

No. 2.-Pack the eggs in an upright earthen vessel or tub, with their small ends down. Melt and strain a quantity of cheap tallow or lard, and pour, while warm, not hot, over the eggs in the jar till they are completely covered. When all is cold and firm set this vessel in a cool, dry place till required for use. After the eggs are taken out, the grease need not be wasted, as it will serve for making soap, or many other household uses.
No. 3.-Pack the eggs in common salt, with small ends down, and they will keep tolerably good for eight or nine months.

It has been stated by Reaumur, who is high authority, that clear and unfertile eggs will keep good longer than those that would be productive; but it is doubtful whether the difference is so great as to make it justifiable keeping the hens in a melancholy widowhood on this account.

## How to Keep Eggs a Year.

It has been an interesting question, and one that has been argued and experimented on from the earliest history of the world to the present day, namely, the best, cheapest and safest mode of putting up eggs to keep good the greatest length of time. Nearly every farmer has experimented on it more or less, and the longest I have ever heard of eggs being kept was six months, I believe.

But I think I have struck a plan (or rather the hen struck it,) that will settle the question for all practical purposes. The discovery was in this wise:-Over a year ago I had some
hens laying in a hollow gum, filled or nearly full of unleached ashes; the gum was upset by accident, and I paid no further attention to it, until I needed some ashes this spring in making mortar. In taking the ashes off the ground at the end of the gum, I dug out four eggs that had been laid there one year ago; they were perfectly sound and good. We used one immediately after finding them, and kept the others four weeks and then used them, and found that they were as good as if they had not been laid a week. There is no doubt that these eggs were laid in the unleached ashes, previous to the gum being upset, over one year ago; the upsetting covered them with ashes, which were leached in course of time by the weather. Let some of our readers try this, and satisfy themselves that eggs can be kept fresh and good one year. I am trying the experiment with a larger lot, and will let you know how it succeeds at the proper time.- $A$. C. Phelps, in Genesee Farmer.

## THE BEE KEEPER.

## [From the Bee Journal.]

## Prevention of Swarming.

To prevent hives from swarming, several methods have been advocated.

1. Many persons supposing that bees swarm only for want of room, aim to prevent it by furnishing abundance of room, either in the main hive or in the surplus honey receptacles. But every experienced beekeeper is aware that stocks will often swarm without nceupying the surplus storage room-or after they have partially filled it with comb; and in Mexico, where bees are often kept in flour barrels, I have seen them swarm when the barrels were not near filled with comb I have repeatedly had swarms from old gums holding over two bushels, and a few days ago a swarm issued from a stock of Italinn bees, to which over two bushels of storage ronm for surplus honey had been given-two hives being placed over the old stock. in the method described in plate v ., fig. 16, of the third edition of my book The bees had filled the second story, and were busily at work in the third. It is very evident, therefore, the ample storage room cannot always be relied on for preventing swarming.
2. Many devices have been contrived for preven:ing swarming by contracting the entrance to the hive so as to prevent the queen from leaving. while free egress is allowed the workers. At one time I looked upon what I called my non-swarmer with considerable favor; but longer experience has convinced me that it will not answer. It is true that if the entrance is made exactly five thirty-seconds of an inch high, the queen cannot ket out. and the bees after swarming will return to the hive. But such accuracy of adjustment is difficult to obtain, and the bees are seliom reconciled to the
squereing necessary to enter the hive, by which many of them have their pollen rubbed off. The whole colony is also thrown into great excitement every day, when the drones attempt to take their flight ; and the entrance must be enlarged daily, early in the morning or late in the afternaon, to allow the bees to carry out dead drones and imperfect brood, which they have been dragging for hours about the contracted passage.
3. ©lipping the wings of the queen to prevent swarming is an old device, but one which with the ordinary arrangement of hives can never be relied on. A queen without wings feels perfectly competent to accompany the swarm, and will hop off the alighting board and in most cases be lost in the grass. The bees return to the parent stuck, to await the development of the young queens, and will then swarm, often three or four times.
4. From some expeciments which I have tried this season, 1 think that 1 can effeetoally prevent swarming, without in the least interfering with the natural instincts of the bees.

The bives in which swarming is to be prevented should all have their alighting boards resting on a large board placed on the ground. and the wings of the queens should be elipped in the way described on page 223 of my book; so that if she leaves she mny easily crawl back to the hive, when attracted by the loud hum of her returning colony. She will not be disposed to leave often; and the bees will probably aid her in destroying the matnring queens. of this however, 1 shall be more certain after an enlarged course of observations. If the bees should prevent the destruction of the young queens. and the old one should be killed, then the whole plan will fitil. Of this. however, I have little fear-1.. L. Langsiroth. Oxford, Ohio.

## Choice Honey Crops.

The movable comb hive is peculiarly adapted for the purpose of collecting and securing, in its pure state and unmixed with other kinds, the honey yielded by any particular species of tree or plant. For instance, where lindens, locusts, peach or other trees abound; er where white clover, mustard, lavender, sage, or similar plants are largely cultivated; it is only necessary, when any of these are in blossom, to insert frames with empty combs in the hive and remove them when filled. If the honey is intended for immediate use, it is not necessary to delay the removal till the cells are sealed over, and the contents can then be more readily drained out and the combs the more speedily re-inserted. But to secure this object oompletely and secure the largest amount of the particular kind of honey desired, there should be no unsealed brood in the hive during this period, as it would demand a large expenditure of time and attention on the part of the workers, and involve no inconsiderable consumption of honey. The queen should, therefore, be confined or removed five or six days prior to
the intended operation; and released or restored after it is ended. The brooding chamber or proper dwelling place of the bees, should also be amply stored with common honey, so as to offer the workers no vacant spaces or empty cells; because they would instinetly fill their immediate quarters with stores, before carrying honey to the more remote parts of the hive. Hence, when any particular kind of pasturage abounds, and the brobding apartment is yet partially empty, it will be serviceable to take out the frames with empty combs, and insert combs of sealed honey in-stead-thus constraining the bees to carry their daily gatherings to the combs designed to receive them. When the apiarian has once thoroughly established the movable comb system in his apiary, he will almost always have on hand supplies of frames with sealed honey, and be prepared to effect the requiste arrangements. But if he is yet a new beginner, he should remember that full combs may be taken for this purpose from such common hives as are not intended to be wintered; or if he should subsequently conclude to preserve them, the honey may be restored after it has served this temporary purpose.-Bee Journal.

How to Treat Beb Robbers.- When robbing bees attack a weak colony having a fertile queen. it is advisable to remove it from its stand to a dark chamber or cellar. Set an empty hive in its place, strew therein a handful or two of the stems and leaves of wormwood, and rub the front of the hive and the bottom board therewith. The assailants will soon forsake the spot and the colony $m$ y be replaced on its stand on the evening of the following day.-Bee Journal.

The effects of chloroform on bees is thus told: "He clowed the door, then covered the hive with a cloth, and blew chloroform into the hive When the bees had fallen to sleep they were easily removed to anotber bive without harm to any one, and next morning were all awake and in a lively state "

Far The Baron of Berlepsch has had colonies in his apiary which increased eleven pounds in weight in one day. Mr. Kader, of Mayence, had one which increased twenty-one pounds. und the Rev. Mr. Stein. of the same place, one which increased twenty-eight pounds in a day.

[^9]
## THE HORTICULTURIST.

## Horticultaral Hints.

August, the harvest month of the farmer, is not an idle one to the Horticulturist. In the usual toils of the season the farmer may forget the little attentions which his orchard and garden may require to perfect the crop and crown the feast of ingathering with luscious fruits.

The heavy labors in the orchard, garden, and nursery are all over, and, if well done, the second growth and rapid development to maturity is gratifying indeed. But look out for the next year's work, in the abundant crop of seeds ripening in the few or many stray weeds which escaped hoe and cultivator. Run the cultivator where you can, hook up every stray weed in all the crops, run the horse-hoe and light subsoiler in all the root crops. Look to the orchard. Select finest froits and tie them to the branch with an envelop of musquito netting ; you will in this way save samples from various depredators, also for the fairs, and get some beautiful particolored specimens.
Early fruits of apples and pears can be kept until the fall exhibitions. Simply put into glass jars, fill up with pure cold water, seal up and bury in the ice house, or in earth in the cellar. They will retain their form and color, and not crack from evaporation as when put up dry, but in order to retain flavor an addition of a little white loaf sugar to the water is necessary.

Clean away sprouts and rubbish from your trees, so that the trunk and crown may be hardened by exposure to the weather, and better prepared for winter, besides destroying the harbor of many insects which prey on tree and fruit. Remove nests of worms, if any remain. Attend early to the budding of roses and young trees if they are growing well.

Pruning and ringing should now be done to develop fruit buds for another year-the first, by pinching in the young shoots of the branch; the second by taking off a ring of bark onefourth to one-half inch wide near the base of the branch, or by tying a cord tightly around the part. In large branches it will be necessary to scrape the wood a little after taking off
the ring to prevent the downward flow of sapdo no severe pruning in the vineyard or orchard after the first of the month, except sprouts. Every leaf now enlarges the root. Straw your tomatoes to keep the fruit from the ground and eut back the ends of vines after the fruit has well set. Setting of strawberry beds is not recommended, except as they may be very convenient to move with a little earth, then with a thorough mulohing, plenty of water, and a little covering from the sun a few days may do well. Layers can still be made from roses and many soft wooded plants by tongueing and pegging, covering the parts with compost, leaf mold, or well rotted peat. Layer pansies, petunias,
verbenas, \&c., of choice varieties for winter stock.

If not done before, drive good stakes for the dahlias, tie up and trim off surplus side shoots and suckers. Clean out all weeds and may be thin out the plants in flower garden that you may have a fine show in autumn.

Save seeds from the garden and flower beds of the choicest varieties. Have ready some paper bags with the names written on them, and gather a few at a time, leaving them open in an airy place to dry; then by a little neighborly exchange, you will be provided at little cost with the nucleus of a glorious show and substance another season.
J. C. P.


No. 1.
Ed. Wis. Farmer :- In the earnest desire to get some additions to their list of early fruits, some of our friends are inquiring after the old varieties, two of which we herewith describe, and will follow with some of the new as well as old which we can recommend.

No. 1.-Summer Rose - An old variety but little cultivated in the West, probably on account of its slow growth. Its irregular dwarfish habit of tree will render it unpopular for market oultivation, but it succeeds well on the strong clay soils of this State-and its hardiness, earliness and excellent quality of fruit are in favor of its adoption for the gardener and amateur. It really is a great desideratum in the apple line. It has
fruited several years past in the strong burr-oak soils in Jefferson and Dane counties. Tree, moderate grower, hardy, spreading, and requires high cultivation.

Elliot describes it thus: "Fruit medium or rather smail-roundish, sometimes flattened; color, rich glossy yellow and streaked with red; stem varying from stout to slender, short ; cavity shallow; calyx partially closed; basin round, slightly furrowed; flesh white, tender, crisp, juicy, sprightly, (aromatic); core medium ; seeds ovate."

Season-middle of August into September.
No. 2.-E $\begin{aligned} \\ \text { rly Margaret.-(Syn.-June, Red }\end{aligned}$ June-eating, \&c., \&c.)-Another old variety of
excellence in fruit, but doubtful in tree for the North-west.

Fruit medium or below, roundish oblong conical, green and crimson red; stem short, thick cavity, medium; calyx closed; shallow basin ; flesh white, fine grained, tender, good. The tree is a moderate bearer, upright showy shoots, resembling in growth, but not equal in character of the tree, or fruit to the Early Strawberry, which is quite vigorous, of upright growth, with erect long leaf and stalks ; fruit small, roundish, conical and yellowish, white, nearly covered with brilliant red; stem long, slender; deep, rather wide cavity; small basin, flesh yellowish white, tinged with red; sub-acid, sprightly flavor. Season - August. An amateur and dessert fruit.
J. c. P.

## Drainage---A Tile-Drained Orchard.

We have already (in a former volume of the Farmer), discussed the principles and practice of drainage, strongly urging its many advantages, and pretty conclusively demonstrating, as we think, that it removes stagnant water from the surface and from beneath the surface; that it carries down soluble minerals and manures to the roots of plants; that it ensures the æration of the soil and the preparation of mineral substances for assimilation by the plant; that it warms the subsoil and equalizes the temperature of the soil generally during the important period of growth-by all these means, facilitating pulverization, deepening the soil, lengthening the season, preventing injury from drouth, rust and rot, and improving the quantity and quality of the crops. It is not our intention, therefore, to re-demonstrate these propositions unless they should be called in question. They are as true as that water tends to run down hill, and the sooner they are recognized as truths the better for the agriculture and horticulture of the country.

Owing to the cheapness of our rich lands, however, and to the reluctance with which farmers, as a class, let go of old prejudices and adopt new systems of practice, we have scarcely hoped for the general introduction of drainage, as one of the fundamental operations of farming, for some time to come.

As a part of gardening and oreharding, however, it is absolutely essential, and will be omitted by no sound fruit-grower who has carefully considered the advantages derivable therefrom.

But we set out with the purpose of recording some of the actual results of thorough drainage as practiced by an enterprising farper and gardener in the vicinity of Milwaukee. We refer to Dr. L. W. Weeks, whose beautiful and productive lands lie just out of the corporation on the south side, next the Lake, and whose fine garden and beautiful orchards, are of themselves, a better argument in favor of drainage than we could frame in a month.

A few years ago a considerable portion of his now large and handsome farm was an impassable lake marsh To-day it is covered with the most luxuriant growth of garden vegetables we have seen for y6ars; reclaimed by ditching, brush and tile draining, and by managing the course of a stream partly natural and partly derived from his upland drains, so as to secure a depost of the wash where it could most successfully encroach upon the swale. As we walked over these gradually made and now highly cultivated possessions, picking our way through the great growth of marketable vegetation, the transformation from what we could plainly see it had been to what it then was, seemed almost a miracle.

But the wonder of wonders, among the visible results of drainage, was found on the upland, where we were conducted into an orchard of several acres, rejoicing in the boundlessness of its fruit-growing capacity. Not an apple orchard, mind you, but of pears! And such an orchard! Trees, both dwarf and standard, smooth, clean, thrifty in growth and perfectly healthy, in a word, the finest we ever saw anywhere. And the fruit-well, as to quality, it can't be beaten in the world. Every blossom would appear to have fruited, and alreadyearly in June-the boughs were bending under its weight of genuine little pears, that seemed a sort of dreamy realization of what our enthusiasm had oftentimes pictured for the fruit lovers of the wiser future, when Nature's conditions shall all be known and faithfully fulfilled.

The soil in which this orchard is growing has a considerable proportion of clay, and, though it slopes a little towards the beautiful and romantic glen which separates it from the handsome grove reserved for a building site, is nevertheless inclined to be wet, and but for the thorough drainage effected by tile laid between the rows, could scarcely hope to produce healthy pear trees, much less such a profusion of the most desirable and delicate varieties of fruit.

In view of all the discouragements incident to fruit-growing in general and to pear-growing, in particular, in Wisconsin, we consider this orchard of the Dr.'s a triumph of which he has a right to be proud, and a demonstration of the advantage of tile-drainage, which every horticulturist in the country should be prompt to acknowledge by the adoption of similar measures for the surer success of his own orchard. On behalf of the Agriculture and Horticulture of our State we heartily thank the Dr. for this important pioneer example, and on our own individual account for the very great pleasure derived from an inspection of his ably conducted farm.

Unhappily, the afternoon of our visit was so foggy as to eclipse the city and surrounding scenery, which, in fair weather, must present a beautiful view as commanded by the grove already referred to; but the premises of themselves were enough to charm an enthusiastic admirer of thorough culture, and we have promised ourself another afternoon there, at some time in the future, when, weary of the heat and hum-drum of city life, the Dr. and his family shall have sought the cool and fragrant country air and the purer joys of a quiet suburban home.
Inoculation---Budding.

Budding affords the most rapid means of the propagation of most varieties of fruits known to Horticulture : yet comparatively few out of the professional ranks are familiar with the principles which underlie a successful practice of this very interesting operation. We will now. therefore, briefly detail the process as we perform it, and may suggest some practical ideas new to others.

The conditions under which a successful result may be expected are-

1st. Stocks of a suitable size, usually twice to four times the size of the scion from which the bud is to be taken. The stock must be one that has been growing vigorously, and will be for several days after the bud is inserted; then the bark will peel freely, and the cambrium or new deposit of sap wood, will be in a pulpy state, just right to nourish the bud.

2d. Scions, with well matured, prominent buds; and to secure this, the scion should have formed its terminal bud, or have been pinched in ten days previous, to ripen the wood and develop the buds. The leaf and leaf-stock should be removed immediately after cutting, close to the scion. Scions cut in this way can be preserved for days and weeks if rolled in damp cloths, or sent by mail rolled in oil silk-air tight.

3d. Some good tying material, prepared before hand. Many kinds are used, the best of which is bass matting prepared from the inner bark of basswood, rotted or boiled sufficiently to seperate the layers into paper-like sheets, which can be stripped into bands of convenient size. The inner corn husk, dried, softened, rubbed soft, and stripped up, is an excellent material if used with skill. Yarn, cloth, or twine can be used if nothing better is at hand. Whatever the material used it should be moistened only enough to make it pliable. Many buds fail from shrinkage of the band.
4th. A sharp, smooth-edged, thin-bladed, cen-tre-pointed knife, with small handle. The blade should have a rounded point, thin and sharp on one edge, and the back near the point thin and dull; this back is to lift the bark and push in the bud. This we find by long experience the best form and far superior for rapid work to the regular "budding knife."
Having the materials ready for work, select a smooth place upon the north side of the stock, draw a lengthwise incision of an inch or more with a cross cut at the foot, presenting an inverted $\perp$, raise edges of the bark at the corners, and it is ready for the bud. Place the knife one half inch above the bud on the scion, and, with a dishing cut, carry it downwards and into the wood enough to give firmness and stif-
ness to the bud slip ; bring out the knife threefourths of an inch below the bud, then insert the slip and push it up gently to its place with the back point of the knife; close the bark down on each side and apply the band thus: Place one end on the stock, a little below the bud; hold it firm with the thumb until with the other hand the band is brought round and lapped over so as to bind the end pirmly. Thus wind firmly and gently up the stock avoiding the bud, and when fully above, underlap one or more to hold the end fast, and the work is done. There are many ways of performing this simple operation, and perhaps better than the one described, but we admonish the beginner, that unless the band is firmly and securely put on, it will shrink loose, to the destruction of the bud. We shove the bud upwards because the shoulder below the bud will bear much more pressure of the knife than the leaf stcek or bud will in pushing down, and it is often the case that we have no leaf-stock, as with rose cions, and in spring budding, with cions saved over. After about ten days loosen the band, usually by drawing the knife down the opposite side from the bud, which will be found adhering and fresh, if successful.
Spring budding can be performed in May or June with scions from the winter cutting, and started immediately by topping the tree; it is not recommended for fruits, but succeeds well with roses. The budding season for the Northwest begins the last of July with old and not very thrifty stocks, but for young nursery stock the last half of August and first half of September, or as early as good mature scions can be obtained and as late as we can be sure of ten days growing weather after the operation; the time to be determined by two conditions, viz.: state of scions and state of stock. But the seasons come nearly after the following order: Rcse, cherry, plum, pear, apple, quince, Mahaleb cherry, and peach.
The whole operation is very simple, but must be performed with exaet observance of the several conditions of stock, scions, tools, time, and with a certain dexterity which can only be aequired by practice. But the art is one which every young man and young lady who has a
taste for rural life should learn, and which, if generally acquired, would add largely to the general interest in Horticulture.

Vixe Hzul, Madison, Wis.
J. C. Plumb.

A Home-Made Plant Syringe.-Geo. E. Brackett, of Belfast, Maine, tells the Maine Farmer how he made a syringe for use in his garden :
"I bored a hole two feet long, with an inch-and-a-quarter "trunnel-auger," through a piece of $2 \times 2$ spruce scantling, and planed it down, taking off the corners, making it eight square, then plugging one end firmly-this was the cylinder. I then took a stick an inch through, and enough longer than the cylinder to be easily grasped by the hand, and made a piston from it by winding woolen yarn around one end, and fitting it exactly to the bore of the cylinder. A cross peg was put through the piston-rod near the upper end to prevent its forcing out the plug; several small holes were then made through the plug, and the syringe was complete. This merely as an example; of course it may be changed to meet the means of all, as regards wood used, size of bore, \&c, There should be several fine holes through the plug, some of them slanting to the centre, so as to cause a shower of water in fine streams or jets. "Poh! that's nothing but a 'squirt gun.'" Very well, never mind the name, if it answers the purpose."

## How Are Double Flowers Produced?

In reply to this question, the Maine Farmer says:
"We believe that nature never produces double flowers. They are considered among botanists as beautiful monsters. They are generally, indeed we may say always, the production of skillful management of the cultivator. The Dutch gardeners have been very successful in this kind of production. The principle of doing it is to keep the plant growing rather stintedly on poor soil, until all the organs of flowering are beginning to show themselves, then pushing it by liberal watering with liquid manures. This operation is founded on the physiological habits of plants. You have undoubtedly observed that the first exertion of the plant is to get its growth, then it stops this part of the operation and makes flowers, then this operation stops, and the whole energy is bent on maturing and perfecting the seed. This seems to be the great end and object of its life, and this done, it ceases any further action for the current season at least.
"As a general rule, therefore, they so grow the plant that the system which supplies ma-
terial, or elaborates what may be called the bodily growth of the plant is not stimulated much - merely fed enough to give it fair growth. After this is done, and the energies of the plant begin to be expended on the formation of the flower, push it as vigorously as you can. Feed it high. This extra feed will expand the stamens into flower leaves, and thus you obtain double flowers. Sometimes this feeding is carried so far that every stamen is converted into a flower leaf. In this case, the flower becomes barren, and no seeds are produced, and the only way to propagate the plant will be by dividing the roots, or by cuttings and layers.
"An exchange, speaking of this subject, says:
"The best raiser of the stock gilly that I ever knew, used to grow his plants in very small pots and poor soil, until the blossom buds began to form; he then planted them out in a bed of rich soil, and supplied them liberally with manure water, until the seeds were ripe, and from the seeds so produced, he had a large proportion of plants that had double flowers, and the plants of a fine dwarf habit, which would not be the case when the stimulus was applied during all the period of growth.'"

## SCIENCE, ART, STATISTICS.

## Meteorological and Tidal Observations.

During a recent visit in Milwaukee on which occassion Mrs. H. and ourself were the guests of I. A. Lapham, Esq., we were favored with an opportunity of examining the methods of scientific observation practiced by this able and faithful investigator, and likewise of examining a new and very ingenious instrument for determining and recording the changes in direction, force, velocity, \&c., of the winds.

For many years Mr. Lapham has been a careful observer, under direction of the Smithsonian Institute, of Meteorological phenomena in Wisconsin, and to no man in the West are the Natural Sciences generally more indebted for their recent progress. First to make a geological and botanical exploration of this State-and even of large portions of the neighboring States, Illinois, Iowa and Minnesotahe has also been first to make important deductions from series of observations on the waters of Lake Michigan, and to determine the existence of its lunar tide.
The more ordinary observations of the me-
teorologist on the degrees of temperature, the frequency and amount of rains, density of the air, \&e., \&c., are familiar to all who know anything of the thermometer, the rain guage and the barometer. But the operation of the Tide Guage and the Anemograph, and the results attainable thereby, are not generally familiar and will be interesting to our readers.
The object of the Tide Guage is, as the name indicates, to determine the precise extent frequency and duration of the tides on sea or lake. A little house is built in the harbor, within which and upon the water is placed a float connected with simple but ingeniously contrived machinery which at the same time slowly reels off a long scroll or belt of paper, long enough to last one month, and with a pencil marks thereon a wavy line whose deflections or variations correspond exactly to the ebb and flow of the water and measure the degree of rise and fall. It also shows with unfailing certainty the number and degree of swells- occasioned by the movement of ships, and hence furnishes a record of arrivals and departures.

The Anemograph (wind-writer) is a very recent invention by a Mr. Burnell, formerly of Ohio, but now a citizen of Milwaukee. Its object is to determine the direction, velocity and force of the winds. The particular instrument which it was our privilege to examine, is now in operation at the residence of Mr. LapHas. It consists of a vane-with a slender blade to determine the course of the wind and four semi-circular brass cups to catch the wind and ensure the revolution of the whole vane with a rapidity proportionate to its force-and an instrument similar in its general objects, to the Tidge Guage referred to above. The vane is, of course, several feet above the top of the house; the instrument in a room below-the former governing the latter by a rod of iron which passes down through the roof and ceiling to its proper attachment. The machinery is regulated by clock work, and the marking is done by a pencil which leaves a complete and infallibly accurate record of all the wonderful and fantastic movements of the fickle winds above. Observations for a brief and isolated
period would, of course, be of little value other than to amuse the observer; but when continued for a number of months-especially if made at different points with a subsequent comparison-may reveal habits and laws of the atmospheric ocean which shall greatly extend the domain of meteorological science, and practically result in the saving of many valuable cargoes and precious lives on all our Great Lakes.
We have not space in this number for further detail. These thermometers, barometers, psychrometers, tide-guages, and anemographs, so silently and faithfully watched by the noble brotherhood of scientific men in all parts of the civilized world, doubtless appear to the unlearned but toys and wasters of time, but their great value to the future of science and the world's higher civilization is none the less on that account ; and the time is not far off, we trust, when these modest, patient workers on the outskirts of human knowledge will be duly appreciated for their unselfish devotion and the incalculable good which shall result from their unrequited labors.

The Gulf Stream and the Maelstrom--A Query?
Editor Wis. Farmer :-Being something of a student of natural phenomena, I have for some time been desirous of presenting an idea in the form of a query to your numerous intelligent and scientific readers, hoping thereby to provoke inquiry among them and to arrive at further traths respecting the wonders of nature.
My idea is this-are not the Gulf Stream, so remarkable in the nautical world, and the Maelstrom, of the coast of Norway, not less remark. able, two parts of one and the same natural phenomenon Is not one the silent and unobserved yet natural result of the other?
If I am well informed on the subject, there is no more reasonable explanation given to the Maelstrom than that it is the mouth of a vast subterranean passage or river of water, similar to what have been seen, on an inferior soale, in our mammoth caverns; and it is not unreasonable to suppose that it might traverse half the diameter of the earth. The origin of the Gulf

Stream is found to be off the North-East coast of South America, in which vicinity nautical discoveries find the sea in a ceaseless state of boiling and commotion. From thence the water indicates a high state of temperature and forms itself into a current in the direction of Iceland and the Maelstrom, and is usually called the Gulf Stream.
Lieut. Macry accounts for it on the ground of a considerable difference of temperature between two portions of the sea-but is this satisfactory? Why is it always the same stream, and why not others quite as remarkable? What is more changing in its course than wind caused by unlike temperatures? Now I suppose that vast quantities of water find their way through the Maelstrom into the bowels of the earth where through heat and a well known magnetic influence, they are more quietly ejected, through a larger opening, into the bottom of the sea off the coast of South America. From thence, by means of the momentum of this same as yet unexplained magnetic influence in addition to the force acquired by the difference of temperature as mentioned above, it takes the course of the Gulf Stream
That powerful magnetic currents exist in the earth which greatly exercise physical bodies, there is no dispute. The great magnetic circuit, lately discovered in the earth. which operates so powerfully on the magnetic needle does not lie very much out of the direction of the Gulf Stream. Then may there not be a grand connection and relation of interdependence between the Maelstrom and the Gulf Stream?
JixEstiter, Wis, 1861.
delfa.

## The Army Worm.

The ravages of this insect have been so extensive and serious in many portions of the country this summer-particularly in Ohio, Indiana, Kentucky, Tennessee and Missourias to render its identification by the naturalist a question of much interest. Harris, in his work entitled "Insects Injurious to Vegetation," describes an army worm, but it appears not to be this one-at least it differs both in character and habit, from any that we have seen described the present season.

Mr. Klippart, of Ohio, who has furnished a communication on the subject to the Ohio Farmer, thinks it is not produced from the egg; but others profess to have watched it in its various stages of transformation from the egg to the perfect miller or moth.

Mr. C. Thomas, of Illinois, thinks it is closely allied to the noctua clandestina (clandestine owtlet-moth) of Harris, and in a communication to the Prairic Farmer gives the following description of the worm and the crysalis, together with drawings, engravings from which have been kindly loaned us by the proprietor of that excellent paper, and are herewith presented:
 taking on the miller form; they are life size taken from a fair sample of a number of worms. The lower light stripe is not as distinct as it should be, otherwise it well represents the worm.-Eds.
The larva or worm when full grown is about one inch and a quarter long, diameter usually something less than one fourth of an inch. Has six true legs (legs with claws) two placed on each, the first, second and third segments back of the head. Also eight ventral pro-legs, two on each of the sixth, seventh, eighth and ninth segments, and two legs at the latter end of the body. It is striped lengthwise with dirty-white and greenish-brown or dusky stripes arranged as follows: Along the back is a broad, dark or dusky stripe darker in the middle, fading toward the borders and bordered with black. Next below this on each side comes a narrow whitish stripe; next below this comes a narrow dark stripe; and next comes another white stripe which frequently has a reddish cast, this last stripe is immediately above the legs and along the line of the stigmatae or breathing pores. All beneath pale green. The legs are often marked with spots or rings of black. The head is large, equal in diameter to the segment next to it. It is marked with two dark lines that arise from the sides of the mouth and extend over to the back part of the head; they approach each other in the middle and again recede behind. The prominent cheeks or sides bounded by these lines are of a pale fulvous color chequered over with narrow lines of dark brown. There are a few seattering hairs over the body and on the front part of the head.

These larve vary somewhat in their coloring, some being lighter than others, some also have on some of the segments smooth tuberculous spots. And from these differences and the fact that the pupw differ in size, I am inclined to the belief that they belong to different species.

The habits of the Army Worm, as observed by Mr. Klippart, are thus described in the communication already referred to:

I have not observed them attack anything of the vegetable kingdom other than Graminacerethat is, the cereals and true grasses. They do not attack any weeds whatever, and notwithstanding there were trees and shrubs along the line of railway between Dayton and Xenia, where they destroyed every blade of grass, all the weeds, trees and shrubs escaped unmolested. The grassy space over which they traveled appeared as if the vegetation had been burned over, every stalk and leaf eaten down to the root. Clover they avoided. When they enter a field of barley, they commence on the leaves and devour them entirely, close to the joint, and then crawl up the stalk and cut the head off, within an inch or two of the stalk. Oats they destroy in the same manner. I observed a field of rye near Dayton, which they had completely stripped of all its foliage, but the heads were unmolested; the heads were as green as usual, and appeared not to be injured. They destroy the foliage only of wheat-the heads are not attacked
The army moves straight forward in the same general direction in which it starts, turning neither to the right nor the left-crossing fences, roads, paths, and dry ditches. In the meadow ground above mentioned, is a small stream of water. The worms moved forward to its banks, fell in the water, floated along the sinuous current until they lodged against some obstacle, to which they attached themselves, and crept out, sometimes on the same bank from which they had fallen, and at others, on the opposite one. Where the stream of water passed under the fence, a stake happened to be set in the middle of the stream; this stake was literally covered with worms that had been carried down the stream, and were escaping from a watery grave-they will float from twenty or thirty minutes before they sink. I observed several places where they had crossed dry ditches with almost perpendicular banks more than a foot high.
The "line of march" is sometimes not more than a rod or two in extent, from right to left; sometimes, however, it is the entire extent of the field. Although the corps d'arme comprises millions of myriads of these worms, they do not all move "abreast," but are scattered over the space traversed. In the meadow ground above mentioned, where the main army had passed four days before my visit, I found, at least, one hundred live worms on a square foot, and most of these were of the whitish
caste, although a good share of them were black.
It is said that a very hot sun after a shower, is very destructive to these worms ; that they secrete themselves on the under side of the foliage of plants during the heat of the day, and become more voracious at the close of the day than at any other time. Some who profess to have paid considerable attention to their operations, state that they live about fortyeight hours, and consume about four times their weight of green vegetable matter. On this part of their natural history I am unprepared to say anything, but from the number of dead ones found in the line of march, I think it very probable that their term of life does not exceed two or three days.

Some farmers have saved their crops from attack, by digging a ditch, say two feet wide and a foot deep, and as soon as the army had moved into the ditch, it was filled with straw and fired-in this manner all the worms which were in the ditch were destroyed. Others plowed a double furrow, placing the ground on both sides, and making the sides and bottom concave rather than square; when the furrow was full of worms, a short $\log , 15$ or 18 inches in diameter, was drawn through the furrow by a team, and the army thus destroyed. From what I have seen of their aquatic performances, I am fully persuaded that they would cross a narrow ditch having a slow current of waterfor they are comparatively good swimmers, when it is remembered that very few kinds of worms float at-all, but sink the moment they strike the water. I threw some of the army worms rather violently into the stream, where the water was about six inches deep; and like Falstaff in the "Merry Wives of Windsor," they went to the bottom, crawled an inch or two, then bounded to the surface, floated three or four rods, struck at some obstacle, and crawled out on terra firma. This I did repeatedly in presence of several witnesses.

Birds, poultry and pigs appear to be very fond of them, and destroy great numbers. It appears to me that just as good results will be obtained by placing straw over the worms and burning it, as to dig a ditch-it will require perhaps somewhat more straw, but then a ditch often spoils a field. Burning straw on them appears to be the most effectual remedy-the heat from the burning straw, especially if a light wind is blowing in the proper direction, has been known to kill millions of them that were at least a rod distant from the burning
straw.
I have learned of no experiments, but it appears to me that a strong solution of alum, or copperas (green vitrol) bountifully applied to the grass, or foliage whieh they are about to attack would destroy them. Or if they were thickly sprinkled with caustic lime and then sprinkled with water, while the sun was shining down pretty warm, it would, I think, de-
stroy them, and do the land less injury than ditching, or in a meadow would do less harm than burning straw.

The farmers of Wisconsin who may suffer at some future invasion of this insignificant yet destruetive foe will be pleased to know that naturalists in all the States ravaged this season are after him with that eagerness for $a^{*}$ " better acquaintance" which is almost certain to result in the discovery of some means by which he may be out-generalled.

Mr. Emery, of the Prairie Farmer, writes us that he has succeeded in breeding the miller, and that he will be pleased to furnish us with an engraving of his mothship as soon as perfected.

## The Mystery of Comets' Tails.

There is nothing in nature more mysterious than the growth and motion of the trains of comets. When a comet is first discovered by a telescope it generally has no tail, appearing like a faint star seen through a haze. As it approaches the sun the tail is developed, starting out on the side next the sun, but being immediately turned back, as if it were a flame acted on by a powerful blast coming from the sun. The nucleus or head of the comet is matter, though lighter than the thinnest fog, but the tail is either not matter at all, or it is acted on by forces which do not manifest themselves on this earth. If the train were simply matter, acted on by gravitation, it would follow the head in its track around the sun, consequently bending, as the head sweeps around the part of its orbit nearest the sun, into nearly a semicircular curve. Instead of this, the train ahodys points from the sun, swinging around as the stream of light from a lantern in the fog does when the lantern is turned. As the trains are sometimes of such length that they would reach from the sun to the earth, and as the comet when nearest the sun moves through many degrees of its orbit in a few hours, the end of the train is swept around with a velocity which forbids the belief of its being matter possessed with the property of inertia.

The velocity, too, with which the tail is shot forth is irreconcilable with the idea of its being snbject to the law of inertia. The tail of the great comet of 1680 , immediately after its perihelion passage, was found by Newton to have been no less than sixty millions of miles in length, and to have occupied only two days in its emission from the comet's body.

One of the most singular phenomena of comet's tails is the violent commotion observed in them. Flames stream forth from the nucleus in fan-shaped and various other and swiftly changing forms, toward the sun at first, but
bending quickly back as if encountered by a furious blast, and then streaming away millions of miles into the sky. This may be owing to the intense heat to which they are exposed from their proximity to the sun. The great comet of 1843 approached the sun within about a seventh part of the sun's radius. Sir John Herschel calculates that at this distance the heat of the sun would be 47,042 times greater than it is at this earth, and at least $24 \frac{1}{2}$ times greater than the heat in the focus of Parker's great lens, which melted cornelian, and agate.

Usually, as the comet moves away from the sun, the train, which it is now pushing partly before it, gradually diminishes till it disappears altogether. Sometimes, however, the train is obliterated in the vicinity of the sun, the comet emerging from the sun's light without any tail whatever. At other times the tail is the longest just after the perihelion passage; at others there are two or three or more tails branching out like a fan. They are frequently curved like Donati's in 1858, and exhibit a great variety of singular phenomena, which are an incomprehensible mystery to the students of astronomy.

At' about the same time, Bissel and Prof. Pierce, each independently of the other, offered the suggestion that the trains of comets may be electricity. Perhaps they are simply light; the sun's rays, in their passage through the unknown substance of the nucleus, may acquire the power-analogous to polarization-of producing the vibrations which constitute light.

The heads of comets are unquestionably formed of material substance, as they are acted on by gravitation, and reflect the sun's light, but this substance is generally of extreme tenuity. Stars of the smallest magnitude have been seen through the densest portion of the head, and, in the language of Sir John Herschel, "The most unsubstantial clouds which float in the highest regions of our atmosphere must be looked upon as dense and massive bodies compared with the filmy and all but spiritual texture of a comet." In some, however, a very minute stellar point has been seen, indicating the existence of a solid body.

Among the mysterious phenomena presented by the head, is its diminution in size as it approaches the sun, and its re-expansion during its retreat. It also throws off nebulous envelopes one after another, during the formation of the train, in a very curious manner.

Many of the comets move in elliptical orbits, and continue to revolve around the sun. But the orbits of a few have been ascertained to be hyperbolas, and these consequently will never return. Light, ethereal volumes of vapor, they come from unmeasured distances above, below, or on either hand, with constantly accelerating velocity, rush in strange turmoil around the sun, and then move more and more slowly away on their solitary coures into the depths of space.-Scientific American.

## Rosa Bonheur, the Artist.

A recent Paris letter has the following respecting Rosa Bonhsur, the greatest of female painters:

Rosa Bonheur's atelier, built by her, in the house she so long inhabited, but has lately quitted, in the Rue d'Assas, was one of the largest and most beautiful in the capital ; full of birds, pictures, modellings, and the artistic gear so beloved of artists, and its walls hung with her own incomparable studies. There, on Fridays-the only days on which her doors were opened-she used to receive all comers, dressed in a sort of round, long-sleeved, pinafore, of unbleached linen, that enveloped her from the neck to the feet; her intelligent face, with its small, well-cut features, bent upon her easel, and painting busily while talking with her gueats.

A more original individuality than that of the renowned lady-artist, in person as in mind and talent, could not be found in all Paris. Her short, wavy hair, parted on one side, her bright gray eyes and charming smile, her beautiful hand, and the extreme simplicity of her manner, will never be forgotten by any who have once seen her; while her great generosity, goodness and uprightness will seem to all who know her more intimately, to be the fitting and natural accompaniment of her genius.

Entirely absorbed in her art, she has lately quitted Paris, because the importunities of visitors made too heavy a demand on her time, and has transported to an estate in the country her menagerie of ponies, donkeys, fawns, dogs, goats and birds, with her carved oaken furniture, and the skins which are the only species of covering, she will allow to lie on the floor
of her studio. of her studio.

## Coating Fence Posts with Cement.

Wm. Kenney, of Paris, Ky., makes the following suggestions in the Country Gentleman of the 14th inst.:

A few evenings since, while engaged in setting fence posts, I was revolving in my mind the many suggestions offered for their preservation, and while thus engaged an idea ocurred to me, that I do not recollect to have ever heard advanced, and which I submit for your consideration and use. Hydraulic cement has been used for many purposes other than stopping leaks and plastering cisterns. It makes a hard and durable paint, mixed with flax seed oil, for wood work and out-door machinery much exposed to weather, and is impervious to water. After once mixing it with water and suffering it to harden, it cannot be again dissolved, and on plastering cisterns when fully dried, it is there for all time, and as hard as adamant.

Now suppose we were to prepare a solution of this cement in water, and give the ground end of our fence posts several successive dippings, drying after each dipping, to the depth we want them to stand in the ground-might it not make some of the less durable timber more durable for posts-equally so with the yellow locust or cedar? The materials are cheap, and it costs nothing to try it-and had the idea occurred to me before I was about finishing mine, I should most undoubtedly have tried it.

## Cost of Making Iron on Lake Superior.

Mr. Gay has furnished us the following schedule of the cost per ton of making iron at his two furnaces, located, the one at Collinsville, three miles from here, and the other at Forrestville, two miles above on the same stream, both being operated by water-power:
Cost of ore per ton,.................................................
cost freight on railroad, per ton,
Cost $\$ 1871 / 3$
Cost of hauling ore to stacks, and iron back to rail.
road, per ton,
Cost for flux, per ton,........................................................ 150
Cost fordabor, per ton,....................................................... 200
Cost for coal, per ton,
200
Cost for cool, per ton,........................................
Cost of railroad charges, hauling pig-iron to dock,
per ton,....................................................................
25
cost of dockage, per ton,...........

$$
\text { Cost on board,.......................................... } \$ 1525
$$

Mr. Gay has sold his iron the past season, delivered on the dock at this place, at twenty dollars per ton, which leaves a balance of $\$ 475$ per ton in excess of the cost of manufacture. The capital invested in the Collinsville Furnace, is $\$ 18,500$, the interest of which, at seven per cent., would amount to about thirty-three cents a ton, leaving the manufacturer a net profit of $\$ 442$ per ton. The cost of the upper furnace was something less, about $\$ 12,000$. Each furnace will turn out, with an ordinary run of luck, at least 3,000 tons per annum, and of course the product of the two would be 6,000 tons per annum, and might be considerably more.-Lake Superior Jourmal.

A scientific gentleman, of Boston, has performed successfully the experiment of freezing earbonic acid gas by condensing it. The thermometer, during the process, sank to 123 degrees below zero, and both mercury and alcohol froze. The temperature was indicated by an ether thermometer.-Ex.
This experiment has been suceessfully performed many times before. When condensed into a solid, the gas is perfectly white and when rolled up resembles balls of snow.

The enduring odor of musk is astonishing. When Justinian built what is now the mosque of St. Sophia, in 538, the mortar was charged with musk, and to this day the atmosphere is charged with the odor.

## MECHANICAL \& COMMERCIAL.

## Industrial and Commercial Towns of Wisconsin.

No. I.-Part II.
milwauker as a commercial city.
Independent of all circumstances of newness of country and her own recent origin, Milwaukee occupies a proud position among the commercial cities of the Great West.
Her numerous railroads radiating into all parts of the country constitute her a natural focus for the immense trade of all that portion of the Northwest lying North of latitude $42^{\circ}$ $30^{\prime}$; and her harbor-one of the best on the lakes and of sufficient capacity for a navy adequate to the demands of a vast and densely populated territory-opens for her shipping a cheap and direct communication with the great markets of the New and the Old world.
In some departments of trade her commerce is already worthy of an Atlantic city, as will appear from the statistics collected by her Chamber of Commerce during one of the most trying and disastrous periods ever known to the commerce of this country.
the grain trade of milwaukee
Is already immense. Her local position is such as to make her the natural shipping port for Wisconsin, Minnesota and Northern Iowa, and the superiority of the wheat grown in this portion of the Northwest, as compared with that grown on the ill-adapted soils of the Prairie State, has also secured to her much of the grain grown in Northern Illinois, despite the proximity of its own commercial Chicago.
Her warehouses have a capacity for the storage of over $1,800,000$ bushels, and are furnished with facilities, adequate to the daily shipment of 320,000 bushels per diem. But even this capacity, great as it is for a young city in a new country, is unequal to the demands of the grain trade in a productive season, and other storehouses are being erected.
The year 1860, on the trade of which our statistics are based, may, at first thought, appear exceptional rather than representative, but when it is remembered that the moderate
demand in the eastern markets and the low price paid for wheat during that year had the effect to keep back one-half or two-thirds of the whole amount intended for sale, the aggregate of bushels received and shipped within the year will doubtless be regarded as nothing more than a fair average.

Of Wheat, the total amount received during said year was $9,108,458$ bushels; of which $8,144,094$ bushels were received by the several railroads, 71,458 bushels by lake, and 892,906 bushels by teams.

The aggregate would undoubtedly have been much larger had the carrying capacity of the grain vessels of the port been greater. They number some thirty and their capacity is equal to about 400,000 bushels. The lowest price during the year was 65 cents; highest, $\$ 1.15$; the average, $95 \frac{1}{2}$ cents.

The total of shipments of wheat for the year was $7,568,608$ bushels; $5,085,112$ of which went to Buffalo, $1,651,282$ to Oswego, and the remainder to various ports including Ogdensburgh, Kingston, Collingwood, Montreal, and other Canadian cities.

The Flour trade is rapidly increasingthe receipts of the past year amounting to 597,118 barrels, including 202,810 barrels manufactured in the city mills. Average price paid, for the year, $\$ 476 \frac{3}{4}$ per bbl. Total of shipments, 457,543 barrels.

The receipts and shipments of oats, corn, barley and rye, are concisely exhibited in the following table:

| Kind of Grain. | Receipts. | Shipments. |
| :---: | :---: | :---: |
| Oats | 178,963 bush. | 64,682 bush. |
| Corn, | 126,404 * | 37,204 ${ }^{\text {a }}$ |
| Barley | 109,795 | 28,056 " |
| Rye | 52,382 " | 9,735 |

The receipts of Grass Seed (chiefly Timothy) amounted to some 15,000 bushels; the shipments to 10,204 .

Wool is, as yet, not grown in the Northwest to an extent to warrant the expectation of large statistical figures. The shipments in 1860 amounted to $659,875 \mathrm{Ibs}$.

The Hide Trade is quite an important branch
of business; the receipts being 85,000 in number during the year; the shipments, 32,941 .

The Provision business is not immensely large, but is growing in importance. The following table exhibits the receipts and shipments of some of the leading articles for the year :

| Articles. <br> Beef cattle, little less than... | 10,000 head. 21,390 bbls |
| :---: | :---: |
| Tallow, ................ | 1,253,250 lbs. |
| Hogs, | 59,790 head. 28,019 bls. |
| Butt | $889,025 \mathrm{Hbs} .814,630 \mathrm{Hs}$. |
| Egg | 3,679 bbls. 2,254 bbls. |

The Trade in Malt and Spirituous Liquors has already been referred to as very extensive. We have no means of knowing precisely what quantities of Highwines and Alcohol have been shipped; but the exports of Beer and Ale are stated at over $12,000 \mathrm{bbls}$; those of Whisky about 30,000 bbls.

Of Salt 82,338 bbls. were received, and 59 ,079 bbls . sold.

The Lumber trade for the year 1860 was not so extensive as in former years; at least the receipts were not so great-being as follows: Of Lumber, 31,897,381 feet; Lath, 3,119,000 feet; Shingles, $12,313,500$ in number. The shipments for the same period were about onethird less than the receipts. Even this is an extensive business ; but in 1857 the receipts of Lumber alone amounted to over $71,000,000$ feet.

The Wholesale Trade in Dry Goods, Groceries, Iron, Hardware, \&c., has always been creditable, but is now assuming great magnitude and importance. The merchants are very generally men of uprightness and enterprise, quite as anxious for the fair name and business prosperity of their beautiful and growing young city as for their own personal advancement. Feeling that Milwaukee is justly entitled to a large proportion of the wholesale trade of the Northwest they have gone about the work of securing that trade with commendable energy and resolution, and are now beginning to enjoy the profits of their labors. Immense quantities of goods of every description have been sold the past year to lesser jobbers and retail dealers not only throughout

Wisconsin, but also in Northern Iowa and Minnesota.

Of the numerous and less important branches of trade we have not room to speak, having already occupied more space than we at first intended. Statistical summaries are full of interest, however, to every one who desires a knowledge of the condition and progress of communities, and to our mind it has seemed almost necessary that the intelligent representatives of the productive industry of the Northwest, as also many eastern capitalists with westward inclinations, under whose notice this hurried account will fall, should feel a deep and emphatic interest in the business capacity and character of our chief commercial city. We have carefully avoided making statements or reporting figures which are not based on perfectly reliable authority; while very much that might with propriety have been said and would greatly have added to the recognized importance of its manufacturing and commercial bnsiness has of necessity been omitted.

The past and present of Milwaukee are full of occasion for the congratulation of every citizen of Wisconsin. Her future is in the hands of her business men, who may make her a respectable city of seventy or a hundred thousand inhabitants, secondary in importance and to a great extent tributary to Chicago, even in the estimation and affection of the people of her own State, or a great and flourishing metropolis rivaling Chicago, St. Louis and Cincinnati, and commanding the trade of a larger territory than either of these. She has the geographical position, and the other natural advantages requisite to the attainment of great commercial importance, and nothing is wanting to insure the most triumphant success but the adoption and maintainance of an energetic and liberal policy in the management of her various branches of business, and in her social relations with the smaller cities and villages of the west. We sincerely hope that the guardianship of her interests may be intrusted to the wisest of her leading men and
confidently anticipate that in the future we shall have abundant occasion to be even more proud of her than now.

## Management of Reapers and Mowers.

The Farmer \& Gardener gives some excellent and timely hints, concerning the Reaper and Mower, which every farmer should understand and recollect. We feel safe in saying, that no inconsiderable per cent. of the failures to make the reaper, mower, thresher, and some other farm machinery work properly, are traceable to improper care and management. Take counsel from the following; it may save you a deal of trouble and inconvenience, at an important season in farm business :
"First, let the machine be in perfect order ; by this, we mean, that the knives should be keen, the guards well pointed, and free from all roughness; the journal boxes should fit properly, neither too tightly nor too loosely; they should be well oiled in the start, and kept well oiled all the time. Oil is a great econemiser of machinery and muscle. A well and regularly oiled machine will last twice as long as any one that is badly cared for in this particular ; and with this additional advantage, that more work will be done with it at less waste of horse energy, because a well lubricated machine will always, other things being equal, run lighter than one, the cogs and journals of which, are continually moaning for grease.

Use none but the best oil. The best is the cheapest. Get none but the best, improved, spring-bottom oil can, with a long tube, so that all the parts can be reached without danger or inconvenience.

Never go to the field without your tool box, which should always contain, at least the following: A good monkey wrench, file, cold chisel, rivet punch, whet-stone, extra blades, extra guards, extra rivets, a blo jk of iron on which to close the rivet heads, a pair of pincers, and a screw driver.

Never, if you have any love for your horses, or wish to do good work, use a knife for more than three hours, without sharpening. Keep your knives sharp.

Let your team be steady, and well matched in point of strength. Never start a machine by causing the horses to jump. That is the best possible way to break a machine.

All good machines back easily now, therefore always give the machine a foot or two to get into motion before it begins to cut the grass. There are many who love to boast that they have a machine which they will stop and start again, without backing, in the heaviest of grass. If the horses could speak, they would cry out against this uncalled for practice-the blacksmith's bills and the speedily worn out machine; attest this impolicy in the other direction.

Under no circumstances, give your team and machine, into the hands of a careless and inexperienced operator. Bad drivers are worse than bad teams and dull knives, and the latter two are as bad features about a mowing machine, as we can well conceive of.

Every two or three rounds the driver should apply the wrench to the principal nuts, to see that they are perfectly at home. A nut or screw loose, often causes damage or delay of the most serious character.

Let us recapitulate-sharp knives, plenty of oil and the best at that, a box of good tools, plenty of extras, a steady team, a careful and observant driver, and our word for it, your haymowing and harvesting will go on with a smoothness and regularity that will surprise you. Our remarks are based upon long practical experience."

## Street Railways.

City passenger railways, which were greatly opposed at first in England, are now said, by the Ecientific American to be becoming quite popular. The two tracks-only about two miles long-laid down by Mr. Train in London, have been very successful. No less than 170,000 persons were carried over them in seven weeks. The Board of Trade has reported favorably on them, and there are now being constructed two others of greater length.

In most of the large cities in this country they are becoming more and more popular ; and it is expected that, ere long, some ingenious Yankee will again take the lead, in this great transportation improvement by inventing a safe and economical compressed air engine to take the place of horses now used.

The Shoe and Leather Reporter says, the manufacturers of hemlock-tanned upper leather have discovered a method of imitating the oaktanned by coloring it with ochre and other substances. Shoemakers, look out !

Total quantity of steel and iron exported from Great Britain, in 1860 , was $1,442,045$ tuns, not including hardware, of which 778,775 cwt. were exported, at a value of $\$ 15,144,014$.

The Nigaragua Transit Route.-It is stated that the Nicaraguan Government has made a contract with parties in New York for the use of the Nicaragua transit route. The parties are to have the exclusive right of transit for fifty years, and to allow the Government to receive $\$ 200,000$ in shares of the new Company's stock.

## THE HOME.

## Dipping up the Water.

Kneeling by the stream, I saw Kate, the farmer's daughter, Drinking-in her rosy palm, Dipping up the water.
She had thrown her hat aside, Bare were arm and shoulder; Each unconscious charm displayed, Made my love the bolder.
So I slowly, tenderly, Went and knelt beside her, Drank with her from out the streamBlushing Kitty Ryder,
And I said, "The poets tell us Life is like a river;
Shall we not its waters sweet, Always drink together?"
Many years have passed us by, Like the flowing water;
But I drink life's stream to-day, With Kate, the farmer's danghter.

## Cultivate a Proper National Spirit in Children.

Parents, let not the present eventful period pass without deeply impressing upon the minds and hearts of your children the great lessons it teaches. Patriotism is a virtue that cannot be too sedulously cultivated.

The circumstances of to-day are such as to ensure its rapid development, but there is some danger that the sentiment of nationality may not be of the purest and loftiest kind.

It is a time of violent public passion, and the glowing hearts of our children have kindled into a patriotic blaze. See that the fires become a sacred flame consuming all baser sentiments, and leaving nought but a noble and enlightened love of country. Teach your sons upon whom the defence of the Republic in this present conflict with its enemies may devolve, that they go forth to vindicate not the superiority of the men of the Free North in physical strength and martial heroism, but to do battle for the cause of Free Government and to prove that the free institutions under which we have lived are worthy of the most valiant defence and unlimited sacrifice; that this is not simply a question of to-day and for this country and people, but rather for all peoples and countries and times; that the Republican Idea and the better civilization of the future are hanging upon this grand strug-
gle of the present. Teach them all this and then point them to the glorious battle fields of the Revolution and to the graves of their heroic ancestors who suffered martyrdom for these very ideas and institutions. So shall they be filled with the true spirit of the conflict which is waged for the Union and themselves be worthy of the tears and blessings of a grateful posterity.
Your daughters, also, should be instructed in like manner and inspired by the same high and holy ambition. They are the coming mothers of the sublimer Republic that is yet to be, when the present conflict shall have ended in the utter annihilation of Treason and the final destruction of its primal cause, and when the unfettered eagles of free empire shall have found a welcome home in every valley and on every mountain crag from ocean to ocean and from the Aretic to the Ant-Arctic Sea. So teach them that they shall be equal to a responsibility so vast and a destiny so glorious.

And your little children-strive by every means to fill their minds and hearts with these same great thoughts and sentiments. Let the blessed name of Washingion be among the first and most precious they hear or are taught to speak. Go with them, in story, over the rough and thorny paths of the early Republic, and make the memories of its intrepid and self-sacrificing patriot soldiers redolent of all virtue and nobleness. Tell them the history of our country's Flag, the glorious old Flag of the Union, as it is borne along in the civic procession, or flaunts its beautiful stripes from liberty pole or court house, church, and capitol, or is bravely borne at the head of the noble volunteer column. Tell them, too, what that Flag represents-what deeds of valor in the past, what dignity and power, and glory, and supremacy in the present; what a government, the noblest and freest on earth; what vastness of empire with incalculable resources for the development and perfection of all the industrial arts; what "silver paths of trade" for a commerce wide as the world; what a race of people too, composite of all the best
races of the earth, and equal to a future more worthy and magnificent than has yet been conceived. Show them the relation of America to the other nations of the globe, and thus lift them up to a conception of her possible destiny, inspire them with an ambition and heroism worthy of the sublime mission of her future men and women, and cultivate in them, while yet young and impressible, those great virtues which alone can ensure its fulfillment.

Backbiting.-The longer I live, the more I feel the importance of adhering to the following rules, which I have laid down for myself in relation to such matters:

1. To hear as little as possible of what is to the prejudice of others.
2. To believe nothing of the kind till I am absolutely forced to it.
3. Never to drink in the spirit of one who circulates an ill report.
4. Always to moderate, as far as I can, the unkindness expressed toward others.
5. Always to believe that if the other side were heard, a very different account would be given of the matter.-Rev. C. Simeon.

Female Influence.-A married man falling into misfortune, is more apt to retrieve his situation in the world than a single one, chiefly because his spirits are soothed and retrieved by domestic endearments, and his self-respect kept alive by finding that although all abroad be darkness and humiliation, yet there is a little world of love at home.

## The Strength of Helplessness.

The heart that never softens even to a woman, may have a little cleft in its rocky grain large enough for a child to cling in, and make one think of a delicate flower on the breast of a rugged cliff. How like a casket for a jewel does a little coffin look to us; we have no recollections of past helplessness and lingering pain to alloy thought, as in the case of adults. There is something humiliating in their trustful weakness, but with children it forms one of the sweetest charms.

The heart grows warm and large as we look at them, and the stout bachelor that walks "the long path" alone, is more indebted to the neighbors' children for keeping his humanity from rusting than he will be willing to confess. When children die, they only attain maturity in a readier way than by the tedious route of this moral living.

Even the inferior animals recognize the helplessness of childhood, with an instinct finer than our own. In a little book lying upon the lower shelf at memory's eastern edge, there is a story that everybody knows. It is of an
elephant in Delhi, or some other of those glorious old places we used to dream about, that got in a great rage one day, and rushed frenzied through the market-place. Boeths, men, walls, nothing could stop him, when all at once he came upon a child that had crept exactly in his way; the huge fellow stopped, and as gently as a mother could do, lifted the child aside and placed it out of danger. He saved the child, but he would have orphaned it with a blow.-B. F. Taylor.

## HEALTH AND DISEASE.

What is Nefded.-We need for our dwellings more ventilation and less heat; we need more out-door exercise, more sunlight, more manly, athletic and rude sports; we need more amusements, more holidays, more frolic, and noisy, boisterous mirth. Our infants need better nourishment than colorless mothers can furnish, purer milk than distilleries can manufacture; our children need more romping and less study. Our men need more quiet, and earlier relaxation from the labors of life. All men, both young and old, need less medicine and more good counsel.

Blistered Hands and Feet. - As a remedy against blistering of hands in rowing, or fishing, \&c., or of feet in walking, the quickest is, lighting a tallow candle, and letting the tallow drop into cold water (to purify it, it 'is said from salt) then rubbing the tallow on the hands or feet, mixed with brandy or any other strong spirits. For mere tenderness nothing is better than the above, or vinegar a little diluted with water. This, for the most part is, if I remember rightly, a remedy of the Col. Thornton of pedestrian celebrity.

Ingrowing Nails.- I noticed in a former issue an article entitled "Ingrowing Nails." I beg leave to differ a little with $\mathbf{S}$. W. A. upon this subject. I will admit that the best preventive may be loose shoes or boots, but as for his cure I can say from experience it is not the best. For immediate relief, he says let the ingrowing corner remain uncut.

I would recommend that the ingrowing corner be cut sufficiently to prevent its irritating the flesh. Then with some sharp intrument, pare or scarpe the centre of the nail until it is so thin that you can almost see the blood through it. This will cause the nail to grow upward instead of ingrowing. This remedy has been effectually tried and always proved bene-ficial.-J. f. e. in Prairie Farmer.

[^10]
## WIT AND WISDOM.

.....He who labors for mankind without a care for himself, has already begun his immortality.

Many a man has missed being a great man by splitting into two middling ones. Concentrate your energies, if you would make your mark in the world.
.... Men talk of victory as if it were something fortunate. Work is victory. Wherever work is done, victory is obtained.
.... Dr. Adam Clarke, who had a strong aversion to pork, was called upon to say grace at dinner, where the principal dish was roast pig. He is reported to have said: " 0 Lord, if thou canst bless under the gospel what thou didst curse under the law, bless this pig."
....Some years ago, a southern editor, in attempting to compliment General Pillow as a "battle scarred veteran," was made by the types to call him a "battle scared veteran."In the next issue the mistake was so corrected as to read "bottle scarred veteran."
.....All men who do anything must endure a depreciation of their efforts. It is the dirt which their chariot wheels throw up.
.... There is a Gaelic proverb :-" If the best man's faults were written on his forehead, it would make him pull his hat over his eyes."
$\ldots$... One reason why the world is not reformed is, because every man is bent on reforming others, and never thinks of reforming himself.
.... A counsel being questioned by a judge to know "for whom he was concerned," replied, "I am concerned for the plaintiff, but I am em. ployed by the defendant."
.... Educate the whole man-the head, the heart, the body; the head to think, the heart to feel, and the body to act.
....Many a poor woman thinks she can do nothing without a husband; and when she gets one, finds she can do nothing with him.
....A recent philosopher discovered a method to avoid being dunned! "How?-how?how ?" everybody asks. Never run in debt.

## DOMESTIC ECONOMY. <br> Storing Butter in a Cellar.

A correspondent of the Prairie Farmer writes that "during several years of our first farming in Iowa, we found it extremely difficult to preserve sweet, for winter use, the butter that we made during the months of June, July and August. We finally adopted the following plan, by which we are successful:-We with s few minutes' work, settled large stone jars into the cellar bottom-it being sandy and dry-by putting nearly the whole jars into the ground, and packing the sand close outside,
and the butter inside, taking especial care to keep it well covered, first with a thin cloth, then a thin layer of salt, and then a board with a weight on it, to prevent its being uncovered by accident. Last season we took an oak butter-firkin that would hold one hundred pounds, and painted it well outside, and inserted it in the ground beside the jars, and filled it with butter, which kept as sweet as we could desire. Persons who have a dry cellar, I think, will be amply compensated for their trouble by this process."

## Summer Beverages.

Water is the best beverage to quench thirst and preserve the system in perfect health. But this requires pure, sweet, wholesome water, and such a beverage is not often found; therefore, substitutes or antidotes are sought out. People who decline entirely the use of these, must be very particular to clarify the water they use; and it would be well if this were done by all.

Spruce Beer.-Allow an ounce of hops and a spoonfull of ginger to a gallon of water. When well boiled, strain it, and put in a pint of molasses, and half an ounce or less of the essence of spruce; when cool, add a teacup of yeast, and put into a clean, tight cask and let it ferment for a day or two, then bottle it for use. You can boil the sprigs of spruce-fir in room of the essence.

Sirup of Currants.-Pick ripe currants, and put them into a stew-pan over the fire, so that they get hot and burst; press them through a sieve, and set the liquor in a cool cellar for thirty-six hours; then strain it through cloths, sweeten with loaf sugar, and bottle for use. The juice of cherries and raspberries may be prepared as above. The sirup, mixed with spring water, makes a refreshing summer drink.
Lemonade. - Three lemons to a quart of water makes good lemonade; sweeten to your taste.
This is the best beverage for social parties; cool, refreshing, pleasant and salubrious.
Orangeade.- Roll and press the juice from the oranges in the same way as from lemons. It requires less sugar than lemonade. The water must be pure and cold, and then there can be nothing more delicious than these two kinds of drink.

Orange Water.-Mix with a quart of spring water the juice of six sweet oranges and that of two lemons; sweeten with sugar or sirup. This water iced is a delicious evening drink.

Obnoxious to Bed-Bugs and Flies.-Coal oil is said to be a sure destroyer of bed-bugs. Apply plentifully with a small brush or feather in the places where they most do congregate. The cure is effectual and permanent. Gilt frames, chandeliers, rubbed lightly over with coal oil will not be disturbed by flies.

To Clban Black Lace. - Strain off some tea from the leaves about the same strength as drinking tea. Put in the lace and let it stay for a few hours, then squeeze it, dipping and squeezing again and again until the tea becomes dirty, but do not rub the lace. Then dip it in weak gum water, after which clap it for about fifteen minutes, then pin it to a towel in the shape you wish it to take. When nearly dry cover it with another towel, and iron with a cool iron. The lace will look as bright in color as when new.

To Keep Preserves.-Apply the white of an egg, with a suitable brush, to a single thickness of white tissue paper, with which cover the jars, overlapping the edges an inch or two ; when dry, the whole will become as tight as a drum ; to prevent jams, preserves, etc., from graining, a teaspoonfull of cream of tartar must be added to every gallon of the jam or preserves.

An Excellent Furniture Polish.- Into one pint of linseed oil put half a pound of treacle and a glass of gin; then, stirring well, apply sparingly with a clean rag, and, if rubbed quite dry with linen cloths, this mixture will produce a splendid gloss. Eating tables shonld be covered with oilcloth or baize, to prevent staining, and be instantly rubbed when the dishes are removed.

## YOUTH'S CORNER.

## A Song for the Boys.

[Here is a little poem, in the spirit of which we are sure every one of the thousands of boys who read the "Youth's Corner," will heartily join-that is if the boy heart is not a very different thing from what it used to be when it beat in our own bosom:]

God bless the Girls,
Whose golden curls
Blend with our evening dreams ;
They haunt our lives
Like spirit wives,
Or-as naiads haunt the streams.
They soothe our pains,
They fill our brains
With dreams of sunnier hours ;
God bless the Girls,
God bless the Girls,
God bless our human flowers.

## The Bear.

There are three varieties of the American Bear-the Black, the Grizzly and the Polar Bear.

The last is an inhabitant of those cold, icecovered countries in the midst of the Arctic

Seas, and is never seen as far South as the United States, except as a prisoner within the iron-grated cages of some traveling menagerie. He is often very large and quite white, like the everlasting snows where he makes his home.

The Grizzly Bear is chiefly found on the western coast of North America. He often attains a monstrous size and is the most powerful and fierce of all the bears known in the world. Lewis and Clarke and other early explorers of the country west of the Rocky Mountains tell some thrilling stories of their fights with this terror of the Pacific Coast in the early part of the present century, and of their narrow escapes from his powerful arms and devouring jaws. A few years ago two of these monsters, weighing half a tun each, were captured in California, put in great strong iron cages and exhibited in various parts of the

corn, potatoes, wild grapes, persimmons, plums, acorns, whortle and other berries, and does not even disdain the worms and grubs such as he can find under old rotten logs and stumps. He is fond of flesh, however, and devours with a good relish, birds, small quadrupeds and children when he is so lucky as to get hold of them with his great strong paws.

The home of this bear is usually in the most secluded parts of the forest, where he makes his den either in some hollow tree or cavern in the rocks. During the summer season he retires to his den only occasionally, as during a storm or when he does not feel secure in lying down to rest in the open air. But in the winter he spends his whole time there, going in late in the fall when very fat, remaining in a torpid state, without taking food and again appearing in the spring, lank and lean and " hungry as a bear."
We presume most children who read the Farmer have seen one or more of these black, shaggy fellows and, therefore, need no description of his appearance. To such as have not, it will be of interest to know that, though not so large as the other two referred to-the Polar and the Grizzly-he nevertheless is a large animal, sometimes six feet long, and often weighing four and five hundred pounds; that he has a
country. We had the opportunity to see one of them and we sometimes shudder yet, when we think of being hugged to death and then having our bones crunched all to bits by such a terrible beast.

But the first of the above-named three varie-ties-the Black Bear we mean-is the only one that belongs natively to the more central portions of America-the only kind that has ever been found in Wisconsin or in any of the States along the Great Lakes. He is not so ferocious as either of the others mentioned, and depends less on other animals for his food; seeming to be content with a pretty large share of green
long, black, shaggy coat, a thick, tough hide and muscles so hard and strong that he can hardly be hurt by a blow which would instantly kill a large and powerful dog. His feet are large, long as a boy's and armed with heavy claws; and often, when he stops to rest or look out for his prey or some enemy more powerful than himself he sits straight up on his hind legs, just like some little dogs you have seen when made to "speak" for their dinners.

The females bring forth their young in the winter time and are very devoted to them while small and dependent-ofttimes denying themselves food when very hungry that their cubs
-usually two in number-may be fed, and not unfrequently loosing their own lives in motherly attempts to screen the little fellows from the attack of the hunter or from other wild beasts.
During the early settlement of most of the States the frequent attacks of the bear upon the pig and poultry yards and the corn-fields of the pioneer farmer have been a source of much loss and anxiety, but now, except upon the frontier, such depredations are so uncommon as to be a strange and exciting event when they occur.
In our own State, though quite new in many parts, they have been greatly reduced in numbers, but are still met with here and there in the wooded counties; and at times when the fires in the northern forests drive them out, they not unfrequently find their way into the more thickly settled districts, and have even been killed in the streets of some of our villages when desperate from pinching hunger.
There are various methods of capturing and destroying the Bear-some of them ingenious and full of interest. The Indians, who delight to hunt them, have a way of finding the place of their concealment when denned in the winter in caverns and holes dug by themselves in the earth, by the fog or mist which hangs above the opening, and which is caused by the breath of the animal. When they have found such a den, they cover it over with logs, leaving simply a small opening through which to make their attack. They then either pierce him with long spears, or by dropping noosed thongs, (ropes made of the skins of deer and other animals,) over his head, and then drawing him, half strangled, so near to the hole as to be able to beat his brains out with a tomahawk. The white man usually relies on his gun and dogs.
We had intended, in this number, to tell you a thrilling story about a brave little boy and an old she bear and her cubs, but we have already talked too long about old Bruin for one time, and so must ask you to wait until some future number. Next month we will tell you many things about war.

## Col. Ellsworth's Last Letter.

[In the following touching and beautiful letter, our youthful readers will find an example of filial love and devotion which they will all do well to imitate. Col. Ellsworth was a young man of brilliant promise, and a brave and fearless soldier, but yet in the moment of his sternest duty and weightiest responsibility, he lovingly remembered his aged parents, and thus, on the night of his departure for Alexandria, where he was murdered by a cowardly and wicked foe of his country, sent them these tender words and blessing:]

Headquartrrs 1st Zouaves, Camp Lincoln, Washingtos, D. C., May 23, 1861.
My Dear Father and Mother :-The regiment is ordered to move across the river tonight. We have no means of knowing what reception we are to meet with. I am inclined to the opinion that our entrance to the City of Alexandria will be hotly contested, as I am just informed a large force have arrived there to-day. Should this happen, my dear parents, it may be my lot to be injured in some manner. Whatever may happen, cherish the consolation that I was engaged in the performance of a sacred duty ; and to-night, thinking over the probab lities of the morrow and the occurrences of the past, I am perfectly content to accept whatever my fortune may be, confident that He who noteth even the fall of the sparrow will have some purpose, even in the fate of one like me.

My darling and ever loved parents, good bye. God bless, protect and care for you.

Elmer.

## Slow and Sure.

The river Amazon, the longest river in the world, and which discharges into the sea the largest quantity of water, is, at the same time, the slowest. It falls but one foot in fifty miles, yet it would be just as difficult to stop its course, or prevent its flowing into the ocean, as it would to dam up the Niagara.

That one foot in fifty miles is just as good as though it were a hundred. What an image the mighty flood presents of a resolute will determined to accomplish a certain purpose ; let but the will be formed, and it matters little how slow the means may be, the object will be accomplished syoner or later. In these fast days, when everything seems to have received a certain impetus, and great enterprises are taken up and executed with a flash, it is very well to bear in mind that the greatest things that have been accomplished in the world, have been done by slow and patient movements.

The briliant result may have suddenly burst upon the world, but the processes by which it was accomplished, have been deliberately planned and slowly executed. The electric telegraph is now the type of rapidity ; but consider
by what,slow and patient steps it was brought to perfection. It took a full hundred years of plodding thought, of patient experiment, of slow, deliberate movements to reach that ultimatum of rapid progress.

There are no great things done in a hurry It is a very good thing to be fast, when, as Davy Crockett said, you are sure you are right. But it is much better to be slow and sure, for then there will be no danger of overshooting your mark.

## ANECDOTES AND FUN.

.... When we hear the words, "Am I not my own master ?" coming boastfully from the lips of a young man just entering upon his majority, we cannot forbear recalling the reply of a French Prince to a stranger, whom he encountered in oue of the rooms of his palace:
"Pray sir," said the Prince, "to whom do you belong?"
"To myself," gruffly replied the stranger.
"Ah, my dear sir." was the retort, what a pity it is you have such a bad master!"
.... A certain judge was once obliged to double with an Irishman in a crowded hotel, when the following conversation ensued: "Pat, you would have remained a long time in the old country, before you would have slept with a judge, would you not?" "Yis, yer bonor," said Pat, " and I think yer honor would have been a long time in the ould country before ye'd been a judge, too."
....Why is a bee-hive like a bad potato?Becayse a bee-hive is a bee-holder, und a beholder is a spectator, and a speck-tator is a bad potato.
....Why is Great Britain like a hen? Because her sun never sets.
.....If Queen Victoria gave Prince Albert a kiss and he returned it, what public building would it name? Answer.-Royal Exchange.
.... A prudent man advised his servant to put by his money for a rainy day. In a few weeks the master inquired how mhch of his wages he had saved. "Faith. none at all"said he, "it rained yesterday, and it all went."

## QUESTIONS AND SOLUTIONS.

## Solutions to Puzzles in June Farmer.

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\begin{array}{r}
\text { To No. } 1 \ldots \ldots \text { IX—IX—XL} \\
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\end{array}
$$

No. 2. $-9-|-8-|-7-|-6-|-5-|-4-|\cdot 3-|-2-|-1=45$ $1-|-2-|-3-|-4-|-5-|-6-|-7-|8-|-9=45$

$$
8-|-6-|-4-|-1-|-9-|-7-|-5-|-3-|-2=45
$$

The subscriber who stumbled on the reduction of the six squares, in April No, writes as follows :

Beaver Day, July 4, 1861.
Mr. Editor: I must have dotted the wrong lines accidentally in the match or pencil solution -but I think this will do:

## NEW PUZZLES.

The following lines are said to be literally true, but how is it?

## Two-thirds of 6 is 9 .

One-half of 12 is 7.
Half of 5 is 4.
6 is half of 11.
Will some of your young readers place 19 trees in 9 rows, and yet have 5 trees in each row?
-plain queries about simple things.
In addition to the foregoing puzzles, I would like to usk the readers of the Youth's Corner, the fullowing questions:

How is it that a black pencil will make s white mark on a black slate ?

Why do we find grass and herbage wet with dew, while rocks, equaliy exposed, remain dry? Why is there more dew in clear nighs than in cloudy ones? What causes dew? What is it? and where does it come from ?

We young farmers, who get our feet wet so frequently when after the cows, should understand all ubout what does it.

Perhaps these are not suitable questions for the Furmer, and yet, after ull, 1 think that something to set us a thiuking may be as profitable at times as for others to do all the headwork and we look it over after it is done.

> Yours, truly, A Subscriber.

Note.-We are obliged to our friend for the intereat he has taken in the "Yuuth's Corner," and trust that he will cont nue to propose puzzles and ask questions until all the thousands of children who meet therein from month to month, ase thoroughly waked up. Let the cow-boys remember the dew questions and send in their answers, Will not some of our youthful readers also give us something for their own "corner." Occasional brief lesters of interest would please us and profit them.

## WAR MISCELLANY.



## Our Nation's Flag.

Success to the flag of our Nation! Its folds all around us be spread!
It is blazoned with deeds of the valiant, And sacred with names of the dead.
The stars are the symbol of Union; In Union they ever must wave! The white is the emblem of honor, The red is the blood of the brave.
Success to the flag of our Nation! Let it sweep.o'er the land and the sea ! The shades of our heroes are round it, Benieath it, the ranks of the Free.
We will keep its young glory unsullied, In the ages to come, as the past;
Oprear it a beacon to Freedom, Unbowed, through all storms to the last.

## Military Terms and Definitions.

For the following definitions of military terms we are chieflyindebted to a recent work on Infantry and Rifle Tacties, published by Lippiscort \& Co., Philadelphia :
Abatis - (pronounced Ab-bat-tee) - Felled trees, with their branches trimmed, sharpened, and pointed outward, as a protection against the enemy.
Armstrond Give.-A rifle cannon, loaded at the breach. Its projectile is of cast iron, surrounded by leaden rings, so as to insure its fitting the grooves of the bore.
Batrery - A number of eannon arranged for firing together. A full battery consists of six pieces.
Battalion.-One-half of a regiment of infantry. Sometimes, though improperly, two companies, and, again, a whole regiment is called a battalion.
Boxs. - A shell thrown from a mortar.
Cashiga.-To dismiss an officer ignominiously from the army.

Casemate.-A bomb proof chamber in fortifcations, through holes (embrasures,) in which heavy guns are fired.

Columbiad.-A gun of very large calibre, used for throwing solid shot or shell.

Dablaren Gun- - Improved cannon, named for the inventor.

Deploy.-To open the order of troops from column into line of battle.

Embrasure - An opening cut in a parapet, or fort wall, for cannon to fire through. When guns fire over a parapet they are called barbette guns

Empilade.- To sweep with a battery the whole length of a work or line of troops.
Haversack.-A coarse bag of linen, cotton, or india rubber, in which a soldier carries his rations for daily use.
Howitzer, - A chambered cannon, which fires a species of shell called a howitz.
Knapsack.-A square frame to fit across the shoulders. covered with canvas or india rubber, and containing the entire necessaries of an infantry soldier.

Mortars. - Short pieces of ordnance, with large calibres and chambers, from which shells are fired at an elevated angle.
Paixhan--(Pronounced Pay-zan.)-A large howitzer, similar to a Columbiad, and throwing very large shells and balls. Named after the inventor.
Park.-A number of cannon arranged in olose order. Also, the place where they are.
Projectile. - All kinds of shot and shells. Everything projected from fire arms.
Rrgiment - $d$ body of troops comprising ten companies, and commanded by a Colonel.
SQuadron.-A body of cavalry, comprising two troops or companies.
Stapp. - The officers connected with headquarters, wh, assist in the general conduct of aff.irs ; such as quarter-masters, commissaries, adjutants, adjutant-generals and aids.

Vidgrts. - Mounted sentinels on out-post duty.

Windage.-The small space by which a ball fails to fit exactly into a piece; $i$ i. e. the difference between the diameter of the ball and the bore of the piece.

Zovapes.-Light infantry troops in French service ; originally composed of Arabs and Moors in Algeria, but afterwards recruited with French soldiers. Their dress is peculiar and their system of drill and tactics adapted to rapid movements and unusual emergencies. There are several regiments of these now in the Grand Army of the United States.

Contraband of War.-By treaties of the United States with France, Great Britain, Sweden, Spain, Prussia, the Netherlands, Brazil, Gentral America, Mexico, Chili, Equador, Peru, Venezuela, New Grenada, and the Two Sicilies, goods contraband of war, which are subject to seizure by a belligerent, if found on board a neutral ship, to be conveyed to an enemy's port, are expressly designated thus :-

1. All arms and ammunition.
2. Bucklers, helmets, breast-plates, coats of mail, infantry belts, and clothes made up in a military form and for military use.
3. Cavalry belts and horses, with their furniture.
4. All kinds of arms and instruments of iron, steel, brass and copper, or of any other materials, manufactured, prepared and formed expressly for the purpose of war, either by sea or land.
5. Provisions to a besieged or blockaded place, and those places only are beseiged or blockaded which are actually attacked by a force capable of preventing the entry of a vessel

The Army OAth.-The following is the oath which all volunteers and regulars mustered into the service of the United States are required to take before their final enrollment into service :
"I do solemnly swear that I will bear true allegiance to the United States of America; that I will serve them honestly and faithfully against all enemies and opposers, whatever; that I will obey the orders of the President of the United States and of other officers appointed over me, according to the rules of the armies of the United States, so help me God."

Barbarity.-It is the custom of all civilized armies to treat the enemy's wounded with mercy. armi if this were adopted as a test of civilization, the Rebel Southern Army would necessarily form a $n, w$ class hitherto unknown; for they have treated our wounded patriots a thousand times more meanly and cruelly than would respectable devils-cutting off their noses and ears, stabbing and beating them when half dead, and even setting them up as targets !

255 In the historical collection at the Palace at Berlin, there are two cannon balls, each with one side flattened, said to have been fired by opposite parties at the siege of Magdeburgh, and to have met together in the air!

## NEWS SUMMARY.

DOINGS OF AGRICULTURAL SOCIETIES.

## State Fairs.

The following table shows the times and places for holding the several State Fairs arranged for 1861:

| Wisconsin, | Madison,............. | 23-27 inc. |
| :---: | :---: | :---: |
| Minnesota, | Fort Snelling,.... | 24-27 " |
| Iowa, | Iowa City,.......... | 24-27 |
| Illinois | Chicago, ............ | $9-13$ |
| Ohio, | Dayton, ............. | 10-13 " |
| Kentucky | Louisville, .......... | 17-21" |
| New York | Watertown, | 17-20 " |
| California, | Sacramento,........ | 16-21 " |

The Fair of the Wisconsin Agricultural and Mechanical Association will be held at Milwaukee, Sept. 2-6.

## County Societies.

We would be glad to publish a complete list of all the County Fairs to be held in this State the present year. Will not the Secretaries of the several Societies furnish us with reliable information on this subject? At the time when most of their Premium Lists were published, we were unable to examine our country exchanges and cannot now conveniently post ourself up without offcial aid.

Osheose, July 20, 1861.
Prof. J. W. Hoyt, Madison,
Dear Sir:-Please take notice that the "Winnebago
County Agricultural Society" will compete for the Banner at the coming State Fair. Yours respectfully,
B. S. Henning, Secretary.

## STATE MATTERS.

## The Weather and the Crops.

The Weather during the last half of July, though too cold, was mnch more favorable to drouth-damaged vegetation of all kinds, and the crop prospects have brightened considerably.

We have not been out in the State, except over the Milwaukee \& Prairie du Chien Railway, since our last issue, but several verbal reports from those who have, together with crop items gleaned from the newspapers published in nearly a hundred different localities, warrant the following statements: That the Winter Wheat on good wheat soils has come in very well.
That Spring Wheat, though somewhat improved by the late rains, will nevertheless be a poor crop as compared with last year, and a light crop as compared with the average. It is generally thin, with short straw and in some portions of the State has suffered from rust, smut and the Chinch Bug. We are still of the opinion that the average crop of wheat will be less than two-thirdsthat of last year-probably not over one-half.
That the Oat Crop is light-in many places almost a failure-much improved by the rains.
*That Barley is fair and promises well in the best bar-ley-growing sections.

That Corn and Potatoes, though still backward, are coming on quite well and may yet be a respectable crop, should the weather be a little warmer and continue, in other respects equally favorable.
That the Fruit Crop will be magnificent-perhaps the best with which Wisconsin has ever been blessed.

Finally, that the general agricultural condition and prospects are much better than was anticipated one month ago, and a cause for congratulation rather than serious discouragement.

## Monetary.

The success of the Bank Comptroller in selling the bonds of the discredited banks in New York for gold has considerably increased the amount of specie in the State, which may now be bought for 9 per cent. premium. Exchange bears about the same price. The Comptroller and Bankers are actively engaged in bringing up discredited banks. At present (July 26) all the ten banks published as last thrown out, in July No., have been brought up to par, except Dodge County Bank, La Crosse County Bank, and Wisconsin Pinery Bank.
Of those formerly discredited, the following have recently made good their securities, either by substituting Wisconsin Stocks or by furnishing additional securities:

> Prairie City Bank, | Bank of Whitewater, River Bank, |
| :--- |
| City Bank of Kenosha, |
| Columbia County Bank, |
| Bakwood Bank, Bank of Bank, |
| Bank of the Northwest. Monroe, |

## Military.

The Six Regiments provided for by the Legislature have gone to the seat of war, and the 7th and 8th have been ordered into camp.

No sturdier or nobler Regiments of soldiers ever entered into any service. They have all been highly complimented at every point on their route, and some of them have been assigned posts of high honor by Commanders of the Army Divisions.

## NATIONAL AFFAIRS.

## Congressional.

The Extra Congress has met the expectations of the people. The President's Message and accompanying Reports of the Heads of Departments are noble state papers, worthy of the men and the times.
The call of the Executive for an appropriation of $\$ 400$, 000,000 and $400,000 \mathrm{men}$, was received with almost universal favor, and a bill has passed giving him more than he asked for-Five hundred millions of dollars and five HUKDRED THOUSAND MEEN!
A bill will also pass levying a direct tax of $\$ 30,000$, 000 per annum upon the whole country-Seceded States included-to aid in defraying the expenses of the Government.

With the exception of eight or ten friends of Secession the members are all loyal men, and will pass every measure necessary for the maintenance of the Union.

## The War,

Thus far, has been at once glorious and disastrous on the part of the Grand Army of the Union. In Western Virginia McClellax's division has completely broken up the enemy, annihilating two armies, taking 5 guns, 12 colors, 1500 stand of arms, 1000 prisoners, including 40 officers. Of the two commanders of these armies, one is killed and the other a prisoner.
In Eastern Virginia several engagements have resulted honorably to our arms, but the finale of the great battle at Bull's Run, (near Manassas Junction,) has thrown a deep gloom over the whole North. With 40,000 troops, Gen. McDowell. attacked 60 or 70,000 of the enemy, behind their entrenchments and heavy batteries; butafter fighting 11 hours, with a daring unsurpassed in the annals of war, a panie occurred in the rear, occasioned by an unexpected attack of the enemy's cavalry upon our teamsters and reserve force, and the several divisions of the army were compelled to fall back, leaving the field to the enemy, and losing several pieces of artillery, hundreds of stands of hand arms and large numbers of their wounded. Our loss is variously estimated, but it is probably not less than 1000 killed and twice that number wounded. The enemy's loss is believed to be greater still.
Stung by this severe and needless defeat, the Government is gathering up its forces with increased energy and will, and, in our next issue, we hope to announce victories that shall wipe out this foul blot from the history of the war.

## EDITORIAL MISCELLANY.

## A day with the President of the State Ag. Society.

Immediately after the Editorial Convention we found it convenient to make a visit to Summit and accept the proffered hospitality of Col. B. R. Hingley, President of the W. S. A. S. and one of the best farmers in that beautiful garden of Wisconsin.

We had remembered Summit from a former time when we first made the acquaintance of its charming scenery, magnificent farms and excellent people. It is now almost needless to add that these all remain unchanged, except for the better; and after seeing many portions of our State and country, we are still decidedly of the opinion, that, all things considered, we know of no neighborhood, East or West, that so nearly approaches our ideal of what a home and life in the country should be. But of all this we have written before.
Did space and time permit, and did we feel sure that it would not be distasteful to him, it would afford us pleas. ure to give our readers at least a description of our President's handsome and magnificent farm-its 160 acres of as beautiful openings as the sun ever shone upon-its fertile soil and excellent water-its well arranged fieldsenclosed with the best of fences, with substantial and convenient gates opening from a neat private avenue into each, and best of all clothed with such crops of wheat,
oats, corn and clover, as make an enthusiastic individual like ourself feel like swinging his hat at every passing, stocked, moreover, with the best blooded horses, sheep, horned cattle, all wading in clover up to their eyez-of all these, and of much more we would be pleased to speak, but cannot now. Suffice it, that the two days of our visit were crowded full of enjoyment, and that we returned to our duties, more than ever in love with this most charming of Wisconsin's many beautiful towns, prouder than ever of our able, efficient and genial President, and saying in our hearts, An independent home life in the country forever!

## The Volunteers Coming in Nobly---More Wanted,

The New Half Yolume of the Farmer starts off splendidly. Hearty congratulations are coming in from all quarters, accompanied by large lists of new or old renewing subscribers, and the friends of agriculture throughout the State are taking hold of the important work of canvassing with spirit and energy. This is most gratifying, and we feel encouraged to renew our own efforts to supply them with a journal of which they may be proud.

We have never labored in the FARMER for mere personal advantage, and the friendly and vigorous co-operation of all who feel an interest in the progress of Wisconsin Industry is most thankfuly received and appreciated.

Will not each subscriber take a little trouble to show the July and August numbers to his neighbors and use his best efforts to induce them to join the host of those who have pride in liberally sustaining their own Home Paper? It is the determination of the Publishers, as announced in the July No., to furnish the farmers of the State and of the Northwest with a GOOD, SOUND, pRActical, attractive paper, cost what it may; but they can certainly labor with more spirit if encouraged by the cheerful faces of twenty thousand readers than if of but half that number; and so long as they are ready to put back into the paper all that they can realize over and above bare expenses, every man who adds to the list of paying subscribers a single dollar, derives, himself, a direct advantage therefrom.

## Help for the Farm.

There are still large numbers of idle men in the cities and villages of Wisconsin, notwithstanding the drain made by enlistments. The general stagnation of business has left them without work. With our light crops this year there need be no suffering of grain for want of harvesters. We advise the two parties-laborers and employees-to look each other up in time. The times and crops will not warrant extravagant prices, and we hope none will make unreasonable demands.

## The Farmer's Barometer

Appears to be attracting considerable attention. In answer to enquiries, will say they are believed to be accurate, and can be sent by Express. Description \&c. in the next number.

## Humbugs.

Dear Sir:-I shall esteem it a very great favor if you can give Thorley's Food a lift by inserting the above as a News Paragraph, free.
$I$ am, dear Sir, yours truly,
JOSEPH THORLEY.
[Undoubtedly! But then there are two substantial reasons why we cant do it: First, because we believe "Thorley's Food" to be an unmitigated humbug; and secondly, because we do not intend that the Wisconsin Farmer shall be the organ of any set of patent right venders in the world. We frequently receive urgent petitions, from nostrum-mongers and all sorts of quacks and public fuisances, for the publication of their stereotyped lies, together with large offers of pay, if we will only "give them a lift." The advertisement and the pay are always refused; but the lift-over the left shoulder -they may calculate on every time.]

## Editorial Change.

Mr. Chas. D. Bragdon, for several years past the Editor of the Prairic Farmer, has withdrawn from that paper and associated himself editorially with Mr. Moore, of the Rural New. Yorker. Mr. Bragdon will travel extensively through the Northwest this summer and autumn, and then remove to Rochester, N. Y., where his duties will compel him to remain permanently.

We part with Mr. Bragdon with reluctance. He has been a sincere friend of agricultural progress, and an efficient laborer in the Western field.

## Postmasters

Are especially requested to act as agents for the Fabmis so far as practicable. Specimen numbers have been sent to all who are not regular subscribers, and, if pleased with the paper, we trust they will have pleasure in helping forward the good work. The terms of subscription and agency will be found on second page of cover.

## New Books and Exchanges.

The Comprehensive Farm Record, with Directions for its Use.-Arranged by Franklin Hough, Supt. New York Census, \&c., \&c.
This is just what we have long wanted to see-a comprehensive systematic record book for the use of our farmers. There is nothing of greater importance to the farmer than that he should keep, himself thoroughly posted in what he is doing; and yet nine-tenths of all who profess to be systematic in the management of their farms and in the transaction of business generally, keep no account except such as is naturally made upon the effaceable tablet of the memory. The merchant is expected to keep books, but the farmer does not seem to understand its importance in his own case, although the reasons therefor are more abundant and imperative.
As a class farmers are too much inclined to the habit of going it blind. And that is the reason the progress of agriculture has been so slow. If one man is fortunate this year in the cultivation of certain crops, the success is lost to his neighbors, because he has no correct record
of what were the precise means used, and the peculiar circumstances attending the planting, cultivation, \&c.

This Farm Record most admirably supplies the defici-ency-furnishing reliable information and suggestions on many of the more ordinary branches of farming, and 300 neatly prepared pages for every item of interest and importance both in the present and future, It is handsomely printed on fine writing paper, quarto size, and substantially bound in half-calf.
We have no hesitation in saying that during the 25 years for which it is prepared it would prove to be worth one hundred times its price ( $\$ 2.50 \mathrm{we}$ believe) to any intelligent farmer who might use it, besides furnishing important data for the correction of false systems of practice, and thereby advancing the great science of agriculture in the world. Send your money to the publishers, who will forward the work free of postage.

Bright on Grape Culture.-C. M. Saxton, Barkea \& Co., New York.
The book before us is the second edition of a work which is accomplishing an important revolution in the methods of Grape Calture. Mr. Bright's system of culture is founded on reason and a successful experience of years, and seems destined to come into universal use. See advertisement in this number.

The Handy Book for the U. S. Soldier, on coming into service. Embracing the Manual for the Rifle and Musket, \&c., \&c.; Being a First Book on Introduction to the Authorized U. 8. Infantry Tactics. Published by J. B. Lippincott \& Co., Philadelphia, Penn., under authority of the Secretary of War. Price $\$ 1.25$.
Every Volunteer should have this book, as it contains iuformation that cannot be otherwise acquired without the aid of more expensive works or an experience of years in the service. It is published in convenient form for carrying in the pocket.
The Fruit Preserver's Manual.-By S. Culver, E. Barrow \& Brother, Publishers, Rochester, N. Y.-Price 15 cents in stamps.
This pamphlet appears to be a pretty thorough discussion of the whole subject of preserving fruits, the methods in use and the cans best adapted.

Eighth Annual Report of the Massachusetts Board of Agriculture.
One of the best of Secretary Flint's model Reports. It is brim full of highly interesting and valuable matter, and is in every respect an honor to the old Bay State.

Premium List and Regulations of the Twelfth Annual
Fair of the Ohio State Board of Agriculture, to be held in Dayton, on the 10th, 11th, 12 th and 13th of September, 1801. Competition open to all the States.
Shows a prosperous condition of the industry of the Buckeye State, and gives promise of a successful exhibition. Secretary Khippart will receive our thanks for coples.
Ous Farir or Four Acres and the Money wr Madz by m. - C. M. Saxtor, Barezr \& Co., New York,-Price 60 cents.
A neat little duodecimo volume, full of valuable suggestions and as interesting as a novel.

## Our State Exchanges

Will receive our most hearty thanks for the marked favor with which they received notice of the newlarrange. ment for the publication of the FARMER. They have always been generous to the paper, and are entitled to the gratitude of all friends of Agricultural Industry.

## CORRESPONDENCE.

## A Fine Wool Clip.

Ed. of Farmer :-I wish to report my present wool clip through your journal.
My flock consists of 96 sheep of the Spanish variety; 60 breeding ewes, 22 yearling ewes, 12 yearling bucks, and two stock bucks, viz.: "Matchless" and "Robinson Rich," seven years old last spring. I clipt from the ewes on the 20th of June respectively as follows: 60 breeding ewes, 379 pounds, averaging 6 pounds 5 oz . per head of washed wool; also from 22 yearling ewes, 150 pounds, averaging 6 pounds 13 oz . per head.
The bucks were sheared on the 1st of June. The 12 yearling bucks yielding 123 ths. respectively, as follows: No. 1, 11 ths.; No. 2,8 ths, 8 oz .; No. 3, 11 ths.; No. 4, 13 tbs. 4 oz.; No. 5,7 ibs. 8 oz .; No. 6, $12 \mathrm{ibs} 12 \mathrm{oz} . ;$ No. 7, 8 1bs. 4 oz.; No. 8,12 tbs.; No. $9,11 \mathrm{lbs}$; No. $10,11 \mathrm{lbs} .8$ 8 los. No. 11,9 ths. $8 \mathrm{oz}$. ; No. 12, 9 tbs., averaging 10 tbs. 4
oz. No. oz. per head.
My stock bncks, "Matchless" and "Robinson Rich," were stinted to 465 ewes, last fall the former yielded 16 ths. 8 oz ., the latter 15 fbs .6 oz ., making an aggregate of 684 pounds of wool from the 96 sheep, varying 7 ms .4 oz . per head.
H. Hemenway.

Whitewater, July 13, 1861.
Remarks.-The above communication was accompanied by samples of the wool, taken at shearing time. They are all of pure quality and give new assurance that friend Hemenway is not only enterprising in the matter of securing the best blooded sheep, but also judicious in their management.

## Crops in Walworth.

The following extract from a private letter to the Editor, gives an encouraging account of the crops in Walworth:
Prospects are now moderately favorable for an average crop of wheat, oats, and barley. Corn is decidedly poor. Winter wheat is now fit for harvest, and is of a superior quality-the best for years-will average, in this section, near thirty bushels per acre. Barley is also ripening and good. Yours truly, Dayid Wililiams.
SpRingateld, July 22, 1861.

## NOTICES OF NEW ADVERTISEMENTS.

Owing to unexpected matter at the last moment, our columns are so crowded this month as to admit of nothing more than a bare mention of the following new advertisements. It is our determination tojadvertise nothing which is unworthy of the confldence of the public, and we, therefore, feel warranted in endorsing them in the aggregate:

Seedlings and Grafts-J. C. Plemars \& Co.
Drain Tile-Dr. L. W. Weeks. See article in Horticultural Department.
Lumber-F. A. OGDEN.
Ready-Made Ctothing, de.-M. Kogner.
Blacksmithing.-Carey \& Ramsdale.
Threshing Machtnes and Horse Powers-W. D. Bacos.
Patent Agency, Washington-R. W. Fenwick.
Grape Culture-Wm. Bright.
Steam Planing Mill-A. Burgess.
Town Lots-Albert Wood.

## [advertiskment.]

Semi-Annual Statement of the Business of the Madison Mutual Insurance Company, from January 1st to June 30th, 1861.
Whole number of policies issued from Jan. 1, to June 30, 1861, inclusive, insured
Total amount of property insured
thereon, . . . ......................... $\$ 2,900,20200$
Total amount of premium notes received thereon
,...................
Totat amount of cash premiums received thereon, . . . . . . . . . . . . . .

51,47944
26,096 61
Total premiums rec'd in notes and cash, .................................
Whole amount of losses paid since Jan. 1, 1861,
Whole amount of losses in process
of settlement,
\$77,576 05
2,736 47
3,064 83

Balance,
.
\$71,774 75
Whole number of policies issued to date,....
11,589
Am't of capital accumulated to July 1, 1861, \$182,164 24
By the foregoing report it will be seen that the company has done a very large and prosperous business during the first half of this year, steadily gaining upon the large amount heretofore done, and numbering about three thousand policies for the last six months. We congratulate the members of the company upon the prosperity which has attended its business, and trust that this report will not only be satisfactory to them, but will attract the favorable notice of all who have property to insure.

The company now embraces about 10,000 members, including thousands of the best farmers and business men of the State, and offering privileges, economy and safety to the insured to a greater degree than any other company doing business in the State. We invite a careful perusal of the foregoing statements, and a close investigation of the principles and rules of the company.
D. WORTHINGTON, Secretary.

The following is a list of the Officers and Directors and a general summary of the Company's system of operation: The Directors and Officers elected for the year 1861, are as follows:
D. J. POWERS, Madison, Dane Co.
J. W. BOYD, Walworth Co.

DAVID ATWOOD, Madison, Dane Co.
D. WORTHINGTON, Waukesha Co.
S. D. HASTINGS, Trempeleau Co.
B. F, HOPKINS, Madison, Dane Co.
L. BASFORD, Grant Co.
H. H. GIILES, Dane Co.
S. R. MoCLELLAN, Kenosha Co.

ALBERT WOOD, Dane Co.
ASA KINNEY, Green Lake Co.
TIMOTHY BROWN, Madison, Dane Co. O. T. MAXSON, Pierce Co.

ORRIN GUERNSEY, Rock Co.
CICERO COMSTOCK, Milwaukee.
G. R. MONTAGUE, La Crosse, La Crosse Co.
G. F. HASTINGS, Madison, Dane Co.

OFFICERS.
D. J. POWERR, President.
J. W. BOYD, Vice President.
S. D. HASTINGS, Treasurer
D. WORTHINGTON, Secretary.
G. F. HASTINGS, General Agent.
[Office Porter's Block, Madison, Wis.]
1st.-This Company will not insure any building for more than two thirds its cash value, preferring in all cases to insure not more than one half the actual valuethereby keeping in view the protection of the insured and the interests of the Company.

2d.-This Company will not insure more than $\$ 2,000$ in one risk.

3d.-It will not insure any dwellings standing within twenty feet of each other.

4th.-It will refund to any person insuring for a
longer time than one year, all moneys received from them, less the regular rates for the time they are insured, and $\$ 150$ paid Agents for survey and policy, and the policy will be cancelled.
5th.-It will allow the setting up of additional stoves and the removal of the same from one room to another without notifying the Company. Also such additions, alterations and repairs as do not increase the hazard or diminish the value of the property insured.

F(6)-It will pay all damage caused by the effect of lightning to the property insured, whether the building is burned, or otherwise damaged, not exceeding the amount insured.
7 th.-It will hold itself responsible for the correctness of the surveys and other official acts of agents.

8th.-It will not insure over-hazardous property, believing as they do that the homes of our families should not be liable to be taxed to pay losses incurred on property in the hands of reckless speculators, not only subject to fire and lightning, but to wind and water, as cities and commercial towns.

9th.-The premium notes given to this Co. for insurance expires in all cases with the policies for which they were given and are not held by the Company as a perpetual indebtedness against the insured. This feature in this Company overcomes a very formidable objection raised against other Mutual Companies.
SUBSTANTIAL REASONS FOR INSURING HOMESTEAD PROPERTY IN THIS COMPANY.

1. It is a Wisconsin institution, located at the Capital of the State, thus affording every facility for members to institute inquiry into its business operations, and for the settlement of losses through their representatives in the Legislature, and the State officers.
2. It is a Mutual Company, thus affording cheaper rates and greater security than can be obtained in Stock Companies.
3. Its capital stock consists of premium notes of the parties insured, and cannot be squandered by corrupt officers, or become the basis of speculation to the managers; but can only be called in to pay losses and other absolutely necessary expenses; while stock companies receive the full amount of premium in advance, and often invest it in stocks which are liable to become worthless, causing general embarrassment to the companies, and rendering unsafe the insured.
4. It confines its operations to the State of Wisconsin; and to the insurance of Farm Property, and strictly isolated buildings, with their contents, in villages and cities.

IT. 5. It is one of the oldest and most successful companies in the North-west Having always paid its losses promptly and without litigation.
6. It is under the control of the insured parties, each one having a vote in the choice of its officers, at the commencement of every year, either in person or by proxy.

We would call attention to the following able article from the "Madison State Journal," of July 30, 1860, on the subject of Mutual Insurance:

## INSURANCE-THE MUTUAL PLAN.

The system of Mutual Insurance Companies is becoming very general in our Eastern cities-or that which amounts to the same thing. It is a system upon which the profits of assurance are divided between the stockholders and policy holders. The last number of the New York "Independent" has an excellent article on this subject, giving the results of several large companies in that city, and showing great success. It says that ten companies in New York city alone, have adopted this participation system with eminent advantage to the public. The "Independent" says the plan "must gradually supercede all other systems, and compel the older companies to adopt it." The oldest Insurance Company in the United States, is upon the Mutual principle - being the Worcester Mutual in Massachusetts; and one of the oldest is the Vermont Mutual. Both of these companies present a clenn record, having never falled to meet their engagements promptly. These are only fair specimens of the many Mutual Companies in the country, and the only difference between these old Mutual Companies and the one referred to by the "Independent," is, that the old Mutual Companies receive but a amall portion of the premium in cash, leaving the larger portion to remain uncalled for unless absolutely needed, while the New York Companies recelve the entire premium in cash, with the promise of paying back a part if not

# THE WISCONSIN FARMER. 

J. W. HOYT, $: \quad: \quad: \quad: \quad: \quad:$ EDITOR.

VoL. XIII.
MADISON, SEPTEMBER 1, 1861.
No. 9.

Grain Crops--Threshing, Marketing and Storing.
The harvesting having been done, it becomes a matter of much importance to determine what shall be done with the crop.

As to the sheaves, it is safe to presume that they have been, by this time, either carefully stacked or securely housed in the barn. If not, the work should be delayed no longer. Here and there a slack farmer allows his grain to stand in the shock for a month or six weeks, because driven by other important work; but the practice is ruinous to both straw and grain, and should find neither favor nor even toleration among enterprising husbandmen. Ordinarily eight days are a sufficient time for the shock-curing process, and the sooner the sheaves are moved after having cured sufficiently for stacking or mowing, the better for them.
Last year the vastness of the crop resulted in much careless stacking and consequently in the sprouting of large quantities of wheat. We know of several hundreds of bushels that were lost on account of the centre of the stack having been made lower than the circumfer-ence-thus forming a dish for the water-and secondly, by the almost total neglect to provide a proper covering. For the present, if the stack is already made, no caution as to its formation will avail anything, but it may not yet be too late to attend to the matter of cquering.
In England it is the almost universal custom to thatch every stack with straw, the same as a building. The thatching costs about four shillings per stack, and being of no use afterwards, is deemed rather expensive in this country; but we are by no means sure that this
practice would not be more economical than the present method of sometimes covering well but oftener very badly.

Now and then a stacker will be found who understands the art of very perfectly topping out with the sheaves themselves; but even then it is better to cover with something less valuable and so save the grain that otherwise must be exposed to the weather. For this purpose nothing is better than marsh grass, which, if properly put on, will secure the grain against all injury by even protracted rains. To keep it in its place, a grass rope or withe, encircling it and kept in its place by weights on opposite sides, answers a good purpose.
as to threshing,
There is and should be a diversity of practice, according to circumstances.

That portion of the crop intended for seed is not entirely safe in passing through any of the threshing machines with which we are acquainted, and should hence be threshed with the flail or in some other way which will insure the saving of the best kernels uninjured. Of this, however, we have repeatedly spoken. The great proportion of grain in this great grain-growing region is, and must be threshed by machinery; nothing else could ensure its preparation for market. We have n't human muscle enough in the country to do the work; and if we had, the antiquated back-breaking operation of beating the threshing floor with the old flail of thump-i-tee-thump memory is a waste of energy that may be much better employed in some other way. But whether it is better to employ the largest powers and dispatch the work at once, or with the lesser
tread-power, do the work with less help and more at leisure, is a question of some importance, and one that must be decided by the cost and difficulty of obtaining labor, the market prospects, \&c., \&e.
If labor can be had without too great sacrifice, if the grain be exposed to the weather, and the first prices are likely to be the best, and money must be had, then, of course, it will pay to rush the whole crop through the machine and the grain off to the market. But if not, then it may be more economical to use the tread-power and thresh at convenient times during the late autumn and winter. This method enables the farmer to do the work without extra help-often during stormy weather when nothing else could be done to advant-age-and furnishes fresh straw from time to time for the stock, the value of which, by proper feeding, may be made to almost equal that of ordinary hay.

It may be rather unsafe to give advice as to the probabilities of the market at a time of so much confusion and uncertainty, but we will at least venture an opinion that the carly market will not be the best this year. The large quantities of last year's crop still in our granaries, the favorable prospects for a good crop in Europe and of a fair crop in this country, together with the Southern blockade, are the data upon which we base our conclusion. The fact that half a million of men have been called into the service of the Union will doubtless have some effect upon the demand for breadstuffs, but, inasmuch as they were not called into service until the seeding had been done, we do not see how their change of situation and occupation will materially enhance the value of the cereal grains. They must be fed to be sure, but that would have been necessary anyhow. To our mind it seems clear, therefore, that the price of wheat should not be expected to materially advance until the agriculture of the North shall have been made to feel the loss of the laboring force upon which it has heretofore relied, or the influence of a possible failure of the European
crop. If this process of reasoning be unsound, we are ready to face the flaw. If correct, there would seem to be no occasion except in the necessities of individuals for an effort to thresh or sell any earlier than may be desirable on other accounts.

THE QUESTION OF STORING, Therefore, assumes even more than usual interest.

Since our last year's harvest hundreds of thousands of bushels of wheat have suffered for want of proper storage, and the credit of Wisconsin wheat which has always ranked high, has thereby'depreciated several per cent. Perhaps the depreciation may be partly owing to damage in the shock and to "sweating" in the stack, but much of it is certainly due to improper storing in faulty granaries.

Proper storage relates first to the condition of the grain, and secondly to the character of the granary itself.
As to condition, it may be sufficient to say, that grain of no kind should be put into store while yet damp and muggy. Better a great deal spread it out and shovel it over upon the barn floor, or even run it through the screen, again, slowly, so as to ensure its better airing; and if this be not sufficient to ensure its safe keeping, we suggest that it may be well to sprinkle over and thoroughly mix with the grain a small quantity of dry quick limesay a peck to 100 bushels. The lifme will adhere to all damp kernels, and by its absorption of moisture render its preservation more sure. When prepared for grinding it will of course be run through the fanning mill, and this process will separate every particle of the lime so that none shall be found in the flour.
conditions essential to a good granary.
The granary should be clean, as secure at possible from vermin, and well ventilated.
If used heretofore, see that it is properly cleansed with soap and water, and afterwards thoroughly dried and whitewashed. If perfectly new the cleansing will of course be unnecessary.
Protection against vermin can best be secured by building the granary separate and
apart from all other buildings; placing the frame upon pillars capped with inverted tin or zinc pans, and entering it by a movable bridge. If built within the barn, as in most cases, almost the only protection is in not having any vermin about the building-a desideratum but rarely, if ever attained. Lining with sheet iron or other metal and flaring the top outward is the only way of accomplishing the object mechanically, and this is rather expensive.
But whether built without or within the barn, ventilation is all important and cannot be neglected with impunity. And yet three fourths of the granaries of the country are constructed without the slightest reference to the necessity of the grain for air. In one of our recent visits to the country, we took occasion to call upon a thrifty, hard-working farmer, who has been holding some two thousand bushels of his wheat for a better price. It was divided into four piles of five hundred bushels each, but all the lots were garnered in small dark holes under the hay-mow without the slightest possibility of any ventilation whatever. In one of these the grain had spoiled, and from the others there came up a hot, musty odor that promised anything but good, healthy, marketable grain. "The first five hundred bushels I had some anxiety about," said our friend, "for it was rather damp when put up; but this, (dipping his hand into one of the other bins) went in all right. That will keep as long as you please." We demurred, of course, but not with any avail, and when next we meet we shall expect a long blue account of how he lost the rest of his wheat. This man is but the representative of a large number of farmers, who, in the aggregate, have lost probably not less than a quarter of a million dollars worth of wheat the present year, besides damaging the credit of the State to the amount of millions more.

## how to ventilate a granary.

In order to complete ventilation there must be access of air at the bottom and outlet at the
top. To make sure the former, we offer the
following new method which seems to us both rational and practical:
Upon the usual sleepers or joice lay a floor of narrow inch stuff, edgwise, and with spaces of an inch between, and upon these stretch and fasten good strong wire eloth or seiving fine enough not to allow the kernels of wheat to pass through. This will support the grain and yet permit a perfect circulation of air from beneath. The escape of air above may be secured by having a square box tube or pipe connect the granary with the outer atmosphere above the roof-taking care to so protect it at the top as to prevent the rain from beating in and running down upon the grain and perhaps observing the further caution of suspending a dish at the lower extremity of the tube to prevent any dropping of condensed moisture.
A granary constructed in this manner would always have a perfect circulation of fresh air and constitute the safest place into which wheat could possibly be put. The wire seiving would cost but ten cents per square foot, or lesss than fifteen dollars for a granary 12x12 feet, and the expense of everything else suggested would be but a trifle.
Will not the farmers of our country give this subject the attention its rast importance demands and prove by their works that they appreciate the old maxim of Poor Richard-" $a$ penny saved is worth a penny earned?"

## How to Save Ammonia.

The best part of all the manures in our barn yard is ammonia, and this evaporates if we do nothing to save it. It goes off in the shape of a volatile gas, very pungent to the smell. Hence the strong odor about stalls, barn-yards, sink drains, and privies. How to catch this fugitive and make him do justice to our gardens and fields, is the question. It can not be done if we keep our cattle at the stack yard
all Winter all Winter. There is a dead loss of five dollars on every animal so kept. But if the cattle are stabled or kept under open sheds, most of the manure may be easily saved. A bedding of dry muck two or three feet thick will absorb an enormous quantity of liquid manure, and will not need to be removed more than once before spring. The solid manure should be removed every day and covered with muek or
old litter. old litter.
In the stables, if they are cleaned every day,
it is a good plan to sprinkle on plaster of Paris every day, about a pint to each stall. If this is not at hand, dry muck made very fine will answer a good purpose. The foulest stable floor will lose its pungent odor in a few minutes, if it be covered with fine muck or pulverized peat. The finer and dryer this earth is made, the greater its absorbing power. If it has lain over one season it is readily prepared for this purpose by a shovel.
Dried clay is also an excellent article for this use. If it is partially burnt, it is still better. For this purpose make a heap of dried sods, or brush, or any combustible material, and cover it with lumps of clay or clayey soil, leaving holes enough for ventilation. This mass when it is reduced by burning, makes a powerful absorbent, and is much less expensive than plaster. If it is not burnt, the lumps should be knocked fine with a hammer or mallet.

Every place about the house and barns, where there is the smell of ammonia, should have these coarse or fine absorbents. Many farmers lose one, two, and three hundred dollars a year for want of them, according to the number of animals they keep. The money goes streaming off into the air as palpably as if a whirlwind took up a pile of bank bills. The nose takes cognizance of it, but because farmers are not accustomed to reckon money by their olfactories, they do not perceive their loss. The loss nevertheless is as real as if their pockets had been picked. Wise farmers save their ammonia.-American Agriculturist.

## [From the Canadian Agriculturist.] Fortunes Made by Farming.

It is a common, and, we think, correct conviction that large fortunes are seldom made by farmers. There are, however, exceptions. Agriculture, as a pursuit, probably yields about the average rate of profit on the capital employed as compared with that of commercial undertakings, when the losses, which are often heavy, attending the latter, are deducted.There is generally much less risk in farming than in manufactures and commerce; and industrious, economical habits, guided by a sound judgment, will scarcely, in any instance, fail in securing a comfortable competency. There are thousands of farmers in Canada who are now comparatively wealthy, who came to this country twenty or thirty years ago almost without a shilling. The following instances of success in farming are taken from an article furnished the Boston Cultivator, by that well known agriculturist, Mr. John Johnston, of Geneva :
Some sixty years ago, a man came to Western New York from New England or New Jersey, I am not certain which, his axe and a little loose change being about all the property he had. He worked several years for different
farmers, and then bought land for himself. He now has a farm of 600 acres or more, has given two sons each a good farm, and pays taxes on two hundred thousand dollars of personal property. He has never had any business but farming.
I know another man whose father left him a farm of about 200 acres, something over thirty years ago, with some encumbrances on it in the shape of legacies to other heirs, who now has over 400 acres of land, and fifty thousand dollars at interest. He also has done no business but farming.
Several men have worked for me, whe, though they had nothing when they came, are now well off. A young Scotchman worked for me over thirty years ago who had but three cents when he began, but who now has a good farm of 200 acres, well stocked, and he is free from debt. He knew how to do the mechanical part of farming thoroughly, but knew nothing of speculation. I could name others who have acquired fortunes wholly by farming.
A farmer of small means should be very economical and still very liberal. He should be economical in dress for himself and his family, and in his dwelling and furniture; he should be liberal in feeding his stock, manuring his land, and in supplying labor to work his land. I have seen many farmers who were kept always poor by trying to do too much work for the number of laborers employed, whereas if they had hired double the labor it would have paid abundantly. This is a very common mistake.

## Land Drainage---Cheap and Good Tile.

September and October are the most favorable months for this important work, as the wet lands which most need draining are dryest then, and the farmer is not so much crowded by other important work as at other seasons when drainage is possible.

We have often urged this subject before, but hitherto under the disadvantage of having no tile in the State or within available distance to which we could direct the attention of our farmers. Happily this embarrassment no longer exists, as they can now be obtained of excellent quality and at a rate less than the cost of any other equally permanent and valuable drain materials. Dr. Weeks, whose well ordered tile works are now in operation at Milwaukee, makes as good tile as we have erer seen anywhere, and the reasonable terms which he has been able to make with the railrosds for transportation, place them within the means

## THE WISCONSIN FARMER.

of almost any farmer-at least for use where the demand is pressing.

Why is it that the gardeners and farmers of Wisconsin are so slow to commence a work of improvement which is demonstrably important and the economy of which has been so often proved by actual experiments? The few about Milwaukee who have experimented with tile in their orchards, gardens and wet grain fields, speak of the economy of their use in the highest terms and are ordering more for the improvement of lands which they had before supposed weuld not be improved by drainage. Wet clay lands will more than pay the cost in the increased value of the first two or three crops. Lands in the vicinity of large towns and devoted chiefly to gardening have been known to pay the cost of draining with the added yield of a single crop.

Farmers, try it, and if done in accordance with the best authorities, and yet without advantage, we agree to foot the bills and bear the curses.

## Signs of Rain.

Addressed by Dr. Jenner, 1810, to a young lady who asked him if he thought it would rain to-morrow.

The hollow winds begin to blow, The clouds look black, the glass is low; The soot falls down, the spaniels sleep; And spiders from their cobwebs creep.
Last night the sun went pale to bed,
The moon in halos hid her head; The boding shepherd heaves a sigh, For see, a rainbow spans the sky ! The walls are damp, the ditches smell, Closed is the pink eyed pimpernel; The squalid toads at dusk were seen, Loud quack the o'er the green;
The distant hills are looking neacocks cry,
The distant hills are looking nigh.
Hark! how the chairs and tables crack !
Old Betty's joints are on the rack,
And see yon rooks, how odd their flight,
They imitate the gliding kite,
Or seem precipitate to fall,
As if they felt the piercing ball.
How restless are the snorting swine;
The busy flies disturb the kine;
Low o'er the grass the swallow wings;
${ }^{T} T$ will surely rain, I see with sorgs!
T will surely rain, I see with sorrow,
Our jaunt must be put off to-morrow.
Prairie Breaking.-Three horses and a sixteen inch plow will be found valuable in this work. But few larger plows are now used for this purpose. If the ground is not very dry two heavy horses will do good work. Remember, to keep your plow sharp, for if you
do not you will need to double your team. do not you will need to double your team.

## How to Manage Timothy Sod.

Mr. Editor:-Allow me through the Farmer to urge upon all who would succeed in getting good crops on Timothy soil, to plow it under in the fall-August or September-when the grass has started up with a good growth. It will then heat and by its rotting help to rot the sward.

If they wait till spring, it may answer for planting, provided the season be wet; but it will not answer for grain for these reasons :

In the first place, spring plowing leaves the furrows lying up loose, so that much of the water which should soak into the earth and thus improve the crop passes off in the artificial drains thus made; and

Secondly, sward plowed in the spring recieves no benefit from the action of the frost, which is very important, as a means of breaking up the soil, reducing the minerals and settling the earth for the better growth of the new crop.

Any one who does not appreciate these reasons, may make the experiment with two fields, plowing one in the spring and the other in the fall, and if he does not find a great difference at harvest in favor of fall-plowing, then his experience will be just exactly the opposite of mine.

Albert Wood.
Madison, August, 1861.

## Best Method of Exterminating Canada Thistles.

Canada thistles may be effectually destroyed by mowing, summer fallowing, and hoeing. Each of these methods may, under some circumstances, be better than either of the others.

Mowing, about the first of July and the first of September, will put an end to them as long as the field lies to grass; but when broken up, they will again show themselves, as the seed will lie in the ground several years and grow when brought to the surface, and will again require the use of the scythe.
Plowing and harrowing will destroy them, if repeated often and continued from May until September; and then it is better to break up sod ground deep the fall before, as you have the land in better condition, which is more likely to render the experiment successful.
As a general rule, I prefer hoeing. I would plow the ground in the fall deep and coarse, then again in the spring plow and harrow, plant to potatoes, and hoe two or three times, taking pains to pull out the thistles among the tops. After the last hoeing, I would go through the
field once in ten or twelve days and cut up the thistles, until it is time to dig the potatoes.After digging, the ground should be plowed deep once and perhaps twice, and in the spring plowed and planted to corn. A few scattering thistles will show themselves, which should be cut regularly once in ten days as long as one can be found. I have never known this course of treatment to fail in reclaiming the worst fields. The crops will more than pay expenses, and leave the field free for any future crop.

A Fact Hunter.

## Report Your Grain Crops.

The farmer who, after toiling hard to prepare the soil, put in the seed, and gather the crop, is anxious to know by accurate measurement just what he has gained by all his effort fairly illustrates, though on a scale proportionally less, the strong desire we feel to be able to determine and correctly report the crop for the whole State.

The individual farmer has this advantage, however,-that he can appeal directly to his half-bushel for a reliable answer, while we are obliged to beg of this one and that, in different portions of the State, to give us their figures, and finally, after failing in nine cases out of ten, to get any answer at all, to make sundry tours through the State and estimate upon scattering data, oftentimes, perhaps, imperfect.

To obviate this difficulty and to ensure a more prompt and accurate report of the crops -particularly of the wheat crop of the Statewe would urge upon all County Agricultural Societies the propriety and importance of making an effort to report their respective counties as correctly as may be after the first threshings.

What Society will lead off in this matter?
Clover and Meadow Lands.-The Valley Farmer speaks thus concerning the management of clover and meadow lands:-Stock should always be turned off from clover so early in the fall as to allow the plants to make a growth of leaves sufficient to protect them from the action of the snow and frosts of winter. When eaten off to the ground, and the surface becomes trod hard and compact, the roots will be drawn up frequently three inches above the surface before spring.

If clover and meadow lands have already
received close fall feeding, by all means stock should be kept off during February and March, so that the surface may become somewhat lightened by the rain and frosts, that the tender growth of spring may proceed without injury. One hundred pounds of feed gleaned from a clover or timothy field in the winter or early spring, will cut short the crop of the coming season five hundred pounds or more; so that it will prove the most miserable economy to allow a hoof to press upon lands that are intended for hay or summer pasturage.

## English Love of Country Life.

Lavergne, a distinguished French writer, in commenting on the English taste for a country life, remarks:
The national literature, as expressive of manner and customs, contains throughout marks of this distinctive trait in the English character. England is the country of descriptive poetry ; almost all their poets have lived in the country and sung of it. Even when English poetry took ours for its model, Pope celebrated Windsor Forest, and wrote pastorals; if his style was not rural, his subjects were. Before him, Spenser and Shakspeare wrote admirable rustic poetry ; the song of the lark and nightingale still resounds, after the lapse of centuries, in Juliet's impassioned farewell to Romeo. Milton-the sectarian Milton -employed his finest verse in a description of the first garden, and in the midst of revolutions and business, his fancy carried him toward the ideal fields of Paradise Lost.

But it was principally after the revolution of 1688, when England, now free, began to be herself, that all her writers became deeply impressed with the love of country life. It was then that Gray and Thomson appeared; the first in his celebrated Elegies, and among others his "Country Churchyard," the other in his poem of the Seasons, striking in delightful sounds this favorite chord of the British lyre. The Seasons abound with amiable description; it is sufficient to instance the haymaking harvest and sheep-shearing, the latter being already in Thompson's time a great business in England; and among the pleasures of the country, his account of trout fishing. The angler, at the present day, may find in this little descriptive picture his favorite art fully detailed. The feeling is everywhere lively and spontaneous-enthusiasm, real and deep, for the beauties of nature and the sweets of labor. To these Thompson joins that quiet, high religious feeling which almost always accompanies a solitary and laborious life, in the presence of the never ending wonders of the vegetable creation. It pervades the whole poem, especially in the concluding part, where he likens the awakening of the human soul after death to nature after winter.

## STOCK REGISTER.

## Hydrophobia.

Of all the diseases to which man and the lower animals are subject, there is none so terrible in its characteristics or painfully fatal in its termination as Hydrophobia. He who has once witnessed the dying agonies of a fellow being struggling with the relentless poison will remember it with shuddering to the end of life. Even the thought of such a death chills the blood with horror.

With the theory of origin we shall have nothing to do. We have professed discoveries of infallible remedies, but none are so verified as to be entitled to credence. It is nevertheless a subject of much importance, and as this is the season when persons and animals are most exposed, it is believed that the following illustrated account of its symptoms and progress in that noblest of beasts, the horse, will be read with interest. We quote from the "Illustrated Horse Doctor," (published by Appleton \& Co., New York), to which complimentary reference has been made in previous numbers of the Farmer. The cuts are electrotype copies of the fine engravings executed by the Author, and very graphically represent the agonized countenance and furious manner of the horse, as we have several times seen him in the terrible paroxysms which mark the disease:

coumtenance or a horse with hydrophobia.
"This (Hydrophobia) is always the fruit of contagion, received from some stable-pet, in the shape of a dog or cat. It is essentially a nervous disorder. From the first it influences the brain
to a degree which no other malady seems capable of exercising. The animal constantly licks some portion of the body. The place appears to itch violently, and the tongue is applied with an energy and a perseverance highly characteristic of an over-wrought nervous distemper. The appetite always is affected; sometimes it is ravenous. The rack is not only emptied with unusual speed, but the bed, however soiled, is also consumed with apparent relish. Generally, however, the desire for provender is destroyed. Sometimes the longing for fluids is morbidly increased.The horse plunges his head to the bottom of the pail, will bite the groom who endeavors to interupt the draught, or seize the wood between his teeth and crush it with a powerful gripe. More frequently water will cause spasms, and be avoided with horror.
The nervous system is always highly developed. The horse starts at the smallest sound, trembles violently without a cause, flies backward, hangs upon the halter, stares wildly, and bursts into a copious sweat without any apparent reason being deetected. The neigh is squeaking, and the face at the commencement is characterized by immense anxiety, which is soon changed for a peculiar aspect of cunning, mixed with grinning ferocity.
Rarely, however, all the foregoing symptoms are absent. The horse is harnessed and taken to work. Suddenly it stops, appears stupid, and threatens to fall. In a short time it recovers, and the labor is proceeded with. The fits occur again and again. At length they end in violent shivering. When the tremor ceases, the recognition is not- perfectly recovered. The breathing is quick and sharp; the eye bright and wild. The animal is turned homeward, but seldom reaches the stable before the furious stage begins.
Hydrophobia is commonly matured before the expiration of the sixth week. A fortnight is the earliest period of its appearance; but some writers have asserted that the imbibed virus will remain dormant for twelve months. The writer has no experience which justifies the last opinion.

Whenever a suspicion of this incurable and horrible disorder is entertained, place the horse by itself in a building with bare walls, but capable of being looked into through a window. Put food and water in the house, and, if the door be not strong, have it barricaded. Let no one enter for at least three days, as, during this disease, the horse is both michiev-


## Exportation of Shorthorns from the United States to England.

The following information from a recent number of Bell's Messenger, an old weekly agricultural paper of good authority, published in London, will prove interesting to our readers generally, more especially to those that are practically engaged,-and we have now many such in different sections of the Province,-in the improvement of the breeds of cattle. We have now on this continent commenced repaying England, in kind, for what we have long been receiving from her; and this importation will afford conclusive evidence that the soil and climate of this portion of North America are admirably suited, under proper management, to the highest development of the world renowned Shorthorn. We have breeders in Canada who, if they could spare their animals, might follow Mr. Thorne's example with a like success:
"On the 29th ultimo we had an arrival of "Dukes and Duchesses" from the United States. Most of our readers remember that in $1853, \mathrm{Mr}$. Thorne, and Messrs. Becar \& Morris, from the United States, were present
ous and dangerous. The pain is such that it seeks relief in destruction. All breathing and moving creatures first attract its rage; but, wanting these, its frenzy is expended in breaking, rending, and scattering inanimate objects. Its ability to destroy is only limited by the duration of the disorder.

Let as few people as possible be near the hydrophobic horse. The quadruped's nerves are then alive to every impression. The presence will be detected, though the person be assiduously concealed. The sound of breathing even adds to the torture. Keep all people away but one; and that one should be the best shot in the neighborhood. Let him approach, aim steadily, and pull the trigger; for a bullet well placed is the only remedy the author knows which can stay this fearful disorder."

Cows Leaking Their Milk.-A correspondent of the Prairie Farmer says, that where cows lose their milk by leaking, the evil may be remedied by applying a small quantity of collodion to the end of the teat immediately after milking. This will at once form a thin, tough covering or skin, which will prevent the leakage, and which may readily be removed before milking again.
at the great Tortworth sale, and carried away the Duchesses 64 and 66 , for 600 and 700 guineas respectively, besides other animals of the Oxford tribe, bred by the Earl Ducie, and originally from Mr. Bates. Subsequently Messrs. Becar and Morris sold the whole of their herd to Mr. Thorne, who, in the course of a very short time sold $£ 6,000$ worth of drafts from it. Mr. Thorne had previously spent upwards of $£ 20,000$ in the formation of his herd. Both of the Tortworth Duchesses and their produce thus fell into his hands; they have, however, hitherto bred mostly bulls, so that the number of the Duchess tribe now in America is not very large. The arrangement by which some of them have come back to this country has been negotiated by Mr. Stafford. He sent the Tortworth Duchesses across the Atlantic, and it was only fair that he shonld do his best to bring their produce back. The following notes respecting them will interest our readers :

The "5th Duke of Thorndale," hired by Mr. Langston, M. P., died upon the voyage. The "2nd Duke of Thorndale," calved in April, 1858, has been bought by Mr. C. Howard, of Biddenham, and Mr. Robinson, of Clifton Pastures; he is a grandson of the 700 guinea cow, Duchess 66, and of pure Duchess blood. The "4th Duke of Thorndale," calved February, 1859, is a son of the 700 guinea cow, and own brother to the dam to the celebrated Duchess 77, which took so many prizes last year ; Mr. Hales, of North Erith, had secured him. Mr. M'Intosh, of Havering Park, Essex, has purchased the "Srd Duke of Thorndale," calved

August 28, 1858, a grandson of Duchess 64, the 600 guinea cow-a son of her daughter, "Duchess of Thorndale," a cow bred in the States, to which his sire, Grand Turk, the 2nd prize bull at the Chelmsford meeting, was put by Mr. Thorne. The Thane of Oxford and Imperial Oxford look full of promise ; they are respectively grandson and son of Oxford 13th, a cow of Mr. Bates' breeding, sold as a calf at the Kirkleavington sale for 60 guineas. One of these has been engaged by Mr. Lawford, Linslade, Bedsford. The only female, a choice heifer, 4th Lady of Oxford, granddaughter of Oxford 13 th, has been sold to Mr. M'Intosh.

Those of our short-horn breeders who have seen the animals since their arrival have expressed their admiration at their character and condition, and have spoken in very complimentary terms of Mr. Thorne's management. As the best proof of the opinion which is entertained on this point, we understand that every animal has been sold, a fact which must be highly gratifying to Mr. Strafford, as well as to Mr. Thorne."-Canadian Agriculturist.

Cheese-Making in Switzerland.-The manner in which the Swiss peasants combine to carry on cheese-making by their united efforts deserves to be noted. Each parish in Switzerland hires a man, generally from the district of Gruyere, in the Canton of Freyburgh, to take care of the herd and make the cheese; one cheeseman, one pressman, or assistant, and one cow-herd are considered necessary for every forty cows. The owners of the cows get credit each of them in a book daily for the quantity of milk given by each cow. The cheeseman and his assistants milk the cows, put the milk altogether and make cheese of it, and at the end of the season each owner receives the weight of cheese proportionable to the quantity of milk his cows have delivered. By this co-operative plan, instead of the small-sized, unmarketable cheeses only, which each could produce out of his three or four cows' milk, he has the same weight in large, marketable cheeses, superior in quality, because made by people who attend to no other business. The cheeseman and his assistants are paid so much per head of the cows in money or cheese. A similar system exists in the French Jura.-Notes of a Traveller.

Hobses Rubbing their Tails.-A horse rubs his tail, not from itching at the root of the tail, as some suppose, but from within the anus, caused by a dryness or want of secretion, Which is occasionally found to exist there. This may be removed by inserting with a swab a piece of lard the size of a hickory nut, and rubbing it well around within the anus. If this part is thus kept well lnbricated with grease, the horse will be relieved from the itching and will cease to rub his tail.

## To Protect Horses Against Flies.

It not unfrequently happens in the hot weather of summer and in the fall that the fretting of horses by flies, is a severer tax upon the nervous system than all the labor they have to perform. The question of a remedy, therefore, is one of considerable importance to both the owner and the horse. Nets serve the purpose, in part, but they are after all quite as ornamental as useful ; and as a more effectual remedy, various washes have been proposed. Of these, one has been so often recommended by persons in whom confidence may be placed, that we publish it in the Farmer. It is simply a decoction of walnut leaves. Apply with a spunge just before taking the horse from the stable. It costs nothing and is certainly worth trying.

## How to Increase the Value of a Cow.

Every one who owns a cow can see at a glance that it would be profitable to increase the value of her, but every one cannot tell how to do it. We can, and we think that we can make it equally palpable to our readers. If a cow is kept for butter, it would certainly add to her value if the butter-making properties of her milk should be improved. In summer or winter this can be improved just as the yield of a cultivated crop can be improved by what is fed to each, and it is simply a question of will it pay, in manuring the one or feeding the other. Indian corn will add to the quantity and quality of the butter to a very sensible degree, and it is simply a question of easy solution, by experiment, whether it will add to the profit of the butter-maker to buy corn at one or two cents a pound, and convert a portion of it into butter at twenty-five cents a pound, or whatever the market price of corn and butter may be, and another portion of it into fat, and another portion of it into manure, for that is the natural result of the chemical change produced in the laboratory of the cow's stomach. The same result will follow any other kind of feeding. Good pastures will produce an abundance of milk, often as much as the cow can carry ; but does it follow that even then it will not be profitable to feed her with some more oleaginous food to increase the quantity of butter just as it sometimes proves profitable to feed bees to enable them to store more honey. It certainly does appear to us that the value of a cow, feeding upon ordinary winter food, may be almost double by making that food suitable for the purpose of increasing the quantity of milk, if that is the purpose for which the cow is kept. Farmers generally understand that they can convert corn into beef, pork and lard, and some of them know exactly at what price per bushel it will pay to convert it into these substances; but
does any one know at what rate it will pay to convert corn or any other kind of grain into butter, or any other kind of feed into the dairy products? Is the whole business a hap-hazard one? We fear so. Some persons know that they can increase the saleable value of butter by adding the coloring matter of carrots to it. Does any person know the value of a bushel of carrots fed to a cow to increase her value as a butter-producing laboratory? Experimental proof upon this point would be far more worthy of agricultural prizes than it is to see who can show the largest sized roots; for by a few carefully conducted experiments we should be able to increase the value of a cow almost at pleas-ure--Rural Register.

THE POULTERER.


The Pea Fowl.
Mr. Editor :- * * The Pea-fowl is a beautiful bird; has it any other claims to a place in the farmer's poultry yard? My children have somehow got the notion that they must have a pair, and I am disposed to gratify them if the prejudices I have against their moral character and fruit-destroying habits are unfounded. In your answer please inform, if you can, where either the chicks or the eggs can be had. Yours truly, т. L. Portage, July 25, 1861.
We regret that our reply to the above cannot be made more satisfactory to the children of our correspondent.

From the time when they were first intropuced into ancient Athens and exhibited for a
fee every new moon to the admiring boys and girls of the Greeks, or when the Emperor Vitellius used to feast upon their brains as the rarest of delicacies, the Pea-cock has been the admiration of everybody except the unlucky poulterer or farmer who has undertaken to prove it a useful as well as ornamental appendage to his farm: such persons liave almost invariably become disgusted and ceased to regard him as other than a miserably vain, strutting, black-footed, screaming, querulous, and destructive fellow.

In the jungles and forests of India and Japan to which they are natives, they are undoubtedly a brilliant addition to the motely collection of birds, quadrupeds, \&c., that inhabit those countries; indeed, when viewed independently of its habits and objectionable characteristics, there is scarcely any bird in the world more beautiful. The gorgeous rainbotw hues of its magnificent tail have scarce a parallel within the whole range of ornithology. And, if one has a large handsome lawn with forest trees, and either cares to have no garden at all, or on the other hand to well protect his fruits by high inaccessible inclosures, a small flock of Pea-Fowls add very much to the animate beauty of the landscape and may be cleverly tolerated on that account.
The hen lays but few eggs, is but little cared for by her liege lord either during the period of incubation or at any other time.

The chicks are interesting little fellows taking on their plumage and growing in strength at a wonderfully rapid rate-being able within the first week to fly upon their perch, and in two or three weeks more to fly to the top of the barn. It is their natural tendency to get up in the world, and neither in youth or old age will they tolerate confinement.

We do not know where either the eggs or birds can be obtained.

Keep the Poultry House Clean.-From twelve to fifteen fowls may be kept in a house eight or ten feet square, with a yard attached about twice that size, and with profit, as we know by experience. The house must be kept clean, the inside occasionally whitewashed, and the nests frequently changed. The yard
should have partial shade from trees or buildings, otherwise shade must be provided. Dig up a few feet of the yard every day for the fowls to work among and dust themselves. After it is all worked over once or twice, remove the surface, and use it in the garden, and give the fowls a load of fresh earth. That removed is worth all the trouble it causes, as manure for the garden. It is unequalled for flower beds. The house, if it has no other floor than the earth-and this is better than boards-should be served in the same manner. Fowls in almost all cases become diseased by neglect.-Rural New Yorker.

## THE BEE KEEPER.

## Battle of the Bees.

The spirit of waring seems contagious. Even the bees have caught the infection and recently had a grand Bull's Run fight at Conneaut, Ohio-with this difference in the result, however, viz. : that both armies had leaders and neither party run. For a long time they had lived in harmony, seventy States (hives) of them, until finally one portion of the Grand Union got an idea that the other intended to abolish the drone system (or pretended they had a conviction of that sort,) and so seceded! The Colony of the Union, finding no constitutional authority for any proceeding of that sort, objected, and so gave them battle. Both parties appear to have fought desperately, though without any immediate result except the slaughter of vast numbers of the combatants and the exhaustion of their forces. The following account is by an observer:

Ezra Dibble, of Conneaut, has several swarms of bees about equally divided on the east and west side of his house. On Sunday, August 14th, about three o'clock, the weather being warm and the windows open, the house was suddenly filled with bees, which forced the family to flee at once to the neighbors. Mr. D., after getting well protected against his assailants, proceeded to take a survey, and if possible learn the cause which had disturbed them.
The seventy swarms appeared to be out, and those on one side of the house were arrayed in battle against those of the other side; and such a battle was perhaps never before witnessed. They filled the air, covering a space of more than one acre of ground, and fought desperately for some three hours-not for
spoils, but for conquest; and while at war, no living thing could exist in the vicinity. They stung a large flock of Shanghai chickens, nearly all of which died, and persons passing along the roadside were obliged to make haste to avoid their sting.
A little after 6 o'clock. quiet was restored, and the living bees returned to their hives, leaving the slain almost literally covering the ground, since which but few have appeared around the hives, and those apparently stationed as sentinels, to watch the enemy. But two young swarms were entirely destroyed, and aside from the terrible slaughter of bees, no other injury was done. Neither party was victorious, and they only ceased on the approach of night, and from utter prostration.

The occasion of this strange warring among the bees is not easily accounted for; and those most conversant with their management, never before witnessed or heard of such a spectacle as here narrated.

## Fertility of the Quoen Bee.--Excess of Drones.

In transferring a stock from an old box holding nearly two bushels, I found about 50,000 cells, containing worker brood, and about 10 ,000 containing drone brood. This queen must therefore have laid nearly 3,000 eggs a day. The upper third of the hive was filled with sealed honey.
From another old box, I cut out over 15,000 sealed and unsealed drones. Thousands of drones had already hatched. - In examining a movable comb hive belonging to a friend, I found two of the central frames filled with drone brood. The yield of honey from this hive for two seasons had been small. The honey uselessly consumed in rearing and supporting drones in many stock hives, is sufficient to pay a generous interest on the value of the stocks.-L. L. Langstroth.
[From the American Bee Journal.]

## Ant Riddance.

We have made a very important and cheap discovery to keep ants from bees. Several years since the little red ants were very numerous in our cupboard, and we put stone coal against the end of the house opposite the cupboard, and it banished them all. We concluded it was the effeet of the copperas in the coal. This spring the black ant began to annoy our bees, and we procured copperas out of the coal bank and put it around the bench legs, cleaned all the ants off of the bench, and there has not been one about the hives or bench since.
S. M. \& E. S. Brig.

Kirkwood Township, Belmont Co., Ohio.
123 Now is the time to prepare for putting your bees into winter quarters. See that they have plenty of food and good protection.

## THE HORTICULTURIST.

## Horticultural Hints.

September, the month of ingathering, the equalizing month of days and nights ; days of invigorating coolness, nights of refreshing slumbers; how welcome after the sweating toils of the summer harvest.
The gathering and storing of fruits and vegetables for future use is the great labor of the month, but among the horticultural operations will be, to finish up early the budding of late growing roses, peaches and some other fruits if still growing vigorously, to see that the bud strings or label wires are not girdling the trees, to prune away all late starting shoots from the base of trees, and clean away rubbish and weeds as recommended last month. But do no severe pruning now, as you thereby induce a late growth, besides depriving the roots of a large store of returning sap.
Attend early and late to labeling or staking and registering fruit trees, perennial and herbaceous shrubs, as by fruit, foliage and flower, you can now distinguish the varieties, and it may be very desirable to know them at transplanting time; if you have them thus booked, you will then know what and what and where you want new varieties. To orchardists especially would we commend this plan, and in your register take and give a full description of tree, foliage, and fruit, if it is of value.

Tie up choice specimens of fruits as recommended in last No. In order to get the full size, beauty and quality, they should generally be fully ripened on the tree, but as they cannot always be retained until that time, and it is often desirable to save specimens for exhibition, such can be picked a little before maturity. Envelop each one in paper, and keep from the light in a cold dry place.
Fruits designed for market should be handled with the greatest care, as every retailer will attest.
Continue to save seeds of everything desirable, and with the greatest assiduity; all seeds should be dried in the shade and some will not bear drying at all, as the plum, peach, chesnut,
walnut, \&c., but should be planted when fresh, or mixed with loam and buried until a convenient time.
Transplanting can begin of currants and many other shrubs as soon as the cool moist weather comes, and after the plants are ripened, the earlier the better.
Bulbous and tuberous plants that have matured their foliage, especially the peonia, lily, tulips, \&c., should by all means be moved now; divided, planted, staked, registered and mulched for the winter. All things transplanted now should have the earth heaped over them and well mulched with straw or litter for the winter.

Cuttings can be of scions for future use, but they should have all the unripe wood and leaves trimmed off and be buried in the earth; but the great mass of scions for winter use will be cut during the next two months. Cuttings can still be made of growing twigs of many varieties of roses and herbaceous plants, immediately potted or beded in the greenhouse, or even in the room if covered with glass; well rooted plants can now be potted, and on the approach of frost can be placed in winter quarters. The cold pit is one of the best economical structures for wintering half hardy plants and should be prepared early this month.
In all these labors do not forget to get ready for the autumn fairs of town, county and State -take something to show, for these fairs are among the great institutions of the age, and will be a source of great pleasure and profit to those who rightly patronize them.
J. c. p.
[From the forthcoming Report of the Wisconsin Fruit Growers' Association.]

## Grapes in Cold Vineries.

by john c. ure, of the grapeton gardens, near chicago.
[Continued from page 231, July Number.] planting.
If the vines have been grown in pots, are started, and it is late in the season, it is best to disturb the roots as little as possible.
Vines one year old from the eye are the best. Plant them before, or as soon as the first of April. Shake the earth from the roots or balls formed by growing in pots, straighten the roots in all directions, and cover lightly with
the same soil that is used in the border; for, putting strong manure on them will injure them and cause canker in the injured parts. Rich compost may be spread over the soil.

The vines being planted in hills, or crowning, the border decomposes and settles, and the application of compost is necessary to keep the surface level. It is best to plant thicklyone vine under each rafter, and as many rows as the width of the house will admit, planting the first row one foot from the front stud, and the back row the same distance from the back stud. They may be planted four by five or six feet apart, and as the house gets age and the roots grow, they may be thinned. It will be necessary to do this because the laterals and roots will extend to the injury of each other. Thus, we have a White Nice and a Rose Chasselas. The White Nice being a strong grower made fine bunches weighing 3 to 4 fbs . per bunch; it will sometimes give bunches that will average 10 to 12 lbs . Bunches of it have been grown as heavy as 19 tbs. But by its vigor, it reduced the size of the Rose Chasselas to a few ounces per bunch. It is a bad plan to have any forest trees growing near a vinery, as their roots will get into the border and rob the vine.

## MANAGEMENT.

When the vines are planted, avoid exposing them to dry winds. The temperature may be allowed to rise as high as $75^{\circ}$; syringe them two or three times per day in dry bright days; but withhold the water in cloudy weather overhead. A warm moist atmosphere will cause the eyes to burst better, and a good start is an important item in vine management.

They may be started from the 1st to the 15 th of April, according to the season. But it is best to keep them cool and as backward as possible on account of late frosts. But if the vines in a house have not started, they may be saved by putting a barrel or tub in the house, and if frost is expected, fill the tub or barrel with boiling water in the evening and again in the morning, and by syringing the house-all the vacant spaces-with hot water before the sun gets up. But no water should touch the
vine. This precaution may not be needed, but I have saved a crop in this manner when most others lost theirs. A slight frost will not kill the vines; it only injures the most advanced of the fruit spurs.
It will be more trouble to regulate the temperature of the vinery the first year than thereafter; because as the vines grow they shade the inside of the house and protect it from the effect of sudden changes.

Give air gradually, and mostly from the top until the temperature gets up to $90^{\circ}$ or $100^{\circ}$, which will be in May or the first of June.

Scorching from so high a temperature will be avoided by syringing and keeping the house moist. If the temperature should get higher than is wished-say to over $100^{\circ}$, giving air suddenly to lower the temperature will scorch the vines; and if it is watched, it will be found that they are scorched near the top, and in the draft. But if the syringe is used on the wood work, passage ways and border, first, it will cause a moist atmosphere and create a vapor which will modify the action of the sun; then open the top ventilators gradually, and the temperature will fall without injury to the vines.

If the red spider should make its appearance, it may be eradicated by a moist atmosphere, caused by syringing.

By the middle of August we should make the atmosphere a little dryer; withhold water a little-at first gradually, but by the last of September withhold it almost entirely,-just enough being given to keep the roots from shriveling. This will make the wood ripen up and become solid. As the color of the wood becomes brown, the bottom ventilators may be opened a little at first, and then more every fine day, until severe weather.

Some are afraid to give enough of heat or moisture in the management of the vines during the growing season, although it is very essential.

It is better to have a straight cane than a great many lateral shoots. For from each eye will start a shoot or cane; and these starting in the spring will show fruit after the appear-
ance of the first or second leaf. The growth of these laterals should be stopped at the fourth or fifth joint or leaf, by pinching. They will again start ; and should again be pinched off, leaving one leaf after the preceding pinching. This pinching-in process should be continued in the manner described as long as these laterals continue to start. This throws all the strength and vigor of the vine into the main cane, where it is wanted, and keeps the laterals from intermingling and interfering with each other.

## PRUNING.

The vines should always be pruned in the fall as soon as the leaves fall, so that they may heal. They are not saleable to bleed; if they do, bleeding only weakens the vine, does not kill it.

In pruning the first year, if the canes have done well, they may be cut back to about seven feet; if they have not done so well, they may be cut back in proportion. Or in other words, if the vines have grown 25 feet, cut back to seven feet; if they have grown a less distance, we would leave the cane proportionably shorter.
washing the vines.
They should be washed in the fall so as to kill all larve or eggs of insects. Wash with half a gallon of soap suds, half a pound of tobacco, [if tobacco stems are used it will require a pound. They may be obtained at two to four cents per $\mathrm{lb} .$, ] one pound of sulphur, half pound of sal soda; stir logether and boil. As soon as it has come to a boil, take it off and let it cool. When cool, apply to the canes with a brush. Then the canes may be laid down, bent carefully, but not covered until severe weather comes; then they should be covered with leaves or litter-the latter is best-or wound with straw, and then covered with dry litter. Some cover by digging in and laying in the border; but this sometimes destroys the roots.

Put a handful of air-slaked lime in a circle about the base of the cane, when field mice are troublesome.

Rats sometimes girdle the vine in the winter, borroughing in the litter. I am poisoning
them by using a vermin killer which I obtained at the drug stores. It destroys mice also.

MANAGEMENT THE SECOND YEAR.
As soon as the first of April of the second year, the vines must be looked over. Care should be taken that the vines do not growthat the house does not get too warm. It must be kept cool, and the vines kept back as long as possibe. The coarse manure or litter should be taken out between the 1 st and 15 th of April. The vines should be slung up loosely-not tied up in their permanent position-but suspended low, by tying up the middle of the vine. It is important the buds at the root or base of the vine should burst first, and if they are growing in the form of an arch, and yet kept as far from the glass as possible, and off the ground, the desired result will be secured.

After the buds have grown two or three inches, rub off a few of the weakest buds. The remaining buds will or should show blossoms two or three leaves from the main cane. These spurs should be allowed to make four or five leaves, then pinch in as directed in the first year's management.

When the branches begin to show, after they have set, leave only one and the best on each spur. Thin that one, taking off about one fifth of the berries with a pair of scissors, selecting the poorer ones, and distributing the thinning so as to preserve the symmetry of the bunch. Some varieties require more thinning than others-such as are compact growers, like the Frontignacs, \&c., while the loose open growers, such as the Muscats, Hamburg, Nice, \&c., require less.

If it is desired to cut out any vine on account of thick planting, it may be allowed to fruit much heavier than as above directed, exhausting its energies in producing a crop the second year. But the above directions apply to permanent vines. Care should be taken not to allow a vine to fruit as heavily as above described, unless it has had an abundance of well ripened wood the preceding year.

The general management may be the same as the first year, until we come to pruning again. Then the side shoots should be taken
off in the fall pruning leaving two eyes; for the first eye is seldom well developed. Three or four feet of the new growth is left on the main cane. The general management the third year is similar to that given for the second, varying only in respect to the amount of fruit grown.

## varieties.

The varieties I have growing are well adapted for this latitude. Some of them are known by several names. I would plant in the following proportion:

6 Black Hamburgh.
2 Wilmot's Black Hamburgh.
1 Black Cluster-one of the earliest.
6 Black Zinfindale, bunches long with two shoulders.
4 Black Prince.
2 Black Frontignac.
1 Rose Chasselas.
1 Reine de Nice.
The Muscat of Alexandria should be planted in the warmest part of the vinery, and the Muscats should be given the warmest places.

## MILDEW.

Sulphur will check or stop mildew by sprinkling it on the leaves after syringing, and raising the temperature a few degrees. Keep the house closer and dryer for a few days; but be careful that the sulphur does not get ignited, rr it will kill vines and all. But if exposed to the rays of the sun it will send off fumes that will destroy the mildew and will not hurt the vines, or the leaves even, although the sulphur may lie upon the top of the leaves, and exposed to the sun.

Mildew may be prevented by spreading a pound of sulphur (in a house of the dimensions herewith given) upon pieces of boards, or in shallow pans, in different parts of the vinery, and letting it remain exposed to the sun from the first of June to the first or middle of August. Care should be taken that no fire touches it.

## liquid manure

Is easily applied. If the soil is deficient in any of the properties necessary to the healthful
growth of the vine and development of the fruit, it is not necessary to disturb the roots in order to furnish them with the food. Liquid manure may be used, and it is sometimes easily and cheaply obtained-such as soap-suds, bain-yard drippings or drainage, \&c. Or one peck of wood ashes may be mixed with 100 Ibs. of cow manure and water applied. The ashes assist the decomposition and hasten the time when it is in condition to apply to the vine. If the ashes or salt and lime are added to the liquid droppings of the barn-yard, it is an advantage.

## WILL GRAPERIES PAY.

This is a pertinent question. I will give a few facts that will aid the reader in arriving at a conclusion on the subject. I have given above the dimensions of a small grapery. The cost of house, plants, painting, making border, \&e., \&c., did not exceed one hundred dollars. I will quote from an article furnished the Prairic Farmer, by me, Nov. 11, 1858 :
"This vinery was planted in June, 1857. There were twenty-four vines, twelve of which I fruited this year. We had over two hundred and fifty bunches-average weight one pound per bunch. The bunches which were weighed ranged from one pound and a quarter to one pound and a half each. They all ripened and colored well with the exception of three bunches. If I had not taken so many bunches, I should have had larger ones, but my object was, quantity with quality. I could have sold them here at three dollars per pound this fall, although they are only worth one dollar and a half per Ib. in New York city, while Isabella, Catawba, Diana, Concord and other native grapes are sold at twelve to eighteen cents per pound in that city.
Mr. Arnold grew these simply for the use of his family -not with any purpose of marketing them, and of course would not sell them; but this does not affect the question of profit or their value for market purposes. Some will think I overestimate the value of exotic grapes; but little Sweet Water grapes sold here the past season at \$2 per pound notwithstanding the "hard times." This is too much. I have eaten the same quality of grapes in Marseilles in the south of France, which cost only one cent and a half to eight cents per pound. Now, we can have grapes cheaper hare than we do have them-perhaps not for eight cents, or twenty-five or fifty cents per pound for this kind of fruit for years to come-but we may make money growing them at fifty cents now. Still the demand for such fruit will be good for years at a much greater price. Now look at the cost and the profit of the investment the second year:

DR.
Cost of grapery and border
Interest two years, ................................................
Attention during two seasons of one hour each day at $\$ 2$ per day, en per cent. per annum on the cost of the house for
wear and decay,........................................... Cost of vines and expressage- 24 vines at 50 cents,...................................... Rent of ground, Manures,

$\qquad$
CR.
250 pounds grapes at Chicago prices, $\$ 2$ per th.,........ $\$ 500$ Profit, twelve ready for a heavy crop next year. In my eats mate, I have given more than the actual cost to the present time, and now have my vines, two years old next June, and the house left for future profit, besides the $\$ 265$ in cash, which might easily have been obtained as profit on the fruit, and the real pleasure which grows out of the cultivation of such fruit.
The varieties fruited were the Old Black Hamburg, Golden Chasselas, Chasselas Musque, Muscat of Alexandria, Wilmot's Black Hamburg, Royal Muscadine, Black Prince, Grizzly Frontignac, Zinfindale and a few other varieties. Of these the Zinfindale and Black Hamburg fruited heaviest."

This article was written in 1858, after having taken off one crop from 12 of the vines. These vines looked so well that fall, that instead of cntting them out as I had intended, I laid them down with the rest. In the spring, they made so good show of fruit, I kept them up and fruited them again, and they fruited heavily in 1859. In 1860 I again fruited them heartily, and they are yet good vines and are laid down ready to go to work again the current year, with good plump eyes.

Although grapes have sofld lower here since, than in 1858, the crops obtained during 1859 and 1860 , would have been very remunerative, had they been sold. A single vine bore over 80 bunches. Of course all were not so productive, but a heavy crop of fruit was taken in this, as well as in another house (much larger) planted and managed on the same principle, under my care. The fruit was distributed to friends, and it was impossible to keep statistics of the production. But hundreds of visitors can attest the truth of my statements.

I am preparing to demonstrate the profit of this mode of growing grapes on a larger scale, at Grapeton Gardens, near the city, where the money profit alone will be the object.

## Fruit Trees on Sandy Soils.

by j. C. plumb, vine hill nurserigs, madison, wis.
How shall we grow good, durable, productive fruit trees on sandy sub-soils? is the oft-asked question by our friends of some of the central counties of this State. We attempt the answer to this important question in a practical way, only after the most careful and thorough examination of the subject.
That standard fruit trees have been a partial failure in the sandy distriets of the State as well as elsewhere it is useless to deny, and some are of the opinion that they can never be grown upon such soils successfully and permanently.
That there are serious natural obstacles in the way of complete success we admit, but none more difficult to overcome than those found upon many of the compact clay soil localities, and as "perseverance in the right direction will bring success," we, with others, propose to have this portion of the State become eminently a fruit growing country.

The principal causes of failure hitherto upon sandy soils may be numbered thus :

1st. An unnatural and improper system of training or pruning.

2d. The want of that winter protection to the srrrounding surface, natural and necessary to all trees in cold climates.
3d. A deficiency in some of the elements of a durable tree organization

Under the first cause mentioned is the almost universal south-west side deadness complaint, which can be remedied by that natural low growth of branch and twig, so congenial to fruit trees in general, especially in connection with a cool aspect.
Under the second general cause is that remarkable disease of 1856 and the year or two following, which made such general havoc in the young orchards, especially of the sandy regions. During the winter of 1857 in many places the earth was frozen four feet in depth, and remained in this State so long in the spring that the continued evaporation from the trunk and branches during latter winter and early spring, before the usual supply was resumed from the roots, that exhaustion and death was the conse-
quence. And during the two years following, we examined thousands of injured trees of all ages, from one to twenty years old, and found the root and crown up to the line of earth contact in good condition, with discoloration and death immediately above.
It may not be generally known that vital circulation from root to branch is positively necessary in the winter. Not continuously as in the summer, but at intervals corresponding with the changes of temperature from cold term to warm. This circulation was very slow and almost impossible with such an unusual depth of frost; hence the beneficent wisdom of that Power which provides the great white non-conducting sheets of winter mulch all over the rigorous North.

If, from experience, we find that we cannot always depend upon this natural protection in this medium latitude, then with leaves, litter or straw, produce the same effect by an artificial winter mulch.

Again in the spring of ' 59 , large quantities of young trees in the nursery and seed-bed were killed outright by having the surface frost taken out some two or three weeks before that below, and the constant soaking and freezing of surface, roots and stocks of all kinds, resulted in death, with the top and lower roots good and sound.

This destruction could have been, and was in some cases, entirely prevented by a thorough winter mulch. These conditions are liable to occur in all soils, but from the fact that in very sandy soils the roots are inclined to be small and fibrous at the surface, they are more liable to injury unless protected by winter mulching.

The third general cause mentioned-deficiency of some necessary elements of soildemands a careful and candid examination, and thorough and faithful application of the remedies. But we need not be discouraged. Since it has been truly said that the same elements necessary to produce a good crop of wheat will produce a good fruit tree. The only difficulty lies in a continued application of the materials wanting.

Query.-Why then the necessity of additions to the soil that will produce a good crop of wheat,
and what the need of continued applications when no crop is removed from the orchard?
We answer : Any soil that will produce a good crop of wheat, will grow fruit trees for the same time, and no longer, unless the sub-soil contains the same necessary elements, which will be reached by the tree roots, but not by the wheat roots ; hence many old worn out wheat soils of clay and stony land make excellent orchard grounds with very little preparation.
But with the sandy soil and sub-soil the case is very different. The present crop of wheat is grown at the expense of the creamy mold upon the surface, and the renovating process should begin with the first croping of the virgin soil, for two or three crops are often sufficient to exhaust the entire wheat-growing capacity.
What wonder then, considering the similarity of elements, that apple trees cannot be grown Euccessfully upon an exhausted wheat ground.
How and with what shall this renovating be done?
We answer briefly, by the simplest manuring process-and with the commonest material within the reach of every farm in the State. Material from the barn-yard, straw-stack, composted heap of all manner of litter. Muck, peat, turf, or mold from the low grounds, ashes, refuse and wash from the house. Also a small quantity of lime and plaster applied annually to the general surface as well as phosphate of lime in dissolved bones. Lastly, to give tenacity and firmness to the soil as well as to add a valuable constituent, apply clay from the white oak lands. All of these and all other applications should be spread evenly upon, and lightly worked into the surface. They can be applied at small cost annually upon one or ten acres of orehard ground. For very sandy land, clay, which can be hauled during the winter, would undoubtedly pay the best in its value to the orchard, if convenient to the locality.
As to the cost of these applications it would vary of course according to the amount demanded and the sources of supply, but in the general we think it could not be more annually than the interest on the cost of tile draining impervious clay soils, which is found so abso-
lutely necessary and so highly recommended in many fine fruit localities both east and west.
As the limits of this article will not admit of more detail, we may another time pursue the subject further and more specifically. Reasoning from the causes of failure and the constitution of the tree, we expect to demonstrate a successful system of fruit growing on sandy soils and sub soils, and in the general outline would recommend-

1st. A special list of fruits whose character fits them for such soils.

2d. An elevated and cool aspect, with virgin soil, where the white or burr-oak timber grew if possible.
3 d . Close planting-say 16 to 20 feet each way for standard trees and top them within two feet of the ground.
4th. To cultivate only with root crops early in the season. Applying all manures to the surface and any amount of straw for winter mulching, a good space around the tree in early winter.

We submit this general outline, and on the subject we invite special discussion by your fruit growing correspondents.

## The Decay of American Orchards.

Dr. John A. Warder, the eminent Ohio pomologist, writing in a late number of The Cincinnatus upon the decadence of orchards in this country, gives the prominent causes of failure in the following:
"Summary.-In this essay, I have passed in rapid review, with some occasional amplifications, the chief cause of the premature decay of apple orchards, which may be attributed to the want of proper selection and preparation of the soil; to neglect of cultivation ; to exhaustion of the soil; to want of manures judiciously applied, under the guidance of analyses that indicate the special manure or plant-food required ; to excessive fruitage and early maturity of the tree ; to old age ; to the effect of grafting and use of bad stocks ; to our breeding trees for fruit, rather than for hardiness, vigor, and wood growth ; to sickly sorts being propagated; to cold and sudden alterations; to exsessive humidity; to diseases in the trees and fruit, and, lastly, to bad and injudicious pruning.
"With all these evils, to which our orchards are so generally subjected, it is not surprising that we should often find them in a state of premature decay, nor that we should hear com-
plaints of their being no longer profitable; but who would expect a crop of corn or wheat to be remunerative under similarly unfavorable circumstances, or when subjected to such utter neglect ? No sensible farmer, surely."

Of these thirteen causes of decay, at least nine are simply due to the shiftless management of orchardists. They seem to forget that a good tree cannot be made out of bad materials, on unsuitable soil without manure, and in spite of destructive pruning. They ignore the first dictates of common sense in their systems of management, and of course suffer the consequences. The poor trees are often placed in cold, water-sodden soil, they are unfurnished with manure of a proper sort, they are never trimmed until overgrown and crowded, and then they are hacked to pieces, and with all this to contend against, the blind parsimony of their own generally covers the ground up to the very tree-trunks with some exhaustive crop. And yet the misused trees are expected to bear good crops, and we hear people condoling with each other about the decay of our orchards. "Somehow, apples don't grow as well now as they did in my father's time." No wonder!

## Pears in Wisconsin.

The experience of this year is doing much to encourage all hopeful lovers of pears. We have never taken stock in the doctrine that pears could not be grown in Wisconsin, and the large

number of fine healthy trees, laden with beautiful fruit, which it has been our pleasure to behold in various portions of the State this season, have by no means weakened our faith.
We would not have it understood that our faith is unqualified, nor that we intend to en-
courage attempts on the part of every blundering individual who would like very well to have pears to eat, but knows nothing of the conditions of successful culture. They are undoubtedly more difficult of growth than apples, but this should not deter the careful farmer, who has the ambition to learn the best methods, from selecting the best varieties and making a faithful trial.
We have obtained a list of such as are most desirable and best adapted to our climate, and after getting drawings of them engraved, shall present them to our readers with notes prepared by the most successful fruit-growers in the State.
The Kirtland, illustrated herewith, though usually regarded as a little tender for this climate, is nevertheless an excellent pear, and is doing well so far as we have observed. EllitOTT discribes the tree and fruit as follows:
"Grown from seed of the Seckel by H. T. Kirtland of Mahoning Co., Ohio. Tree vigorous, hardy, early and productive bearer on pear roots ; shoots, yellowish brown, upright, stout.
Fruit, medium, often above, obovate, obtuse pyriform ; color, rich yellow ; overspread with cinnamon russet ; stem, usually stout, medium length, curved; calyx, short, reflexed sepals basin, shallow ; core, small ; seeds, sharp, ovate, flackish ; flesh, white, melting juicy, sweet, aromatic. Season, September."

How to Have Fresh Tomatoes till Win-TRR.- If late in the season, just before frosts, the vigorous late-bearing tomato vine be pulled and hung up in a moderately dry cellar, the fruit will gradually mature and thus furnish the table with fine luscious tomatoes from time to time, even into the winter season. So say they who have tried it.

Yirld of Berrigs per Acre.-A writè in the Ohio Cultivator says that two thousand quarts per acre is not an uncommon yield for the first crop of the American Black Cape Raspberry, and that an average yield of three thousand quarts per acre can be obtained by a careful selection of plants and good culture. This, however, does not equal the strawberry crop of a farmer in North-Eastern Ohio, whose average product this season from about thirty varieties, was at the rate of 2,240 quarts per acre, whilst Monroe Scarlet, Moyamensing Pine, and Wilson's Albany, gave 5,000 quarts per acre.

## MECHANICAL \& COMMERCIAL.

## Machinery in the Useful Arts.

Every day adds to the conviction of the hopeful appreciator of the power and capacity of man's genius, that machinery is destined to do the worlds drudgery. Already his control of the elements and forces of nature has contributed not a little to the slow elevation of his race above the level of mere brute force, and the facility with which works that formenly required a laborious and tedious application of muscular energy are now accomplished by machinery as a mere exercise and recreation, gives promise of an early "good time coming."
Labor is a physiological and intellectual ne-cessity-labor of the hands and brain; there can be no doubt about that. But then it should neither be restricted to the present narrow field of objects nor in any of its application be of that exhausting and stinting character which marks the labor of the present time. Man was intended to be a master of the elements and forces of nature, not the abject slave he has hitherto been, and we hail with gratitude every new evidence of progress in the attainment of that end.

The above reflections were suggested by the remarks of a correspondent of a New York paper, traveling in Massachusetts, who thus de scribes some new application of machinery to the mechanic arts in that great hive of American Industry :

The extent to which machinery is taking the place of hand-labor is strikingly illustrated in making ladies' shoes. I recently visited a manufactory in Haverhill, Mass., where, with the machinery in use, twenty-five persons turn out 600 pairs daily. All the stitching is done by sewing machines run by steam-a combination of the two greatest mechanical inventions. Every operation except fitting the shoe to the last, even to the final polishing, and cutting the pegs out of the inside to prevent them from hurting the foot, is performed by machinery. One of the greatest curiosities is the pegging machine, which inserts the awl, cuts out the pegs from a strip of wood, and drives them in, all at one operation, and so rapidly that it will peg two rows around the sole of a shoe in twenty seconds, The facilities in this manufactory are such that the raw calfskin and sole leather can be taken in the basement of the building and in half an hour turned out in the form of a complete pair of shoes !

A stroll through the Pacific Cotton and Print Mills in Lawrence, a few days since, gave me a vivid impression of the vastness of the manufacturing interests of that young city. I had often observed the factories before from the car window, but did not realize the greatness of the whole until I had seen something of the details. The Pacific Mills consist of two buildings, each nearly nine hundred feet in length. Their full complement of employees is now twenty-one hundred, and will be twenty-seven hundred as soon as the machinery is all set up in an extension of the main building, just completed. The raw cotton goes in in bales at one end, and comes out at the other manufactured goods, ready for the market. Curious ladies, by strolling through the print and delaine departments, can learn what styles are to prevail several months hence I will not attempt to tell you how many yards of plain cotton cloth, prints, lawns and other goods can be turned out in a week; it is too far up among the ciphers for me to venture. One of the machines for printing delaines, stamps the piece with sixteen different colors and shados of colors in passing through once. There is only one other like it in the world.

## Take Care of Your Farm Implements !

Every autumn, for four years, as if it were a religious duty, we have, in some form, repeated this important injunction; and still its reiteration seems just as necessary now. We are willing to admit that there has been some little improvement, but there is no doubt, that if to-day we were to travel over the grain and grass fields of our State, hundreds of cultivators, plows, reapers and mowers, would be found lying exposed to the weather just where they were last used-not wearing out, but more rapidly rusting, baking and rotting out.Thousands of dollars are wasted every year in Wisconsin alone in this very manner; and all just because of a miserable, slack, slobbering habit on the part of so many of our farmers.

Come neighbor, if you are yourself open to the charges we have been provoked this the fourth time to make, resolve this moment to take yourself out of the way of reproach and of all stumblers who may have taken license from your example. If you have no place to store them in, make a shed and get them out of the sun and rain without further delay.

## 8 Relative strength of Irons:

[^11]
## Southern Harbors of the United States.

In Hunt's Merchants' Magazine, there is an article, by an officer of the Coast Survey, on the above subject, which contains some exceedingly interesting information.
It is stated that all the important cities of Virginia and Maryland have access to the ocean only through the Chesapeake Bay, which, at its entrance, measures eight miles in width. A single war frigate can close this bay against the exit or entrance of merchant vessels. One of our steam frigates, at most, with a gun-boat, could close the bay against all commeree, with Fortress Monroe in possession of the government.

Beside the bays and harbors of Maryland and Virginia, there are thirty others belonging to Southern States.

## NORTH CAROLINA.

Albemarle and Pamlico Sounds.-After passing Cape Henry, there are a series of low sand islands and shoals lying between the shore and the ocean, forming several sounds or long bays, navigable for vessels of light draft. The Dismal Swamp Canal connects these sounds with the Chesapeake. There are several inlets from the ocean to these bays. Hatteras Inlet is long and narrow, and has only 7 feet of water on the bar; a single gunboat of light draught could close it. Ocracoke Inlet has 10 feet of water on the bar, also opening into Pamlico Sound. The inlet to Albemarle Sound is long and shallow, and has only 5 feet of water on the bar.
Beaufort.-This harbor is inside of Topsail Inlet. It is a good haven, having over 15 feet of water on the bar at low tide. The town of Beaufort is commercially important, as it has a railway connection with Raleigh and with the various roads north and west. The entrance is defended by Fort Macon. There are several small inlets for vessels of very light draught, but one war steamer could blockade the main entrance.

Wilmington is a harbor on Cape Fear river. It has a single long, narrow channel, with two inlets. The depth of water is only about 8 feet at low tide. It is connected with the interior by railroad, and is an important commercial entrepot. Forts Johnson and Caswell, near the mouth of Cape fear river, have been seized by the secessionists. These fortifications, however, are of very small importance.

## south carplina.

Georgetown.-This harbor has a single winding channel ten miles long, and varies in depth from 7 to 30 feet. The Pedee river connects it with the interior. This harbor could be easily blockaded.

Bull's Bay.-This is a good harbor, and is very accessible. The depth at low water on the bar is 13 feet; the anchorage is good in 21 feet inside.

Charleston.-This harbor has six entrances, varying from 7 to 11 feet at low water. A single steam frigate can blockade this harbor without being in danger from the forts. Charleston is connected with the interior by railroads and two rivers. It is the most important city in South Carolina, and its entrance is protected by Forts Sumter, of famous memory, and Moultrie. Charleston lies at the confluence of two rivers, and is surrounded by rice swamps. There are several good harbors on St. Helena Sound for vessels of light draught.

Beaufort, S. C., is situated on St. Helena Island, and is accessible by two inlets, one 17 and the other 20 feet deep; the latter being the southeast channel of Port Royal entrance. Beaufort river has an average depth of 16 feet at low water. This port has superior natural advantages to Charleston, but it has no river or railroad communication with the interior.

## georgia.

Savannah.-The entrance to this city is by a single channel, having a depth of only 11 feet on the bar at low water. Vessels drawing 15 feet can reach the city at high water. Savannah has connection with the interior by river and lines of railway. It is entirely surrounded by rice swamps, is difficult to approach by land, and the entrance is efficiently guarded by Fort Pulaski, on Cockspur 1sland. Port Jackson is three miles below the city. There are several small harbors off the coast below Savannah, but they are insignificant, as they have no important connection with the interior. Brunswick harbor, however, has a railroad partly finished, intended to connect this harbor with the national interior network of railroads, but at present it is an unimportant place.

## FLORIDA.

This State has no less than ten ports, some of which are most important as stragetic points.

Fernandina.-This port is on the east side of the peninsula. It is near the entrance of St. Mary's river, which is the boundary line of Georgia. The entrance to it is a channel which has 14 feet of water on the bar, and there is a railroad 135 miles long running across the State connecting it with Cedar Keyes, on the Gulf of Mexico. It is a most important point. It was proposed to make the railroad part of a great communication between New York and New Orleans; and a large steamboat, now upon the stocks at Greenpoint, with its hull nearly finished, was intended to run in the Gulf in connection with this railroad. The people of Florida, by their secession movements, have certainly "bitten off their own noses."
The St. John's river is really a broad arm of the sea running up into the State. The water on the bar is shallow. A single war vessel can blockade the river. St. Augustine is a place of no great importance; its harbor has two shallow inlets, and is commanded by an old fort.

Key West.-This is a harbor on an island of this name at the southern extremity of Florida. Fort Taylor guards the town and its various entrances, and it is safe in the hands of the United States government. It is of great importance as a naval station, and one of the keys of the Gulf of Mexico.

Fort Jefferson guards Tortugas harbor. It has been recently garrisoned and provisioned, and is safe. It is also a valuable stragetical position, commanding the entrances to the Gulf. There are several shallow, unimportant inlets leading to small fishing towns-such as Charlotte Harbor and Tampa Bay. The latter has a depth of 19 feet of water at the entrance, and is valuable for safe anchorage during storms.

Cedar Keyes.-This is a port on the Gulf Coast. It is the terminus of a railroad which crosses Florida, connecting with roads north and west. The entrance to it is narrow and shallow.

St. Mark's.-This harbor is connected with A palachee Bay by a single narrow entrance. The depth of water on the bar is 9 feet. This port is connected with Tallahasse and the interior by railroad. A single vessel can blockade it.

In the bay of St. Joseph's is a very safe and capacious harbor, with good anchorage and 17 feet of water on the bar.

Apalachicola cannot be approached by vessels drawing over 8 feet. These places can easily be blockaded.

Pensacola.-This is an important place, as railroads connect it with Montgomery, Ala. The bay of Pensacola is the finest harbor on the Gulf. The water on the bar is not less than 22 feet deep, and inside it is much deeper. Santa Rosa Island, nearly 40 miles in length, throws its western extremity across the bay, leaving a single entrance $1 \frac{1}{4}$ miles in width. Fort Pickens is near the extreme western end, and so situated that the entrance channel sweeps round it in a semi-circle, and vessels entering it are exposed in turn to the fire of three sides of the fort within range of less than a mile. Fort M'Rae is on the main land opposite Fort Pickens. The Navy Yard and Fort Barrancas lie within the bay, about twothirds of a mile from Fort Pickens, which can and does maintain a blockade of Pensacola. It is in the hands of the United States, and is a great eye-sore to the seceders.

## alabama.

Mobile.-This place is 40 miles west of Pensacola. The bay of Mobile is capacious, and the city is the second place of entry on the Gulf after New Orleans. The population is 25,000 ; the business wholly commercial. The channel to the bay is long and narrow, but the water is no less than 20 feet on the bar. Fort Morgan guards the entrance, and all vessels of heavy draught have to lie under its guns; the fort is in the hands of the secessionists. Ves-
sels blockading this port will find it difficult to obtain safe anchorage in stormy wether.

There is a shallow sound running along the coast of the Mississippi, and there are numerous inlets connecting various places by water with New Orleans through Lake Pontchartrain, but no vessel drawing over 7 feet of water can navigate these shallow, extended bays. A considerable trade is carried on with light schooners, but the whole connection between Mobile Bay and New Orleans may be cut off with a steam gunboat.

## LOUISIANA.

Mouths of the Mississippi,-There are three main passes of this river to the Gulf. At their widest divergence, they are about 22 miles apart. The water on the bars averages from 13 to 18 feet. From the bar to New Orleans, it is 120 miles. The various passes of the river converge about 12 miles from the Gulf. Three war steamers can blockade the Mississippi river. New Orleans is wholly a commercial city, and finds access to the Gulf by the river. There are two forts below the city, on either bank of the river, that were stolen by the secessionists. New Orleans has communication by railroad with the whole interior, and a railway, partly finished, connects it with Houston and Galveston, Texas.

## TEXAR.

There are nine harbors and ports in Texas. Galveston is the most important, but a single vessel can blockade it easily, and the same blockade cuts off Houston.

All the entrances to ports in Texas are very shallow, and unfit for navigation by large vessels.

Rio Grande. -This river is the boundary between Texas and Mexico. It has a shifting bar at its mouth of from 5 to 7 feet in depth.

Were there railroad connections through Texas to the Rio Grande, cotton and tobacco could be sent into Mexico and shipped without being subject to seizure by our blockading squadron. This is the place to look out for future smugglers.

The harbors of the Southern States are not difficult to blockade, but during the months of August and the fall and winter, very severe gales frequently prevail along the coast, and as the water is shoal for a considerable distance out to sea, it is difficult for large vessels to maintain a strict lookout close to the coast.

The Planning of Cities.- The London Builder says that a spider's web furnishes a better plan for the laying out of cities, than any which has yet been devised by surveyors and engineers. Any one who can find a distinct web unbroken, will see how beautifully regular it is and how perfectly adapted for the quickest passage from any one point to another. The coneentric rings are not circles, but polygons, the radiating exquisitely regular and strajght.

# SCIENCE, ART, STATISTICS. 

## The Chinche Bug.

Madison, Wis., August 6th, 1861.
Dr. J. W. Hoyt :
Dear Sir-I send you a box of "Chinche Bugs," which I secured last Friday and laid aside, forgetting them until this morning, (Tuesday,) when, upon opening the box, most of them appeared to be alive, which goes to show that they can sustain life well without air or food. In the section of country near my farm, in the town of Blooming Grove, they have destroyed at least one-quarter of the late-sown wheat crop, and in some fields it has been nearly ruined. I notice some fields in Westport have suffered much, while others are, apparently, entirely exempt from its attacks. I presume the little rascals are perfectly familiar to you, but take the liberty of addressing this note, as it can do no harm.

Yours, truly,
N. W. Dean.

Remarks.-We are obliged to our friend Dean for thus calling our attention to this troublesome insect. Since the issue of our last number, we have heard numerous complaints of its depredations in various portions of the State, and had designed publishing an article on the subject, with illustrations, in this issue; but the cuts did not come to hand, and hence the matter would have been otherwise deferred to some other time.

The specimens arrived during our absence, and hence were not exposed to the air until six days after they were received, or until ten days after their capture and confinement in the close tin box in which they were first placed by our correspondent; and yet many of them are still living and as smart as so many bed-bugs! Verily they " endure hardness" even better than good soldiers.

As has been remarked by various writers on their entomological characters, so we observe, in this case, that the several specimens differ somewhat in their appearance-some presenting the appearance, in size, form, color, \&c., of the perfect fly, and others sufficiently different to warrant the opinion, at first glance, that they belong to another genus. They are undoubtedly the same insect, however, only in different stages of development.

According to the best authorities we have, the perfect Chinche Bug (Micropus leucopterus)
is a winged insect about $3-20$ ths of an inch in length, narrow, quite straight on the sides, dark brown or black, with snow-white wing covers, marked by small black dots on their outer edges. The very young insect is quite red and rather elliptical in form, without either wings or the white wing covers. The odor of the "bug" is said to resemble that of the bedbug, (which it does not, however, though quite as offensive, ) and it was on this account that it got the name Chinche,-that being the Spanish word for that worst insect pest of human habitations.

The Micropus prefers the wheat plant, but is quite at home on any of the cereals, frequently attacking them in succession on the same farm, until the crops are all either devastated or out of their way. The part attacked is the stalk, which they perforate with a sharp, lancet-like proboscis, afterwards exhausting the juices by an ingenious miniature pump. This exhaustion of the sap causes the shriveling, if not the death, of the plant.

The first appearance of this troublesome fellow was in 1783 , when its depredations were so serious in North Carolina, as, in 1785, to cause wheat-growing to be given up for a few years. In 1809 it appeared in the same localities again, with like results; and in 1841 opened a very destructive warfare upon the wheat and other grain crops of the upper Mississippi valley.

The present year, its depredations have not been very extensive in any considerable portion of the country, but has probably damaged Wisconsin crops quite as much as those of neighboring States.

As yet, no successful method of destroying them or preventing their ravages has been discovered. They appear to have an aversion to water, however, and are not abundant therefore in very wet seasons. This circumstance has suggested the use of water, applied by means of garden engines, or some force equivalent; but the idea of thus raining artificially upon the immense grain fields of the west, is not very practicable, and we must accordingly experiment further before claiming to have
a remedy. For the prosecution of this work of experimentation, there is no one so well situated as the farmer, and we hope that he will not quietly sleep, year after year, while this little insignificant foe lays waste the fruits of his labor.

## Increase of Population in the United States.

The following statistical table makes a very interesting exhibit of the relative growth in population of the several States in the Union, since the year 1790. The number of States, at that time, was 17 ; now there are just twice that number, with still room enough for many more.


In order to appreciate the relative "ups" of some States and the "downs" of others, select some one in the first column and follow it through to the last. Thus, in 1790, Virginia ranked first, holding that position for two decades, or twenty years, when New York took her place and compelled her to rank second. Next Pennsylvania got in ahead of her, in 1830 ; then Ohio in 1840; and finally, in 1860, Illinois, which started in her career long after the Old Dominion had passed the zenith of her supremacy, comes in ahead and compels her to take the fourth rank.

The first census of Wisconsin was taken in 1840, when we find her ranking number 29. But at the next census she has risen to the 24th, and again in 1860 makes another stride and so now ranks the 15 th State in the Union.

Minnesota appears to have had the highest per cent. of increase during the last decade. .
But we have no time for further comment.The table is full of information and rich in suggestion. We hope our readers will carefully study it, and thus renew their faith in the future greatness and glory of the North-west.

Hues in the Vegetable Kingdom. - M. Chevreul, the distinguished French Chemist and Government Dyer, in the Eleventh Report of his Researches on Chemistry and Dyeing, says that at the Jardin des Plantes, the Director of the School of Botany presented to his examination 15,000 hues of leaves and flowers of all countries.

The Oreide of Gold.-The introduction of a new description of cheap jewelry, closely resembling gold, has led to the following explanation, originally furnished by the Scientific American, of the character of the substance. It is an alloy of copper and zinc, a French invention, styled "Oreide." It is composed of 100 parts by weight of pure copper, 17 of zinc, 6 of common magnesia, 3.60 of sal-ammoniac, 1.80 of quick lime, and 9 of crude tartar. It is very ductile, resembles jeweler's gold in appearance, and is as easily tarnished as common brass.

A New Application of Photography.-A circumstance recently occurred showing the great business utility of the modern discoveries of photography and the electric telegraph. The Count de Penafiel left Lisbon for Paris, carrying with him an order for 70,000 francs. This, however, he unfortunately lost on the road, and telegraphed the same to his banker at Lisbon. That gentleman at once telegraphed to Paris, stopping payment of the order, but sent by post the portrait of the Count de Penafiel, stating that the amount might be paid to him when he presented himself.

Ibon-plated Vessels.-In a recent discussion in the Institution of Naval Architects in London, John Scott Russell alluded to R. L. Stevens, of New York, as the father of the system of iron-plated war vessels, and quoted his experiments to show that 6 -inch iron plate would keep out 68-pounders altogether. Sir Howard Douglas, the great authority on naval gunnery, who has vigorously condemned the new ironcased war vessels, now admits their necessity, but says that the iron plates must be put upon a wooden, and not an iron hull.

The cut of Woodruff's Barometer has not yet arrived, and its publication is postponed until next season.

## EDUCATIONAL.

## 4 Better School Houses.

There is scarcely any educational subject, in regard to which a revolution in public sentiment is more imperatively demanded than this of an improvement in the character of our school buildings. To be sure, the moulding and furnishing of the minds of our children are higher in the scale of importance than the architectural style and construction of the house where they are to receive their instruction and development. But then the same might be said of the body as compared with the mind; and yet no one would think of denying that the condition of the body should be a primary consideration in the practical business of educating the intellectual and moral powers. Just so is it with the more external body of the scholar -the school-house.

The argument may be stated thus: In order to promote the best development and health of the mind, there must be health and comfort of the body. But there cannot be health of the body unless the natural laws of the body are obeyed; and these are necessarily involved in the construction and furnishing of the building where the hours of intellectual effort are spent. It is clear, therefore, that the best development and health of the mind cannot be secured, except the school-house be constructed and furnished in obedience to those natural laws which determine the bodily health.
If this argument be logically sound, we need not consume further time or space in an attempt to make our position stronger. We believe that it is, and therefore declare, most positively and without qualification, that the district school-houses of Wisconsin and the entire West are a reproach to our civilization and boasted enlightenment. In all our travels we have found but very few that should not be indicted and burnt! Small, pent up, unventilated, and furnished with back-breaking benches, they are as uninviting to the child as a prison, and should never be entered with either its own or any intelligent parent's
consent. But this is not all; the exterior is almost universally repulsive. Think of an old bald red school-house, when there are so many pleasing forms and colors that are just about as cheap. Think, too, of the location of most of our school-houses-stuck down in some low, quaggy spot, where it is impossible for children to be healthy, or up in bold relief on some barren knob, without a suitable enclosure, and without either a shade tree or a flower-bed any where near. There it stands-the old red, or unpainted shanty-reared by stupid, stingy tax-payers, who see the advantage of building good barns for their horses, but cripple the bodies, and cramp, and stint, and disease the minds of their children, because they have no apparent cash value in the market !-an humiliating evidence of the short-sighted folly of the parents of our youth, and a burning shame and disgrace to the barbarian sentiment of the country. We have long deplored and reprobated this sin against the rising generation, and now propose to urge it upon the numerous intelligent readers of the Farmer, in a series of articles, with occasional illustrations-treating, in such order as may be convenient, of location, of architectural style, of internal arrangement, furnishing, \&c.

## Wisconsin State Teachers' Association.

The Annual Meeting of this Association was held at Fond du Lac, July 30 and 31. President Craig in the chair. Some 250 teachers were in attendance, and all the exercises were unusually interesting. Several distinguished educators, from other States, were present and delivered addresses. The officers for the ensuing year are:

## President-Jonathan Ford, of Milwankee.

Vice Presidents-R. Z. Mason, Appleton; J. E. Plulsbury, Mineral Point; J. J. M. Angear, Berlin.
Scretary-T. J. Conatty, Kenosha.
Treasurer-J. B. Pradt, Madison.
The Wisconsin Journal of Education is a capital Magazine of its kind, and should have a large circulation among friends of Education throughout the State. Certainly every teacher who does not read it suffers a great loss, besides proving himself, thereby, utterly unworthy of his profession.

Address, Rev. J. B. Pradt,
Editor and Publisher, Madison.

## THE HOME.

[From the Cincinnati Gazette.]

## God Reigns.

BY MRS. HOYT.
God Reigns! In my secret soul down hidden Fond belief of this is cherished,
Fragment of a faith forbidden, Strengthening the else had perished.

Where the cliffs of bold Parnassus Westward toward the village lean,
Where the stars, to northward burning, Centuries long, Mars Hill have seen,
And the waves of blue Hockhocking, Murmuring between,
Stands a tree, with air majestic, Sheltering still the old home hearth;
There my Mother taught it me, "Reigns, my child, in Heaven and earth."

Where the Ages, grim with error, Westward toward the oceans lean, Where the stars, to northward burning, Scarce a century, yet have seen
How the hopes of Time are brightening Where my country lies between,
Stands a solemn Fane, and stately, Sacred to the rights of Man;
There our Fathers left it written When great Freedom's birth began.
Childhood's faith for manhood's peril! Who believes 't is God that reigns?
Let him lift his voice in council, Lift his hand upon the plains; Let the words be still fraternal, But the deeds, the deeds that win; Saying, both, to things infernal, No more compromise with sin !

By the mothers who have loved us, By the fathers we revere,
By the God who broodeth o'er us, Saying, "Children, I am near,"
Ye who still believe He reigns, Lift me up your hands in whiteness,
Swear that while the sun hath brightness And the moon in beauty wanes,
Not one block of Freedom's granite Shall be wrested from the free, Nor the master with his slave Sit beneath my household tree.

Many envy the success of others who have never made an effort to succeed themselves.

## Elizabeth Barrett Browning.

Died in Florence, Italy, on Saturday morning, June 29th, half an hour after daybreak, Elizabeth Barrett Browning, aged fifty-two years, wife of Robert Browning.

Dead. Died at midnight, at sunset, or at dawn. It is not much to say of man or woman, and when once said for most of all the millions who have lived life's little or its larger day, it is the end.
"The gay will laugh
When thou art gone; the solemn brood of care Plod on, and each one as before will chase His favorite phantom."
But spoken of Mrs. Browning, these simple words: "Died a half hour after daybreak on a morning in June," have thrilled both continents as if an angel swept the seas and cried, "Behold a star that was and is not!" And this is not the end; for true poetry, such as that which was her life, and whose results have left that life
"Rich as autumn in its plenteous fruits,"
hath in it elements of immortality.
We trust that most of our readers feel the force of these words and join their sympathy with ours, in this, the world's great loss. A woman of the highest order of poetic genius, of a deep, genuine, far-reaching philanthropy, and yet rich in all the beautiful graces and tender affections of the wife and mother, she was one of those rare and precious gifts which Heaven vouchsafes to earth only once in long centuries of time.

Of her works, we have not room to speak. They have, for years, been the admired of both the old and the new world, and will be yet more appreciated as they are more read and studied by the lovers of true poetry. Her earlier productions, though remarkable, in view of the youth of the author, (she began to write at ten and to publish at seventeen, ) were not very successful. But soon her ripening genius began to attract the attention, and to win the admiration of the best literary men of the time, and years before her death she had come to rank among the first of the poets of this century.

Born in London, the greater part of her life
was spent in the British Realm; but in 1846, being most happily wedded to Robert Browning, she went, with her gifted husband, to Italy where the struggling cause of Italian Liberty has held them for the most part until the day of her death. She was the intimate friend of Cayour and Garibaldi, and Victor Emanuel, the new Italian King, and by her writings contributed not a little to the independence of a reunited Italy and to its recognition as one of the European Powers. Fortunately she lived to rejoice in the dayspring of that independence, whose bright radiance at the same time illumined the long shaddowed hearts of the oppressed people and her own pathway to the better life. Strangely fortunate in her union with a poet of kindred soul and genius, and in a son who inherits the qualities of both, she was yet more happy in the immortal fruits of her remarkable life, and in the circumstances of its close. Blessed be her memory forever.

## The Falling Out.

As through the land at eve we went, And plucked the ripened ears,
We fell out, my wife and I-
O, we fell out, I know not why, And kissed again with tears.

For when we came where lies the child We lost in other years,
There, above the little grave, 0 , there, above the little grave, We kissed again with tears.-Tennyson.

Walk of Life.-We talk of human life as a journey, but how variously is that journey performed! There are those who come forth girt, and shod, and mantled, to walk on velvet lawns and smooth terraces, where every gale is arrested and every beam is tempered. There are others who walk on the Alpine paths of life, against driving misery, and through stormy sorrows, over sharp afflictions; walk with bare feet and naked breast, jaded, mangled, and chilled.-Sidney Smith.

䉼 It is an evil thing needlessly to cause a human being pain; but it is a fearful thing to inflict it on a creature that cannot speak, for it must be that there is always somewhere a tongue to tell, a mysterious witness to bear testimony.

粌 The Proverb which says the first step toward greatness is to be honest, does not state the case strongly enough. Honesty is not simply the first step toward greatness; it is greatness itself.

## HEALTH AND DISEASE.

## Autumn Fevers.

We have neither space nor time for a lengthy description of the diseases peculiar to this season, nor for a detailed account of their treatment, but simply intend to say a few words of their nature, their prevention, and cure, when not so serious as to require the skill of a physician.
The autumn fevers, so common in the Northern States, are properly classed as either Bilious, Intermittent, or Typhoid.

## causes.

As to cause, they are traceable either to atmospheric conditions, errors of diet, or abuse of the nervous system. The first cause-atmospheric conditions-is not entirely within our control; still, by having a care for the healthful location of our dwellings and the neatness of our premises, something may be done towards rendering it free from those impurities which arise from the exhalations of stagnant water and the decay of vegetable and animal substances.
Errors of diet, the second great cause, is, perhaps, the most prolific of all; for, in most cases, the first would not act with such fatal effect unless this had first weakened the powers of the system and prepared it to become an easy prey.
Nervous exhaustion, though not so common a cause as the one just named, is nevertheless much more so than is generally supposed. It may be the result of either intellectual or physical exertion too severe or too long protracted, and leaves the system in a condition to be very easily deranged by either of the first named causes.

## MEANS OF CURE.

Of drugs we have but little to say. A physician, we give it as our honest opinion, that, in the majority of cases, they do about as much harm as good when administered, and that a blind reliance on their curative properties is the occasion of much indulgence and consequent disease which would not otherwise exist. "Give physic to the dogs" therefore,
and yourselves to the more careful and conscientious observance of the laws of health and the conditions of cure.

The general remedies in the incipient stages, are indicated by the nature of the causes.

If of the character known as Bilious, and superinduced by improper food or improper quantities of proper food, there is no remedy in the world so good as starvation and exercise. This gives the system a chance to rally its powers and throw off the surplus through the bowels, the kidneys, the lungs, and the skin. If starvation be not sufficient of itself, then employ such simple measures as will open these several channels and insure their more vigorous action-bathing, gentle laxatives, sweating, \&c. If these are not sufficient, and the disease still progresses, call in a physician.
If the disease be of the Intermittent type, (Fever and Ague,) and has been caused by malaria,(bad air,) medical agents may be used with advantage as a means of counteracting the poison. Nux Vomica and Arsenicum in tincture and solution, taken in alternation, and in drop doses in a teaspoonful of water every three hours previous to the chill, with Aconite during and after the fever, has often proved successful in the hands of Homœopathists; and Quinine and Prussiate of Iron in 8 grain does- 4 grs . of each-at about the same intervals have also succeeded with others; while Hydropathists claim to have been much more successful and with less injury to the system, in the use of the wet pack.
Should the disease assume a low, nervous type, the case should at once be put into the hands of an educated physician.

But after all, no remedy is so good as preventios. Hence, during the hot weather of summer and autumn, the diet should be especially simple and easy of digestion. Fatty meats, much butter and milk and all other rich, oily foods should be avoided. The system does not require them for the production of animal heat, and unless vigorously exercised, so as to consume them in the production of animal force, is sure to become clogged by them and thus very soon diseased. Good light bread, lean
meats, fresh vegetables and ripe, acid fruits, each and all in moderate quantities and at proper times, are perfectly safe and nothing else is. Remember that.

## DOMESTIC ECONOMY.

## Best Method for Preserving Fruit in Cans.

At this season, and in this State, when and where it is desirable to put up all the fruits that can be conveniently obtained for that purpose, the following from "The Frnit Preserver's Manual" will no doubt be especially interesting to all our housekeeping readers:
"The very best method known, is to heat the fruit in the can, thoronghly through, by steuming at a temperature of about $218^{\circ}$ or $220^{\circ}$, and then, by sealing whilst hot, exclude the air.

This method so far as respects the degree of temperature and manner of heating, is believed to have been unknown before being practiced by the writer.
By heating in the can the fruit is not broken and reduced to a mass: the air is sufficiently expelled, and the sealing is most easily accomplished.

By heating at a temperature of $218^{\circ}$ or $220^{\circ}$, as before intimated, the tendency of the starch to change to sugar being partly or wholly counteracted, and the vitality of the yeast for a while neutralized, fermentation is for the time prevented.

By heating by steaming, this part of the process is much more convenintly performed than in any other way, the temperature is readily raised to the required degree, and the whole exterior of the can being equally exposed to the heating medium, and the interior being filled with compressed steam, in contact with all parts of the fruit not covered by the juices, every portion of the fruit is heated equally and completely.

By sealing whilst hot, the external air is excluded at the time when the air within the can is highly rarified and so much expanded, that when separated from that without, there is not enough of it to revivify and again energize the yeast.
This method may be successfully practiced on a scale sufficiently large for the supply of single families by the observance of the following

Directions.-Into a common Wash-Boiler put a quantity of water sufficient to cover the bottom to the depth of two or three inches, which will be enough to supply the requisite steam and prevent the bottom from burning. A little above the surface of the water place a rack made of lath or like strips, on which to set the Cans. Fill the Cans with the fruit, without the addition of sugar or other thing, and with the stopper out or cap off, set them on the rack. Glose the boiler as tightly as can be done with the cover and a cloth spread beneath it. Then with a brisk fire heat the can and contents thoroughly through -the time necessary for which, will depend on the kind of fruit and size of the can, and as hereinafter more particularly stated, will, be from 15 to 30 minutes after the steam begins to issue freely from beneath the cover; and when heated remove the Can and seal as soon as can be done conveniently.

Heating thoroughly through, at a temperature of $218^{\circ}$ or $220^{\circ}$, and then excluding the air, be it repeated, are the conditions necessary to ensure preservation. It is the degriee of heat rather than its continuation that is required. Could the requisite degree be obtained in a single minute, no longer time of heating would be needed. But the temperature of the interior of the contents of the can being raised only by conduction from the exterior, and some time being required for this, a number of minutes, consequently, instead of a single one, are necessary for heating the contents to the required degree.

The closing the boiler in the manner described, will in most cases so confine the steam that its temperature may be very easily raised to $220^{\circ}$ or $225^{\circ}$.

By reason of the various sizes of cans employed, the different kinds of fruit operated upon, and the various degrees of its maturity, the length of time of heating cannot very well be definitely specified, and must therefore in a measure be left to be determined by the judgment of the operator. It may be stated generally, to be that which is simply sufficient to heat the contents of the can completely through.
Ordinarily, cans that are not more than 4 inches in diameter may be heated through in about 20 minutes after the steam begins to issue from beneath the boiler cover. Some kinds of fruit, however, become heated through sooner than others. Those between the parts of which the interstices are comparatively large, such as peaches or pears cut in pieces, heat sooner than sliced tomatoes, which in consequence of their watery nature so fill the can as not to leave any interstices. Fruit fully or over ripe, generally heats through a very little sooner than that which is green or not wholly ripe.

Presupposing that the cans be no more than five inches across, that the boiler or steam chamber be properly closed, and that the operation be performed by a brisk fire, the time of heating, after the steam begins to issue freely from beneath the boiler or steam chamber, may be specified proximately to be, for

| Strawberries, about............................ 15 minut |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Raspberries, | " |  | 15 |  |
| Whortleberries, | " |  | 15 | " |
| Blackberries, | " |  | 29 | " |
| Cherries, | " |  | 15 to 20 | " |
| Currants, | " |  | 15 | " |
| Cranberries, | " |  | 25 | " |
| Gooseberries, | " |  | 15 to 20 | " |
| Peaches, | " |  | 15 to 20 | " |
| Pears, | " |  |  | " |
| Tomatoes, | " |  | 30 | " |
| Quinces, | * |  |  | " |

For preserving large quantities there should be a steam chamber for the reception of the Cans, made of boards or sheet metal, and charged by means of a pipe or hose communicating with a separate boiler.
To avoid breaking by heating too suddenly or unequally, when the Cans are of glass or earthern, it is safest to place them upon the rack whilst the water is cold or before it becomes much warm. If they be of tin or other metal it is not material whether they be put in place before or after the water boils.
Some kinds of fruit, berries especially, settle away during the heating and leave the Can but partly full. To remedy this, some of the fruit should be put into a tin pail, or other convenient vessel, and be set within the boiler and heated at the same time with that in the Cans, with which to fill up before sealing.
The sealing, whatever the particular manner of it be, need not be performed hurriedly, since the heat imparted to the contents of the Can will keep up the expansion of the air sufficiently long to admit of its being effected deliberately.

With few exceptions, the sooner the fruit is prepared and put up, after being gathered, the better; but in respect to the degree of ripeness or maturity of it, there is not the necessity for particularity that may have supposed. It is best, however, if convenient, that it should be subjected to the process when just fairly ripe.

As to the preparation for the process, it need only be said, that the larger fruits should be divested of their skin, be deprived of their pit or core, and be cut into medium sized pieces or slices.

After sealing, if the cans be of glass, they should be set away in a dark place, and always, whether of glass or other material, in a cool situation; and yet, where the temperature never falls to the freezing point.
Fruit put up according to these directions will keep uniformly well, and always retain, very nearly, the odor, flavor and appearamce which it possessed before being submitted to the preserving process."

To Dry Tomatoes.-Slice them without peeling them ; to every pound of fruit add half a pound of sugar; boil them in the sirup, then skim them out and lay them on plates to dry in a warm oven. They will then be nearly as nice as imported figs.

## YOUTH'S CORNER.

## Officers of the Army.

In these times when almost every man they read about in the papers has some military title-General, Colonel, Captain, or something else-the readers of the Youth's Corner would no doubt be glad to understand what these titles mean, and what their rank.

A Captain is the controlling officer of a Company, which is the smallest body of men belonging to an army. The word is derived from caput or capitano, which in Latin and Italian means head. He is "head" of one company only and has other offleers under him -Lieutenants, Sergeants and Corporals-whose business it is to execute his orders in all matters pertaining to the movement and discipline of his soldiers either when exercising in camp or engaged in battle.
But one company consists of but about one hundred men; so that in order to make up an army there must be many companies put together. It would not do, however, to put a hundred companies, as such, all under the direction of one leader, unless there were other officers between him and their Captains, for the reason that one man could not carefully survey the field of battle, observe the movements of the enemy, and, at the same time go himself and tell each of the Captains what to do. Experience has shown that ten such companies are as large a number as one man can give orders to, so as to be heard; and so that number are grouped together into what is called a Regiment or Battalion, and placed under the control of an officer who is called a Colonel, and who has assistants, just as the Captain has, to enable him to reach the heads of the Companies. These assistants are known as Lieutenant Colonel, Major, Adjutant, Quarter Master, Commissary, and Surgeon.
But ten companies would only number one thousand men, and coūld hardly be called an army, which often consists of ten, twenty, fifty, a hundred thousand, or even a half million of men. Regiments must therefore be
brought together and placed under a leader who shall have power to command the Colonels just as they control the Captains. This collection of Regiments-usually four, five, or six in number-is called a Brigade; the chief officer, a Brigadier General. Cavalry or horsemen are organized differently-two companies composing a Squadron and eight or ten squadrons a Brigade.

Now as a Brigade consists of four, five or six thousand men, it is about as large a body as is usually required at any particular point, though not unfrequently several brigades are placed in command of one Brigadier General and led by him into action, when there is no higher officer at hand. This was the case at the recent battle at Bull's Run, where twenty or thirty thousand men were under the command of Brig. General McDowell. But in a great war like the present, it becomes necessary to have a good many of these smaller armies at various points, and yet all under the direction of one man who shall have power over one Brigade here and another there, as it may seem best. Several Brigades are therefore included in what is called a Division, with a controlling officer known as a Major General. There are several of these Divisions now under the command of Major Generals, such as Banks, Fremont, McClellan, each responsible in his own portion of the country for the success of the cause for which we are contending; and it is these several Divisions, all taken together, which constitute the Grand Army of the United States, with Lieutenant General Scott at the head, himself subject to the direction of the President, who is Commander-in-Chief of all the armies.
This, then, is the order: The President gives general directions to Lieut. Gen. Scort; he forms his plans for the accomplishment of the object desired and sends his orders to the Major Generals; they, with considerable liberty of judgment as to the best method to execute the general orders, command the Brigadier Generals, who with less discretionary power, give directions through their Aids, to the Colonels; the Colonels transmit the orders to the Cap-
tains, whose duty it is to execute promptly, and without question, by moving their men as required.

Thus it is that the will of one man is enabled to move, if need be, a million of armed men with the greatest accuracy and efficiency.

## What do the Little Folks Think of the War.

We wonder what the children think about the war? I mean you, ye rosy-faced, good-natured little girls and boys who have been taught how naughty it is to strike and vex each other, or take more than your share of any good or pretty thing.

> "Let dogs delight to bark and bite, For tis their nature to;
> But children, you were never made Such wicked things to do."

You have all of you learned this, and many more lessons of the same kind, such as,
"Pussey Cat Mew jumped over a coal And burned her best petticoat in a great hole.
Then Pussey Cat Mew had no more milk,
Until the great hole was mended with silk;
And served her right, for what do you think ?
She was after some other cat's share of sweet milk."
Some of you have seen men who were sent to stay long years in prison for stealing somebody's horse or money, or burning a neighbor's barn; and after they came back people did not like to trust them, even though they behaved quite well, because of the very bad things they had ever done-more than this you have heard of, perhaps have known, those who have gone to live out a miserable life in some dungeon or been led to the gallows to die the death of a felon because they had been found guilty of the crime of murder-that is, had killed some one.

Now whenever father comes from the post office with news papers, or a neighbor comes in to talk, or when you stop to play by the way side you hear of hundreds of men who have been killed in battle by thousands of men who went there on purpose to kill them. Perhaps your own dear father or brother, your uncle or cousin has himself gone with the regiment that carried a beautiful flag and went with a drum and a fife and a big cannon and a great many guns to kill the father and brother, the uncle and cousin of many another little child with just as bright eyes and curly head as yours. And yet everybody seems to think
its all right, and everybody wants to go; and almost everybody is willing to give money and clothes and food and a blessing to those who do go. Besides this you hear of great ships that have been taken, of wagons loaded with bread and beef, of guns and of horses by thousands that have been seized and money more than you could count in a life time, even should you live to be older than Grand Father. And we who hear of it are glad, so that the gain is on our side; and good men and good women look up to Heaven and thank God when they hear of hundreds slain wishing it had been thousands.

Children, do you understand all this? Down deep in your hearts do you ponder these things and wonder as do the large bright eyes with which you listen to the story of the day? If some one at home does not tell you all about this in words that you can understand, easy as your primer, let us know and we will try to say something about it next time.

## Puzzles and Scientific Questions.

Mr. Editor-Will you allow me to propose a puzzle or two to the readers of the Corner:

1st. Place the numbers from 1 to 16 in four rows so that they may count 34 horizontally, vertically, and diagonally.

2d. On each side of a square twelve sheep are penned in the following manner: 12 at top, 12 at the bottom and 12 at each side. A person bought 8 of the number and afterwards returned 4 , out of which pens were the 8 taken, and in which were the 4 replaced to make exactly the same number as before on each side?

Why is limestone, after being heated, lighter than before; and why does the application of cold water cause it to effervesce (froth up) and become hot?

If the pressure of the air will sustain a column of water only about 33 feet in height, what is the nature or philosophy of the power used to draw water from wells much deeper than that?

Will some young farmer give us his views on the different kinds of Pumps.

Yours truly, A Farmer.

## WAR MISCELLANY.



## The Field of Battle.

translated from the german of schiller by bulwer.

## Heavy and solemn,

A cloudy column,
Through the green plain they marching come : Measureless spread, like a table dread, For the wild grim dice of the iron game. Looks are bent on the shaking ground, Hearts beat loud with a knelling sound; Swift by the breasts that must bear the brunt, Gallops the major along the front;
"Halt!"
And fettered they stand at the stark command, And the warriors, silent, halt!
Proud in the blush of morning glowing,
What on the hill-top shines in flowing ?
"See you the foeman's banners waving?"
"We see the foeman's banners waving!"
"God be with your children and wife!"
Hark the music-the trump and fife-
How they ring through the ranks, which they rouse to - the strife!

Thrilling they sound, with their glorious tone, Thrilling they go through the marrow and bone! In the life to come that we meet once more!
See the smoke how the lightning is cleaving asunder!
Hark! the guns, peal on peal, how they boom in their thunder!
From host to host, with kindling sound,
The shouted signal circles round.
Freer already breathes the breath;
The war is raging, slaughter raging,
And heavy through the reeking pall
The iron death dice fall!
Nearer they close-foes upon foes-
"Ready !"-from square to square it goes.
They kneel as one man from flank to flank, And the fire comes sharp from the foremost rank. Many a soldier to the earth is sent,
Many a gap of balls is rent;
O'er the corpse before, springs the hindmost man,
That the line may not fall to the fearless van;
To the right, to the left, and around and around,
Death whirls in its dance on the bloody ground.
God's sunlight is quenched in the fiery fight,
Over the hosts falls a brooding night !
Brothers, God grant, when this life is o'er,
In the life to come that we meet once more.
The dead men lie bathed in the weltering blood, And living are blent in the slippery flood, And the feet as they reeling and sliding go, Stumble still on the corpse that sleeps below.
"What ! Francis !"-"Give Charlotte my last farewell;" As the dying man murmurs, the thunders swell-
"I'll give-0, God! are the guns so near?
Ho! comrades!-yon volley !-look sharp to the rear!

I'll give to thy Charlotte thy last farewell! Sleep soft ! where death thickest descendeth in rain, The friend thou forsakest, thy side may regain!"
Hitherward, thitherward reels the fight;
Dark and more darkly day glooms into night.
Brothers, God grant, when this life is o'er,
In the life to come that we meet once more !
Hark to the hoofs that galloping go!
The adjutants flyingThe adjutants flying-
The horsemen press hard on the panting foe, Their thunder booms dying-

Victory !
Terror has seized on the dastards all, And their colors fall!

Vietory !
Closed is the brunt of the glorious fight; And the day, like a conqueror, bursts on the night ; Trumpet and fife swelling choral along,
The triumph already sweeps marching in song.
Farewell, fallen brothers; though this life be o'er,
There's another, in which we shall meet once more!

## Great Sunday Battles.

The great batfle of Barnet was fought on Easter Sunday, April 14th, 1471. The battle of Val, of Laffeld, near Maestricht, was fought on Sunday, the 2d of July, 1747. The Peninsular war is fruitful in Sunday fighting. The second battle in Portugal, that in Vimiers, was fought on Sunday, 31st August, 1803. The battle of Fuentes d'Onor was gained on Sunday, 5th May, 1811. On Sunday evening, 16th January, 1812, Lord Wellington issued the brief but determined order that "Cuidad Rodrigo must be carried by assault this evening at seven o'clock." The battle of Orthes was fought on Sunday, the 27th of February, 1814; and that of Toulouse-the last general action of the Peninsular war-occurred on Easter Sunday, the 10th April following. The battle of Waterloo was also decided on Sunday, the 18th June, 1815. The second Burmese war afforded two examples-Easter Sunday, the 11th April, 1852, the attack on the lines of defence at Rangoon, and the attack and capture of Pegu, on Sunday, the 21st November, 1852. The Victory of Inkerman was achieved on Sunday, the 5 th November, 1854.
It was also on Sunday, the 10th of May, 1857, that the terrible Indian Mutiny broke out at Meerut. And to crown the whole, it was on Sunday, that the great battle of Bull's Run was fought and lost by the Grand Army of the United States.

Privateering,-The London Volunteer Gazette, which is said to be edited by W. H. Russell, special correspondent of the London Times, now in the South, denounces Southern privateering in the most unmeasured terms, such as: "The scum of the scoundralism of the world;" "We most heartily wish every one of them a short shift, a strong cord, and a jump from the yard arm of the nearest man of war;" "We therefore owe it to the United States to put,down, with a high hand, any privateering against them."


## Lieutenant General Scott.

Just at this time, when our national reverses have saddened the whole North and even resulted in half-suppressed murmurings at the noble old hero who stands at the head of the American Army, it may be well for us to look him once again square in the face and refresh our memories with those heroic deeds and splendid military achievements, which have long since won for him, as a chieftain, the highest place in the admiration of the whole civilized world.

Born in 1786, and for the profession of arms, Lieut. General Winfield Scott has lived an eventful life, serving his country in all her times of need since the Revolution, and with a greater efficiency than any other man within
the same period. Through three wars-the late war with England, the Seminole and the Mexican-he has led the gallant armies of the United States; and now, in this time of our country's greatest peril, when base Treason flaunts its black banners over nearly one half of the Union and clutches like a fiend at the throat of the Republic, though he has already numbered his three-score years and ten, he still stands firm and unimpaired, like a mountain of granite in the sea, beating back the fierce surges of Disunion-a very Olympus from whose proud summit are yet to be hurled confusion and utter defeat upon all our foes.

Since the Mexican war, no name on the military rolls of either the New or the Old World has enjoyed such emblazonry. Even
the hero of Waterloo and the proud champion of English arms, magnanimously, and with truth, declared him the ablest General of the present day. Would it not be well, therefore, if blame must be attached to any one of the number of men in charge of the war for the Union to be sure that the fault does not rest with others before charging it upon him who has never suffered a defeat when left to the wiser dictates of his own unerring judgement.

The defeat at Manassas was not his. It was the merited defeat of senseless, hot-headed congressmen, journalists and politicians who would neither wait, themselves, nor leave the people to a just confidence in their long tried chief. Other defeats may follow, born of the same fatal phrenzy, but they will not be defeats of General Scott, whose plans are always deep laid, far reaching and successful, when unembarrassed by the shallow follies of impatient and ambitious men who know nothing of the science of war. The name of Winfield Scott is a tower of strength. Let us see to it that its beautiful and majestic columns be not tarnished by the shameful obloquy of a blind, ungrateful people.

## Three of the World's Biggest Guns.

We believe the largest cannon in this country is the one now at Fortress Monroe. It was cast under the direction and after the method of Captain T. J. Rodman, of the Ordnance Corps, and is so much of a monster as never yet to have been mounted within the Fortress, but stands outside, sullenly looking out over the waters of Hampton Roads.

## Its dimensions are as follows :

Total length of gun,...

Notwithstanding its great weight, it is so mounted upon the carriage as to be easily managed and loaded by a firing party consisting of a sergeant and six men, who have performed the feat of charging and firing in one minute and ten seconds.

The weight of the shell is 410 tbs ; of the solid shot 425 lbs . When charged with 40 lbs. of powder its range is over 4 miles. It will have a charge considerably larger than this, however, and its maximum range is probably not much less than 6 miles.

We have somewhere seen it stated that there is a cannon in England and another in Russia of still more monstrous proportions, but have no reliable information on the subject.

The Turks would seem, however, to have beaten the world in the casting of great guns, if a recent correspondent of the Scientific American may be credited. He says: "The famous cannon used by Mahommed II., at the siege of Constantinople, which threw a stone ball weighing 600 fbs ., I suppose is not in existence; but there is one still larger at the Dordenelles, carrying a stone ball of 1,100 pounds and requiring a charge of 300 pounds of powder. This is referred to in Gibbon's "Decline and Fall," vol. 4, p. 339."

## Eloquent Appeal to Kentucky.

The following extract is the closing portion of the speech of the Hon. Joseph Holt, of Kentucky, recently delivered at Louisville. Truly, such a man is worthy the home of Henry Clay:

If this government is to be destroyed, ask yourselves; are you willing it shall be recorded in history that Kentucky stood by in the greatness of her strength and lifted not a hand to stay the catastrope? If it is to be savedas I verily believe it is-are you willing it shall be written that in the immeasurable glory which must attend the achievement, Kentucky had no part?

I will only add, if Kentucky wishes the waters of her beautiful Ohio to be dyed in blood; if she wishes her harvest fields, now waving in their abundance, to be trampled under the feet of hostile soldiery as a flower garden is trampled beneath the threshings of the tempest; if she wishes the homes where her loved ones are now gathered in peace, invaded by the proscriptive fury of a military despotism, sparing neither life nor property; if she wishes the streets of her towns and cities grown with grass and the steamboats of her rivers to lie rotting at her wharves, then let her join the Southern Confederacy. But if she would have the bright waters of that river flow on in their gladness; if she would have her harvests peacefully gathered in her garners; if she
would have the lullabies of her cradles and the songs of her homes uninvaded by the cries and terrors of battle; if she would have the streets of her towns and cities again filled with the hum and throngs of busy trade, and her rivers and their shores once more vocal with the steamer's whistle-that anthem of a free and prosperous commerce-then let her stand fast by the stars and stripes, and do her duty and her whole duty as a member of the Union. Let her brave people say to the President of the United States, "You are our chief magistrate; the government you have in charge and are striving to save from dishonor and dismemberment is our government; your cause is indeed our cause; your battles are our battles; make room for us, therefore, in the ranks of your armies, that your triumph may be our triumph also."
Even as with the Father of us all I would plead for salvation, so my countrymen, as upon my very knees, would I plead with you for the life, aye for the life, of our great and beneficent institutions. But if the traitor's knife now at the throat of the republic, is to do its work, and this government is fated to add yet another to that long line of sepulchres which whiten the highway of the past, then my heartfelt prayer to God is that it may be written in history, that the blood of its life was not found upon the skirts of Kentucky.

## The Weapons of this War.

The editor of Wilkes' (N. Y.) Spirit of the Times is a soldier, and now in Washington. In a late letter to his paper, he thus remarks on the weapons with which the battles are likely to be won:-

Some importance has been attributed to the fact that the Southern men, as a general thing, are better marksmen than the soldiers of the North, and that they will consequently possess a great advantage, through such superiority, in the hour of battle. But while I do not believe that this is the case to any great extent, I would not, even if it were so, give much consideration to the fact; for in battle but few special shots are made, and the coming struggle is not destined to be a contest of mere markmanship or evolution.

War began with the spear for its weapon; after a variety of changes, through several centuries, it yielded its refinements, and under Napoleon III., on the fields of Magenta and Solferino, came back to the spear again. On those bloody and bitterly-contested fields, the alert Zouaves and athletic Chasseurs d'Afrique refused to accept the rations of powder and ball when served out to the troops just previous to battle; nay, when the charge was given, even refused to discharge the loads which were already in their weapons, but rushing forward through the fire, they engaged the Austrians
hand to hand, and bayoneted them in the ranks. This is unquestionably the true resource of superior physical condition.

On this plan the coming war between the North and South will surely be contested; and in part evidence thereof, I merely point to the fact that the government has already taken away the little costly breech-loading toys which the munificence of New York put in the hands of Col. Ellsworth's regiment, and served out to them the spear, in the shape of a saber on the end of a Minie musket.

The saber bayonet is also to be distributed throughout the entire army, and I feel certain, from what I have gathered through military men, that the actual embrace of battle, man to man, is what the Northern captains of this war intend mostly to rely upon.

## Cost of the Territories Claimed by the South.

The following forcible display of figures is found in a most able and eloquent speech made by Edward Everett on "The Issues before the Country:"
"Then look at the case for a moment in reference to the acquisition of territory made on this side of the continent within the present century-Florida, Louisiana, Texas, and the entire coast of Alabama and Mississippi; vast regions acquired from France, Spain and Mexico, within sixty years. Louisiana cost $15,000,000$ dollars, when our population was $5,000,000$, representing, of course, $90,000,000$ of dollars at the present day. Florida cost $5,000,000$ dollars in 1820, when our population was less than $10,000,000$, equal to $15,000,000$ dollars at the present day, besides the expenses of General Jackson's war in 1818, and the Florida war of 1840 , in which some $80,000,000$ of dollars were thrown away for the purpose of driving a handful of starved Seminoles from the Everglades. Texas cost $200,000,000$ dollars, expended in the Mexican war, in addition to the lives of thousands of brave men; besides $\$ 10,000,000$ paid to her in 1850 for ceding a tract of land, which was not hers, to New Mexico. A great part of the expense of the military establishment of the United States has been incurred in defending the southwestern frontier. The troops, meanly surprised and betrayed in Texas, were sent there to protect her defenceless border settlements from the tomahawk and scalping-knife. If, to all this expenditure, we add that of forts, the navy yards, court houses, the custom houses, and other public buildings in these regions, $500,000,000$ dollars of the public funds, of which at least five-sixths are levied by indirect taxation from the North and Northwest, have been expended in and for the Gulf States in this country. Would England, would France, would any government on the face of the earth surrender, without a death struggle, such dear bought territory."

## The Future of the Unifed States.

The North British Review, for May, thus closes an article on American affairs:
"There surely cannot be a permanent retrogression and decay in a nation planted in the noblest principles of right and liberty and proportions, the vigorous and energetic elements of the world's master races, in the midst of which the tone is given and the march is led by that one of them which has never faltered in its onward course, and which is possessed of such tenacity and versatility, that it is everywhere successful. The present calamity and confusion, probably form the crucible fires in which the Union is to be "purified, made white, and tried," in order that she may take her destined place in the van of the world's progress in Christianity and civilization, fulfilling in the resistless march of her dominant Anglo-Saxon race aeross the American continent one grand part of the Divine scheme for the spread of that Gospel which shall survive all changes, overthrow all evils and achieve its mightiest triumphs in the latter days of our world's history."

## Washington on Coercion.

During Shay's rebellion, Washington wrote the following letter to Col. Henry Lee, then in Congress. The letter is given by Irving, vol. iv., p. 489, and the italics are those of Washington:
"You talk, my good sir, of employing influence to appease the present tumult in Massachusetts. I know not where that influence is to be found, or, if attainable, that it would be ${ }^{\text {a }}$ proper remedy for the disorders. Influence is not government. Let us have a government by which our lives, liberties and properties may be secured, or let us know the worst at once. There is a call for a decision. Know precisely what the insurgents aim at. If they have real grievances, redress them, if possible; or acknowledge the justice of them, and your inability to do it at the moment. If they have not, employ the force of Government against them at once.

Let the reins of Government then be braced and held with a steady hand, and every violation be reprehended. If defective, let it be amended, but not suffered to be trampled upon whilst it has an existence."

The Surrindered General.-After the capture of Lord Cornwallis at Yorktown, he was one day standing in the presence of General Washington with his head uncovered. The General politely said to him: "My Lord, you had better be covered from the cold." His lordship, applying his hand to his head, replied: "It matters little, sir, what becomes of this head now."

## NEWS SUMMARY.

DOINGS OF AGRICULTURAL SOCIETIES.
State Fairs.-The following table shows the times and places for holding the several State Fairs arranged for 1861 :


The Wisconsin State Fair has been postponed. For reasons, see Editorial Miscellany.

The Fair of the Wisconsin Agricultural and Mechanical Association will be held at Milwaukee, September 2-6.

National Horse Show, Ottowa, Illinois, September 3-6.

County Fairs.-We have not yet been able to obtain a complete list :


## STATE MATTERS.

## The Weather and the Crops.-With

the exception of about eight days-between the 2 d and 10 th of the month-which were intensely hot, the weather of August has been as good as could be asked for harvesting and other purposes.
The crops have come in better, as a general thing, than was anticipated, and it is believed that they will come up to the general average for the past several years. We shall soon have the reports of threshers which will enable us to estimate quite accurately the average per acre of wheat, rye, oats, and barley. The corn crop, though greatly advanced by the favorable weather of the last of July and the entire month of August, will not be large. The present indications are that it will ripen before autumn frosts.

Monetary.-But little change in financial matters since our last issue. Exchange and gold can now be had for about 7 per cent. Gold becoming a little more plenty. Of the ten banks last discredited, two others-the La Crosse Co. Bank and Wisconsin Pinery Bank -have been made good. The Dodge Co. Bank therefore alone remains. Of the list first discredited, two more have also made good their securities-the Oneida Bank, (City of Berlin,) and the Bank of Manitowoc.

Military.-The 7th and 8th Regiments have been called into Camp Randall (the State Fair Grounds,) and already several companies have gone into quarters. The Cavalry Brigade is reported by Col. Daniels nearly full. Efforts are making to raise a Zouave Regiment, with a good prospect of success. The First Regiment has just returned to Milwaukee, (August 20th,) and been mustered out of the United States' service. The men are in good condition and a majority of them will re-enlist.
Gov. Raḱdall has just received orders from the Secretary of War for five more Regiments and five batteries, and has accordingly issued a proclamation calling for six Regiments.

Political.-Both the Republican and the Democratic State Central Committees have called Conventions for the nomination of State Officers for the ensuing two years-the Republican to meet Sept. 25th, the Democratic, Oct. 2.

## NATIONAL AFFAIRS.

The War for the Union.-The battle at Bull Run, which was bad enough in all conscience for the Union side, turns out not to have been so disgraceful as was feared at the date of our last summary. . Our soldiers fought like heroes until the panic, and probably would have conquered, had they been led by brave and skillful officers, despite the superior numbers of the enemy. The Wisconsin Second charged the enemy's batteries like veteran troops and covered themselves with glory. With the exception of their commander, who is said to have disgracefully fled, they were
the last and the most reluctant to leave the field. Loss of this Regiment, 25 killed, 68 wounded, 66 missing. Total 159. The entire loss was about 841 killed, 1011 wounded and 1216 missing.

Up to the present date (Aug. 20,) the great event of the month has been the battle near Springfield, Mo., between Gen. Lyon's forces and those of the notorious Ben. McCulloch, Aug. 10th. The battle was a terrible one, being fought by us against an odds of almost 3 to 1 ; and though our arms were victorious, routing the enemy, burning his camp and baggage trains, we lost our noble leader and were compelled by considerations of safety to fall back to Rolla-nearly 100 miles-where reinforcements could be furnished. The retreat was conducted in a masterly manner by Gen. Sigel.
Brig. Gen. Lyon had won the admiration of the whole country for his skill and energy as a General, and there is scarcely a man in the service whom the army and the people would have yielded up with more profound sorrow. He was a graduate of West Point, and after serving many years as a Captain on the frontiers in Florida, Texas, California, Oregon and Kansas, was stationed at the opening of the present war, at the St. Louis Arsenal; since which time his deeds are familiar to all. He died at the head of his columns gallantly leading them on to victory.

Our loss in the engagement is reported to have been about 200 killed and 600 or 700 wounded; that of enemy much larger. Their leader, McCulloch, is also believed to have been killed.

Tired of the slipshod management of the army in and about Washington, the President has called Gen. McClellan from Western Virginia, where he was eminently successful, and placed him at the head of all the Divisions heretofore under the divided command of Patterson, Banks, Mansfield, McDowell and others, with unusual powers. He has assumed command and is putting things in much better shape. An attack upon Washington is still feared, the enemy having accumulated a
force of 150,000 to 200,000 men almost under the shadow of the capital. Scott is loth to believe an attack is intended, but intends to be ready. Maj. Gen. Woor has been ordered to Fortress Mq̣roe to succeed Maj. Gen. Butler, who has gone to Massachusetts to raise troops. In the West, Maj. Gen. Fremont is laboring with great energy to strengthen the defences in Missouri, and to collect an army that shall put to route the Rebel army of Gen. Pillow.

Kentucky has at last laid off her robes of base indifference and openly espoused the cause of the Union by a majority of 50,000 at the polls. Both branches of her new Legislature will be almost unanimous against the Rebellion. Kentucky and Tennessee have been formed into a military department, under the title of the Department of Cumberland; Brig. Gen. Robert Anderson in charge.

The blockade, thus far, has not been very efficient, but active measures have been taken to make it so. If Secretary Wells cannot bring to the task the requisite energy, some other man will soon be called to his place. The President is unfaltering in his resolution and hope, and will leave nothing undone which may seem to be necessary to the rescue of our beloved country from the doom which threatens it.

Congressional.-After an active session, Congress adjourned Aug. 6th. Besides the confirmation of appointments made by the President, but little was done that had not a direct bearing upon the prosecution of the war. The bill for a direct tax of $\$ 20,000,000$ passed without much opposition. The following is the apportionment to the several States:

| Maine, | \$420,826 | Indi | 904,875 |
| :---: | :---: | :---: | :---: |
| Ne | 218,406 | Illino | 1 |
|  | 211,068 |  |  |
| Massach | 824,581 | Kansa | 71,741 |
| Rhode Isla | 116,963 | Arka | 261,886 |
| Connecticu | 308,214 | Michigan | 501,763 |
| New Yo | ,603,918 | Florida, | 77,522 |
| New Jersey | 450,134 | Texas, | 355,106 |
| Pennsylvan | ,946,719 | Iowa, | 452,088 |
| Delaware, | 74,681 | Wiscons | 519,688 |
| Maryland | 436,823 | Californi | 254,538 |
| Virginia, | 937,550 | nes | 108,524 |
| North Caro | 576,194 | Oregon, | 35,140 |
| South Car | 363,570 | New M | 62,648 |
| Georgia, | 584,367 | Utah, | 26,982 |
| Alabama | 529,313 | Wash | 7,775 |
| Mississippi, | 413,084 | Nebraska, | 19,321 |
| Louisiana, | 385,886 | Nevad | 4,5 |
|  | ,567,089 |  | 22,901 |
| Kent | 713,695 | Dakotah | 3,242 |
| ne | 669,49 | Dist. Colu | 49, |

If the States shall themselves collect and pay over the tax a deduction of 15 per cent. will be made; otherwise the Federal Government will appoint its own officers and make the collections. If any States refuse either to collect or allow to be collected, the amount shall accumulate against them, with interest, until paid. All incomes which amount to over $\$ 800$ exclusive of the expense necessary to the business itself, are taxed 3 per cent. on the excess. Thus the man whose income or salary amounts to $\$ 1,000$, will pay a tax of 3 per cent. on $\$ 200$, or $\$ 6$.

The Tariff is also modified to some extent, so as to bear more heavily upon articles of luxury.

A law was likewise passed confiscating the property (including slaves) of all persons found in open rebellion against the Government.

Among the important confirmation of Presidential appointments are those of Mr. Motley, the historian, as Minister to Austria; Gov. Randall, as Minister to Rome, vice Gen. King, resigned; Judge M. M. Jackson, of Wis., as Consul to Halifax ; Col. Hamilton, of $3 d$ Reg. Wis. Volunteers, as a Brig. General.

The Committee of Investigation to ferret out the traitors yet retained as Clerks in the Executive departments at Washington, of which John F. Potrer was Chairman, made some startling discoveries and effected numerous removals.

## FOREIGN AFFAIRS.

The Government of England still graciously declares its intention of neutrality! but its miserably mean, hunker organ, the London Times, keeps up its misrepresentation of the issues between the Government of the $U . S$. and the Rebels, and omits no occasion to prove, in a cowardly covert way, her secret wish that our boasted Republic may make a magnificent failure.

The course of France and the Imperial Press is just and courteous. Prussia also, and Russia have taken occasion to declare their sympathy with the cause of the Union.

Italy, since the acknowledgment of her independence by Napoleon III., has assumed a more stable form and is now quite free from agitation.

## EDITORIAL MISCELLANY.

The State Fair for 1861 Post poned.-Since our first connection with the FARMER, we have written nc words with so much reluctance and regret as those of the caption above. The war and all its necessary concomitants have been a discouraging circumstance since early summer, and one which has occasioned postponements of like exhibitions in several of the other States; but realizing the importance of keeping up the agricultural operations of the country, as a source of revenue and the only means of subsisting our armies, we were disposed to double our efforts, and, by dint of energy and hard work, hold an exhibition which should be succsssful in spite of the times. This is the spirit in which, up to a recent date, we have labored for that end, and the same spirit has likewise animated the other members of the State Board. Circumstances over which we have had no control have thwarted us, however, and as a Sacretary of the State Agricultural Society, we have found it necessary to issue the following circular letter to members of the General Committee:

## State Agricultural Rooms,

Madison, August, 1861.
Dear Sir:- When it became apparent that the perpetuity of our Government would necessitate a war with the traitors who had taken up arms for its destruction, and that several Regiments of troops were likely to be wanted from this State, the Commander-in-Chief of the Wisconsin Militia found it desirable to establish a Camp at Madison. The State Fair Grounds, being admirably
adapted to the purposes of an encampment and easily adapted to the purposes of an encampment and easily
susceptable of such modifications as would fit them for susceptable of such modifications as would fit them for
the. comfortable occupancy of successive Remer were naturally descupancy of successive Regiments, ious to be able to make prompt and patriotic responses to the urgent demands of the Federal Government;accordingly, the Executive Committee, glad of their ability to favor the State and advance the cause of the Union, cheerfully tendered to His Excellency "the use of the Fair Grounds for a Campus Martius, until such time as the Society should deem the claims of the Arts of Peace paramount to those of war." They were gratefully accepted by the Governor and immediately occupied by the Second Regiment. Experience soon proved that in order to the comfort of the soldiers and their economical subsistence, various improvements and enlargements would be necessary; which were accordingly made at a final aggregate cost of nearly $\$ 1,000$.
Subsequently the 5th and 6th Regiments were encamped upon the Grounds, and it began to appear doubtful whether the Society would not be driven to the alternative of either postponing its Fair or insisting upon future Regiments being quartered, at however great expense and inconvenience, in other portions of the State. The improvements referred to were valueless to the Society; indeed it would cost a thousand dollars to get rid of them. It was determined in Executive Council, therefore, not-
withstanding the arrangements including the issue of withstanding the arrangements, including the issue of
the Premium List, to sacrifice the lesser interests the Preminm List, to sacrifice the lesser interests of the Society to the greater interests of the State and country and postpone the Fair for one year, in case any considerable additional number of troops should be demanded of Wisconsin, and the Governor should feel that the Grounds must be had for their occupancy.
The recent call of the 7th and 8th Regiments to this place, and the yet later order from the Secretary of War for five additional Regiments of Infantry and five Batteries of Artillery have decided those questions, and I have, therefore, been instructed by the Executive Committee to publish the postponement.
This necessity is an occasion of profound regret, as it is even more important now than ever, that the agricultural interests of the country should be carefally agricultuIt is confidentig believed, however, that all friends of the

Union and of the State Agricultural Society, will appreciate the reasons and motives which have actuated the Committee, and that nothing will be omitted by either individual farmers or County Agricultural Societies, that may be necessary to the best development and progress of our industrial interests as a State, during this period of our national trial.

Very respectfully your ob't servant,
J. W. HOYT, Sec'y W. S. A. S.
[State papers please copy Circular, or otherwise notice.]
Corrections.-In an article in July number on Turnips, (page 220,) the types made us recommend two and a half pounds of seed to be sown to the acre ! We certainly intended to say one and a half, and to allow for judicions thinning out, at that. We presume no one has been misled by a recommendation so palpably erroneous, but as we aim to be perfectly sound in all matters pertaining to our profession, we are not willing to let it pass without correction.

## CORRESPONDENCE.

Dr. J. W. Hoyt, Sec'y \&c.,
Tomah, August 4, 1861.
Dear Sir:-Please find enclosed list of names for Committees at State Fair; also a list of grain from the Patent Office. Will you note on the paper, and return it early, advising at what season of the year to be sown, and quite Oblige your ob't servant,

ROBT. E. GILLETT,
Prest. of Monroe Co. Agricultural Society.
Remares of the Ed.-For the list of names of persons suitable to act on committees at the State Fair we are much obliged. For although it came months after the committees had been made out and published by the Society, it shows that such reports from the County Societies can be made, and is therefore an encouraging circumstance; besides it may be filed and consulted when we come to prepare our next Premium List.
The list of varieties of wheat consists principally of those which have not been tried in this country, and we, therefore, know but little about some of them, -nothing about others. It is certainly absurd for the Patent Office to send out specimens of grain without some account of their characteristics and the time when they should be sown.
The following is the list referred to:

1. Noe Wheat from France.
2. White Flint from Algeria.
3. Poulard Wheat, France.
4. Ohevalier Barley, France.
5. Spelt, Germany,
6. Common Rivet Wheat, France.
7. Red Wheat from Turkey.
8. Red Wheat from Italy.

We have no very accurate knowledge of either the "Noe," the "Poulard," or the "Rivet." Have written to the Chief Clerk of the Agricultural draveer in the Patent Office burean of the Department of the Interior, and shall publish the results of our inquiries at the earliest date.
No. 2, we understand to be a winter wheat and of good quality. Whether the Algerian is much of an improvement upon the White Flint of England and this country, remains to be seen.
No. 4, is an excellent quality of spring barley, highly
esteemed in France for malting purposes. It requires about two weeks longer time to mature than the ordinary barley, but will bear sowing that much earlier.
Spelt is a coarse kind of wheat quite common in France, Germany, Switzerland, Italy, Spain, and Northern Africa. It yields well, but is only about two-thirds as heavy as common wheat. The kernel is large and requires milling to separate it from its chaff. The famous Nuremberg and Frankfort starch and flour are made from Spelt wheat. It shoutd be sown in the spring and with the chaff on.

Nos. 7 and 8, are probably spring varieties, but of this we are not certain.
Any winter wheat may be converted into a spring variety by germinating in the early winter and keeping it frozen until the sowing time in the spring.

Sugar Cane Sugar.-Ed. Wis. Farmer:-Following some well timed practical remarks on this subject in the last No. of the Farmer, you express the wish to know if any one has made sugar "without the use of any chemical agent whatever."

Now as this subject is out of our professional field, we accept your gratuitous compliment with the reservation that you know not all the disciples of " old Sorghum" who persevere in "raising cane" for the "Union" and Northern independence. (May their shadows thicken.)
But to the question: We answer that we have several pounds on hand which we produced from Sorgho and Imphe last year, and in the manufacture of which no chemical agent whatever was used.

Samples enclosed and some reserved for exhibition at the next State Fair. And as a still further item of news to you, we present you a specimen of Sugar made at the last State Fair, where in connection with another man we were the unfortunate competitors for the premium on Sorghum, \&c., but did there make a very superior article of Syrup, a small quantity of which was saved and grained in a few weeks.

The amount of Cane planted in Wisconsin this year is small compared with last, but it is planted generally by men who do not believe in "fail," and we believe it will be demonstrated no humbug, but a practical valuable addition to our home productions, and supply a great desideratum to our domestic economy, especially in connection with the use and preparation of summer fruits.

We think certain varieties of the Imphe, and perhaps of the Sorgho will be found adapted to our climate, or become acclimated by degrees.

We have one variety of the Imphe growing from seed raised by us last year-planted about the 25 th of May, now stands four to five feet. It is showing some seed panicles and promises to mature quite early.

We are decidedly opposed to the use of chemical compounds in domestic manufacture, yet it may be demonstrated of value in scientific hands.

In the manufacture of our two acres, we shall introduce some new mechanical process and perhaps experiment chemically; shall also keep a just account of every procedure, and would suggest to every Cane grower to do
the same, and by comparing reports, we may arrive at some valuable conclusions in this new branch of productive industry.
J. C. PLUMB.

Madison, Wis., August 5th, 1861.
[Thanks for the information and for the samples, which, though coarse, damp and very dark colored, are nevertheless undeniably Sugar.]

$$
\text { Foorville, Wis., July 29, } 1861 .
$$

J. W. Hoyt, Esq.,

Dear Sir:-I saw a notice in the July number of the Wisconsin Furmer of Dorking Fowls. Will you take the trouble to write me where they can be obtained, and the price per pair. Yours truly, H. A. EGERTON.

## Book Notices.

The Political Manual: Being a complete view of the Theory and Practice of the General and State Governments of the United States.-By E. D. Mansfield, late Professor of Constitutional Law.-A. S. Barnes \& Burr, New York, Publishers.
This is not a new book, but rather a new edition of an old one which has been more popular than any other of its class ever published in this country. Besides showing the form of organization of the State and National Governments, and explaining the rules which govern the action of all legislative bodies, it contains all the recent decisions of the Supreme Court on Constitutional Law, with the recent acts of Congress and the Executive. In a word it is the Science of Government as it exists in action, and is earnestly commended to every American citizen. The Price is about $\$ 1$.
Guide to Hayti.-Edited by James Redpath, Gen. Agent of Emigration to Hayti for the United States and the Canadas.-Office, Washington St., Boston.
An interesting pamphlet of 175 pages. It treats of the History, Geography, Climate, Minerals, Soils, and Productions of Hayti; also of the People, their Religion, Education, Government, Foreign Commerce, Internal Industry, \&c., \&c. The several chapters are written in Mr. Redpati's best style, and the whole work is a pleasing and effective presentation of the claims of the Haytian Republic to the attention of the Black Race on the American Continent and throughout the world. At some future time, we may condense some of its most interesting information into an article for the Farmer.

Transactions of the State Agricultural Society.-A number of County Agricultural Societies have not yet ordered their quota ( 20 copies) of the Transactions for 1858-9. Do they not want them for premiums this Fall?

## NOTICES OF NEW ADVERTISEMENTS.

Attention is called to new advertisements of Kirby's Reaper, with Self-Raker attachment, by D. J. Powers;

## Of Waupun Pumps, by Wood \& McGregor;

Of Attorneys' services and agencies for the transaction of business with the State Offices, by Wakeley \& Vilas. All are believed to be worthy of public consideration.

## [ADVERTISEMINT.]

Semi-Annual Statement of the Business of the Madison Mutual Insurance Company, from January 1st to June 30th, 1861.
Whole number of policies issued from Jan. 1, to
June 30, 1861, inclusive insured

2,960 Total amount of property insured
thereon,,$\ldots \ldots \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . . . . . . ~$
thereon, ...................... $\$ 2,900,20200$
Total amount of premium notes
received thereon
Totat amount of cash premiums
51,47944
26,096 61
Total premiums rec'd in notes and
cash, ...............................
Whole amount of losses paid since
Jan. 1, 1861,...................
Whole amount of losses in proces
Whole amount of losses in process
of settlement,
\$77,576 05

## 2,736 47

3,064 83

5,801 30
\$71,774 75
Whole number of policies issued to date, ....
11,539
Am't of capital accumulated to July 1, 1861, \$182,164 24
By the foregoing report it will be seen that the company has done a very large and prosperous business during the first half of this year, steadily gaining upon the large amount heretofore done, and numbering about three thousand policies for the last six months. We congratulate the members of the company upon the prosperity which has attended its business, and trust that this report will not only be satisfactory to them, but will attract the favorable notice of all who have property to insure.
The compauy now embraces about 10,000 members, in-
cluding thousands of the best farmers and business cluding thousands of the best farmers and business men
of the State, and offering privileges, economy and safety of the State, and offering privileges, economy and safety
to the insured to a greater degree than to the insured to a greater degree than any other company doing business in the State. We invite a careful peruof the principles and rules of the company.
D. WORTHINGTON, Secretary.

The following is a list of the Officers and Directors and a general summary of the Company's system of operation:
The Directors and Officers elected for the year 1861, are
as follows:
D. J. POWERS, Madison, Dane Co.
J. W. BOYD, Walworth Co.

DAVID ATWOOD, Madison, Dane Co.
D. WORTHINGTON, Waukesha Co.
S. D. HASTINGS, Trempeleau Co.
B. F. HOPKINS, Madison, Dane Co.
L. BASFORD, Grant Co.
H. H. GILES, Dane Co.
S. R. MoCLELLLAN, Kenosha Co.

ALBERT WOOD, Dane Co.
ASA KINNEY, Green Lake Co.
TIMOTHY BROWN, Madison, Dane Co.
o. T. MAXSON, Pierce Co.

ORRIN GUERNSEEY, Rock Co.
CICERO COMSTOCK, Milwaukee.
G. R. MONTAGUE, La Crosse, La Crosse Co.
a. F. HASTINGS, Madison, Dane Co.

## OFFICERS.

D. J. POWERS, President.
J. W. BOYD, Vice President.
S. D. HASTINGS, Treasurer.
D. WORTHINGTON, Secretary.
G. F. HASTINGS, General Agent.
[Office Porter's Block, Madison, Wis.]
1st.- This Company will not insure any building for more than two thirds its cash value, preferring in all cases to insure not more than one half the actual valuethereby keeping in view the protection of the insured and the interests of the Company.
2d.-This Company will not insure more than $\$ 2,000$ in one risk.
3d. - If will not insure any dwellings standing within twenty feet of each other.
4th.-It will refund to any person insuring for a
longer time than one year, all moneys received from them $\$ 150$ paid Agents for survey ane they are insured, and $\$ 150$ paid Agents for survey and policy, and the policy
will be cancelled.
5th.-It will allow the setting up of additional stoves and the removal of the same from one room to another
without notifying the Company. Also such additions, without notifying the Company. Also such additions, alterations and repairs as do not increase the hazard or diminish the value of the property insured.
of 6th.-It will pay all damage caused by the effect of lightning to the property insured, whether the building is burned, or otherwise damaged, not exceeding the amount insured.
7th.-It will hold itself responsible for the correctness
of the surveys and other official acts of agents.
8th.-It will not insure over-hazardous property, believing as they do that the homes of our families should not be liable to be taxed to pay losses incurred on property in the hands of reckless speculators, not only subject to fire and lightning, but to wind and water, as cities and commercial towns.
9 th.-The premium notes given to this Co. for insurance given and are not held by the Company as a perpetnal given and are not held by the Company as a perpetual indebtedness against the insured. This feature in this Company overcomes a very formidable objection raised against other Mutual Companies.

## SUBSTANTIAL REASONS FOR INSURING HOME8TEAD PROPERTY IN THI8 COMPANY.

1. It is a Wisconsin institution, locat-d at the Capital of stitute inquiry into its business facility for members to institute inquiry into its business operations, and for the settlement of losses through their representatives in the Leg-
2. It is a Mutual Company, thus afording cheaper rates and greater security than can be obtained in Stock Companies.
3. Its capital stoci consists of premium notes of the parties insured, and cannot be squandered by corrupt officers, or become the basis of speculation to the managers; but can only be called in to pay losses and other abthe full necessary expenses; while stock companies receive the full amount of premium in advance, and often invest it in stocks which are liable to become worthless, causing general embarrassment to the companies, and rendering
unsafe the insured. afe the insured.
4. It confines its operationg to the State of Wisconsin; and to the insurance of Farm Property, and strictly isolated uildings, with their contents, in villages and cities.
Tr 5 . It is one of the oldest and most successful com-
panies in the North-west Having always paid its losses panies in the North-west Having always paid its losses
promptly and without litigation. promptly and without litigation.
5. It is under the control of the insured parties, each one having a vote in the choice of its officers, at the commencement of every year, either in person or by proxy.
We would call attention to the following able articie from the "Madison State Journal," of July 30, 1860, on the svbjest of Mutual Insurance:

## INSURANCE-THE MUTUAL PLAN.

The system of Mutual Insurance Companies is becoming very general in our Eastern cities-or that which amounts to the same thing. It is a system upon which the profits of assurance are divided between the stockholders and policy holders. The last number of the New York "Independent" has an excellent article on this subject, giving the results of several large companies in that city, and showing great success. It says that ten companies in New York city alone, have adopted this participation system with eminent advantage to the public. The "Independent" says the plan "must gradually supercede all other systems, and compel the older companies to adopt it." The oldest Insurance Company in the United States, is upon the Mutual principle - being the Worcester Mutual in Massachusetts; and one of the oldest is the Vermont Mutual. Both of these companies present a clean record, having never fafled to meet their engagements promptly. panies in the country, and thens of the many Mutual Companies in the country, and the only difference between these old Mutual Companies and the one referred to by the "Independent," is, that the old Mutual Companies receive but a small portion of the premium in cash, leaving the larger phrtion to remain uncalled for unless absolutely needed, while the New York Companies receive the entire premlum
in cash, with the promise of paying back a part if not

# THE WISCONSIN FARMER. 

## J. W. HOYT,

Vol. XIII.
MADISON, OCTOBER 1, 1861.
No. 10.

## The Two Furrows.

BY C. H. WEBB.
The spring-time came-but not with mirthThe banner of our trust,
And with it the best hopes of earth Were trailing in the dust.

The Farmer saw the shame from afar, And stopped his plough afield;
"Not the blade of peace, but the brand of war, This arm of mine must wield.
"When traitor hands that flag would stain, Their homes let women keep; Until its stars burn bright again, Let others sow and reap."
The Farmer sighed-"A life-time long The plough has been my trust;
In truth it were an arrant wrong
To leave it now to rust."
With ready strength the Farmer tore The iron from the wood,
And to the village smith he bore
That plough-share stout and good.
The blacksmith's arms were bare and brown, And loud the bellows roared;
The Farmer flung his plough-share down-
"Now forge me out a sword!"
And then a merry, merry chime
The sounding anvil rung;
Good sooth, it was a nobler rhyme
Than ever poet sung.
The blacksmith wrought with skill that day, The blade was keen and bright,
And now where thickest is the fray The Farmer leads the fight.
Not as of old that blade he sways To break the meadow's sleep, But through the rebel ranks he lays A furrow broad and deep.
The Farmer's face is burned and brown, But light is on his brow,
Right well he wots what blessings crown The furrow of the Plough.
"But better is to-day's success," Thus ran the Farmer's word-
"For nations yet unborn shall bless This furrow of the Sword."-Harper's Weekly.

## Fall Plowing.

There are some localities in this State in which fall-sown crops succeed very well; but the rule is in favor of seeding in the spring. The consequences are two-fold and diverse in their character-an excellent opportunity, in most cases, to plow in the fall, and a culpable postponement, in many cases, of the plowing until spring. The time will undoubtedly come when none except the really shiftless farmer, will fail to appreciate the importance of fall plowing, but at present, the custom is by no means universal.

There are three great reasons in its favor:
In the first place it may be considered as a question of time. Were our grain fields confined to a few acres, as is the case in most of the Eastern States, they could be plowed and made ready for the seed in the spring time. But, on the contrary, they are often vast in extent, and their preparation involves an amount of labor that could not be performed in the short spring season which divides our lingering winter from the short and precipitate summer. To those who have large farms, fall plowing is therefore a necessity.
But, secondly, the cold and shifting weather of winter is calculated to act beneficially upon the soil, disintegrating mineral masses, and reducing them to a condition capable of solution by water and assimilation by the plant. This process is known as weathering and is one of great importance in agricultural economy.

Finally, fall plowing throws up and exposes to destruction by freezing innumerable worms and insects noxious to vegetation. Thus the chinch bug and some other insects known to be destructive of wheat, after fulfilling their
mischievous mission penetrate the earth and there remain until the succeeding year when they are waked into new life by the genial warmth of the vernal sun, and again go forth on their errand of putting to naught the labors and blasting the hopes of the husbandman. We do not intend to say that fall plowing is a sure and infallible remedy agatinst this class of insects, but we do say that its tendency is remediable, and further, that the difference in the damage done by insects to crops grown on fall and spring plowed lands, even side by side, is often so marked as to force conviction upon the minds of the most incredulous.

In view of all these reasons we earnestly hope that the work of preparing for next year's crop,-now well begun,-will continue as uninterruptedly as possible until completed. It makes no difference whether the proposed crop be wheat or something else. There is no crop but that will be benefitted by this system of fall tillage-none that will not suffer for the want of it. If, when spring comes, you find time to plow again, don't be afraid, but go heartily about it. The soil naturally loves good, thorough cultivation, and will return you many fold for all your extra labor.

## Saving Seed Corn.

It is of the greatest importance to have goed seed. More depends upon this than upon a proper preparation of the ground and good culture, although these are considerations of no small weight; yet if a farmer plants poor seed he can hope for but a small crop, even if the other requisites are attended to. One of our neighbors was obliged to replant his field of four acres of corn, the past spring, on account of the first seed being poor. Wishing to change his seed, he obtained some from a friend who traced up his seed corn, and hung it in the chamber above where his corn was placed to dry. This injured the vitality of the seed, and it germinated but poorly.

We have often urged the practice of saving the most forward ears for seed, and of gathering it in the field from stalks producing two or more ears each. We publish below a letter originally published in the $\boldsymbol{N}$. $E$. Farmer twenty years ago, and also recently issued in many of our agricultural journals, which goes far to settle this point with regard to the selection of seed corn. It was written by Mr. Baden, then
residing, as appears by the date, near Nottingham, Prince George's Co., Md., and was addressed to Hon. Henry L. Ellsworth, at that time Commissioner of Patents :
"Sir:-I received yours of the 14th, making inquiry respecting the 'Maryland Corn,' which you understood I had raised. I have the pleasure to say that I have brought this corn to its high state of perfection by carefully selecting the best seed in the field for a long course of years, having a special reference to those stalks which produced the most ears. When the corn was husked I then made a re-selection, taking only that which appeared sound and fully ripe, having regard to the deepest and best color, as well as to the size of the cob. In the spring, before shelling the corn, I examined it again, and selected that which was best in all respects. In shelling the corn, I omitted to take the irregular kernels at both the large and small ends. I have carefully followed this mode of selecting seed corn for twenty-two or twentythree years, and still continue so to do. When I first commenced, it was with a common kind of corn, for there was none other in this part of the country. At first I was troubled to find stalks with even two good ears on them, perhaps one good ear and one small one, or one good ear and 'a nubbin.' It was several years before I could discover much benefit resulting from my efforts; however, at length the quality and quantity began to improve, and the improvement was then very rapid. At present I do not pretend to lay up any seed without it comes' from stalks which bear four, five or six ears. I have seen stalks bearing eight ears. One of my neighbors informed me that he had a single stalk with ten perfect ears on it, and that he intended to send it to the Museum at Baltimore. In addition to the number of ears, and of course the great increase in quantity unshelled, it may be mentioned that it yields much more than common corn when shelled. Some gentlemen, in whom I have full confidence, informed me they shelled a barrel (10 bushels of ears) of my kind of corn, which shelled corn measured a little more than six bushels. The common kind of corn will measure about five bushels only. I believe I raise double or nearly so to what I could with any other corn I have ever seen. I generally plant my corn about the first of May, and place the hills five feet apart each way, and have two stalks in a hill."

## Mulching Winter Wheat.

Our winter wheat crop is generally seriously injured, and sometimes entirely destroyed, by our winter weather. At the North, where the snow covers the ground four or five months in the winter, the crop is much more certain, for it is protected by the snow; but in our latitude the wheat has no such protection-the ground is bare nearly all winter. Our climate,
too, is very changeable, far more so than a more northern or southern one. Alternate thawing and freezing is going on most of the winter. If the sun comes out brightly upon the earth even in rather cold weather, the ground is thawed, and at night again freezes.
The result of this thawing and freezing is that the wheat plants are heaved out of the ground and destroyed. Now if this freezing and thawing could be prevented, the crop might be saved. We are going to recommend a plan which, though it will not be an entire preventive, yet will aid very much in preventing the upheaval of the plants. It is this: When you sow your wheat, which should be done pretty early, also sow on the same ground oats or buckwheat to act as a mulching during the winter. The oats or buckwheat will get up a foot or two, and be cut down by the frost, and afford an excellent protection to the wheat plants all winter.

We ask our readers to try this experiment on a small scale, and report the result through the Valley Farmer. We believe they will say that where the oats or buckwheat was sown, the crop was less affected.-Valley Farmer.

## The Farm Under Your Farm.

Farmers, you have skinned the soils of Wisconsin long enough. For many years you have been exhausting the surface of its rich elements, until, in many places, leanness and poverty are all that seem to be left. Forty bushels of wheat to the acre, once, ten to twenty now!-except now and then at long intervals, when God takes pity on you and sends his drouth-pumps to suck up the wealthbearing moisture from the treasure depths below, and so gives you a glorious harvest like that of 1860 , just to reassure your faith in the good old calling of your choice.
Hankering after more land? What for? There is a good new farm only four, five, or six inches beneath your old one!-use that.

Deep plowing and subsoiling are golden keys to a wealth of which most western farmers have never yet dreamed. They insure the better position and condition of the mineral food required by the plant, a porous soil for the easy penetration of tender rootlets, æration and oxydation of the soil, easier riddance of excessive water during the wet season, absorption of moisture and fertilizing gases during seasons of drouth, and finally-bigger and MUCH better crops !

## Fixed Facts in Agriculture.

1. All lands on which clover or the grasses are grown, must either have lime in them naturally, or that mineral must be artificially supplied. It matters but little, whether it be supplied in the form of stone lime, oyster lime, or marl.
2. All permanent improvement of lands must look to lime as its basis.
3. Lands which have been long in culture, will be benefited by applications of phosphate of lime, and it is unimportant whether the deficiency be supplied in the form of bone dust, guano, native phosphate of lime, composts of fish, ashes, or that of oyster-shell lime, or marl -if the land needs liming also.
4. No lands can be preserved in a high state of fertility, unless clover and the grasses are cultivated in the course of rotation.
5. Mold is indispensable in every soil, and a healthy supply can alone be preserved through the cultivation of clover and the grasses, the turning in of green crops, or by the application of composts rich in the elements of mold.
6. All highly concentrated animal manures are increased in value, and their benefits prolonged by admixture with plaster, salt, or pulverized chareoal.
7. Deep plowing greatly improves the productive powers of every variety of soil, that is not wet.
8. Sub-soiling sound land, that is, land that is not wet, is eminently conducive to increased production.
9. All wet land should be thoroughly drained.
10. All grain crops should be harvested before the grain is thoroughly ripe.
11. Clover as well as the grasses intended for hay, should be mowed when in bloom.
12. Sandy lands can be most effectually improved by clay. When such lands require liming or marling, the lime or marl is most beneficially applied when made into compost with clay. In slaking lime, salt brine is better than water.
13. The chopping or grinding of grain to be fed to stock, operates as a saving of at least twenty-five per cent.
14. Draining of wet lands and marshes adds to their value by making them produce earlier, and by improving the health of neighborhoods.
15. To manure or lime wet lands, is to throw manure, lime and labor away.
16. Shallow plowing operates to impoverish the soil, while it decreases production.
17. By stabling and shedding stock through the winter, a saving of one-fourth the food may be effected; that is, one-fourth less food will answer than when such stock may be exposed to the inclemencies of the weather.
18. A bushel of plaster per acre, sown broadcast over clover, will add one hundred per cent. to its produce.
19. Periodical applications of ashes tend to
keep up the integrity of soils, by supplying most if not all of the organic substances.
20. Thorough preparation of land is absolutely necessary to the successful and luxuriant growth of crops.
21. Abundant crops cannot be grown for a succession of years, unless care be taken to provide an equivalent for the substances carried off the land in the products grown thereon.
22. To preserve meadows in their productiveness, it is necessary to harrow them every second autumn, apply top dressing, and roll them up.
23. All stiff clays are benefited by fall and winter plowings; but should never be plowed while they are wet. If at such plowings the furrow be materially deepened, lime, marl or ashes should be applied.
$\cdot 24$. Young stock should be moderately fed with grain in winter, and receive generous supplies of long provender, it being essential to keep them in fair condition, in order that the formation of muscle, bones, \&c., may be encouraged and continuously carried on.
24. Milch cows in winter should be kept in dry, moderately warm, but well ventilated quarter; fed and watered three times a day; salted twice or thrice a week; have clean beds; be curried daily; and in addition to their long provender, should receive succulent food morning and evening.
25. Full complements of tools and implements of husbandry are intimately connected with the success of the husbandman.
26. Capital is not only necessary to agricultural success, but can be as properly used in farming as in any other occupation.
27. Punctuality in engagements is as necessary to an agriculturist as it is to a merchant.
28. Every husbandman should carefully read and digest matters connected with his business; his success being as dependent upon a full knowledge of its principles and details, as is that of a lawyer or physician with a knowledge of the science of law or physic.
29. Wheat, rye, oats and barley should never follow each other in a course of rotation; there should always be an intervening hoe crop between them.
30. Weeds should never be permitted to mature their seed on a farm, but be pulled up or cut down as often as they show themselves, such being the only effectual method of eradicating them. To insure this result, the ground should be planted in corn, and that kept clean.
31. Time and labor devoted to the collection of materials to be converted into manure, are the most fruitful sources of profit in the whole range of farm economy.
32. The orchard, to be productive of good, fair fruit, requires to be fed as much as does a field of grain. The soil of each requires that the substance abstracted by the crops shall be restored. The soil should be kept clean and open to the ameliorating influences of the sun,
the dews, the rain, and the air; the bark of the tree should be kept in a healthy condition, by scraping when necessary, and by alkaline washes.-Ohio Farmer.

## Land Drainage.

Now is the best season of the whole year for the important work of drainage. The low wet lands are dry and accessible, and yet sufficiently moistened by the autumn rains, so as not to be hard and difficult to cut. It is also the season at which, in this wheat-growing State, other important farm operations crowd less upon the time and energies of the husbandman.

If any of our readers are not yet fully convinced of the value of thorough drainage, we hope they will, at least, be willing to test it on a small scale-making the experiment in some field of stiff, cold, clay soil of which but little has been expected and less obtained. Or, if not yet prepared to prove the utility of it in a single small grain field, suppose you give the garden or orchard a new chance to show what they can do under favorable circumstances.

## Patent Office Wheats.

In our last we referred to several kinds of Wheat forwarded to some of the Agricultural Societies of this State, promising to say more of them when the desired information should have been received. Meantime, the following from a correspondent of the Country Gent. will be interesting:

Of the samples I forward, No. 1 is Gen. Harmon's "Improved White Flint." Some 20 years ago the General sent a quantity of the abovenamed wheat to the Patent Office, a small sample of which I received, and sowed it two years in succession; but at that time I knew nothing about the culture of winter wheat, and sowed it too late in the season-it was mostly destroyed by the midge. I saved what little the midge left-perhaps half a gill-which was put in a package and marked, and remained in my seed-box till six years ago, when I received several packages from the Patent Office. These, with the White Flint, were sown-the Flint yielding the best. From that small beginning I have every year since raised fair crops of it, and sold many bushels for seed. I think it is the handsomest sample of the lot. This season it has not been injured by rust or midge. Last week, had some of it threshed; it weigh-
ed 64 lbs . per bushel, and yielded 48 Hss . of extra quality of flour per bushel. About the same time-(by way of ascertaining the worth of my wheat for family use, )-I purchased at one of our stores 24 lbs . of flour, for which I paid $\$ 1$, or at the rate of $\$ 9$ per barrel, it being the best kind of flour sold here-but not of as good quality as that from my wheat, four bushels of which will make a barrel of flour, which at $\$ 9$ per barrel, makes the wheat worth (to me, for family use, at least $\$ 2.25$ per bushel.

No. 2-Early Noe Wheat from France. Nothing of the kind can exceed the quality or brightness of the straw of the Early Noegood heads and kernels, productive and hardy, and its flour makes a number one quality of bread-sweet and moist. The Patent Office Report, 1854, says, "from its hardy and productive nature, it is gradually superceding the Saumer wheat in the high latitude of Paris, and is much sought after on account of its precocity. As this wheat has the property of ripening some days before the common sorts, if it succeeds in our climate in this respect, a great point is gained. A single week thus gained in ripening, would often secure a crop from injury by the fly or rust-aside from the advantages to be gained from an early market." With me, it has not proved much earlier than the Flint and several other varieties under similar culture.

## chess

Is becoming a troublesome pest among much of the winter wheat grown here. One of our farmers had a load or two threshed a few days since by a machine propelled by water. The grain, as threshed, is winnowed and passes through a spout into a large box in the basement, and there is a blower which forces a strong current of air through the grain as it leaves the spout, blowing chaff, \&c. This current of air blew out six bushels of chess, and there was what was called 22 bushels of wheat -probably as much as four bushels more of the chess went in with the wheat; if so, the account would stand thus, 18 bushels of wheat, 10 bushels of chess-or as they call it in Ohio, cheat. Some will say the wheat turned to chess; but I will give it as my humble opinion, that all the chess in that lot of wheat, was the direct product of chess seeds sown with the wheat, and there was seed enough left in and about the machine to completely vitiate the hundred bushels of pure wheat threshed. "Smut and chess" are oftener distributed through the agency of threshing machines, than many farmers seem to be aware of. In view of the above, I have what little seed wheat I sow threshed by the flail, and by so doing, avoid smut and chess in my crops.Levi Bartlett.

The pulp of potatoes, scraped into water, eleanses the finest silks, without injury.

## [From the Country Gentleman.] Use of Lime in Agriculture.

The distinguished chemist Boussingault has just read before the French Academy of Sciences, a paper on the employment of Lime in Agriculture. It has not yet been published, but M. Barral gives the following as the substance of it, which we translate for the Country Gent. from the Journal d'Agriculture Pratique for August 5:-
"Lime introduced in an arable soil very quickly sets at liberty a certain quantity of azote in the state of ammonia; the azote elements were before united in insoluble combinations, and not assimilable by plants-the action of the lime sets them free, and permits a part of the capital buried in the soil to be utilized for the next crop. If this was the whole effect of lime, of which the experiments of Boussingault afforded evidence, small doses of it at once, ought to be counselled, because the quantity of ammonia produced does not increase in proportion to the quantity of lime used. But as heavy limings produce incontestible effects in certain cases, it must consequently be admitted that lime exerts an action of some other kind upon the elements of the mould. Boussingault thinks that certain mineral matters, such as potash and silica, may be liberated in the soil by the lime; that other substances injurious to plants, are destroyed or modified by the same agent, and that to these effects is added moreover a physical action, changing the constitution of the land. The action of the lime is thus excessively complex, and its good effects can only be explained by studying attentively the special circumstances under which they are produced. The grand fact proven by the present researches of this agricultural savan, is that there exist in mould, as well in the form of organic matters as in that of mineral matters, a host of substances completely inert for vegetation, until the moment when some proper agent renders them assimilable by plants. The continuance of experiments upon the method devised by Boussingault, can alone clear up these excessively complexfacts, and point out to our agriculture the most effective processes. The discovery of methods which conduct to truth is often the greatest service that can be rendered to Science and to Art."

Sebd Wheat.-Now is the time to obtain good seed wheat for the present sowing. Good seed wheat is just as important as good stock. Poor wheat will bring poor returns; just as poor stock will beget poor stock. See that your seed wheat is free from all foul seed.Run it through the fanning mill several times, so as to blow out all light kernels. If you have not a good fan, put your wheat into some large vessel containing water, and then skim off the light seed, chess, \&c. In this water
some blue vitrol may be dissolved, which will destroy all the sporules of smut. It is also said to be a specific against rust. The wheat may remain half an hour or so in the liquid, and then it may be spread on the barn floor to dry. Air-slacked lime may be mixed with it on the floor, by using a shovel.

If our readers will take some extra pains in obtaining and preparing their seed, they will be rewarded with extra crops. - Valley Farmer.

## The Farmer's Bank.

The times may be hard as the ground, Yrozen stiff in the December cold; But the bank of the farmer is soundIf broken, it discounts in gold.
His share is a plow-share in banks Whose dividends never rely
On the grind-stone men at their cranks, But on rain and the sunshiny sky.

His deposits are small, but they yield A hundred per cent., or per seed,
So that gold grows up in the field
Like a thought that grows into a deed.
[Geo. W. Bungay.

## Care of Farming Implements.

From the following complaint of a Missouri farmer, published in the Val. Farmer, it will appear that the shiftless farmers are not all confined to Wisconsin:

In traveling about in this part of the State, as well as other parts, I find that a great many of the farmers pay but little attention to this most important part of the farm. I see their plows out in the fields where they finished plowing their corn and last fall's grain; their reapers and mowers in the fields and meadows where they finished their last harvesting; threshing machines at the threshing grounds; harrows in the fence corners; pitch-forks seattered about the barn, some with the prongs sticking in the ground; and in fact almost everything they have on their farms suffers more or less from exposure to bad weather.

How long does it take to wear out such costly articles thus exposed to all kinds of weather, and through all seasons of the year? They cannot by any means be of much service after the second or third year; whereas if they would build a barn, or even a shed, and put them under it as soon as through work, they would last about five times as long. But they do not seem to look far ahead.

I have often heard some farmers say to others, How is it that we purchased our threshing machines, reapers, harrows, \&c., the same day, and my thresher is worn out, my reaper is all rusted and not fit to save another harvest, and the teeth are all falling out of my harrow, and
yet yours are almost as good as new. Their reply would be, I take care of mine by keeping them well sheltered and dry; and you leave yours to take care of themselves. This looks like proof enough for every careless farmer to take heed and adopt a strict method, by having a place for everything and everything in its place. A great many of our wealthiest farmers, "but not the best," have good barns and plenty of room in them for all their farming implements, but instead of seeing them all put away safe and dry as soon as through work, will trust them with some one who is careless, and they are all left out through another fall and winter, and when spring comes it takes about one week to get them together; then about two-thirds will have to go to the shop for repairs.

## Hints on the Potato Disease.

From an elaborate article in a recent number of the Journal of the West of England Society, on potato culture, from the pen of Dr. Lang, in which many curious and important truths are discussed, the following may be regarded as conclusions deduced from his treatment of the whole subject.

1st. The desirability of early planting in dry, clean, and well prepared ground.
2. That white potatoes are less liable to the disease, and therefore to be preferred to the colored sorts.
3. That the soil in no case produces or influences the disease.
4. That the disease is of a fungoid character, investing many varieties of plants, and increased in activity by atmospheric causes.
5. That all heterogeneous manures are injurious.
6. That lime and salt, mixed in the proportion of 8 tons of lime with 3 cwt . of common salt, is the best manure; and this is the proportion used to the acre.
7. That potatoes that ripen earliest should be exclusively grown.
8. That, as soon as the disease appears, earthing up the stalks repeatedly with fine earth from the centre of trench is the only effectual preventive to its ravages. To this operation the author consequently attaches the greatest importance.
9. That when exhumed, suhlight appears to arrest the progress of the murrain, and prevents the further decomposition of the tuber.

Without committing ourselves to all the above statements and suggestions, some of which are, we think, doubtful or open to well founded objections, the attentive reader will find much useful material for thought, which if carefully considered cannot fail to impart valuable aid in coming to sound conclusions, as far as our confessedly limited and imperfect knowledge will as yet permit, on this very important and equally difficult subject.-Canadian Agrioulturist.

Pasture Lands.-Of all the lands composing a farm, says the Maine Farmer, the pasture needs manure the most, for it is from that the stock must draw their principal support. If dry and sandy, spread on muck and leach ashes and old, half rotten straw, late in the fall. The snow will prevent its evaporating, and the winter rains will wash it into the earth. Carry out all the manure that has been made during the summer and fall, and spread it so that it will become incorporated with the surface earth during the winter. Apply bone dust, and all other substances that can form bone earth. If the pastures have been exhausted by wool-growing, renovate with plaster, thus restoring the sulphur which has been drawn from the earth; for in every one hundred pounds of wool there are five pounds of sulphur. But on no account allow it to be said that any part of your farm is "an old and worn-out pasture." That is equivalent to acknowledging that you are a lazy, shiftless fellow, incapable of appreciating the blessings of heaven-and dishonest in refusing to pay the rent required by God for the use of his land.

A Rat-Proof Corn House.-A correspondent of the Ohio Cultivator gives the following directions how to build one:

Get stone pillars for the foundation, one foot square and to stand $2 \frac{1}{2}$ feet high, and for the top a piece of sheet iron 8 inches wider than the top of the stone, and paint it to prevent rusting. Then build your house the size to suit you. Mine is $20 \times 26$ feet; the door at the end, and a bin on each side to within four feet of the back end, which is for wheat and oats, and is divided by partitions. The wheat and oat bins hold 400 bushels each, corn bins 500 , and there is room enough left, in which I have a work bench and fanning mill. The floor should be as high as the bottom of a wagon bed, which is easy for unloading, and if the ground is rising in front of the building, it is easy to back to the door.

Twenty-Six Tons Corn Fodder to the Acre.-I cut fodder corn to-day, as it began to lodge in the lighter portion. It was just in the silk. As it is thought very heavy, I measured off a plot 20 by 15 feet, and weighed it accurately. It weighed 406 tbs ., being 26 tons per acre. It was drilled $2 \frac{1}{2}$ feet apart, and covered and cultivated exclusively by horse power on the Gage cultivator spoken of in a late no. of the Co. Gent. It was only seventy days old from planting. It was not the best in the field-only a little if anything above the average. It seems a large growth of seventy days, with no hand-work about it; I shall weigh the same when cured.-S. W. Hall, in Country Gent.

## STOCK REGISTER.

## Fine Wool Clip.--What to do with our Wool.

Ed. Wis. Farmer:-In answer to the many inquiries about my sheep and their clip, I send you this for publication, if you think best to insert it.

My flock numbering 141 was shorn between the 17 th and 20 th of June, from which I cut $1047 \frac{1}{2}$ fbs. of clean washed wool, which you will see makes an average of 7 lbs .7 oz . per head. When I selected my sheep in Vermont, five years ago, I set my stake to get a flock in five years of 100 that would average 7 lbs . That point was reached last year as you will see by referring to my communication on page 273 of the September number of the Farmer for 1860 . I have now moved the stake to 8 lbs . and am confident I have the material within my own flock to reach that point in four years more. There are flocks in New England that do it, but it takes full bloods. What I said in the communication referred to in regard to the price of pure Spanish sheep in Vermont, (from inquiries made during a visit there last winter,) I am fully persuaded was correct. At no time have they ever been sold for less than $\$ 25$ per head. Perhaps you may think me mistaken when I say there are not 300 full blooded Spanish sheep in Wisconsin, but if you or any one else will take the trouble to investigate the matter, they will find I am not far out of the way. Let no one think when sheep importers offer to sell young ewes for $\$ 10, \$ 15$ or even $\$ 20$, that they are genuine: high grades can be sold for these prices, but full bloods, never.

We are frequently asked, What shall we do with our wool? I say let it lay. If you have it nicely packed away and covered up where dust will not settle on it, or mice and rats get to it; it will pay better to keep than money at ten per cent. Let no one be discouraged in the sheep business, take good care of your sheep, when our Southern brethren are brought to see and feel their faults and sue for mercy at our nation's shrine, then our wool will sell for prices that will pay.


If any of my sheep friends differ with me, I hope to hear from them through the columns of the Farmer. Let us post each other up.
R. T. Graves.

Randolph, Columbia Co., Wis., Aug. 8th, 1861.

## Brahmin Cattle.

As an interesting novelty, we herewith publish a cut of a regular Brahmin Bull, owned by Chas. G. MoHatton, of Bridgeton, Mo. $\mathrm{Mr} . \mathrm{McH}$. is a large breeder of this race of cattle. For the engraving, we are indebted to the proprietor of that excellent agricultural magazine, the Valley Farmer.

Judging from the physiognomy of this animal, the Brahmin Ox must be a powerful, active, hardy and yet docile beast. Mr. McHatron, who finds them possessed of many excellent qualities, and also well adapted to the climate of the Southern United States, thus enumerates their characteristics:

1. They are of fine size and beautful proportion, and possess wonderful activity, strength, and power of endurance.
2. They are perfectly adapted, by their peculiar organization, to the climate of the South, as they endure in their native country greater heat and fatigue than they would here ever experience.
3. Their milking qualities are equal to the best of Southern stock.
4. They are thrifty, and keep fat on scanty pasturage ; and their beef is equal to that of any other stock, having been tested, in Lexington, Ky., by many of the most respectable citizens.
5. They have been fully tested in the South, and the most sanguine expectations realized. Out of 150 sold, only one is known to have been lost, and that through accident.

Most writers who may be considered authority, concur in giving them admirable qualities, especially for the uses to which they are put in their native country.

Martin, in his celebrated work on cattle, thus deseribes the Brahmin Ox, page 22:
"The large Zebu, or Brahmin Bull, is certainly a noble animal, and much more active than any of our breeds. These animals are used in India as beast of draught and burden, and also for the saddle. We learn that Lieut. Col. Skinner, of Danak, on the borders of the Bichaneer desert, 100 miles west of Delhi, maintains a large stock of them; and six or seven beasts are always kept saddled to carty
the military dispatches. They remain saddled three or four hours, when, if not wanted, they are relieved by fresh ones. They will travel, with a soldier on their back, fifteen or sixteen hours in the day, at the rate of six miles an hour. Their action is fine, and they bring their hind legs under them in as straight a line as a horse. Such is their activity that they can clear a five-barred gate with ease."

Thevenot says, (Relation, vol. iii. p. 151.) "As the Oxen of India are by no means ungovernable, there are many persons who employ them in traveling, and who mount them as they do horses. Their ordinary gait is easy. The animal is saddled like a horse, and when a little excited into action it goes very quickly; some, indeed, gallop as well as a good horse. These cattle are in general use throughout the whole of India, and they use no other in plows, coaches, and chariots."
"The two oxen," says Travenier, "which were harnessed to my carriage, cost me nearly 600 rupees. The reader need not be astonished at this price, for these oxen are of great strength, and which travel journeys of 12 to 15 leagues a day, for 60 days, and always on the trot."
They were first imported from the East Indies by Dr. James B. Davis, of South Carolina. The Editor of the Val. Farmer, who has seen Mr. McHatton's herd, speaks highly of their fine skin and neat appearance.

## The Proper Method of Milking Cows.

The manner of milking exerts a more powerful and lasting influence on the productiveness of the cow than most farmers are aware of.That a slow and careless milker soon dries up the best of cows, every practical farmer and dairyman knows; but a careful examination of the beautiful structure of the udder will serve further to explain the proper mode of milking, to obtain and keep up the largest yield. "The udder of a cow," says a writer in the Rural Cyclopedia, "is a unique mass composed of two symmetrical parts, simply united to each other by a cellular tissue, lax, and very abundant; and each of these parts comprise two divisions or quarters, which consist of many small granules, and are connected together by a compact laminous tissue; and from each quarter proceed systems of ducats, which form succestive unions and confluences, somewhat in the manner of the many affluents of a large river, until they terminate in one grand excretory canal, which passes down through the elongated mammillary body called the teat. Its lactiferous or milk tubes, however, do not, as might be supposed, proceed exactly from smaller to larger ducts by a gradual and regular enlargement, because it would not have been proper that the secretion of milk should escape as it was form-
ed; and therefore we find an apparatus adapted for the purpose of retaining it for a proper time. This apparatus is to be found both in the teat and in the internal construction of the udder. The teat resembles a funnel in shape, and somewhat in office ; and it is possessessed of a considerable degree of elasticity. It seems formed principally of the cutis, with some muscular fibres, and it is covered on the outside by cuticle, like every other part of the body; but the cuticle here not only covers the exterior, but also turns upwards, and lines the inside of the extremity of the teat, as far as it is contracted, and there terminates by a frilled edge, the rest of the interior of the teats and ducts being lined by mucous membrane. But as the udder in most animals is attached in a pendulous manner to the body, and as the weight of the column of fluid would press with a force which would, in every case, overcome the resistance of the contractions of the extremity, or prove oppressive to the teat, there is in the internal arrangement of the udder a provision made to obviate this difficulty. The various ducts, as they are united, do not beeome gradually enlarged so as to admit the ready flow of milk in a continual stream to the teat, but are so arranged as to take off, in a great measure, the extreme pressure to which the teat would be otherwise exposed. Each main duet, as it enters into another, has a contraction produced, by which a kind of valvular apparatus is formed in such a manner as to become pouches or sacks, capable of containing the great body of milk. In consequence of this arrangement, it is necessary that a kind of movement upwards, or lift, should be given to the udder before the teat is drawn, to force out the milk; and by this lift the milk is displaced from these pouches, and escapes into the teat, and is then easily squeezed out; while the contractions, or pouches, at the same time resist, in a certain degree, the return or reflux of the displaced milk."

The first requisite of a good milker is, of course, the utmost cleanliness. Without this, the milk is unendurable. The udder should, therefore, be carefully cleaned before the milking commences. The milker may begin gradually and gently, but should steadily increase the rapidity of the operation till the udder is emptied, using a pail sufficiently large to hold all, without the necessity of changing. Cows are very sensitive, and the pail cannot be changed, nor can the milker stop or rise during the process of milking, without leading the cow more or less to withhold her milk. The utmost care should be taken to strip to the last drop, and to do it rapidly, and not in a slow and negligent manner, which is sure to have its effect on the yield of the cow. If any milk is left, it is reabsorbed into the system or else becomes caked, and diminishes the tendency to secrete a full quantity afterwards. Milking as dry as possible is especially neces-
sary with young cows with their first calf, as the mode of milking and the length of time to which they can be made to hold out, will have very much to do with their milking qualities as long as they live.

At the age of two or three years the milky glands have not become fully developed, and their largest development will depend very greatly upon the management after the first calf. Cows should have, therefore, the most milk-producing food; be treated with constant gentleness; never struck, or spoken to harshly, but coaxed and caressed; and in ninety-nine cases out of a hundred they will grow up gentle and quiet. But harshness is worse than useless. Nothing does so much to dry a cow up, especially a young cow.

The longer the young cow, with her first and second calf, can be made to hold out, the more surely will this habit be fixed upon her. Stop milking her four months before the next calf, and it will be difficult to make her hold out to within four our six weeks of the time of calving afterwards. Induce her, if possible, by moist and succulent food, and by careful milking, to hold out even up to the time of calving, if you desire to milk her so long, and this habit will be likely to be fixed upon her for life.But do not expect to obtain the full yield of a cow the first year after calving. Some of the very best cows are slow to develop their best qualities; and no cow reaches her prime till the age of five or six years.

The extreme importance of care and attention to these points cannot be over estimated. The wild cows grazing on the plains of South America are said to give only about three or four quarts a day at the highth of the flow; and many an owner of large herds in Texas, it is said, has too little milk for family use, and sometimes receives his supply of butter from the New York market. There is, therefore, a constant tendency to dry up in milch cows; and it must be guarded against with special care, till the habit of yielding a large quantity and yielding it long, becomes fixed in the young animal, when, with proper care, it may easily be kept up.

If gentle and mild treatment is observed and persevered in, the operation appears to be one of pleasure to the animal, as it undoubtedly is; but if an opposite course is pursued-if at every restless movement, caused perhaps by pressing a sore teat, the animal is harshly spoken to-she will be likely to learn to kick as a habit, and it will be difficult to overcome it ever afterwards. To induce quietness and readiness to give down the milk freely, it is better that the cow should be fed at milking time with cut feed, or roots, placed within her easy reach.

I have never practiced milking more than twice a day, because in spring and summer other farm work was too pressing to allow of it ; but there is no doubt that for some weeks
after calving, and in the highth of the flow, the cows ought, if possible, to be milked regularly three times a day-at early morning, noon and night. Every practical dairyman knows that cows thus milked give a larger quantity of milk than if milked only twice, though it may not be quite so rich; and in young cows, no doubt, it has a tendency to promote the development of the udder and milk veins. A frequent milking stimulates an increased secretion therefore, and ought never to be neglected in the milk dairy, either in the case of young cows or very large milkers, at the highth of the flow, which will ordinarily be for two or three months after calving.
The charge of this branch of the dairy should generally be intrusted to women. They are more gentle and winning than men. The same person should milk the same cow regularly, and not change from one to another, unless there are special reasons for it.
There being a wide difference in the quality as well as in the quantity of milk of different cows, no dairyman should neglect to test the milk of each new addition to his dairy stock. whether it be an animal of his own raising or one brought from abroad. A lactometer is a very convenient instrument here; but any one can set the milk of each cow separately at first, and give it a fair and full trial, when the difference will be found to be great. Economy will dictate that the cows least adapted to the purpose should be disposed of, and their place supplied by better ones.-C. L. Flint.

## Diseases of Horses.

Crib Biting-Cause-Sameness of food, and unhealthy stables, or indigestion.

Symptoms-Placing their upper incisors against some support, and, with some effort, emitting a small portion of gas.

Treatment-Place a lump of rock salt in the manger; if that is not successful, add a lump of chalk. Then damp the food and sprinkle magnesia upon it, and mingle a handful of ground oak bark with each feed of corn. Purify the ventilation of the stables before these remedies are applied.

Farcy-Cause-Excessive labor, poor fed, and bad lodging, operating upon old age.

Symptoms-It is at first, inflammation of the superficial absorbents. Lumps appear on various parts. If these lumps are opened, healthy matter is released; but the place soon becomes a foul ulcer, from which bunches of fungoid granulations sprout. From the lumps may be traced little cords leading to other swellings. The appetite fails, or else it is voracious. Matter may be squeezed through the skin. Thirst is torturing. At length glanders break forth and the animal dies.

There is a smaller kind of farcy, called button farcy-the smaller sort is the more virulent of the two.

There is no known cure for the disease.
Hide Bound-Cause-Neglect, or turning into a straw or stable yard for the winter.

Treatment-Liberal food, clean lodgings, soft bed, healthy exercise and good grooming. Administer daily two drinks composed of-liquor arsenicalis, half an ounce; tincture of muriate of iron, one ounce; water, one pint. Mix, and give as one dose.

Roaring-Cause-The bearing rein ; the folly of fashion.

Symptoms-A noise made at each inspiration.
Treatment-No remedy. The cabman's pad is the only alleviation; that conceals but does not cure the disease.

Ring Bone-Cause-Dragging heavy loads up steep hills.

Symptoms-A roughness of hair on the pastern and a bulging forth of the hoof; a want of power to flex the pastern; an inability to bring the sole to the ground, only upon an even surface; loss of power, and injury to utility.

Treatment-In the first stages apply poultices, with one dram of camphor and opium. Afterwards rub with iodine of lead, one ounce; simple ointment, eight ounces. Continue treatment for a fortnight, and after all active symptoms have subsided, allow liberal food and rest; work gently when labor is resumed.

## Importance of Salt to Animals.

Professor Johnston gives the following very conclusive reasons why salt is essential to the health of animals: The wild buffalo frequents the salt licks of North-Western America; the wild animals in the central parts of South Africa are a sure prey to the hunter who conceals himself behind a salt spring; and our domestic cattle run peacefully to the hand that offers them a taste of this delicious luxury. From time immemorial it has been known that without salt man would miserably perish; and among horrible punishments, entailing certain death, that of feeding culprits on saltless food is said to have prevailed in barbarous times. Maggots and corruption are spoken of by ancient writers as the distressing symptoms which saltless food engenders; but no ancient or unchemical modern could explain how such sufferings arose. Now we know why the animal craves salt-why it suffers discomfort, and why it ultimately falls into disease if salt is for a time withheld. Upward of half the saline matter of the blood ( 57 per cent.) consists of common salt, and as this is partially discharged every day through the skin and kidneys, the necessity of continued supplies of it to the healthy body becomes sufficiently obvious. The bile, also, contains soda as a special indispensable constituent, and so do all the cartilages of the body. Stint the supply of salt, therefore. and neither will the bile be able properly to assist the digestion, nor allow the cartilages to be built up again as fast as they naturally waste.

Salt for Swine.-A correspondent of the Annalen der Landwirthschaft states some interesting experiments to test the use of salt in fattening swine. He selected two pairs of barrow hogs weighing 200 lbs apiece. One pair received with their daily allowance of food two ounces of salt; the other pair, similarly fed, none. In the course of a week it was easily seen that the salted pair had a much stronger appetite than the others, and after a fortnight the salt was increased to two ounces apiece.After four months the weight of the salted hogs was 350 Bbs . apiece, while that of the unsalted, five weeks later, reached only 300 Hbs . This experiment was repeated with almost precisely the same results. The author feeds young pigs, according to their age, a quarter to one ounce daily, breeding sows very little during pregnancy, and during the heat of summer withholds it in a great degree from all, as it induces thirst, and liability to disease.

## Extraordinary Fat Cow.

John Johnston writes to the Secretary of the New York State Agricultural Society, that he slaughtered a cow fed by himself, the weight of which was as follows:


This is sixty-five and a half per cent. of the live weight of the beef, and eighty-three and a half per cent. of beef, hide and tallow. The cow was six years old, of the pure Hereford breed. Her feed in the foddering season was buckwheat, bran, corn-stalks or hay, the cornstalks, by far the greater part of the time, and nothing but pasture from the 6th or 8th of May, until the beginning of December, when she was fed soft corn for about a month; and afterwards buckwheat bran, as she would not eat enough of the corn meal to improve her.

How to Raise Pork.-The New England Farmer says: "We do not work our hogs, either in harness or on the manure heaps. When they have taken their meals and what exercise they please, they retire to a dry, roomy bed, lie down and grow, and make a business of it. An Irishman can overhaul the manure heap much cheaper than the hogs can. We slaughtered swine last fall made from pigs that weighed less than 36 pounds each, eleven months before, and the hogs weighed, when handsomely dressed, from 450 to 475 pounds each !"

Cough in Horses.- In answer to an inquiry for a remedy for coughs in horses, I would say that I have used hornets nests, picked, or cut fine, mixed with warm mashes, and given, and have found this to relieve horses that are troubled with coughs.

## THE BEE KEEPER.

Prepared for the Wisconsin Farmer.

## Look to the Apiary.

BY W. H. MORRISON.
The honey is now about closed for this month, and weak swarms should be examined and removed, as other swarms that are stronger will commence to pillage and rob, and they cannot be wintered with profit or success. If it were a common custom among bee-keepers to remove their weak swarms immediately upon the failure of flowers, thereby exposing any refuse honey, which will cause a pillaging disposition; there would not be as many complaints about bees being plundered. A queenless hive with a feeble swarm free from the ravages of the worm, and with honey enough secured for winter, may yet have a swarm containing a queen from some condemned hive put into it. If the bees that are introduced are not from some distance, the hive should occupy the stand or same place that contained the queen.

The quite prevalent disease called "foul brood," is in fact more destructive in many places than all else combined, in many instances whole swarms are lost without the owner suspecting the true cause, while a great many bee-keepers who are aware of its presence, are too anxious to increase their number of swarms to remove the diseased ones and the neglect is followed by sad results. It is quite necessary to examine every swarm, at this season, even if it be but one year old, as they are as liable to it then, as those that are five or ten. If the combs of a hive are very foul, a nauseous effluvia will be perceptible upon passing it. But it is dangerous to let it progress to this extent, as other swarms will often take the contagion.

In order to render the bees quiet during such an examination, tobacco smoke blown amongst them will have the desired effect, then turn the hive over and examine the brood thoroughly; if there is much found dead in the larva state, it should be rejected. Never sacrifice a colony for the honey, but economy
would dictate the removal of all diseased ones, although there be found honey enough for wintering with safety, remembering at the same time that the risk is much increased by the cells being filled with brood.* The honey taken from a hive containing foul brood, is eatable, persons will find no bad effects to follow.

The honey contained in the small boxes on top of the hive should now be removed, for it is quite certain to be removed down as soon as the flowers commence to fail. A healthy populous swarms can be wintered if they have combs occupying some fourteen or fifteen hundred cubic inches. More anon next month about feeding when needed.

Troy, Wis., Sept. 2, 1861.
For the Wisconsin Farmer.
Random Thoughts upon the Bee.--No. 1.
BY W, H. MORRISON.
The natiye instinct of the Bee offers to the use of mankind one of the first and greatest examples of nature.

1. By her uniform habits of industry in all her labors.
2. By her unrivalled habits of economy.
3. By her wisdom and sagacity in constructing her cells; which constitutes both her habitation and store-house.
4. By the peaceful regularity of her little communities.
5. By her temperate use of the choicest luxuries of nature.

She also offers to man a rich recompense for all the care and attention he may bestow in cultivating her species, and in promoting their improvement.
She too an artist is, and "The Bee observe,
A cunning Architect, that at at Man,
Begins her golden work, and builds without foundation.
How she toils! and still, from bud to bud, from flower to
flower, flower,
Travels the live long day. Ye idle drones,
That rather pilfer, than your bread obtain
By honest means like these, look here and learn
How good, how fair, how honorable 't is
To live by industry. The busy tribes of Bees,
So emulous, are daily fed by Heav'ns peculiar Manna
Tis for them, (unwaried Alchym'sts, the blooming world
Nectarious gold distils; and bounteous heaven,
Still to the diligent and active good, their very labor,
The certain cause of future wealth."

[^12]These truths are certainly impressive, and every intelligent farmer should consider his vocation as imperfect, without a stock of general knowledge of the cultivation of Bees to accompany it, and in a material point of view, as every farm, as being deficient of an essential item, until the labors of the Bee are summed up with its annual profit. I cannot give to the readers of the Farmer a long life of personal experience connected with this interesting and valuable subject; but by carefully perusing and studying the best authors, I have gathered up many thoughts, which I trust, will both be interesting and instructive.

Tror, Wis.
Smart Bees.-Mr. Sandison of Peru relates: "A few years ago a German got out a few hives of bees, an insect formerly unknown here. The first year he obtained a plentiful supply of honey, but year by year it decreased, until now the animals will hardly collect any, And why? Our climate is so equable that flowers can be had all the year round, and the sagacious animals having discovered this fact, have evidently lost the instinct of hoarding honey for a winter that never comes."

## THE HORTICULTURIST.

## Horticultural Hints.

October, with its cold rains and sharp frosts will effectually ripen the remaining fruits and foliage of the orchard and fruit garden, and to assist in this important operation we are most happily favored with short days, oblique rays, and mild, cool weather.

Transplanting of small trees and shrubs, as currants, gooseberries, raspberries, \&c., should be attended to early. Also any deciduous trees to be planted this fall should be moved early this month; first striping off the leaves and cutting back the young growth one half, and this had better be done some days previous. All fall plantings should be well banked up with earth to protect from wet and winds, cold and mice. Do not plant deep; cover all with straw mulch. Any time this month trees and plants for spring setting can be moved and buried for the winter. (See article on fall planting.)

Fall plowing of the orchard is an excellent plan, destroying thousands of insects in the chrysalis state by exposing to frost which also pulverises the soil; do not mar the trunk and large roots of the trees; better dig a little with the spade. Great benefit will come from a good stiff banking of soil around the trunk of trees in the fall. All dwarf pears should, in addition to the banking, be well mulched with coarse manure, chips, \&c., to protect the quince roots. This alone will almost ensure success in dwarf pear culture.

Attend to the drainage of the orchard, both surface and sub-soil if you would see the trees winter well. Examine the bodies for the cocoons and eggs of insects, grubs, \&c.; then wash all within reach with weak lye to destroy many which escaped observation. Pruning of large limbs can now be done if necessary; the wood will harden without decay, yet it is well to apply hot wax to the wound; do not cut very close to the trunk, and never remove a side branch unless it is positively necessary to give balance and proportions to the tree.

Cuttings and cions can now be made in quantity, striping off the leaves as fast as cut; bury them in dry soil for spring use, or in sand in the cellar bottom for winter use. Wrapped in oil silk or packed in sawdust or moss, they can be safely sent by mail or express almost any distance. Currant cuttings are very successful if set out early in the fall and well mulched for winter.

Gather the remaining fruits, sort over and pack for winter. Keep in cold, dry place, yet . free from frost; do not attempt to keep unsound or bruised fruit. If you have something new and nice, especially if it be some new seedling, or you wish to know the name or disseminate it, send specimens to the Editor-describe tree and fruit. The Editor will acknowledge the gift, and his wife and the publie will be grateful.

In the garden, clean up the weeds and garbage, which should be fed out or go to the compost heap; then cover with a good dressing of fine manure and plow in, or with a heavy coat of coarse manure to lie until spring. This will
be convenient to mulch the currants and other fruit shrubs, and the manure will be worth double what it would applied in the spring.

Thoroughly overhaul them and prune the grape vines, raspberries, blackberries, \&e., lay down and cover with a little earth, then cover with litter of straw or mulch as the winter closes in. The reward of this treatment to the garden will be a bountiful yield of fruits where barrenness prevailed before.

Beware how you put up large bodies of carrots, beets, parsnips, or onions, especially in cellars; better be in out-door trenches or small root cellars. They will bear considerable frost, but should have free ventilation. Double cover out-door piles and trenches with two layers of straw and two layers of earth, alternating three our four inches of each, but set small box ventilators upon the crown, which can be open most of the winter. Potatoes are better kept in large bodies, and if with earth and sand intermixed, all the better, but ventilate.
In the Flower Garden, the "the last rose of summer," and most of the brilliant autumnal beauties are withered by the cutting frosts or seasonably matured, and now is the time to look out for early blooms next spring.

If not already done, do not delay planting out the dried bulbs which you took up in May or June, or you may procure such as anemone, crocus, fritillaria or crown imperial, hyacinth, iris, jonquils, narcessas, tulips, most varieties of lillies, and many other species with their numerous varieties, from which you can select stock for a splendid spring show at trifling cost. The peonia, both tree and herbaceous, should now be transplanted for next season; also the showy diclytra spectabalis, beautiful, hardy and cheap. These and some other flowering tubers and shrubs are so early starting in the spring, that they are worth far more set in the fall.

For all these, prepare a deep, rich bed, set rather high, but cover four to six inches deep and mound up well with mellow soil, over which lay boards or mulch; stake and register every plant so that you may know where to look for your pets in the spring.

The tuberose, tigridias and amarylis, should be taken up, well dried in the sun, trimmed and packed away in dry sand, secure from frost or mice.
Dahlias should be lifted soon after the frost kills the foliage, cut off the top near the groud, and label the stump; clear off all the earth, day in the sun, and put on the cellar bottom on boards, free from frost and wet. Very many fine half hardy plants should now be covered with a little mulch for winter protection, such as carnations, pinks, pansies, daises, \&c., or all of these with the petunia can be potted and put in the pit, light cellar or green house for rest, to bring out in mid winter for early house blooming. Verbenas, and many other tender plants, if well rooted, may still be potted for indoor wintering. But in all the pits, parlors, green-houses and cellars, look out for the nightly visits of Jack Frost.
J. c. P .

## Fall Planting of Fruit Trees.

In answer to the almost daily question :"Which do you think the best time to plant fruit trees,"-we must say that the only really safe time is in early spring, and for one simple reason: that is, the great danger of losing the tree, if planted in the fall, by the many and sudden changes of temperature of our long winters.
This is especially true of the north-west, but in the middle and seaboard states, as well as in western Europe, the autumn is, by many, esteemed the best time to transplant all deciduous trees, and, in some places, even evergreens.
There are some conditions very advantageous to the planter where this autumn planting can be safely done, and were we to reason alone from the physiology of the tree, we would pronounce it the best time, for the following reasons: The tree, at the time of its fall of leaf, is in the most complete state of organization, containing the greatest amount of vital sap and organized matter, and if, in this condition, it is removed and placed in its final home, it begins immediately to restore the severed connection with the surrounding soil, by granulations over the wounded roots, and then throwing out
spongiales or little feeders in every direction. This it does under three favorable conditions. First, The soil contains that degree of warmth which is peculiarly favorable to this root development; Second, The atmosphere is cooler, more equable in temperature, and, consequently, the evaporation is not so great from the trunk and branches during the time of its reestablishment, as in spring; and, Third, The great amount of vital sap in the tree at this period, not having been exhausted by the winter's exposure.
But, notwithstanding the truth of this philosophy, the rigors of our winter, with its bright February sun and snowless March, and, in fact, the almost entire absence of large bodies of snow, are too exhausting to the slender supply of moisture the tree draws from the frozen soil, and without some protection, amounting to complete covering or shading, fall planting of fruit trees will commonly be a failure with us.

However, we need not lose all the benefit of fall planting, but can secure most of them by taking from the nursery, in the fall, all trees and plants we wish to set out, heeling in the large trees, and planting the small trees, shrubs, \&c., in the permanent grounds. These should be well covered with earth at the time of planting, and, as the winter closes in, put an additional coat of straw, leaves, coarse manure, chips, or some sort of a shade and shelter from the sun and wind, over the whole plants.
If this is thoroughly done, the plants will winter perfectly-even better than they generally do in the open grounds without removal, and, in the spring, will start from their winter's slumbers almost as vigorously as if they had never been moved.
This applies as well to large trees, if they are as thoroughly protected, root and branch; but here lies the secret of fall planting-winter protection from the extremes of temperature. But the inconvenience of sufficiently covering standard trees is such, that we recommend heeling them in, or burying them for the winter. This process is simple, but must be well done. We have tried many ways, sometimes simply lay-
ing them upon the surface-digging slightly for their roots-and then covering root and branch with a good mellow soil. But our favorite mode is: In some light, sandy or mellow soil, dig a trench of length proportionate to the number of trees, and of depth according to the size of the roots, so that they may be a little below the general surface, throw the earth all to one side and in the direction the tops are to lay, place in the roots with the tops reclining upon this bank, two to five deep according to size of trees; then with well pulverised soil cover the roots six inches or more, filling all the spaces between and packing closely, also throw a little soil among the tops to give them an easy berth; then cover all with a good layer of straw, leaves, sawdust or any such material which will remove easily in the spring, then over all a layer of earth sufficient to keep mice from getting in. This last is a very important matter, and should be looked to with the greatest care. The object of the intermediate layer of straw is, to facilitate the removal of the trees in the spring, as the first two coverings can be removed easily and quite early, and saves much of the usual trouble and delay from frost in the trenches. If there is a large amount of trees to be thus wintered, they can, before the straw is applied, be laid in in successive layers, covering and packing the roots each time as before mentioned.

This process is attended with the least trouble of any thorough out-door burying, but this or any other manner of covering trees must secure them from mice, or great damage may follow ; mice will seldom dig in the earth late in the fall, but will look out all the holes leading to the trees. If the thing is well done, it will surprise one who has never practiced it, to see the vigor the trees will show if set in early spring, and the extra summers growth will well repay the trouble of securing and properly burying for the winter, indeed you thus secure nearly all the advantages of successful autumn planting.
The above remarks apply to evergreens, except that they should be trenched or pitted with plenty of room for the tops, and no covering
except by boards, brush or evergreen boughs, or if the number be few, they can be set compactly and a box turned over them and well banked up. This would be an excellent plan for fruit trees, were it not for the mice, which seldom trouble evergreens.

Whatever the mode chosen for wintering trees, they should, in every case, be placed in a dry, cool place; no water should be allowed to stand or run in around the roots, and to prevent this in clay soils, a trench should be cut leading from the base of the mound to carry off the water; a sand bank is an excellent place to winter trees in.

We have been thus minute in this matter, because many have failed from partial covering, or have become discouraged by the trouble of exhuming them when deeply buried in some dead, cold, wet ditch; but there are some matters yet to speak of, as the care to be exercised in keeping proper divisions by willow bands around the several varieties loosely but securely: also to notch the labels and see that they are secure, let the notches correspond with numbers in a register kept of them as they go into the ground. This is a very important matter to the intelligent planter, and a little attention to these matters may save a great deal of perplexity in the hurrying time of spring planting.
In regard to the general preparation of the ground for orchard planting we have much to say in favor of the autumn season, but will defer it until another time, hoping to reach your readers before the winter closes in. J.c. p.
Vine Hill Nursery, Madison, Wis.
Seventy Bushels of Strawberries to the Acre at one Picking.-In the height of the strawberry season, we found the yield was what we considered very large, and as there was one small patch which could be easily measared, being evenly set with plants, and a square nearly by itself, we had the curiosity to try the yield.
The picking occurred on Monday forenoon, June 2d, and was cleanly picked on Friday evening previous, leaving a space of two days and three nights between the pickings. From a piece of ground of 3,060 superficial feet, or something over the fourteenth of an acre, we picked five full bushels, each of which would
measure out nine gallons at retail, or enough more to make up the overplus on the fourteenth part of an acre.

This was without any extra culture whatever. The bed was in its third season of bearing; was planted in rows four feet apart, the plants all taken out from between the rows each year, leaving from 12 to 18 inches width of plants. This patch yielded at the rate of over 200 bushels per acre for the season, and the same could be made to yield 250 if not 300 bushels per acre, by proper culture. It is perhaps almost needless to say that the variety was the Wilson's Albany.-Carew Sanders.-Val.Farmer.

## Rusticatory and Personal---"Woodside."

Staying and living are two very different conditions of existence. The former is common in the city, but the latter belongs especially to the country. Such have been our reflections a great many times when we have found it possible to leave the hard work of brain and hand in the offlee Secretarial or Editorial, and escape for a time, into some of the many beautiful country neighborhoods which abound in Wisconsin as no where else in the West. It is hoped, therefore, that our good farmer readers, who luxuriate in the genuine pleasures of a country life all the year round, will indulge us occasionally in such expressions of enthusiasm as cannot be suppressed without a violation of the constitution-our constitution, we mean.

We have visited many delightful places in Wisconsin, within the four years of our residence, but at none have we been more welcome, and in none have we experienced more solid enjoyment than at "Woodside," the quiet charming home of our excellent friend, A. G. Hanford, Esq., of Waukesha. Located upon a beautiful eminence which overlooks a wide range of that handsome rural scenery for which suburban Waukesha is distinguished, and commanding also a fine view of the village itself,-from the business centre of which it is distant less than one mile,-its eighty acres of woodland, cultivated fields, orchard, nursery, fruit and flower gardens, together present an attractive group of material circumstances, such as one seldom finds anywhere.

Here with an assiduity, taste, skill and pa-
tience possessed by them in a rare degree have Mr. and Mrs. H. toiled for many years to produce what is now dear to them and must be dear for all time under the pleasant and appropriate name of "Woodside,"-here, too, their children have sported, reared their pet colts, calves, lambs, Guinea pigs, rabbits and birds, gathered beautiful boquets of wild and cultivated flowers, climbed the cherry trees for their tempting crimson fruit, and made the orchard echo with their merry shout as they have gathered the golden apples and pears from under the bending boughs,-and here, again and again, have hosts of warm friends repaired to spend a leisure day or night and enjoy the sweets of a refined and cordial hospitality. Is it any wonder that all, both they and their friends, should remonstrate against that necessity which requires of them a removal to another State?

It has been the desire and determination of Mr. Hanford to prove, by actual demonstration, that fruit, and the best of fruit, could be grown in Wisconsin. To this end he has labored with the zeal of an enthusiast and the prudent care of a scientific philosopher; the results are more than equal to his hope. If "by their fruits ye shall know them," then are these persistent, successful and unselfish horticulturists, Mr. and Mrs. H. entitled to the most kindly recognition and the warmest gratitude of all fruit-lovers in the Northwest. An apple orchard that bears hundreds of bushels per annum, and pear, plum and cherry trees whose hardiness and excellent fruit-bearing qualities are established beyond question-these are the results they have wrought, the lessons they have taught.

As the Fates have willed their removal, and as "Woodside" is to be sold, we sincerely hope some good, earnest horticulturist who can appreciate a beautiful home, and who will have the taste and ability to carry out the plans of the present owner and occupant in the matter of improvements, which have been, for the best of reasons, postponed by him, may be so fortunate as to become its possessor.

We shall part with the Hanford family with
great reluctance, and hundreds of other friends will deeply regret their departure, about the 1st of October. It is some consolation, however, that we shall still have their kindly greetings and horticultural advice with the privilege of passing them over to their old-time readers through the "Farmer."

Friends Hanford, may you find another "Woodside" in Ohio, and may the choicest of Heaven's blessings be with you evermore.

## What we Saw and Ate in Col. Crocker's Fruit Garden.

"More about fruits!" Yes, what better can we talk of in such a magazine as this? The fruits were man's first food, and there are the best of physical reasons for the doctrine that the natural craving for them so amost universal was intended to be satisfied.

There are several splendid mansions and beautiful lawns on Spring street, Milwaukee; but out a mile or more from the bridge, on the North side and sloping eastward, there is a little lot of two or three acres with a very plain wooden tenant's cottage on it, that always turns our eyes away from the great imposing piles of brick and stone, with turrets, minarets, observatories, countless projections and "ginger bread fixings" which line that beautiful avenue. Why? Because years ago it was dedicated, by a gentleman of good sense and a just appreciation of the real comforts and luxuries of life, to the goddess Pamona, and to-day smiles upon the passer by with a most enviable wealth of apples, pears and plums all beautiful and glorious in their inimitable tints of crimson, purple and gold.

The skillful and faithful hand of our friend Col. Crocker has been there, and lo this piece of common earth is tempting as Eden.

We had but a few moments, but these were well occupied with a series of gustatory experiments on sundry varieties of plums and blackberries, \&c., of the most satisfactory kind. Col. C. is one of the most successful amateurs in the western country, and richly deserves these delicions fruits of his labors. "But does he tile drain?" You'd better believe it.

## Letter from A. G. Hanford.

Di. J. W. Hoyt,

My Dear Sir:-Having spent the past two months at my new home in Columbus, Ohio, where I am to continue the pleasant occupation of rearing trees and plants, I am again at our "Woodside" in Wisconsin. The old home seems very dear after this absence; each day I realize more fully how hard it will be to leave it. My orchard here is looking finely, apple and pear trees bending with their loads of ripening fruit ; many visitors give a note of exclamation at the sight, and declare they have not seen its like. You saw it in its early stage in the beginning of summer. Come, now, you and Mrs. Hoyt, and witness and taste the full fruition of the promise the season then gave.

In the meantime, here is a box of fruit which you may eat by way of proxy for your readers -and give them the dry descriptions enclosed.

I shall hope to meet our Western friends at the coming State Fair, but shall not even then feel that I am bidding them a final good bye; ties of friendship as well as business will keep me in frequent intercourse with the Northwest where I have spent a large and happy portion of my life.
I find the conjecture very prevalent that my reason for leaving Wisconsin is, that it is not adapted to fruit raising and the nursery business.

This is altogether and entirely imaginary. I have had, it is true, to learn some things about our climate by experience, and sometimes dear bought experience, because there was little past history when I came here in the way of fruit raising, or ornamental planting.

I have met with all the success I could expect in any new untried climate, and am perfectly satisfied with the capacity of Wisconsin as a fruit State: provided a judicious selection of sorts is made and proper modes of culture adopted. I can only wish that all carpers on this subject might have had an opportunity of walking through my orchard any fruit season since it came into general bearing. Of ornamental plants too, the list of hardy varieties is quite large enough and none need delay longer
to beautify their homes with these pleasant surroundings. Most nurserymen can now furnish a large list of desirable plants of well proven hardiness.
I admit that the softer climate of central Ohio is better for getting trees through the first years of their nurseryhood without the loss or check in growth almost inseperable from our severer winters. But even here I have little complaint to make as any will readily believe who have visited my nursery or purchased trees therefrom.
Rather than that fruit culture in the Northwest should receive the least check from the supposition that a Wisconsin grower has backed out in despair, I would say that my "reasons" are more of a family than a fruit nature, a change of climate for the former rather than the latter being considered a desirable experiment.
I can fully give our farmers and orchardists a word of encouragement, and assure them there is no need of fear of failure in their hopes in this respect, if they but take the right steps to produce the desired results.
My address after 1st of October, will be Columbus, Ohio, where I shall be happy to answer inquiries of correspondents, or give any advice in my power with regard to the Horticulture of Wisconsin, in whose welfare and progress I shall ever take a deep interest. A. G. Hanford.

Waukesha, Wis, Aug. 28, 1861.

## Descriptions of Seven Fine Early Apples.

## early strawberry.

Medium or small, roundish ovate, smooth and fair, mostly covered with deep red, flesh white, tender, almost melting, with a mild subacid flavor. Tree moderate erect grower; productive. August.

## sine qua non.

Medium size, roundish inclined to conical, greenish yellow, brownish cheek on sunny side, flesh fine grained, tender, delicate, of an agreeable sub-acid flavor. Tree of slow growth, but productive, fruit always fair. Middle to last August.

## SUMMER ROSE.

An apple of great beauty, medium or rather small, roundish, skin yellowish blotehed and striped with red on the sunny side, flesh tender, crisp, mild sub-acid, excellent. Tree a slow grower, but hardy and a good bearer succeeds in all localities, begins to ripen middle August.

## early joe.

A very beautiful and delicious apple of medium or small size, oblate, red stripes on yellow ground, deep red in the sun, flesh fine grained, tender, crisp, juicy, very rich, agreeable sub-acid spicy flavor, much like a pear. Tree upright, slow grower while young, hardy and a profuse baarer. Last Aug. and Sept.

## benoni.

Medium sizo, roundish conical, red in broken stripes and dots, flesh yellow, tender, juicy, rich, mild sub-acid. Strong upright grower, very productive, hardy and sueceeds in all localities. August and September.
bed astrachan.
A Russian apple of great beauty and excellence, admired by many as a dessert fruit, by others esteemed too acid; above medium to large size, roundish oblate, nearly covered with deep crimson and a thick bloom, flesh white, juicy, tender, crisp, rich acid, becomes mealy when full ripe. Tree vigorous, upright, hardy and productive, succeeding throughout the West in almost every variety of soil. A fine market variety. August.

## duchess of oldenburgh.

A large and beautiful apple also of Russian origin, roundish, a littlè flattened, light red in broad broken stripes and splashes on yellow ground, flesh yellowish-white, tender, juicy, a little coarse ; fine cooking apple and by reason of its great beauty and uniform productiveness an excellent market variety. Tree vigorous, an early bearer; succeeds in all localities throughout the Northwest. September.

## Descriptions of Seven Fine Early Pears.

## betrre giffo $D$.

A new pear of great excellence, medium to large, greenish yellow sprinkled with carmine
dots, red on sunny side, flesh white, tender, juicy, with a sprightly vinous flavor. Tree, a fair, rather straggling grower, bears young and abundantly; succeeds well as a standard or dwarf. Middle August.

## bloodgood.

Above medium size, turbinate, dull yellow, slightly russeted, flesh yellowish white, buttery, melting rich. Tree a fair grower, succeeds well on quince; thus far it has not been very productive with me. Last of August.
tysor.
Medium, pyriform, yellow with reddish brown cheek, flesh fine texture, buttery, melting, juicy, sweet, rich aromatic. Tree upright, vigorous, very productive, fine as a standard or dwarf. Last of August.

## ROSTIEZER.

Medium or small, nearly pyriform, dull yellowish green with a brown cheek and a little russeted; flesh juicy, melting, sweet with a high perfumed flavor. One of the best summer pears; does well on the quince. Last of August.

## SUMMER FRANKREAL.

Medium, obovate, yellowish green with faint brown blush ; flesh white, fine grained, buttery, melting, rich, excellent. Tree hardy, moderate grower; succeeds well either as dwarf or standard, and thrives in most soils and localilities. Season, last Aug. and early Sept.

BEURRE GOUBALT.
A new pear deserving of extended culture; medium size, roundish, very smooth, regular and uniform, greenish yellow with green dots; flesh white, very juicy, melting, sweet. Tree good grower on pear or quince, hardy ; comes in to bearing quite early and is exceedingly productive. Season, early September.

BARTLET.
One of the most popular pears, large to very large, variable in form, mostly obtuse pyriform, clear yellow when ripe, with a blush cheek; flesh white, fine grained, juicy, melting, sprightly vinous perfumed flavor. Tree erect, vigorous, bears young and is very productive on both pear and quince. First to middle September.
gathering and ripening summer pears.
Nearly or quite all summer pears are greatly improved by being gathered when full grown, but just before they "turn" upon the tree, and matured in the house. Some of which rot at the core and are of only indifferent quality when suffered to ripen upon the tree, become delicious if house ripened. To hasten ripening, place in drawers in a dry, warm room; to retard their ripening, place in a cool, dry room or cellar, and bring from cool to warm; place as wanted, they will ripen finely.

Remarks.-Our notes on Woodside, written before the above communications with the accompanying fruits were received, and published on another page have anticipated in part what would otherwise have been said in this connection. We appreciate the motives which have called our excellent friend, Mr. H., from his pleasant Wisconsin home, and are glad to publish his own correction of certain misapprehensions, unfavorable to our fruit-growing interests, as to the reasons which have determined his removal.
The fruits referred to, and so briefly and accurately described, came to hand in admirable condition. They were as fine as can be produced in any climate, and have given unbounded satisfaction to ourselves and friends. Each variety and specimen last tried seemed the best-if the superlative is appropriate where all are perfectly superb-until at last they reached a climax of perfection which had hitherto been supposed to belong only to the ideal fruit of the gods. Oh, they were magnificent!

We had intended publishing cuts of some of them in connection with the descriptions, but the engravings have not reached us in time.They will be furnished hereafter, however, with, perhaps, further remarks as to hardiness, locality and mode of cultivation.
Henceforth, if any one questions the practicability of successful fruit-growing in Wisconsin, send him to us-or, better still, to Mr. Hanford's orchard-for conversion.

## Another Visit to Dr. Weeks' Pear Orehard.

During the time of the Milwaukee Fair we found an hour or two to spare in the splendid pear orchard of which we gave an account in the August No.

The Dr. is justly proud of his beautiful trees and luscious fruits and drove us out to his farm with a most enviable satisfaction. The day was clear and delightful, and as we approached the orchard-bearing slopes from the lower and lakeward side there seemed nothing wanting but the two fruit-burdened spies pictured in the old family Bible to convince us that we were just entering into the good old land of Canaan.
Such trees! and such pears!-hundreds of bushels of them-well, it's no use to talk. Words are inadequate. Dwarf trees and standards literally weighed down to the earth with countless Bartletts, Flemish Beauties, Louise Bonne de Jerseys, White Doyennes, Saint Ghilsins, \&c., \&c., thick as bees in swarm, ponderous as town clock weights and luscious enough to make any pear-lover in the world squeal outright-to use the Dr .'s expressive word. Two trees of the St. Ghilsin variety were perfect miracles-tall, beautifully proportioned and each loaded down with perhaps ten bushels of delightful pears; about a half bushel of which, by some means, found their way into the almost insatiable maw of our very considerate carpet bag.
A few of the trees had suffered somewhat from a sort of blight which blackens the leaf and destroys the branch attacked, and several were likely to be damaged by slugs unless promptly treated to a dose of ashes, which the Dr. faithfully promised them should be administered in the afternoon.

Gathering and Putting up Fruit.-Great carelessmess is often, perhaps, very generally practiced in the matter of gathering and putting up winter fruits. In those parts of the country where fruit is so abundant that the price is hardly worth the care, it may do to
shake the fruit off the shake the fruit off the boughs, and while yet damp with dew or rain, tumble it into barrels
and hurry into the cellar to-rot. But certainand hurry into the cellar to-rot. But certainly here in Wisconsin we can afford to take some pains in picking off our winter apples and pears,
carefully handling, drying and packing awa carefully handling, drying and packing away.

## MECHANICAL \& COMMERCIAL.

## Reaper Improvements.

There is no machine more truly representative of American genius than the Reaper. Here was a vast expanse of the most fertile land on the earth and there were the markets of the world asking for more bread. But the necessary muscle was wanting, and so the genius of a McCormick produced the iron-muscled Reaper, capable of doing the work of a dozen sturdy men, and thus rendering possible the production and gathering of millions more of grain every year. All honor, therefore, to this successful pioneer in the great work of providing American agriculture, and the agriculture of the world, with facilities for gathering these now almost measureless breadth of our harvest.

But like all other inventions the first Reaper was susceptible of important improvements, which have accordingly been attempted from time to time, and almost constantly by hundreds of inventive minds ; so that the first complex clumsy machine which so triumphantly bore off the palm in sundry contests with the best reapers of all the world, but a few years since, was as far inferior to the light, simple, durable and splendidly operating machines of the present as the magnificent steamers which to-day proudly walk the Hudson, surpass the first rude steamer by which Fulron's genius astonished the world.
To reap and mow by horse power at first seemed the ultimatum of the farmers' wish. But he was not long in discovering that there was yet too much work left for him, and he therefore demanded a rake, which should gather up the grain into gavels ready to the hands of the binder. The mechanic furnished it, and soon there were scores of different plans for doing this very desirable thing. Many of them have proved good and been adopted to some extent; and yet none of the rakes hitherto patented have given such unqualified satisfaction as to have rendered hand-raking reapers absolete or even very generally unpopular. There can be no question, however, of
the final success of the attempts now making to invent a rake whose economical advantages shall insure the universal adoption of the "self-raking" Reaper.
Of the various styles of rakes which we have seen, a recent invention by our old Farmer associate, D. J. Powers, Esq., is the most promising. It combines compactness, lightness, durability, simplicity and cheapness, and has already won the reputation where it has been tried during the past harvest of doing its work as well as any of the more complex, heavy and more expensive rakes. It possesses this advantage, moreover-that it can be easily and cheaply attached to any of the hand-raking machines now in use. It is certainly folly to hire a man, at harvest rates, to do the work which can be better done by simple, inexpensive machinery, and we would not be surprised should this new improvement'prove itself worthy of very general adoption.

But the cutting and raking are not sufficient: the grain must also be bound by machinery. Young America has no notion of breaking his back at the work of binding after the old fashion, and cries, Give me a machine that shall also bind. Iowa acknowledges the force of the objection, and furnishes, in the person of W. H. Burson, Esq., of Muscatine, a man who gives us a machine which, by the help of one hand to manage it and another to "fork up" the grain, will firmly bind as fast as the reaper can cut and before it leaves the apron. We had the pleasure of seeing this binder operated a few days since in a field of oats near Madison, and although the grain was not such as to give it a fair test, the working was quite satisfactory. The band consists of No. 20 wire, and is so fastended by the twisting of the ends together as to render its giving way solely a question of the strength of the wire. The size of bundle is not material, as the machine will, with equal facility, bind a very large bundle or a mere handfull, no larger than the finger. The binder can be easily attached to any handfaking reaper, and as it costs but a few dollars, we shall expect to hear of its extensive introduc-
tion among the great grain growers of this country.

The next improvement of the reaper should be a machine which shall of itself both rake and bind. Who's the man to say, "Yes, here it is?"

## Ancient Commercial Cities of the Low Countries.

[We have been so much pleased with an article on this subject in the Merchants' Magazine, by E. H. Derby, of Boston, that we have concluded to give it, in broken doses, to the readers of the Farmer. We trust they will read it with much interest :]

The cities of Flanders and Holland had risen by commerce and manufactures to opulence and splendor when the greater part of Europe was immersed in barbarism. Elegant structures for city halls, palaces and bourses still exist which were erected before the United States were planted. Structures alike remarkable for their material and architecture, built at a period when the buildings in Great Britain, with the exception of the castles of the nobility and religious edifices, were composed of frame work filled in with clay, and often thatched with straw.
A large portion of these populous districts had been fenced in and reclaimed from the German Ocean, and their soil cultivated until it became a garden. Here were collected the whale oil and herrings of the North Sea, the wheat, furs, lumber and naval stores of the Baltic, the wine and salt of France, the wool and tin of Great Britain, the silks of Italy and the spices of the East.
Navigation was conducted by short summer voyages, and Flanders was a convenient resting place between the Baltic and Mediterranean.

Before the route around the Cape of Good Hope was opened, the spices and luxuries of India were imported into Flanders from the eastern shores of the Mediterranean. These were enhanced in value by two tedious voyages and one or more journeys by land, and the profits and risks of several adventures. Some idea of the risks, expenses and profits of these undertakings may be formed from the following table of the cost of invoices of Eeast Indian commodities landed in the commercial cities of Flanders just after the opening of the East Indian trade around the Cape of Good Hope:

IMPORTS.


Under a mild form of government the Flemish provinces embarked early in commerce, established an extensive fishery for herring on the coast of England, opened the whale fishery, built ships and established marts of commerce. Since the palmy days of this commerce, these States have been the seat of devastating wars. There has been a fierce struggle between the Inquisition and the Protestant faith; opulent cities have been beseiged and taken; dykes have been broken and the ocean admitted to drown the invader; harbors have been closed and new ports and marts have risen to distinction; but commerce and wealth have left lasting memorials which have survived intolerance and oppression, and do not fail to interest the
modern traveller. modern traveller.

## bruges.

Bruges had become an important city as early as the seventh century, and became still more conspicuous under Charlemagne.
From the ninth to the fifteenth century it was the capital and residence of the counts of Flanders, who allowed their sujects great privileges and very liberal institution, and the restless spirit of freedom distinguished the
Flemings. Flemings.
During the days of chivalry it attained to great opulence and splendor. So rich had it grown under the counts of Flanders, that one of its merchants became security for the ransom of the last count of the race in the sum of 400,000 crowns.
From these counts it passed to the Duke of Burgundy, and contributed largely to the wealth of its sovereign, the splendor of whose court surpassed that of all Europe at that period. When the queen of Phillip le Bel, of France, visited Bruges, she reported that she found there hundreds of ladies looking more like queens than herself.

Here was instituted the order of the Golden Fleece, which derived its name from the great staple of manufactures and commerce. In 1385 Bruges was at the zenith of its fame; it had attracted mercantile firms from Lubeck, Hamburg, Bremen, Cologne and Dantzic, from
England, Holland, Denmark, Sweden, France, England, Holland, Denmark, Sweden, France, Portugal and Spain, and became the emporium of English trade, and the centre of the commerce of Christendom; connected with Ostend by a ship canal, navigable by vessels of the largest class, and having Sluys for a harbor, located a sufficient distance from the sea to avoid the inroads of the Danes and Normans;
it became the entrepot of the herring fishery it became the entrepot of the herring fishery and the seat of the manufacture of carpeting and linen, and more renowned for its wealth
than any city which had preceded it in Norththan any city which had preceded it in Northern Europe.
Its prosperity ended with its transfer to Austria, to which it passed upon the marriage of Mary, the heiress of the Duke Charles, with the Duke Maximilian.

Having revolted from him in 1482, upon his
refusal to grant it the guardianship of his son, its port of Sluys was closed by its Austrian master; its commerce at once declined and was soon transferred to the rising city of Antwerp.

During its prosperous days the Italians sent silks and spices here in large vessels. But the vessels in general use were of less size and value, for in 1470 seven Spanish vessels bound to this port were taken and carried into England. Their tonnage varied from 40 to 120 tons, and they were valued at thirty shillings per ton, from which we may form some idea of the value of money at this period.
If we may judge from a treaty concluded in 1470, between the Arch Duke of Austria and Edward IV. of England, his subjects had begun to display that sharpness in trade which they still occasionally exhibit; for the 12th article of the treaty provides that the English companies shall not direct their agents at the great fairs to defer the purchase of goods of the Netherlands until the close of the market, when the Netherlanders, in their anxiety to
get home, sell out at a reduced price get home, sell out at a reduced price, of which there has been great complaint of previous years. Article 13th provides, also, that they shall discontinue the practice of buying by the king's beam and selling by private weights, which last we presume sometimes fell a little below the standard.
Bruges was almost destroyed by the cruel Duke of Alva, but its canals and island quays, its fifty-four bridges, many of its public edifices and stately warehouses still remain to attest its ancient grandeur, although its population has dwtndled to less than 50,000 .

## GHENT-German, GENT-English, GLove.

This very ancient city still contains 90,000 people, and is nearly eight miles in circuit, although many fields and gardens are within the area. It was the birth place of Charles V., and in former times so much larger than the capital of France that Charles used to say he could put Paris in his glove.
It was also the birth place of John of Gaunt, Shakspeare's time-honored Lancaster, the son of Edward III. of England.
Athough an inland city, distant twenty miles from the sea, it was situated on the Lys and near the Scheldt, navigable to the sea, and, like Venice, divided into many islands, most of which have magnificent quays.
It contained seventy bridges and an immense cathedral, lined with black marble, and sustained and embellished by pillars of white Italian marble. It contained, also, many magnificent warehouses and public and private edifices, some of which are still standing.
Its cathedral dates back to 1228 , and the Grand Beguinage, held by 600 recluses or nuns, who are not bound by any vow of seclusion, and devote themselves to the siok and needy, originated in 1234.
Flanders was at this early day traversed by many canals, and Ghent, by its ship canal to
the Scheldt, was accessible to ships drawing 18 feet of water. Ghent was celebrated for its manufactures of cloth, linen and muslins.

In the sixteenth century it is reported to have held 175,000 people, and Voltaire states in his history of Europe that in 1468 there were in Ghent 50,000 artisans.

Even in modern times, while annexed to France, Napoleon regarded it as the third manufacturing city in his empire, ranking next to Lyons and Rouen.

Ghent passed, with Bruges and the fertile and rich counties of Flanders, to Burgundy and to Austria, and suffered from the successive wars which desolated the Garden of Europe. Having enjoyed great freedom under the mild sway of the counts of Flanders, it was restless under its new arbitrary and less intelligent masters.

In 1889 it was taken after a revolt by Charles V. Again, in 1678, it was captured by Louis XIV., afterwards, in 1706, by the Duke of Marlborough, and finally, in 1796, by the revolutionary armies of France. It is remarkable that so much of its commerce and manufactures, and so many elegant structures as still exist, should have survived its misfortunes.

As illustrative of its former commerce we may add, that in 1468 no less than one hundred and fifty vessels arrived in a single day at its port of Sluys.

No city in Christendom, says Erasmus, was to be compared to Ghent for extent, constitution, or the culture of its artisans.

Its drawbridges were raised daily, and bells rung to suspend business while the armies of artisans went to and from their labors. It was surrounded by walls whose circuit was nine miles, and could bring into the field more than 60,000 soldiers. It was a republic in all but name.

## Crystal Palace for the World's Fair of 1862.

The designs for the great exhibition building in 1862 are now completed. The building will cover a little over twenty-six acres. There will be some 500,000 feet of flooring more in 1862 than in 1851. The greatest height of the proposed cuilding will be 266 feet, and the nave will be 1,200 feet long, by 85 wide, and 100 feet high. The dimensions are to be apart for the display of agricultural implements, which is, in rough numbers, 1,000 feet long by 220 broad. Messrs. Kolk and Lucas contract to furnish the edifice for $£ 200,000$, though in reality it will cost $£ 300,000$, but the payment of the extra $£ 100,000$, as they did in ' 51 . The building will be erected at Kensington, in front of the new grounds of the Horticultural Society, which they will inclose. One side of the edifice abuts on the Cromwell road, the main entrance on the Exhibition road, and the third side on Prince Albert road; the fourth or rear side faces immediately upon the grounds of the Horticultural Society. Externally the build-
ing will be as we have said, 1,200 feet by 700 , though the ground plan shows that in some parts the width is diminished to 500 feet. The average height will be 100 feet, nearly 60 of which will be a solid brick work. Taking one of the main sides of the building, on the Exhibition road, as an example, it will present a lofty recessed facade, from the center of which will rise a supurb dome of glass and iron to the immense height of 250 feet, with the base of the dome of no less than 160 feet diameter. These, for there are to be two, one at each end of the building, will be the largest domes ever built. That of St. Paul's is only 108 feet in diameter at the base, and even St. Peter's is only 139. These domes are to be reared over the intersection of the nave and transepts at right angles, and as the floors of the rest of the building, an unequaled view will be got from here through almost every part of the vast interior. One magnificent nave will be continued from this entrance in the Exhibition road to the extreme end of the building in the grounds of the Horticultural Society, and at the termination of this the second dome will rise. The nave is, therefore, to be 1,200 feet long by 85 wide, and 100 high. All the roofs will be of wood; coated with felt and meeting in the center at an angle, like the roof of Westminister Hall and most of our cathedrals.The effecf, however, from the interior, will not be that of an an angular roof, as the grinders will be arched and colored, and on these the eye will naturally rest. The whole design and all the plans connected with the building are the work of Captain Fowke, R. E. The time fixed for the exhibition is the same as that in 1851-viz., from the 1st of May to the 15th of October. The guarantee fund amounts to nearly $£ 300,000$.

Turkish Rallroads.-The Turkish Government has granted a concession for the construction of an extensive system of railways, guaranteeing 6 per cent. on the capital expended. Thos. Page, C. E., of England, is the party in whose favor the concession has been made, and he will immediately commence the construction of a line putting Constantinople in direct communication with the principal capitals and markets of Europe.

Light Draught Steamers for Troops.On the 23d ultimo, a trial trip took place, on the Thames, of a very peculiarly constructed steamer, intended for the conveyance of troops upon the Lower Indus. She is 377 feet long, and has accommodation for 800 men and their officers, while the draught of water was only two feet.

## New Motive Power.

The Providence Press speaks in high terms of a new steam(?) engine, the invention of Stephen Wilson, of Rhode Island, which it describes as follows:
" Without describing it accurately, we may say that the engine presents to view an iron box, four feet long, two and a half feet wide, and two and a quarter feet deep, having a furnace near one end. On its top, side by side, appear two cylinders which contain pistons, connected by rods and cranks with a shaft carrying a fly-wheel and supported at either extremity by an arch, firmly attached to the box. The cylinder, which is directly over the fire, supplies the heated air to the other cylinder, in which is the piston, whose upward movement turns the shaft. An eccentric works a valve, which admits the air to be heated, and suffers it to escape after it has parted with some of its caloric by its passage through a quantity of thin corrugated iren plates, termed a regenerator, by passing through which the newly admitted air becomes partially heated before entering the supply cylinder. The cylinder is eighteen inches in diameter, and the length of stroke eight inches. Ordinarily, the shaft makes about 130 revolutions per minute. A simple apparatus checks or stops the engine at pleasure, and it is started by giving the wheel a turn with the hand. Less than an hour is occupied in heating up, and the engine will actually continue in motion, with a light load, for half that time, after every vestige of fire is removed.

Any one who can manage an ordinary coal stove and oil a grind-stone, is competent to be the engineer. The amount of fuel consumed is about the same as is required for a stove, and when it is desired to warm the room, the engine does that, and then costs absolutely nothing for fuel. An explosion is an impossibility, not a drop of water being used, and the risk of fire is not increased in the slightest degree. Are we not justified in extolling such a machine?"

Table farm, Mauston P. O., Juneau Co., Wis., Aug. 31, '61.
J. W. Hoyt, Esq.,

Dear Sir:-From reading your remarks (in the Wis. Farmer) relative to threshing grain, the advantages of the small or "tread power" threshers, \&c., I am induced to enquire of you whether the tread power threshers are manufactured in this State; if so, at what place, the usual price, and what make you would recommend for the use of a farm, growing say 150 acres, small grain.

By giving me the information sought, at your earliest convenience, you will greatly oblige

Your ob't serv't,
H. Dawes.

## SCIENCE, ART, STATISTICS.

## The British Census of April, 1861.

The first British census was taken under Mr. Pitt's administration in 1801. It was the year of the union with Ireland; a year of famine, and a year of sanguinary war with France, having the northern confederacy for its allies. The population of Great Britain was estimated at $7,392,000$ in 1751 . Manufactures and the large towns increased, but emigration was commericing, and some country villages were deserted. Goldsmith sang:

> III fares the land to hastening ills a prey,
> Where wealth accumulates and men decay;
> Princes and lords may flourish or may fade,
> A breath can make them as a breath has made:
> But a bold peasantry, their country's pride,
> When once destroyed, can never be supplied.

And Dr. Price contended that there was an absolute decay of the population. This gave rise to a protracted controversy, which, in the critical state of the country, it was important to settle. The population of Great Britain was then enumerated in 1801, and amounted to $10,917,000$, and with that of Ireland united with ber, made above $16,000,000$. This was a triumphant reply to the doubts of those who despaired of their country. Notwithstanding the war the population increased, as the census showed, at the rate of two to three millions every ten years until 1841. Then immense emigrations took place; there was a depopulating famine in Ireland, which had an imperfect poor law, and cholera was epidemic; yet the population of Great Britain was augmented by $2,308,000$, and although the population of Ireland fell off, the people of the United Kingdom amounted to $27,724,000$ in 1851. There will be no investigation as to the "religious profession" of any one. That inquiry, when proposed last year, having been inet with general disapproval, was abandoned by the government.

The census concerns every individual in the British Isles. Early in April a schedule was left with the occupier of every house and apartment ; and shortly after sunrise, on Monday, 8th April, 30,441 enumerators in England and Wales began their calls at every house, and collected the schedules which they have previously left, filling up those of persons who have been unable to write. A similar army performed a precisely similar operation in Scotland, in Ireland and in Australia. It is sometimes asked, why is the seventh census to be taken? What is the use of the information to be collected? The injunction "know thyself" is as binding on nations as on individuals.

Population of the World.-M. Dietrici, director of the office of Statistics at Berlin, has published in the annals of the academy of that city the result of his researches relative to the present population of the globe. An
addition to his calculation of the total number of inhabitants, which he puts down at upwards of $1,288,000,000, \mathrm{M}$. Dietrici estimates the number of the different human races as follows : the Caucasian, $360,000,000$; the Mongol, $552,000,000$; Ethiopian, (negroes, ) 196,000,000 ; the American, (Indians,) $1,000,000$; the Malays, $200,000,000$. The leading religions he divides as follws: Christianity reckons $335,-$ 000,000 adherents; Judaism, $5,000,000$; the Asiatic religions, $600,000,000 ;$ Mahometanism, $160,000,000$; and Polytheism, $200,000,000$.Of the Christian population, $170,000,000$ belong to the Roman Catholic church ; $80,000,000$ to Protestants, and $76,000,000$ to the Greek chureh.

## Life Policies Not Subject to Forfeiture.

The following is an extract from the report of Hon. William Barnes, Superintendent of the Insurance Department, to the legislature of New York:
"The entire forfeiture of policies by the non-payment of premiums at a certain specified date has long been a serious obstacle to the increase of life insurance. The impolicy, if not the injustice of this provision, is practically acknowledged by nearly all the companies, and the forfeiture is seldom fully enforced. I cannot but regard it, therefore, as a matter of public congratulation that the New York Life Insurance Company has issued a table of rates of premium for life policies expressly stipulating that after the receipt of $t$ wo or more annual premiums, if further payments are discontinued, a new policy will be issued to the original holder, if living, for a specified proportion of the sum insured, or, if deceased, an equitable sum will be paid to his family or legal representatives."

## The American Tariff in England.

A felling akin to consternation pervaded a portion of the iron trade on 'Change at Wolverhampton on the 6th of March, at the intelligence that the new American tariff bill had, in all probability, become law. Should this bill become law, it will prove most disastrous to the iron trade of Great Britain, inasmuch as scarcely any iron of British make can, with such a duty as that proposed, find any sale in the American markets. On bars, the principal description sent out, the increased duty would be more than a guinea a ton; on hoops, chiefly used by the southern States for baling their cotton, $£ 26 \mathrm{~s}$. ; on boiler plates, $£ 114 \mathrm{~s}$.; and on all kinds of sheet iron, $£ 1$ 17. The increase on hardware will be in the same proportion. On best cast and sheer steel the proposed increase would be 92 per cent.; second quality, 120; extra, (axe temper,) 81 ; table blade, 136; common hoe and fork, 167 ; round ma-
chinery, 154; best German, 216; second quality, 241 ; best sheet, (cast,) 54 ; hoe and shovel, (east,) 142 ; best quality blister, 103; second ditto, 211 ; gin saw steel, (best,) $87 \frac{1}{2}$, and second quality, 123 per cent.

## The Drummond Light.

We announced, some time since, that Prof. Grant had been employed by the government to erect one of his powerful calcium lights at Fortress Monroe, in order to shed light upon any nocturnal schemes that might be undertaken in that quarter.
An improvement in the arrangement of the lime-points has lately been patented by Prosser \& Stanley, of London, for increasing the intensity of this light. It consists in arranging two lime points opposite one another, towards the jets of flame, and they are made to converge toward a common centre, by being gradually pressed forward with a spring or a weight, to keep the points in contact when the flame impinges upon them. These lime cones are retained in tubes, and a fresh surface is continually presented to the action of the ignited gases.

The calcium light consists of a fine stream of hydrogen and another of oxygen gas, carefully brought into contact, and burned upon a piece of purified lime-fine chalk.

The Sources of the Nile.-The Levant Herald says:- "Baron Hochbein, envoy from the Duke of Saxe-Coburg Gotha, who recently presented the Grand Vizier with the decoration from that prince, left during the past week for Alexandria, after himself receiving the third class of the Medjidieh. From Alexandria he proceeds, accompanied by six scientific fellowtravellers and an armed escort of thirty attendants, to explore the sources of the Nile. The Prussian government has placed a sloop of war in the Red Sea at the disposal of the party.The Baron has already made one journey to Soudan, and on this second expedition intends, it is said, to penetrate into a country which has been explored by no previous traveller."

French Rallways.-A bill has been presented to the legislative body authorizing the construction of 25 railways, of a total length of 823 miles, whieh are to cost $£ 14,, 692,000$. Amongst the number is the Paris Girdle Railway on the left bank, to cost $£ 880,000$. The expenditure upon French railways up to the end of last year has been, by the State, $£ 32$,440,000 , and by companies, $£ 152,000,000$, making a total of $£ 184,440,000$. On the 1st of January of the present year the State had contracted to pay the railway companies $£ 7$,870,000 , and the companies had undertaken works for railways already conceded to cost $£ 57,320,000$; and for lines to be hereafter conceded to cost $£ 12,000,000$.

## THE HOME.

Oh, Why Should the Spirit of Mortal be Proud?
by abrabam lincola, zsq., of illinots.
Oh, why should the spirit of mortal be proud?
Like a swift-fleeing meteor-a fast flying cloudA flash of the lightning-a break of the waveHe passes from life to his rest in the grave.

The leaves of the oak and the willow shall fade, Be scattered around and together be laid;
As the young, and the old, and the low, and the high, Shall crumble to dust, and together shall lie.
The infant a mother attended and lovedThe mother, that infant's affection who provedThe father, that mother and infant who blessedEach, are all away to their dwelling of rest.

The maid on whose brow, on whose cheek, in whose eye, Shone beanty and pleasure - her triumphs are by; And alike from the minds of the living erased, And the memories of mortals who loved her and praised.
The hand of the king that the sceptre hath borneThe brow of the priest that the mitre hath wornThe eye of the sage, and the heart of the braveAre hidden and lost in the depths of the grave.

The peasant whose lot was to sow and to reapThe herdsman, who climbed with his goats up the steep The beggar who wandered in search of his bread, Have faded away like the grass that we tread.

So the multitude goes like the flower or weed, That withers away to let others succeed; So the multitude comes, even those we behold, To repeat every tale that has often been told.
For we are the same our fathers have been;
We see the same sights our fathers have seen;
We drink the same stream, we see the same sun, And run the same race our fathers have run.

The thoughts we are thinking our fathers did think, From the death we are shrinking our fathers did shrink, To the life we are clinging, our fathers did cling, But it speeds from us all, like the bird on the wing.
They loved-but the story we cannot unfold:
They scorned-but the heart of the haughty is cold;
They grieved-but no wail from their slumber will come, They joyed-but the tongue of their gladness is dumb.

They died-ah! they died-we, things that are now, That walk on the turf that lies over their brow, And make in their dwellings a transient abode,
Meet the things that they met on their pilgrimage road.
Yea, hope and despondency pleasure and pain, Are mingled together in sunshine and rain;
And the smile, and the tear, and the song, and the dirge, Still follow each other, like surge upon surge.
'Tis the wink of an eye-'tis the draught of a breathFrom the blossom of health to the paleness of deathFrom the gilded saloon, to the bier and the shroudOh, why should the spirit of mortal be proud?
[Christian Mirror.
Economising Lasor.-Labor to be effectual, and accomplish the greatest ends, must be systematic. By a few minutes spent in arranging for the day's work, much valuable time can be saved, and the same objects accomplished with ease and promptness, which would otherwise drag heavily, and be poorly executed. Always have a memorandum book with you in your operations, and note everything that may be desirable to remember or refer to.

## The Prairie Grave.

BY FRAM W, BALLARD.
The Summer flowers, above her breast, Bud, bloom, and fade away; The Winter snawflakes lightly rest Upon that lifeless clay.

No heedless footstep may invade That holy, hillside plot;
A rustic paling, rudely made, Protects the lonely spot.

Nor father, mother, sister near, Her prairie bed to share;
Or moisten with the falling tear The wild flowers growing there.

She sleeps in silence and alone, No guardian angel seen-
For God's own hand hath seal'd the stone Above that grave so green.

So shall she sweetly, safely sleep Among the prairie flowers;
While we this grateful memory keep"One little bud is ours."

## Homes of America.

The homes of America will not become what they should be until a true idea of life shall have become more widely implanted. The worship of the dollar does more to degrade American homes, and the life of those homes, than anything, than all things else. Money is the God of almost universal worship. The chief end of life is to gather gold, and that gold is counted lost which hangs a picture upon the wall-which purchases flowers for the yard-which buys a toy or a book for the eager hand of childhood. Is this the whole of human life? Then it is a mean, meager and most undesirable thing! A child will go forth from such a home as a horse will go out from a stall-glad to find free air and a wide pasture. The influence of such a home upon him in after life will be just none at all, or nothing good. Thousands are rushing from homes like these every year. They crowd into cities. They crowd into villages; they swarm into all places where life is clothed with a higher significance; and the old shell of home is deserted by every bird as soon as it can fly. Ancestral homestead and patrimonial acres have no sacredness; and when the father and mother die, the stranger's money and the stranger's presence obliterate associations that should be among the most sacred of all things.

I would have you build up for yourselves and for your children a home that will not be lightly parted with-a home which shall be to all whose lives have been 'associated with it, the most interesting and precious upon earth. I would have that home the abode of dignity, propriety, beauty, grace, love, genial fellowship, and happy associations. Out from such a home I would have good influences flow into neighborhoods and communities. In such a home I would see noble ambition taking root, and receiving all generous culture. And then

I would see you, young husband and young wife, happy. Do not deprive yourselves of such influences as will come to you through an institution like this. No money can pay you for such a deprivation. No circumstances but those of utter poverty can justify you in denying those influences to your children.Timothy Titcomb.

A model husband.-Hear what Saxe says of a model husband:-

I saw a model husband-in a dream Where things are not exactly what they seem; A moral man, to skeptics be it known;
The wife he loved and cherished was-his own; And for the test-I saw the husband wait
With horse and chaise five minutes at the gate
While Jane put on her things; nor speak one sour Or bitter word, though waiting half an hour
For dinner; and, like Patience on a throne,
He didn't swear to find a button gone.
-Home Conversation.
Children hunger perpetually for new ideas, and the most pleasant way of reception is by the voice and ear, not the eye and the printed page. The one mode is natural, the other artificial. Who would not rather listen than read? We not unfrequently pass by in the papers a full report of a lecturer and then go and pay our money to hear the self-same words uttered. An audience will listen closely from the beginning to the end of an address which not one in twenty of those present would read with the same attention. This is emphatically true of children. They will learn with pleasure from the lips of parents what they deem it drudgery to study in books; and even if they have the misfortune to be deprived of the educational advantages which they desire, they cannot fail to grow up intelligent if they enjoy in childhood and youth the privilege of listening daily to the conversation of intelligent people. Let parents, then, talk much and talk well at home. A father who is habitually silent in his own house may be in many respects a wise man: but he is not wise in his silence. We sometimes see parents who are the life of every company which they enter, dull, silent, uninteresting at home among their children. If they have not mental activity and mental stores sufficient for both, let them first provide for their own household. Ireland exports beef and wheat, and lives on potatoes; and they fare as poorly who reserve their social charms for companies abroad, and keep their dullness for home consumption. It is better to instruct children and make them happy at home, than it is to charm strangers or amuse friends. A silent house is a dull place for young peoplea place from which they will escape if they can. They will talk or think of being "shut up" there; and the youth who does not love home is in danger. Light it up with cheerful instructive conversation. Father, mother, talk your best at home.

FThe late Judge Story thus describes the fall of liberty in Greece. There is a lesson for 1861 in the words:
"The Old World has already revealed to us one of its unsealed books, the beginning and the end of its own marvellous struggles in the cause of liberty. Greece, lovely Greece, 'the land of scholars and the nurse of arms,' where sister Republics in fair procession chanted the praises of liberty and the gods, where and what is she? For two thousand years the oppressor has bound her to the earth. Her arts are no more. The last sad relics of her temples are but the barracks of a ruthless soldiery ; the fragments of her columns and palaces are in the dust, yet beautiful in ruin. She fell not when the mighty were upon her. Her sons were united at Thermopylæ and Marathon, and the tide of her triumph rolled back upon the Hellespont. She was conquered by her own factions. She fell by the hands of her own people."

## HEALTH AND DISEASE.

## Virtue and Health from Eight to Sixteen.

Lord Shaftesbury recently stated in a public meeting in London, that from personal observation he had ascertained, that of the adult male criminals of that city, nearly all had fallen into a course of crime between the ages of eight and sixteen years; and that if a young man lived an honest life up to twenty years of age, there were forty-nine chances in his favor, and only one against him, as to an honorable life thereafter.

Thus is it in the physical world. Half of all who are born, die under twenty years of age, while four-fifths of all who reach that age, and die before another "score," owe their death to caused of disease which were originated in their "teens." On a careful inquiry, it will be ascertained that in nearly all cases, the causes of moral and premature physical death, are pretty much one and the same, and are laid between the ages of "eight and sixteen years." This is a fact of startling import to fathers and mothers, and shows a fearful responsibility. Certainly a parent should secure and retain and exercise absolute control over the child until sixteen; it cannot be a difficult matter to do this, except in very rare cases, and if that control is not wisely and efficiently exercised, it must be the parent's fault; it is owing to parental neglect or remissness. Hence the real source of ninety-eight per cent. of the crime of a country such as England or the United States, lies at the door of the parents. It is a fearful reffection; we throw it before the minds of the fathers and mothers of our land, and there leave it, to be thought of in wisdom, remarking only as to the early seeds of bodily disease, that they are
nearly in every case sown between sundown and bed-time, in absence from the family circle, in the supply of spending-money never earned by the spender, opening the doors of confectionaries and soda-fountains, of beer and tobacco and wine, of the circus, the negro minstrel, the restaurant and the dance; then follow the Sunday excursion, the Sunday drive, with easy transition to the company of those whose ways lead down to the gates of social, physical and moral ruin. From "eight to sixteen !" in these few years are the destinies of children fixed! in forty-nine cases out of fifty; fixed by the parent! Let every father and every mother, solemnly vow: "By God's help, I'll fix my darling's destiny for good by making home more attractive than the street." -Hall's Journal of Healih.

Hall's Journal of Health abounds in excellent practical suggestions, which may be of special advantage to those who live in the country, where a physician cannot, at any minute be called in. The following directions ought to be pasted up somewhere and kept in mind:

## A wound.

If a limb or other part of the body is severely cut, and the blood comes out by spirits or jerks, per saltem as the doctors say, be in a hurry, or the man will be dead in five minutes; there is no time to talk or send for a physician; say nothing, out with your handkerchief, throw it around the limb, tie two ends together, put a stick through them, twist it around tighter, and tighter, till the blood ceases to flow. But stop, it does no good. Why? Because only a severed artery throws blood out in jets, and the arteries get their blood from the heart; hence to stop the flow, the remedy must be applied between the heart and the wounded spot -in other words, above the wound. If a vein had been severed, the blood would have flowed in a regular stream, and slowly, and, on the other hand the tie would be applied below the wound, or on the other side of the wound from the heart, because the blood in the veins flow toward the heart, and there is no need of such a hurry.

## POISON.

If a person swallows a poison, deliberately or by chance, instead of out into multitudious and incoherent exclamations, dispatch some one for a doctor ; meanwhile run to the kitchen, get half a glass of water, in anything that is handy, put into it a teaspoonful of salt and as much ground mustard, stir it in an instant, catch a firm hold of the persons nose, the mouth will soon be open, then down with the mixture, and in an instant up will come the poison. This will answer in a large uumber of eases better than any other. If by this time, the physician has not arrived, make the patient swallow the white of an egg, followed
by a cup of strong coffee-because these nulify a larger number of poisons, than any other accessible articles-as antidotes for what remains in the stomach.

## DOMESTIC ECONOMY.

How to purify Raxcide Lard.-A correspondent of the Country Gentleman furnishes the following recipe: "We had some 40 tbs: rancid lard, which was valueless as it was.Knowing that the antiseptic quality of the chloride of sodium, I procured three ounces, which was poured into a pailful of soft water, and when hot the lard added. After boiling it thoroughly together for an hour or two, it was set aside to cool. The lard was taken off when nearly cold, and was subsequently boiled up. The color was restored to an alabaster white, and the lard was as sweet As a rose."

Sweet Apple Pudding.-An excellent pudding is made with sweet apples, sliced in a dish, and a batter of Indian meal, made by stirring it into boiling milk first, to scald and get the proper thickness, and then pour it warm upon the apples; first scatter sugar among the apples, and some into the batter; we cook ours without any other seasoning, except sugar; the milk should be sweet and good, and when it is baked, eaten with butter or sweet cream. Bake slowly two hours. So says a lady in the
Ohio Farmer. Ohio Farmer.

Demplings.-In boiling dumplings, or any kind of paste, the cover should never be removed, nor the water allowed to cease to boil until the paste is done, when it should be taken off before it becomes soaked and heavy.
Care of Kifives.-Do not let knives be dropped into hot dish-water. It is a good plan to have a large tin pot to wash them in, just high enough to wash the blades, without wetting the handles.

Crullers.- One cup of sweet milk, half a teaspoon of soda, one cup of butter, one of sugar, one egg, a teaspoon of extract of lemon, and flour enough to roll quite stiff. Before baking, dip the top in cold water, and sprinkle on white sugar.

To Remove Iron Rust -Take a little good cream of tartar, tie it up with the spotted part. When you put the article in to boil, be careful not to stir it till it boils, and it will all disappear if the tartar is good.

国 Away with your yellow saleratus biscuit! They are a slow poison to any human stomach and a disgrace to any civilized cook.

## YOUTH'S CORNER.

## [From the Field Notes.]

 In the Brown Furrow.From morn till night in the valley field, Young Charlie turns up furrows brown; Whistling behind his bonnie bays, Turning the sere, gray stubble down. What thoughts bengath that wide straw hat To make his bright eyes twinkle so? To curve his red lip in a smile, And make that bronze cheek's pretty glow?
He knows when the stubble field has borne A golden freight on its teeming breast, He may take to his home by the wand-like brook, A bird befitting his lowly nest.
For Mary has said, when the corn is ripe And the orchards drop their yellow store, And the ripe nuts fall, she will give her hand, And the heart she never gave before.
Once a week in her true little palm
He lays all his earnings, a precious store;
And bending their young heads down, they count Hers added to it, O'er and o'er.
Oh, the look of love in her nut brown eyes!
Oh, the winsome grace in her nut brown curls!
No wonder his tread in the furrow is light,
For he bears in his bosom the richest of pearls!
There's a winding path beside mossy logs, And hills and hollows and fern-crowned bank, And a low rill's gurgle, whose way is marked By plumy willows, with green growth rank;
And there mong the oaks, is the cottage low,
With wild vines making its gray walls green;
After sowing and reaping, will Charlie, the king,
Bear home to his nest his glad heart's queen.
Rosella.

## Talk with Children about the War !

Children, you little ones with whom we talked last month about the war, wondering what you thought of all the terrible things that are being done, we wonder now how many of you have found friends ready and patient to tell you all about it? Many of you have such friends, and as they have told you the story of the Flag, our beautiful Stars and Stripes that wicked men and women are trying to tear down, and of the good Government they are seeking to destroy, you have felt as though you could hardly bear to be little boys and girls now that so many grown up people are needed to put a stop to what these bad folks are doing. But then we know there are children whose father and mother have but little time to talk to them of sueh things, and some, we are sorry to know, whose older brothers and sisters are apt to say, in answer to their questions, "Go way; don't bother me."

Now if any of these come to the "Youth's Corner" of the "Farmer" we will tell them
what we can of these things, though it is not near so easy to do this on paper as it would be if your bright eyes were looking up to ours. In the first place we must tell you what is meant by a Government and how people come to have, and for what they have a Flag. When the world, as we see it now, was made ready for people to live upon it, the number of those people was at first, and for a long time, very small. There were no houses, no bridges, no railroads, no boats, and nothing at all of the many things with which we clothe and take care of ourselves and lay np for future use. You children all know what property is and can easily see that there was very little of what we now call property in the world. There was nothing much to own but flocks of cattle, and as everybody had enough of these, and there was pasture in abundance, the few families that then lived went where they pleased and fook whatever they found and nobody cared, partly because there were but few to care and partly because there was so much of what they knew how to use that they all had more than enough. If you children were here and we had a whole day to spend together, we could tell you how all this was changed for what we now see. But many thousands of years have passed since then, and as you all know that one year is a very long time, you can easily imagine how long the story would be to tell you all about it. Why your father and big brother and uncle would all be as angry as they could be, because it would fill the "Farmer" quite full, leaving no room for what they want to hear of; so you must be content with your corner and let this talk be short. Well, when there were a great many children born and they had grown up and there came to be old folks and young folks, strong and weak, rich and poor, wise and ignorant, good and bad, all together, by this time there had come also to be a good deal of what we call property, for all these people were all the time finding out something that it was worth while to have in the earth or in the sea or in the air. They were all the time, too, trying new things, experiments as we say, so that one person had
something, or knew something that somebody else didn't. Then began all those dreadful things we read of in history-one man driving another away from the place he wanted to live in and taking his property away from him, just because he was strong and could. One man would catch another and make him do his work for nothing, and if a good man told him he ought not to, very likely he would be beaten and pelted if the bad man was strong enough to do it. These things grew worse and worse as there came to be more and more people in the world and more things about which to fight.
Then the people gathered together in great numbers in different parts of the world, and said, "We can't get along this way. There is no use in trying to have anything, or do anything, if somebody who is bigger and stronger can come and take it all away and beat and kill us who are better, but not so strong as he. Let us see about this and try and get things fixed so that we and our property may be safe, and if any one do any wrong thing he may be punished and so be afraid to do so again."
In such, or pretty nearly such way as this, what we call Governments came to exist. That is, people began to have rules and laws to decide what they might and what they might not do, and to say what they might have and not have, and what might or might not be done to them and with them and their property. Sometimes they set up one man and called him a King, or an Emperor, or a Duke, or a Lord, according as more or less people agreed to do as he said; and sometimes the King or Emperor set himself up because he was strong enough and rich enough to go with his warriors and fight them and make them do as he wished. In this way a great many very bad men came to be at the head of different Governments, so that very wicked laws were made and very cruel things done to the people; but after all it was found to be better than to have no Government at all, for one bad man did not do so many wicked things and deal so unjustly with the whole people as a great many did when everybody did as everybody pleased and nobody hinder-
ed, because there was no law to punish crime. But, from time to time, as the people came to be wiser and better and to learn through the Bible and other good books, from good teachers, and most of all from the life and teachings of our blessed Savior, who came to teach love and peace among men, they began to make these Governments better; sometimes by making the King or head man see that it was best to be kind and just, and sometimes when they could not do this, by getting rid of him and putting a better man in his place. To bring this about, many wars have been fought and many very good people have lost all their property and at last their lives in trying to make things better for their children, and those who should live after them. Of such were the brave and noble men of whose deeds we are so proud, and whose names we so love to speak of-the hero men, who with our good and great Washingtos set up this Government under which we now live after conquering the right to do so by a long and bloody war against a very bad and powerful King who once ruled over us. In our next we will tell you all about this Government and Flag that they set up, so that you can easily enough see why it is right, and why God and all good people want us to fight and kill the wicked men and women who are trying to tear them down, that they may may be able to set up bad men and bad laws to rule over us.

脬 An unsophisticated country lady seeing, for the first time, the queer looking unfinished dome of the Capitol, said, "I suppose those are the gas works." "Yes, madam," replied a gentleman friend, "they manufacture gas there for the whole nation."
) None are so seldom found alone, and are so soon tired of their own company, as those coxcombs who are on the best terms with themselves.

ค3 He who is always inquiring " what will people say?" will never give them an opportunity of saying any great things about himself.

BG5 When a man wants money or assistance, the world, as a rule, is very obliging and indulgent, and lets him want it.

## WAR MISCELLANY.



回 I AM AGAINST ANY AND EVERY COMPROMISE THAT MAY BE PROPOSED TO BE MADE UNDER THE GUNS OF THE REBELS.
The arbitrament of the sword has been defiantly thrust into the face of the government and country, and there is no honorable escape from it.-Joseph Holt.

## Dirge for One Who Fell in Battle.

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BY LONGFELLOW.
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Room for a soldier! lay him in the clover;
He loved the fields, and they shall be his cover; Make his mound with hers who called him once her lover: Where the rain may rain upon it, Where the sun may shine upon it, Where the lamb hath lain upon it, And the bee will dine upon it.

Bear him to no dismal tomb under city churches; Take him to the fragrant fields, by the silver birches, Where the whipporwill shall mourn, where the oriole perches :

Make his mound with sunshine on it, Where the bee will dine upon it, Where the lamb hath lain upon it, And the rain will rain upon it.
Busy as the busy bee, his rest should be the clover; Gentle as the lamb was he, and the fern should be his cover;
Fern and rosemary shall grow my soldier's pillow over: Where the rain may rain upon it, Where the sun may shine upon it, Where the lamb hath lain upon it, And the bee will dine upon it.

Sunshine in his heart, the rain would come full often Out of those tender eyes which evermore did soften; He never could look cold, till we saw him in his coffin. Make his mound with sunshine on it, Where the wind may sigh upon it, Where the moon may stream upon it, Aud Memory shall dream upon it.
"Captain or Colonel," whatever invocation Suit our hymn the best, no matter for thy station,On thy grave the rain shall fall from the eyes of a mighty nation!

Long as the sun doth shine upon it, Shall grow the goodly pine upon it, Long as the stars do gleam upon it Shall Memory come to dream upon it.
[Atlantic Monthly for August.

## Visit to the Seat of War--Cairo and its Defences ---Egypt and the Great Illinois Prairies.

Sometime since we had the pleasure of a visit to this point of great military interest. Located on the extreme southern point of Illinois, and overlooking portions of Kentucky and Missouri, and of the two great rivers-the Ohio and the Mississippi-which have their confluence here, Cairo possesses even geographical interest of unusual character; while as a strategical point, commanding, by its new-made forts and heavy guns, the navigation of streams which connect the Gulf of Mexico with both the Middle and the Northwestern States, including Missouri and all its contiguous States and Territories, there is none so important in the whole West.
Situated on low, wet land, and within high levees, essential to its security in times of high water, and consisting of miserable wooden buildings, with scarcely a green and pleasant spot for the eye to rest on, the town of Cairo is one of the most unseemly looking places that we have ever seen. But of this we care to say nothing.

The earth Fort, which at present protects the position and controls the navigation of the waters, is located at the lower part of the town and mounts some twelve guns, several of them 32 -pounders and one 64 -pound columbiad; the latter so situated upon a turn-table in the centre as to be turned in any desired direction, and thus perfectly commanding every exposed point within a range of three miles.
In the rear of the fort is the camp, with all its barracks, parade grounds and other accompaniments. At the time of our visit, there were but about 3,000 soldiers there, the number having been diminished by the discharge of the Three Months Volunteers.

Bird's Point is just across the Mississippi on the Missouri side and within less than a mile of the Fort above named. It was formerly a small settlement of a few scores of inhabitants, but is now a strongly intrenched camp, consisting of 80 to 100 acres and both backed and flanked by dense woods, quite impenetrable by any organized body of troops, and capable
of being easily shelled from the Fort. With any reasonable force it is impregnable and may be considered safe from attack. There were 7,000 soldiers in camp when we were there.

Norfolk-a forsaken secession village 6 miles below, also on the Missouri side-is likewise occupied by our troops, commanded by Col. Turchin, an able officer, late of the Russian Army. The Col. has been in America long enough to appreciate our institutions, and is heroic in his determination to crush out the rebellion. Mrs. T., his accomplished wife, shares with him the privations and dangers of the camp, and is herself competent to take his place in command, should he fall in defense of his country. The soldiers were all well and fine spirits, some cooking their dinners in camp, and others naked in the river, washing their clothes in its muddy waters.

Col. Wagner, chief of artillery in Fremont's Division, gave us a sketch of his plans as to additional fortifications-among other items, including a new fort on the Kentucky side, (now finished and named Fort Holt,) and two above Cairo, one on the Ohio and the other on the Mississippi, and we feel entirely confident that he will execute his plans with that ability which shall insure success.

Brigadier Gen. Prentiss was in command of all the points above named, when we were there, and to him we are indebted for the privilege of unrestricted inspection. He appeared to us an able and efficient officer, and as he has been assigned the command of a column in Missouri, we shall expect, ere long, to hear favorable accounts of his achievements as a field General.

Our return from C. was more pleasant than the going, owing to a grateful fall of rain which had nicely laid the dust, moderated the temperature of the weather, and refreshed the vegetable world. Fgypt was arrayed in all its glory. Fields of rustling corn and orchards full of ripe, mellow fruits, such as we have scarcely seen since the days of yore, greeted us along the way-peaches by the basket-full, box-full and cart-load tempted us through the
car windows and almost reminded us of the good old time when they used to sell for a shilling a bushel.

The vast fertile prairies over which the sturdy locomotive bore our train as smoothly and almost as swiftly as the thread is carried by the shuttle, nevery looked so bright and beautiful. Stretching away as far as the eye could reach, its gentle swells waving with wild grass or clothed with cultivated crops, and here and there animated by herds of grazing cattle, and the faithful pioneer farmer guiding his plow, there is nothing in nature which so agreeably blends the sublime with the quiet and the beautiful.

Vast quantities of these lands are in the possession of the Ill. Central R. R. Co., and held for sale at reasonable rates and on long time. What a garden the great Prairie State will be when all these fertile lands shall have been subdued and brought into thorough cultivation by the industrious skill of the scientific husbandman!

This was the first time that we had traversed the entire length of this magnificent State, and we must say that we had never before had anything like an adequate idea of its vastness of area and the immensity of its natural wealth.

Altogether, and in every respect, our trip was a satisfactory one. We had journeyed 500 miles over one of the finest agricultural portions of the Great West, had visited a division of our noble army and its works of defence, given its officers and men our humble but earnest words of cheer, and after an absence of only four days, returned to the scene of our more peaceful labors, instructed and encouraged and in no wise fatigued.

## Peace--What is It?

We are sorry to say that there is too much truth in the following paragraph we copy from a long and able editorial in The Press:
"A peace party in the North is nothing more than the reserve forces of Mr. Jefferson Davis. Both are animated by the same purpose. Mr. Davis wishes the North humiliated; so does the peace party. Mr. Davis wishes the Union dissolved; so does the peace party. Mr. Davis wants Northern bacon and Northern arms; the
peace party have both to dispose of at reasonable terms. Mr. Davis wishes to ruin the Administration; the peace party is laboring to the same end. The only difference seems to be that Davis has armed his Virginia "peace party," and stationed it at Manassas, under the command of Beauregard and Johnston, two very distinguished members, while his "peace party" in the North is commanded by Breckinridge, Bayard, Vallandingham, and Wood. The whole six of them are very faithful officers, and Mr. Davis is as efficiently represented by his Northern servants as he is by his Southern."

## [From the Weekly Wisconsin.] Dead!

Dead, dead on the field of battle! 'Mid its awful crash and roar!
Dead! gone on the last, long march
To the land where nevermore
Shall the bugle sound reveille, Or the dreadful cannon roar.

Dead, dead on the field of battle! A gallant heart and tried;
Close, close to the foremost standard, Where the fiercest hearts did ride,
And where men fell like autumn leaves, And where he fell-and died.

Dead, dead on the field of battle ! With his name and his honor white;
There's no such glorious thing on earth As dying for the Right!
Thank God! he died in the foremost ranks, In the fiercest of the fight !

Dead, dead on the field of battle ! Could he be alive once more,
We would bid him go, and do, and die, 'Mid the battle's rush and roar!
He who for Country dies-dies not, But liveth evermore! Hattie Tyng.

## John Quincy Adams on a Southern War.

The extract below from a speech by JoHn Quincy Adams in Congress, April 14th and 15th, 1842, will be read with deep interest at this time from its bearing on the present war, and because it gives so clearly the views of one of the ablest and most learned statesmen this country has ever produced. We ask for it the careful reading of every man who would thoroughly understand the nature of the contest in which we are now engaged:
"I believe that, so long as the slave States are able to sustain their institutions without going abroad or calling upon other parts of the Union to aid them or act upon the subject, so long I will consent never to interfere. I have said this, and I repeat it; but if they come to the free States, and say to them, you must help us keep down our slaves, you must aid us in an insurrection and a civil war, then I say that with that call comes a full and plenary power to the House and Senate over the whole subject. It
is a war power. I say it is a war power, and when your country is actually in war, whether it be a war of invasion or a war of insurrection, Congress has power to carry on the war, and must carry it on according to the laws of war; and by the laws of war, an invaded country has all its laws and municipal institutions swept by the board, and martial law takes the place of them.

The power in Congress has, perhaps, never been called into exercise under the present Constitution of the United States. But when the laws of war are in force, what, I ask, is one of these laws? It is this: that when a country is invaded, and two hostile armies are set in martial array, the commanders of both armies have power to emancipate all the slaves in the invaded territory."

## Havoc of Life by War.

It is difficult to conceive what fearful havoc this evil has made of human life. Some of its incidental ravages seem to defy belief. It has at times entirely depopulated immense districts. In modern as well as ancient times, large tracts have been left so utterly desolate that one might pass from village to village, even from city to city, without finding a solitary inhabitant. The war of 1756 , waged in the heart of Europe, left in one instance no less than twenty contiguous villages without a single man or beast. The thirty years' war, in the 17 th century, reduced the population of Germany from $12,000,000$ to $4,000,000$, threefourths; and that of Wirtemberg from 500,000 to 49,000 -more than nine-tenths! Thirty thousand villages were destroyed; in many others the population entirely died out; and in districts once studded with towns and cities, there sprang up immense forests.

Look at the havoc of sieges-in that of Londonderry 12,000 soldiers, besides a vast number of inhabitants, in that of Paris, in the 16th century, 30,000 victims of mere hunger; in that of Ismail, 40,000 ; of Vienna, 70,000 ; of Ostend, 120,000 ; of Mexico, 150,000 ; of Acre, 300,000 ; of Carthage, 700,000 ; of Jerusalem, $1,000,000$ !

Mark the slaughter of single battles-at Lepanto, 25,000 ; at Austerlitz, 30,000 ; at Eylau, 60,000 ; at Waterloo and Quartre Bras, one engagement in fact, 70,000; at Borodino, 80,000 ; at Fonteno, 100,000; at Arbela, 300,000 ; at Chalons, 300,000 of Attila's army alone ; 400,000 Usipetes slain by Julius Cæsar in one battle, and 430,000 Germans in another.

Take only two cases more. The army of Xerxes, says Dr. Dick, must have amounted to $5,283,320$; and if the attendants were only one third as great as common at the present time in Eastern countries, the sum total must have reached nearly six millions. Yet in one year this vast multitude was reduced, though not entirely by death, to 300,000 fighting men,
and of these only 3,000 escaped destruction. Jenghiz Khan, the terrible ravager of Asia, in the 13th century, shot 90,000 on the plains of Nessa, and massacred 200,000 at the storming of Charasm. In the district of Herat, he butchered $1,600,000$, and in two cities with their dependencies, $1,700,000$. During the last twenty-seven years of his long reign, he is said to have massacred more than half a million every year; and in the first fourteen years, he is supposed by Chinese historians to have destroyed not less than eighteen milliona sum total of $32,000,000$ in forty-one years.

In any view, what a fell destroyer is war! Napoleon's wars sacrificed full six millions, and all the wars consequent on the French Revolution, some nine or ten millions. The Spaniards are said to have destroyed in fortytwo years more than twelve millons of American Indians. Grecian wars sacrificed $15,000,-$ 000 ; Jewish wars, $25,000,000$; the wars of the twelve Cæsars, $30,000,000$; and in all the wars of the Romans before Julius Cæsar, $60,000,000$; the wars of the Roman Empire, of the Saracens and the Turks, $60,000,000$ each; those of the Tartars, $80,000,000$; those of Africa, 100,000 ,$000!$ "If we take into consideration," says the learned Dr. Dick, "the number not only of those who have fallen in battle, but of those who have perished through the natural consequences of war, it will not perhaps be overrating the destruction of human life if we affirm that one tenth of the human race has been destroyed by the ravages of war; and according to this estimate, more than fourteen thousand millions of human beings have been slaughtered in the wars since the beginning of the world." Edmund Burke went still further, and reckoned the sum total of its ravages, from the first, at no less than thirty-five thousand millions.

The War Spirit North and South.-There is unquestionably a marked difference between the two sections of the country as to the spirit and energy with which they are struggling in this contest. The North, conscious of being in the right and of superior numbers and resources, is very much inclined to take the matter coolly and philosophically, trusting to Providence mainly for the issue. The South, on the contrary, is striving with the fierceness and disposition of a fiend, caring nothing for the right and totally unscrupulous of the means, so that they win in the struggle. If this difference is to continue-if the giant of the North will not rouse himself, put forth his mighty strength and squelch the monster Rebellion, under his resistless tread, then is the Union by no means safe, but the recognition and independenee of the "Confederate States," a thing as sure as fate. How long will the North continue to slumber on the very crater of the volcano which threatens the everlasting destruction of the Republic.

## NEWS SUMMARY.

## DOINGS OF AGRICULTURAL SOCIETIES.

The Milwaukee Fair.-The Second Annual Exhibition of the "Wis. Agricultural \& Mechanical Associationn" was held pursuant to notice on the Cold Spring Course, near Milwaukee, Sept. 2-6. The weather after the first day was faultless, and, in view of the postponement of the State Fair, it was expected that the exhibition and attendance would be large. For some reason, however,-probably for several-the sanguine expectations of the Association were not all realized.
In some departments, the exhibition was excellent, in others meagre, and in some which have always been interesting departments of our State Exhibitions it was totally deficient.
The show of swine was particularly good, not only in number and in the variety of breeds, but also in the quality of the animals exhibited. The fine, chubby Suffolk, the larger and coarser Leicester, the "contraband" Essex, the mammoth Chester, and numerous grades and crosses were all there and made a splendid display.
The exhibition of sheep was fair, of horned cattle moderately good, in the class of Devons. Among other exhibitors in this class, we noticed our friends $\qquad$ and Richmond, of Whitewater, both of whom brought worthy representatives of their respective herds. The Durhams occupied but a few stalls-those exhibited by friend Brooks, of Walworth, attracting the most attention. "Sampson" wore his laurels with a proper bovine modesty and never looked better. Mr. Robbins' Alderneys were also there and in good condition.
The show of horses was good and comprised a number of superior animals. The trials of speed were animated and gave good satisfaction to those most interested in this chief branch of the exhibition. In the races "Twilight," owned and raised by J. V. Robbins, bore off the palm.
The exhibition in the Machinery and Implement Department, was rather meagre, though
there were several machines, \&c., which interested us much. We have room to mention but two or three, to-wit: The Victory Mill, by D. G. Power-a cheap and portable iron mill doing excellent work; the Spading Machine, by Hon. C. Comstock, to which reference has already been made in the Farmer; a "Sulky Plow," invented and operated by a Mr. Frazier -a rather good thing, especially for lazy farmmers; and sundry drills, reapers and plows, principally by our energetic and ever-present friend, L. J. Bush, Esq.

Of fruits and flowers; textile fabrics, articles of domestic manufacture and works of art, there were none.

It is not our wish to disparage the Exhibition in the least ; indeed, all things considered, had it been held in the vicinity of some country village, we should have thought it very creditable, but as it was, it certainly did not reflect a vast amount of credit upon the large and prosperous city of Milwaukee, whose citizens neither helped it by-their contributions of articles, nor by even going out to see what had been put upon exhibition by their more enterprising country neighbors. To us, this let alone policy towards their own pet association is only explicable upon the ground of a narrow and unworthy selfishness which is its own worst enemy and the poorest possible basis for any institution whatever.

The attendance, throughout, was less than at a number of our county fairs, and on Thursday, the "great day of the Fair," as announced in their programme, did not exceed the number of 5,000 at any one time.

The chief officers are deserving of great praise for their activity and energy in carrying the Exhibition through, and might have had reason to be proud of their success had they been sustained by the people.

The Illinois State Fair.-Notwithstanding an unusual press of business engagements, we found time to make a visit to the Annual Exhibition of the great State of Illinois, which was held at-or rather near-the city of Chi-
cago, and on what is called the "Brighton Course," Sept. 10th to the 18th inclusive.

The Grounds comprise 80 acres of flat, rich, prairie land, and, with their fittings, would have afforded ample and comfortable accommodations for the Exhibition and people, had the weather been favorable. Unfortunately, however, it rained very hard during the first two or three days, and just often enough afterwards to keep them in a most miserable condi-tion-indeed quite impassable, but for the countless tons of marsh hay, with which all avenues and portions of the Grounds most frequented were liberally strewn.

The Exhibition in all departments but onethat of works of art-was good, and in some really magnificent.

Such splendid cattle, horses, sheep and hogs as were there gathered in great numbers, are worth going a thousand miles to see, and prove most conclusively, what we have long believed, that the great Sucker State is one of the noblest in its natural endowments and in the energy, and public spirit of its people, of all the great States, and that within not many years, she will be found spiritedly contending with her older sister New York for the laurels of empire.

The show of machinery and implements was also fine, embracing many varieties of such as are commonly exhibited at fairs, and a number of novel machines which we had not seen before. Among the latter was one which is intended to cut and shock corn. The cutting portion is constructed after the manner of a reaper seckle. The corn, when cut, is thrown by a horizontal reel upon a dished sheet iron platform, where it is bunched up into a pile large enough for a shock, by a man with a hooked rake, and afterwards pinched up at the top by the same person, in the use of a long screw and cord, tied with strong coarse twine and dumped on end where it is intended to stand. The whole machine operated nicely when standing still and may possibly do good work. Messrs. J. I. Case, Cicero Comstock, D. J. Powers, and other enterprising exhibi-
tors were present and have doubtless won premiums.

Fruit and Flower Hall was well filled. "The Old Doctor" was there, of course, working with unresting energy on various committees, stimulating his associates to promptness, greeting his hosts of friends with smiles of welcome, and looking after things generally. Egypt was not so largely represented as on some former occasions, our old Badger friend, Carpenter, of South Pass, having, for some unaccountable reason, been detained at home; still there were mammoth fruits there-apples, peaches, pears and grapes-in abundance, tempting to the eye and luscious to the taste.

Agricultural Product Hall was likewise well filled, though the fields were hardly so well represented as the orchards.
The Natural History Department was admirably represented, one entire large hall being filled with specimens of coal, marl, marble, various minerals, shells, insects, birds, plants, \&c., \&c. Profs. Worthen and McChesney were the chief exhibitors, and the latter took the premium of $\$ 75$ for best collection.
The attendance at times was good, but owing to the distance- 5 miles-from the city, the uncomfortable condition of the Grounds, and the cool indiference of the mass of the people of Chicago, was much less than it should have been, in view of the extraordinary efforts put forth by the able and efficient officers of the Society and the excellent character of the Exhibition. We have never known a Fair more thoroughly advertised, and the persistent energy and faithfulness of President Vax Epps, Secretary Reynolds, and the other worthy gentlemen who for months have labored for its pre-eminent success, certainly entitled them to the most satisfactory results.

Owing to the loss of time by rain and mud, the Fair was continued over until Wednesday of the second week, and we trust that the receipts have bepn adequate to meet all premium demands and current expenses.

The Bad Ax County Fair has been postponed until Oct. 7th, 8th and 9th.

Crawford County Fair.-Prairie du Chien, the County Seat of Crawford, is one of the oldest towns in the West, dating back even more than a hundred years; but the County of Crawford is nevertheless one of the newest and most sparsely settled Counties in Wiscon$\sin$, south of the Pineries. Its agriculture is backward, therefore, and large results should not be expected as yet. Indeed it was not until 1858, that a few energetic friends of improvement united their efforts for the organization of an Agricultural Society. We had the honor to be present, on occasion of the meeting which adopted the Constitution under which the Society now acts, and to address the numerous wide-awake farmers who were there assembled. It was in February, and a breakneck drive we had of it, getting in Senecasome twenty-two miles up the river-over the ice-clad bluffs.
Just last week we had the honor of addressing those same farmers and other citizens of Crawford, at their County Fair, which was held at Belle Centre, an embryo city, near the centre of the County, and 35 miles from Prairie du Chien.
Owing to an oversight on the part of the Society, we had not been notified that we were expected on the Second day, and did not therefore arrive until the last-after hundreds of the citizens of the County had despaired of our coming and gone. We regret this, as there were many things we would have been pleased to say to them. We did talk to those who remained, however, and altogether had a good time. Could not judge so well of the exhibition, as many things had been removed; still, enough was left to convince us that the farmers and the ladies of Crawford are waking up to the importance of improvement in the raising of stock, the cultivation of their crops, the growing of fruits, and in the artistic production of the comforts and luxuries of the home.
We were especially pleased with several varieties and remarkably fine specimens of fruits exhibited by Mr. Hughrs-most ponderous, magnificent apples and beautiful clusters of luscious grapes. Of the latter, we now attempt
but two varieties-the Milton and Clintonhaving found the Catawba and Isabella too tender for profitable cultivation. He gives the preference to the Milton, a Vermont grape, "hardy as an oak," sweet, and very prolific, a single plant having produced 20 bushels the present season.
All that portion of Crawford over which we passed, is a succession of bluffs-sometimes abrupt and rocky, but usually undulating, handsomely rounded and covered with grass and flowers. The highway for the most part following the ridge is beautifully serpentine with only gentle ups and downs. At Seneca it winds down the side of the bluff into a beautiful valley, which finally conducts to the deep and tortuous raft-bearing Kickapoo, and the traveler then finds himself in the midst of heavy timber-elm, hickory, basswood, ash, walnut, \&c. A fine span of ponies, an easy buggy, a safe driver, and best of all, a most glorious day-now shedding its floods of golden light upon the richly tinted foliage which lined and sometimes over-arched the way, and anon spreading over the enchanting scenery its oft, flitting shadows-all these and a thousand things else made our journey of 70 miles, and the Fair, with its pleasant incidentals, all passed and enjoyed between morning and evening, seem like a fairy dream. It was a day brim full of pure enjoyment.

We are glad to learn that the Ex. Committee have been authorized to select and fit up a permanent location for future Fairs, and shall expect, when we go again, to find the Society at home, on its own Grounds, and making a magnificent show, far in advance of this of 1861.
n玉s The Pierce County Agricultural Society has appointed its 3d Annual Fair and Cattle Show for the 4th and 5th of October: Address by Secretary Harvey.

Nas The Baraboo Republic styles the Sauk County Fair a "successful failure," except in two or three departments. The attendance was good, the show small.

涩 Judging from our exchanges, the Fairs of the State and country generally have none of them been eminently successful. They have doubtless done much good, however, and the efforts made, though only partially rewarded, will have a tendency to keep alive the interest of members in their several Societies.

## STATE MATTERS.

The Crops of all kinds are coming in full as well as we had anticipated. The frost is likely to hold off well, and in view of certainty of fair prices for almost every sort of produce within not many months, the farmers of the Northwest have abundant reason to be encouraged.

Green Lake Co., Wis., Sept. 10th, 1861.
J. W. Hoyt-Dear Sir:-I will endeavor to answer your enquiries briefly in regard to crops in this County.
The spring was very wet, early summer dry and cold; then followed an abundance of rain. The spring's work was done late-grain came up in good time, but remained stationary for some weeks, then it grew rapidly until it attained its usual hight; but it was thin on the ground attained its usual hight; but
and the heads not well filled.
My observation has not been extensive. The lowest yield of wheat I have heard of is 9 bushels-the highest 17 to the acre-but it will probably be exceeded in both directions. For a guess, I should place the average at from 12 to 14 bushels to the acre, of not the very first quality of wheat. Recent rains and poor stacking are another prolific source of poor grain and small yield.
Oats and Rye have done better. Corn is abundant, an average crop, though but little was planted. Grass was excellent. Fruit ditto.

Respectfully,
UP North.
The fruit crop has been a great success in nearly if not all portions of the West, and must largely contribute to the encouragement of those who have not yet entirely recovered from the misfortunes of the destructive winters of of 1856 and ' 57.

Monetary.-Wisconsin currency is now quite settled, great improvement having been made in money matters generally since our last issue. Exchange and Gold are now readily obtained for 2 \% cent. premium.
of the $\$ 1,200,000$ authorized to be raised by the Legislature, $\$ 850,000$ have already been negotiated. The disbursements have not reached that amount. The State Treasurer has just lately received $\$ 205,000$ from the General Government, being 40 of cent. of the amount of the claim of the State at the time the account was rendered.

State Equalization.-The State Board of Equalization has averaged the valuation of the lands of the several Counties as follows:


Political.-The Union and the Republican Conventions will be held this week, (Sept. 24th and 25th.) We cannot wait for the results, and predictions would hardly be safe.

Gov. Randalis has published a letter declining to be a candidate under any circumstances.

## NATIONAL AFFAIRS.

The Rebellion is not yet dead! The Government is undoubtedly doing all in its power to get a force into the field that shall make a clean sweep of the whole brood of traitors when the weather of late autumn shall permit a safe forward movement. But somehow the work of preparation hardly keeps pace with the increasing demand, and meantime the flag of the traitors flaps defiance and contempt in the very face of the President. All this may be, and probably is necessary, but it is certainly humiliating, and we hope in Heaven's name such a state of things will not long continue. Gen. McClellan appears to hold the confidence of military men at Washington, and there is no doubt he has done much toward subjecting our army to that rigid discipline so essential to their efficiency in service.
The capture of Fort Hatteras, about 150 miles below Norfolk, on the coast of North Carolina, by virtue of which Government is able to command Pamlico Sound and the Albemarle River, and thus hold in check the seces-
sion spirit in North Carolina, had the effect to animate both Administration and people for a time; and the success of Roskerans at Carnefax Ferry on Gauley River, in Western Virginia, where, with a loss of 20 killed and 100 wounded, he put to flight the rebel army under Floyd, has still further added to the spirit and confidence of the Federal troops.

In the Department of the West, matters of great moment have transpired during the past month. Gen. Fremont, taking license from the daily confiscation by the Government, of property not included under the "Confiscation Act" of Congress, and acting in accordance with the recognized principles of war, viz, that every power has the right to attack its sworn enemy in the weakest point, on the 30th of August issued a proclamation establishing martial law in Northern Missouri, confiscating the property of all persons opposed to the Government, freeing the slaves of such, and ordering that all rebels found with arms in their hands within his military lines, should be tried by court-martial and shot if found guilty. The Proclamation was received with demonstrations of great satisfaction in all parts of the North, and even among sound Union men in the Border Slave States. It was regarded as striking boldly and at once at the vitals of the hydra monster which is seeking to destroy the Government, and if allowed to go into unoubstructed execution, would have made short work of treason. The President regarded it as unauthorized, however, and hence, on the 11th of September issued an order restricting its execution to the terms of the "Confiscation Act" passed by Congress, which only confiscates that property and those slaves which have been actually employed in the direct work of the rebellion.

Kentucky is finally coming round to her old loyalty. The Legislature recently passed a resolution requesting the Governor to order off the Confederate troops from the soil of Kentucky. The Governor vetoed it; but when the resolution was passed over his head, he issued the order.

Matters in Missouri seem to be but litthe improved. Gen. Fremont is gathering forces as rapidly as possible, no doubt, but as yet they have been able to accomplish but little. Marauding parties are frequently making attacks here and there, destroying railroad bridges, plundering villages, robbing banks, \&c. Lexington, for some time in the possession of Col. Mulligan, of the Illinois Volunteers, with a force of some 4000 men , is known to be under a state of siege by fifteen or twenty thousand rebels, under Gen. Price, and there are flying reports that he (Mulilian) has been obliged to surrender for want of water.

Maryland has tried hard to secede, but as often as members of the Legislature are elected and attempt to convene for secession, they are picked up by the Government and sent to Fort Lafayette.

The Treasury Department is being skillfully managed by Secretary Chase. Capitalists are prompt to furnish money, and the people of the country generally will not be less prompt in taking the small Treasury notes, bearing 7 3-10 cent. interest. On September 2 d , Mr. Chase presented to prominent capitalists in New York a tabular statement of the national indebtedness, of which the following is a synopsis:

LOANS.

| Amount. |  | t. Redeemable. |
| :---: | :---: | :---: |
| mount 11 | \$173,601 85 | Dec. 31, 1862. |
| 15,250 00 | 564,915 01 |  |
|  |  |  |
| 20,000,000 | ,000,00 |  |
| 7,022,000 | 351,100 |  |
| 18,415,000 00 | 1,104,900 |  |
| 3,461,000 112000 | 173,050 00 | . Jan. $1,1885$. |
|  | 83,901,467 35 |  |
| ,217,048 50 |  |  |
|  | treasury notes. |  |
| tstanding. | Annual Int. |  |
| ,455,300 | \$97,506 74 | All past d |
| 9,933,950 | ${ }_{1}^{1,116,5859} \mathbf{1}$ |  |
| , |  | mber |
| 2,090,300 | 20,093 00 | Sept. and Oct. '61. |
| 15,00 | 3,285,000 00 |  |
| 630,850 | 136,283 60 | July and Aug. '64. |

From this it appears that the debt and annual interest are as follows:-
$\begin{array}{rl}\text { Loans, ............. } 870,217,048 \\ \text { Treasury notes, } 55,950,500 & 50 \\ 50\end{array}$ Annual Int.,... $\$ 3,901,46735$ Treasury notes, $55,950,50000$

5,840,746 49
Total,...... $\$ 126,167,54850$
$\$ 9,742,21384$

## EDITORIAL MISCELLANY.

Thanks, Thanks :-Our friends have remembered us this autumn as never before. Wish we knew whether it is because they like us better, or because fruit of all kinds has been more abundant and better than nsual.

Oh Pomona! and all the other goddesses and gods who have a care for fruits, ye may envy, but please don't punish us by denials in the future, for this glorious September past we have had and so thoroughly enjoyed! Let us see:

Plums from our skillful and generous friend, H. W. Hayes, of Palmyra-a whole half bushel of them-beautiful to the eye and delicious to the taste-Damsons, Gages, Washingtons, Egg Plums and Golden Drops. Mr. H. is one of the most successful amateur plum-growers in the State. On the occasion of a recent visit we were astonished and delighted by the incredible weight of the thick clusters which almost bore down his fifty or more trees to the earth.
Apples, Peurs, "Shrub" and Cider from friend Hanford $\rightarrow$ already noticed in Hort. Department.

Pears from Dr. Weeks-also acknowledged in Hort. Department.

Plums of several varieties and of most delicious quality from Dr. P. R. Hoy, of Racine-a whole basket full, and with notes for publication in next number.

Apples and Pears-Indian Rareripes, Bartletts and Bloodgoods-from R. P. Main, Esq., of Oregon, with promise of notes for next number.

Apples of monstrous size-large as a moderate pump-kin-and as good as large, from friend Hughes, of Crawford County.

A basket of fine Grapes from our esteemed fellow citizen, B. F. Hopkins, Esq.,-Clintons and Isabellas.

A magnificent cluster of Grapes-Wilmot's Black Ham-burgh-from J. C. Ure, Esq., of Chicago, by the hand of friend Plumb, of Vine Hill Nursery.

And finally, several lots and specimens of various kinds of fruit from our very appreciative and extremely modest friends Anonymous.
To all we return our most hearty thanks. The pleasure we have derived has not been more in the eating than in the encouragement they have given and the demonstration they have made of the practicability of growing in our State almost any quantity of the best fruits in the world.

## Productions of the Agriculture of Wis-

consin for 1859-60.-For the following Statement of the aggregate productions of Wisconsin Agriculture for the year ending June 1st, 1860, as furnished by the recent census, we are indebted to the Hon. J. C. G. Kennedy, Supt. of the Census, who kindly furnished them for the forthcoming Sixth Volume of Transactions of the Wis. State Agricultural Society. These Statistics are of great interest to every intelligent citizen of our State,
for although they are often inaccurate in some particulare, yet they always approximate correctness and give a fair idea of the relative attention paid to the various branches of agricultural industry.

The productions by Counties, not yet received, will first appear in the course of a few weeks in the said Volume of Transactions.
It is to be regretted that the crop of 1860 could not be reported instead of the crop of the previous year; but this we shall have through our Collectors' reports, if the amendments to the law which were adopted by the last Legislature have been properly enforced.

We have no time for comments now, but may make some portions of the interesting table which follows, subjects for comment in our next :
Acres of Improved Land,...
3,733,6021/4
4,146,592
Cash Value of Farms,
4,146,592
Value Farming Implements and Machinery, \$5,669,993
Number of Horses,
116,193
Asses and Mules,..
Milch Cows
1988
Milch Cows,.....
Working Oxen
Other Cattle,
Sheep,
124,130
93,530
226,686
Swine ,............................................................
332,148
Value of Live Stock,.................................................. $\$ 17$ 333,237
Value of Animals Slaughtered, ..................... $\$ 17,775,984$
Wheat, bushels of,...... ........... $\$ 3,359,366$
Rye, bushels of of, $15,813,836$
Barley, bushels of,
$887,6841 / 2$
Indian Corn, bushels of
712,031
Buckwheat, bushels of,.
Oats, bushels of,...
Wool, pounds of of,
38,041

Wool, pounds of,
$10,937,983$ 2

Peas and Beans, bushels of,
51,319
930,0011
930,0011/4
101,1723/4
3,750,804
$2,7501 / 4$
Sweet Potatoes, bushels of,
Value of Orchard Products
Wine, gallons of,...
878,657 $\$ 204,069$
Value of Produce $\$ 204,069$
$3,612,410$
Butter, pounds of, 1,103,693
Hay, tons of,
848,4683/4
Clover Seed, bushels of,
Grass Seed, bushels of,
${ }_{25,752}^{5,277}$
Hops, pounds of,
25,752
139,673
Hemp, (dew rotted,) tons of,... 412
Hemp, (water rotted,) tons of,. 17
Hemp, otherwise prepared, tons of,
Flax, pounds of,
Flax Seed, bushels of,
2361/4
lilk Cocoons, pheis of,
Maple Sugar, pounds of,
Maple Molasses, gallons of,
Cane Sugar, pounds of,
$\qquad$
Cane Sugar, pounds of,
Borghum Molasses, gallons of,..
Beeswax, pounds of
Honey, pounds of,...
Value of Home-made Manufactures, $\qquad$
Important Stook Sale.-Jонх P. Ros has advertised to sell by auction, without reserve, at his farm in Muskego, Waukesha county, on Wednesday, the 9th October, 1861, a choice selection of young animals, chiefly calves and yearlings, from his herd of imported Durham Cattle and their descendants: including three fine heifers which took premiums at the late Agricultural Fair at Milwaukee. The Muskego herd is too well known by the frequenters of our State Fairs to need any special commendation from us, and we doubt not our intelligent farmers and stock-raisers will avail themselves of the opportunity now given.

## Foundry and Machine Works in Madi-

 son.-Being in the vicinity of this establishment, we lately took occasion to drop in at the Mendota Foundry and see what our old friend and former associate, E. W. Skinner, was doing in the manufacturing line. We were prepared for something of a stir-as he has never been identified with that class of business men who let the grass grow under their feet-but hardly expected to find such evidences of prosperity in these hard, grinding times.During the past season, Mr. Skinner has done quite a large business in building Reapers; working some twenty men and turning out nearly a hundred machines, all complete. His force is now turned to the manufacture and repair of Threshing Machines. We found several in the various stages of progress, and, if we are any judge of good work, they will compare favorably with similar work in any of our Western establishments. He is also prepared to do all kinds of casting, promptly and to satisfaction.

An establishment of this sort is very much needed in Madison, as the farmers of Dane, for many miles in every direction must either get their work done here or go to places more remote. Mr. S. appears determined to deserve the confidence and patronage of the public, and we hope his success may be equal to his energy and his hope.

The New Varieties of Wheat named in last number, are reported by the Chief Clerk of the Agricultural Department of Patent Office to be all for fall sowing. The Chevalier Barley be sown in the spring.

The Brown Spider.-Mr. Epror:-Can you, or any of your readers, give us a recipe for the destruction of the little Brown Spider and its eggs, so destructive to house plants?

Yours truly,
X. Y.

## NOTICES OF NEW ADVERTISEMENTS.

Especial attention is called to P. L. Carman \& Co.'s advertisement of Threshing Machines. We know of no better Thresher and Separator in the world than that for which they are General Agents, and it is, therefore, only necessary to add, that, we believe them to be prompt and honorable dealers, and, in every respect, worthy of a large public patronage.
20,000 pounds of Wool wanted by James Dawsos, of Madison.

We buy our hats of Geo. B. McGie, Madison.
See John B. Wiser's advertisement. He knows how to make a good wagon or carriage, and, we are told, never fails to do it.

According to our palate, oysters are the greatest luxury furnished by the animal kingdom; and now that the farmers can get a prime article at the lowest market price, we doubt not that they will occasionally lay aside their salt pork and beef and indulge in a few luscious bivalves. See advertisement of Mr. Raymond.
All the advertisements in this number are of an important and interesting character, and our readers will do well to carefully examine them.

## [advertisement.]

Semi-Annual Statement of the Business of the Madison Mutual Insurance Company, from January 1st to June 30th, 1861.
Whole number of policies issued from Jan. 1, to June 30, 1861, inclusive,
insured
otal amount of property insured
thereon, ......................... $2,900,20200$
Total amount of premium notes received thereon,
cash premiums
Totat amount of cash premiums received thereon,. . . . . . . . . . . . . .

51,47944
26,096 61
\$77,576 05
2,73647
3,064 83
5,801 30
Bahuice,.......................................
Whole number of policies issued to date,.... 11,539
Am't of capital accumulated to July 1, 1861, \$182,164 24
By the foregoing report it will be seen that the company has done a very large and prosperous business during the first half of this year, steadily gaining upon the large amount heretofore done, and numbering about three thousand policies for the last six months. We congratulate the members of the company upon the prosperity which has attended its business, and trust that this report will not only be satisfactory to them, but will attract the favorable notice of all who have property to insure.

The company now embraces about 10,000 members, including thousands of the best farmers and business men of the State, and offering privileges, economy and safety to the insured to a greater degree than any other company doing business in the State. We invite a careful perusal of the foregoing statements, and a close investigation of the principles and rules of the company.
D. WORTHINGTON, Secretary.

The following is a list of the Officers and Directors and a general summary of the Company's system of operation:
The Directors and Officers elected for the year 1861, are as follows:
D. J. POWERS, Madison, Dane Co.
J. W. BOYD, Walworth Co.

DAVID ATWOOD, Madison, Dane Co.
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## OFFICERS.

D. J. POWERS, President.
J. W. BOYD, Vice President.
S. D. HASTINGS, Treasurer.
D. WORTHINGTON, Secretary.
G. F. HASTINGS, General Agent.
[Office Porter's Block, Madison, Wis.]
1st.-This Company will not insure any building for more than two thirds its cash value, preferring in all cases to insure not more than one half the actual valuethereby keeping in view the protection of the insured and the interests of the Company.
2d.-This Company will not insure more than $\$ 2,000$ in one risk.
3d.-It will not insure any dwellings standing within twenty feet of each other.
4th.-It will refund to any person insuring for a
longer time than one year, all moneys received from them, less the regular rates for the time they are insured, and $\$ 150$ paid Agents for survey and policy, and the pollicy
will be cancelled.
5th.-It will allow the setting up of additional stoves and the removal of the same from one room to another without notifying the Company. Also such additions, alterations and repairs as do not increase the hazard or diminish the value of the property insured.
ED-Eth.-It will pay all damage caused by the effect of lightning to the property insured, whether the building is burned, or otherwise damaged, not exceeding the amount insured.
7th.-It will hold itself responsible for the correctness of the surveys and other official acts of agents.
8th.-It will not insure over-hazardous property, believing as they do that the homes of our families should not be liable to be taxed to pay losses incurred on property in the hands of reckless speculators, not only subject to fire and lightning, but to wind and water, as cities and commercial towns.
9 th. -The premium notes given to this Co. for insurance expires in all cases with the policies for which they were given and are not held by the Company as a perpetual indebtedness against the insured. This feature in this Company overcomes a very formidable objection raised against other Mutual Companies.

## SUBSTANTIAL REASONS FOR INSURING HOME-

 STEAD PROPERTY IN THIS COMPANY.1. It is a Wisconsin institution, located at the Capita lof the State, thus affording every facility for members to institute inquiry into its business operations, and for the settlement of losses through their representatives in the Legislature, and the State officers.
2. It is a Mutual Company, thus affording cheaper rates and greater security than can be obtained in Stock Companies.
3. Its capital stock consists of premium notes of the parties insured, and cannot be squandered by corrupt officers, or become the basis of speculation to the managers; but can only be called in to pay losses and other ab-solut-ly necessary expenses; while stock companies receive the full amount of premium in advance, and often invest it in stocks which are liable to become worthless, causing general embarrassment to the companies, and rendering unsafe the insured.
4. It confines its operations to the State of Wisconsin; and to the insurance of Farm Property, and strictly isolated buildings, with their contents, in villages and cities.
OF 5. It is one of the oldest and most suecessful companies in the North-west Having always paid its losses promptly and without litigation.
5. It is under the control of the insured parties, each one having a vote in the choice of its officers, at the commencement of every year, either in person or by proxy.
We would call attention to the following able article from the "Madison State Journal," of July 30, 1860, on the subject of Mutual Insurance:

## INSURANCE-THE MUTUAL PLAN.

The system of Mutual Insurance Companles is becoming very general in our Eastern cities-or that which amounts to the same thing. It is a system upon which the profits of assurance are divided between the stockholders and policy holders. The last number of the New York "Independent" has an excellent article on this subject. giving the results of several large comp nies in that city, and showing great success. It says that ten companies in New York city alone, have adopted this participation system with eminent advantage to the public. The "Independent" says the plan "must gradually supercede all other systems, and compel the older companies to adopt it." The oldest Insurance Company in the United States, is upon the Mutual principle-being the Worcester Mutual in Massachusetts; and one of the oldest is the Vermont Mutual. Both of these companies present a clenn record, having never falled to meet their engagements promptly. These are only fair specimens of the many Mutual Companies in the country, and the only difference between these old Mutual Companies and the one referred to by the "Independent, " is, that the old Mutual Companies receive but a small portioa of the premium in cash, leaving the larger portion to remain uncalled for unless absolutely needed, while the New York Companies receive the entire premlum in cash, with the promise of paying back a part if not

## Wisconsin Farmer-Advertising Department.

needed. A brief examination of the two sysiems will com mend the old Mutual to favor. It makes the burden of the insured parties light at the commencement; and a Company would be much more likely to find use for money collected, leaving none to divide, than it would to call in upon assessment that left with the policy holders. The argument seems to be entirely in favor of the Mutual system; and upon this subject the "Independent" takes grounds in its favor in the following empphatic language :
The Mutual Companies must inevitably obtain the "The Mutual Companies must inevitably obtain the
best business," and "are the only reliable ones for all times and circumstances." Some Mutual Companies have failed, but it has been from a disposition to grasp too much-to extend business beyond the limits over which they can control. Those companies that have confined promptly with their patrons, have always met with success. The Madison Mutual pursues this course met with suceess. The largesi home businessues this course It is now doing the largesi home business among the farmers of any Com-
pany in the State. Its directors have no desire to expand its business beyond its own State, and its present saccess gives ample evidence that its effcrts for good are becoming appreciated by the people of Wisconsin. With as strong a backer of the principle as the New York "Independent," and with the same honest and economical management of its affairs that it has heretofore pursued, it is bound to do the principal home business of the Farmers of Wisconsin.

## [advertisement.] <br> The Kirby Reaper.---The New Self-Rake and othe: Matters.

In the July Number of the Farisgr we spoke of the Kirby Reaper, the amount of sales, the satisfaction it bid fair to give, \&e., \&c. (The same article was inadvertantly repeated in the August Number.)
The Kirby has now gone through the harvest, and given those who have used, or seen it used, an opportunity of comparing it with other machines, and of judging of its merits, both comparatively and specially.
We have already conversed with or heard from hundreds of the prohasers, and as yet do not know of a single one among them all that is not well pleased with the Kirby, and many among them are enthusiastic over it, as by far the best machine they have ever seen, in all the essential points that make up a good Reaper and Mower.
In mowing, in every case heard from in which it had an even chance, it cleaned out all competitors, Buck Eye, Wood, Allen and all the rest as well; no instance is known of its having been clogged either in the most tangled clover, or the finest wire grass.
Many have been profound!y surprised, to see what rough and wet boggy ground it would mow on, and do the best of work, nothing has ever been seen Hike it in that respect, its independent driving wheel aetion enables it to beat them all. The Buck Eye, with its two blundering wheels and heavy arrangement, is no where beside it, much to the surprise of many who thought it perfect. No the Buck Eye folks must try again and lighten up a good deal all around to keep up with the Kirby, and then they cant un.il they throw out their extra wheel.
As A Reaper, the Kirby has as yet found no superior, it has worked, in many instances, side and side all through the season with the hitherto popular machines, the Esterly, the Buck Eye, the various Manny's and the much bragged up Seymour and Morgan, both hand and self-raker, and
invariably has demonstrated is great superiority in all essential points.
Two ordinary horses have operated it when three and four were required for the Seymour and Morgan. We are informed of one instance when the Seymour and Morgan self-raker, with three horses, only kept four binders going, while the Kirby, upon the same farm, kept seven at work,
THE Ktabr is by far the easiest machine to rake off from that has yet appeared, as will be abundantly testified by those who have used it.

Our New Sklf-Rakgr is now perfected, well proved in the field and ready for another season's use. For simplicity, directness, ease and durability of action, it will be found to have no equal. It will be shown at the principal fairs the coming fall, and will speak for itself to all who see it, They will be extensively introduced into use another season, and in the oplaion of all who have seen them at work, they are bound to revolutionize and supercede all other rakes, and hand raking also.

Grain Daills.-Our new Grain Drill and Horse Rake combined is now completed, and will be shown at the principal fairs, we shall be disappointed if it does not meet with great favo: among all good judges, and we solieit their a:tention to it before purchasing for another season's use. We have already made arrangements for a large quantity of them for another year's business, and calculate to sell them to all good farmers.
All of our machines will be exhibited at the Illinois State Fair on the 10th to 14th of Sept. At the Milwaukee Mechanical Fair the first week in September, and at the State Fair from 24th to 27th September, A careful examination of them is solicited.
D. J. POWERS.

## WAUPUN PUMPS <br> \section*{Pump Eighty Feet with ease.}

$\mathbf{W}^{\mathrm{E}}$ Are now mandfacturing at our estabPUMPS. These Pumpsare extensively Diavan, WAUPUN and are spoken Pumps are extensively used in this State, them. We fix them to Wells and warrant them having of simple construction, they are not liable to get out of of simple construction, they are not liable to get out of
order, and, in any event, they are easily repaired without much expense; and as their boxes work in hard maple, their effectiveness and durability cannot be excelled.

## FARMERS AND OTHERS

Wanting a good Pump, for well or cistern, either in the house or out of doors, can be promptly and cheaply supplied on application to the undersigned, at the Madison or Delavan Post Offlices, or at the manufactory in Madison, below Hill's Warehouse.
13:9
WOOD \& MgGREGOR.

## WAKELEY \& VILAS,

## ATTORNEYS AT LAW, <br> Office in the United States Block;

## MADISON,

Po Payment of Tors.
ness at the State Offices attended to.
chas. t. Wakgley. ( $13-9$ ) williak p. vilas.

## Wisconsin Farmer-Advertising Department.


(Successors to John A. Pitts, the Original Inventor and Patentee.)
TCHESE MACHINES stand unrivalled for THRESHING and CLEANING GRAIN, and are acknowledged to be SUPERIOB to any other thresher in the World, in its operation, finish and durability.
The Machines for 1861 have all the late improvements, and many that are peculiar to this Machine alone, making them far superior to any heretofore made in the PERFECTION of their practical operation, having been thoroughly tested by threshing in this Stat-as well as elsewhere, during the present season. They are admitted to be the most perfect and durable Separators, and in fact the cnly reliable Horse-Power in use.

Threshers of different sizes are manufactured, from Iws to Ten Horse Power. Also, Portable Steam Engines, from Three to Twenty Hore Power, suitable for driving Separators and other Machinery.

These Machines are sold here at from $\$ 25,00$ to $\$ 75,00$ less than any other Threshing Machines-our rates being the Manufacturers' price, and transportation only, and at these rates we are prepared to deliver, at any Railroad Station in the Etate, or at any zteamboat Landing on the Mississippi River. Purchasers will do well to call early in the season and examine our Machines, and send in their orders.

> Extras, for Repairs, kept at all our Local Agencies. Terms made eary Do

Address $\quad$ P. L. UARMAN \& CO. Gen'l Agents for Brayley \& Pitts,

Or any of the following Authorized Agents
JOHN P. HAINES,..................Columbus, Wis.
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## The Mutual Life Insurance Company

OF THE STATE OF WISCONSIN,

PRESENTS ADVANTAGES in many respects equal, and in some superior, to those of other Companies doing business in the North West. Its rates, its plan of operations, and its basis, are identical with the best Companies in this country and Europe. Its age, and consequently its accumulations, are not equal to theirs in amount, but in proportion to the age of risks, and amount at risk, they will compare favorably with the most successful.
Its assets, which have resulted solely from the accumulations of two years' premiums, amount to $\$ 56,981.20$, and its annual income from policies now in force, over $\$ 45,000$. This, according to the experience of both American and European Cempanies, is ample for the protection of all its members, and gives a fair surplus.

Its assets and business are constantly increasing. Its losses have been promptly paid. Its Trustees are wellknown, honorable business men, and are as capable of managing an institution of this kind, as men in any other portion of the United States. The experience of the Company thus far proves that we can have as reliable Companies in the West as anywhere else, if we will, and self-interest certainly indicates that we should have them, and build up home interests in every practicable way. In the above respects, this Company claims equally with its co-workers, and in the following, superiority: It obtains the greater portion of its business in the healthiest portion of the United States, thus having the advantage of a less per centage of loss ; it receives higher rates of interest on its investments, thus making more rapid accumulationsboth very important items in Life Insurance; and its expenses have been less in proportion to its business than any other new Company doing business in the United States.-June 1, 1861. S. 8. DAGGETT, President. A. W. Kelloge, Sec. H. G. Wilson, Gen. Agt.

## FARMERS, ATTENTION!

 Empire Harness Manufactory,Washington Avenue, opposite Dane Co. Store,

WMAY BE FOUND a complete assortment of Fancy Single and Double Buggy Harnesses; also Ladies' and Gənts' Saddles, of various patterns, Bridles, \&c. Particular attention given to Draught and Medrum Class Fancy Harness especially adapted to Farmers' use.
Repairing done in the best style and at the lowest prices
Terys :-Good approved notes of sixty or ninety days, with a discount of five per cent. for cash.
Employing first-class workmen, and using nothing but the best quality of Bark-Tanned Leather, the proprietor feels assured that he can give better satisfaction than any other establishment in Dane county.
Madison, July, 1861-6m. THOS. CHYNOWETH.

## J. C. SCHETTE'S

## FOUNDRY AND MACHINE SHOP!

## ON THE THIRD LAKE .

TTHE UNDERSIGNED takes pleasure in informing his friends and the public generally that he has erected and fitted up a first class Foundry and Machine Shop on Third Lake, and is now fully prepared to do all kinds of Castings according to order at the shortest notice.

Also, Repairs of every description on Machinery, Reapers, Threshing Machines, \&c., \&ca. The best of material used and worked by experienced and skillful hands, will give guarantee that every order entrusted to this establishment will be done in a workmanlike manner, at reas onable rates. J. C. SCHETTE, Madison ACD CASH PAID FOR OLD IRON. vol3no7-6m

## JOHN NAZRO \& CO.,

Nos. 121, 123 and 125 East Water St., Milwaukee,
WHOLESALE AND RETAIL DEALERS IN

HARDWARE, HOUSE TRIMMINGS.

STRAW CUTTERS, CUITIVATOR TEETH, and all kinds of FARMING TOOLS all kinds of tin plate, SHEET IRON, COPPER, \&c., \&c.

PLATED FORKS, Cutlery, Spoons, \&c.

## HOE \& CO.'S saws, WIRE AND ROPE.

Axes, Hoes, Shovels, GUNS AND PISTOLS,

Also, all kinds of IRON AND STEEL. Blacksmith's, Cooper's, Carpenter's and Cabinet Maker's Tools of all Kinds.
nalls, glass, whips, Belting, Belts, \&c.

MEREDITH HOUSE, AT THE FOOT OF KING STREET,
BY GROVER \& McCLEAR, MADISON, : : WISCONSIN.
THIS HOUSE, during the past summer, has been com1 pletely rebuilt and refitted, and is handsomely located on Third Lake bank, and near the centre of the city. The proprietors are determined to make this a satisfactory stopping place for their friends and the traveling public.

Mudison, July, 1861.
vo13no7-tf
A. F. WALTZINGER, Wholesale and Retail Dealers in
CANDIES, FRUITS, CONFECTIONERIES, AND FANCY ARTICLES.
HAS ON HAND, and is constantly manufacturing or Heceiving the finest Candies and Confectionery of every kind. Also Fancy Articles, Toys, Masks, Ornaments, \&c.
FANCY CAKES ON HAND AND MADE TO ORDER. Heg Sociable and Wedding Parties Supplied.
Seasonable Fruits received by Express from the South.
A. F. WALTZINGER,

No. 6 King St., Madison, Wis.
FRIEND \& CRAWFORD, wholesale and retail
MERCHANT TAILORS, AND EEALERS IN
READY-MADE CLOTHING, HATS, GAPS \& TRINKS, BADGER BLOCK, MADISON.
M. Frismd.
(vo13no7-tf)
E. B. CRAWFORD.

PHILO dunning. J. N. Jones. J. w, suaiser. DUNNING, JONES \& CO., WhOLEEALE AND RETAIL
DRUGGISTS, aND DRALERS Iy
PAINTS, OIIS, DYE-STUFFS, wines and Liquors, choice family groceries, Glassware, Perfumery \& Faney Articles. Pinckney Street, 3 doors east of the State Bank, vo13-nol0 MADISON. WIS.

STEAM PLANING MILL, At the Old Stand of James Campbell, On Washington Avenue, Near the R. R. Depot. HAVING SOME NEW MACHINERY and having H thoroughly refitted the Mill, the subscriber wishes to say to his friends and the public generally that he is prepared to do all kinds of Planing, Mortising, \&c., makes DOORS, SASH, ke., and does all kinds of Job Work, as cheap as at any other place in the State.
13:8-tf
ASA BURGESS, Madison.
CASPER MEYER'S SALOON!
WHERE THE FARMERS FEEL AT HOME. Main Street, 3 doors below Capital House, Madison, Wis. BEING THANKFUL for past patronage, the subscriber $B$ wishes to say, that he continues to keep the best of refreshments, at reasonable prices.
vo13no7-tf
CASPER MEYER.

## Wisconsin Farmer-Advertising Department.


W. D. BACON is receiving, at the Warehouse of H. \& J. F. Hill, Milwankee, and will keep there, as well as at Threshers, Threshers and Waukesha, WHEELER, MELICK \& CO.'S One and Two-Horse Tread Powers. Single sawing Wood, Feed Grinders and Clover Hullers. Also. Four LARGE OR SMALL FARMERS, Saw Mills for the tread, if preferred. Also, LARGE SIZE PITTYS EIGHT AND TEN-HOPOWERS, fitted to drive in place of tors, manufactured by McLaughlin \& Christie, N, Y EII UFACTURER'S PRICES, adding transport, N. A. All will be warranted if desired, and will be SOLD AT MAN OFACTURER'S PRICES, adding transportation charges. For full particulars, address
( $13: 8-4 \mathrm{~m}$ )
W. D. BACON, Waukesha.

STOVES AND HARDWARE.
JOHN N. JONES, (SUCCESSOR TO GLEASON \& BRO., )

WHOLESALE AND RETAIL DEALER IN

## AGRICULTURAL IMPLEMENTS

OF ALLKINDS,

## Mechanics'Tools\& Building Hardware

fairbanks' patent platpory scales, Hazard's Powder, all kinds.

Guns and Fishing Tackle, all kinds.
POCKET AND TABLE CUTLERY,

## COOLEY'S PATENT DOUBLE ACTING FORCE PUMPS,

Fer Wells of all Depths. Also,

## The Good Samaritan Cooking Stove,

Warranted to be the best Cook Stove now made, in doing more work with less fuel. Try it, and if it dont suit return it without cost.

JOHN N. JONES.

FAIRBANK S STANDARD
SCALES! OF ALL KINDS.


FAIRBANKS \& GREENLEAF, 35 Lake Street, Chicago. nes Be Careful to Buy Only the Genuine. SIMEON MILLS, Agent,

## IMPORTANT to INVENTORS. ROBERT W. FENWICK, Counsellor and Patent Agent,

 AT WASHINGTON, D. C.From Hon. Chas. Mason, late Commissioner of Patents. Washington, D. C., Oct. 4, 1860.
Learning that R. W. Fenwick, Esq., is about to open an office in this city as a Solicitor of Patents, I cheerfully state that I have long known him as a gentleman of large experience in such matters, of prompt and accurate business habits, and of undoubted integrity. As such I commend him to the inventers of the United States.

Charles Mason.
the Note-Mr. Fenwick charges only $\$ 25$ for doing all the business and obtaining the Letters Patent. No extra charges whatever.
vol3nos-tf ANTED to exchange for country property Lot 4, in Block 154, and Lot 4, in Block 176, in Madison ALBERT WOOD.

## Wisconsin Farmer-Advertising Department.

## STOCK OF HARDWARE,

Including all descriptions of AGRICULTURAL IMPLEMENTS, west of Milwaukee.

## S. R. Fox's Old Stand, South Corner of Capitol Park, Madison, Wisconsin.

D. CAMPBELL having purchased of J. B. BOWEN his interest in the firm of Bowen \& Ramsay, the business will . hereafter be conducted under the firm name of RAMSAY \& CAMPBELL.
The Proprietors having made the most advantageous arrangements for keeping good their supply by weekly importations direct from the manufacturers at the lowest cash prices, confidently challenge the competition of all dealers in the North-west. Making our purchases for cash we are enabled to sell our goods at the MOST REASONABLE PRICES. Together with other and innumerable articles we are enabled to offer to the public the largest and most complete assortment of
Heavy and Shelf Hardware, Stoves, Iron, Steel, Nails, Tin, Sheet Iron, Copper Ware, Agricultural Implements, \$c., \&c. Blacksmith's Bellows, Anvils. Vises, Screw Plates, and all kinds of Blacksmith's Tools, Carpenter's and Joiner's Tools of the best manufacturers, Pocket and Table Cutlery, Pumps of all descriptions, Well Chain-Pumps, Fixtures, \&c. House Trimming Goods of all kinds and qualities. Agricultural Implements.
We would call special attention to our stock of FARMING TOOLS which at all times will be found full and complete. We keep constantly on hand a full assortment of Whitewater Cast Steel Clipper Ploughs, Moline Ploughs, Grand de Teur Ploughs, Breaking Ploughs of all sizes, \&c., \&c. Road Scrapers, Straw Cutters, Hoes, Hay Forks, Wagons, Rope and Cordage, Belts and Belting, \&c., \&c.

## STOVES! STOVES!

A large assortment of the latest and most improved styles of Cook and Parlor Stoves from Albany, Troy and Philadelphia manufactories kept constantly on hand.
Manufacturing our own trimmings for Stoves, persons purchasing of us may be assured that all the Furniture will be made of the best Stock and in the most perfect manner.
Tin Roofing put on and warranted. Eave Troughs, Conducting Pipes, \&c., made to order and put up. Jakrs CAMACE, the well and favorably known Yoreman of our Tin Shop, will attend to all kinds of Manufacturing and Jobbing.

## AGENTSFORHOWE'SIMPROVEDSCALES.

IT Before purchasing elsewhere, call at S. R. Fox's old stand.

## FARMER'S STORE.

## DICKINSON \& BARTELS,

No. 2, United States Block, MADISON,<br>WISCONSIN.

$W^{E}$ WIsH to inform the Farmers of Dane County and the State at large, that we have as large an assortment ot

## DRY \& FANCY G00DS,

As can be found this side of Chicago and Milwankee.
Our Goods being purchased in New York, Philadelphia and Boston for CASE, direct from Manufacturers and fmprrters, we are prepared to undersell any other establishment West of Lake Michigan.
Country Merchants will find it to their advantage to call.

13:7-tf

## GEORGE PAINE,

[LATE OF THE FIRM OF WRIGHT \& PAINE.]

W
HOLESALE AND RETAIL dealer in Drugs, Medicines, Patent Medicines, Chemicals, Perfumery and Fancy Goods, Paints, Oils, Glass, Sash, Druggists Glass Ware, Groceries, Wines, Liquors, Cigars, \&c.
A large stock of the above goods always on hand and will be sold as low as can be bought at any establishment West of Lake Michigan. GEORGE PAINE, $5 y-6 m$

No. 3 King St., Madison, Wis.

## FOR NURSERYMEN.

$\mathrm{A}^{\mathrm{p}}$PPLE SEEDS.-Prime, fresh; only $\$ 5$ per bushel when 2 bushels or over are taken.
PEACH STONES.- $\$ 1$ per bushel, for 3 bushels or over. APPLE SCIONS.-A general assortment $\$ 150$ to $\$ 2$ per thousand, new sorts \$3.

Angers Quince Cuttings, true, $\$ 3$ per thousand.
MANETTI ROSE CUTTINGS, best sort for budding the fine varieties, only $\$ 3$ per thousand.

ORNAMENTAL SHRUBS in great variety, and extremely low to the trade.

DOUBLE DAHLIAS.-A large assortment finest kinds, prices reduced- $\$ 2$ per dozen, $\$ 10$ per hundred.

Send for a Wholesale Catalogue.
BATEHAM, HANFORD \& CO.
Columbus, Ohio.

## SOUTH DOWN SHEEP.

THE SUBSCRIBER offers his entire flock of Thorough Bred South Downs for sale, either in pairs, or ewes with their lambs, or in lots to suit purchasers. Also CHESTER WHITE PIGS.
Choice selections of this celebrated breed from the pens of Thos. W00d, of Chester county, Penn. This breed attains much greater weight, while it still possesses the aptness to fatten, which has made the Suffolk so popular. Price-boxed for shipping, $\$ 10$ each, or $\$ 18$ per pair, not akin.
A. G. HANFORD,

1prly
Waukesha, Wis.
FOR SALE.

AN EXCELLEENT HAY PRESS, in good order and very cheap. Apply to

ALBERT W00D, Madison, Wis.

## C. V. N. KITTRIDGE, <br> WHOLESALE AND RETAIL DEALER IN HARDWARE, TIN, COPPER,ZINC \& SHEET IRON WARE Bruen's Block, next door to State Bank, PINCKNEY ST, <br> MADISON, WIS. <br> THE PROPRIETOR of this establishment would say to the Farmers and others of Dane County, and State of Wisconsin, that they can at all times, find here the

## BEST AND MOST COMPLETE

assortment of goods in his line in the County. Asd as his purchases are made for cash and direct from the manufacturers in the East, he can and will sell goods at Wholesale and Retall, as cheap and cheaper than can be bought in any other establishment West of Lake Michigan-and parties coming to the State Capital can always save time and money by making their purchases here.
jy-tt
C. V. N. KITTREDGE.

# VINE HILL NURSERY, '76 place, 

## MADISON, : : : : WISCONSIN.

FTVUIT, SHADE AND ORNAMENTAL TREES, Small quality, well grown and wood thoroughly ripened, to be quald at, the lowest living rates. See wholesale and retail
sold catalogues-sent free to all applicants. Orders solicited, likewise for PIE-PLANT and plants of all the valuable
small fruits.

Packing done in the best possible manner to ensure safe carriage. Address, PLUMB, WILLEY \& CO., apr-tf Vine Hill Nursery, Madison.

## SINGER'S

## NEW FAMILY MACHINES. $I^{\text {N ORDER to place }}$ THE BEST FAMILY MACHINES IN THE WORLD

 within the reach of all, we have reduced our Lettes A., or Transverse Shuttle Machines, beautifully ornamented, to $\$ 50$. These Letter A Machines contain recent valuable improvements, and will sew the FINEST FABRICS as well as material of coarse texture. We would ask for them, (before purchasing elsewhere,) the especial attention of Vest-Makers, Dress-Makers, and all those who want Machines for light manufacturing purposes.EDO THE SINGER MACHINES make the interlocked stitch, which is the best stitch known. They are of great speed, easily understood, simple of construction, of great durability, adapted to the heaviest and lightest goods, are finished in the most perfect manner, may be used for several years without requiring repair, and if they do not give entire satisfaction, the money will be refunded.
THE STANDARD MACHINES for Tailoring, Boot and Shye-making, Harness-making, Carriage Trimming, etc., etc., will do more work, earn more money, and are cheaper than those of any other maker as a gift.
We have always on Thand, Hemming Guages, Silk, Twist, Linen and Cotton Thread on Spools, best Machine Oil in bottles, etc., etc.
Send for I. M. Singer at Co.'s Gazette,
I. M. SINGER \& CO., 458 Broadway.

## All letters should be addressed to

I. M. SINGER \& Co., No. 50 Clark St., Chicago. For sale by WM. BOOTH, Agent, Merchant Tailor, feb26-1y

McKey's Block, Madison, Wis.

## THE WISCONSIN FARMER.

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# THE WISCONSIN FARMER. 

## J. W. HOYT,

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## MADISON, NOVEMBER 1, 1861.

No. 11.

## Sin of the Straw-Burners.

"But are there any such wasteful improvident farmers in these days of the light of science?" It's too true that there are-even in our very midst-farmers, too, who set themselves up for oracles of wisdom, and sneer at the idea of there being anything in the books which they do not already know !
We are glad that none of them belong to the great Farmer family, for we do not care to have the discredit of such dull, blundering connections; and we would almost be willing to swear, that none of them take any of the agricultural papers of the day. They are selfreliant, independent fellows, farming it on their own hook, "asking no questions for conscience's sake!" Our only hope of reaching them, therefore, is through our intelligent and benevolent readers, who are willing to regard and practically treat them as fit subjects for missionary effort.
The basis of the false theory upon which rests this strangely absurd practice, doubtless consists in the idea, so prevalent among farmers, that the fertility of our western soils is inexhaustible; for certainly no sane man who knows that, straw being straw, the elements of which it is composed may be converted into straw again, could for one moment suppose it to possess no absolute value.

But is there any soil whose fertility is inexhaustible? Of course not; and that farmer who acts upon this hypothesis is just as sure to impoverish his'soil and himself, as that, one subtracted from ten leaves but nine. It makes no difference how full the banker's vault may be of gold, if there is constant paying out and
nothing returned; it is inevitable that, after a time, there should be no money there. When will the farmers of this country all learn this great lesson of common sense and simple arithmetic?

That straw consists, like all vegetable substances, of parts which are combustible (organic matter) and of other parts which cannot be consumed, (mineral matter, becoming ash after burning, ) is certainly familiar to every one who has witnessed its burning. It must also, have been observed, that the portion which burns away and is lost in the form of gaseous matter is larger than the small amount of ash which remains.
When, therefore, the fact becomes known that in all, except very rich, black soils, the part which is lost by burning is really the most valuable of all, it cannot fail to be apparent that the habit of burning straw is wasteful, and therefore highly culpable. And yet in all parts of our western country we find these very straw-burning farmers putting on long faces, lamenting the annual diminution of crops, and talking seriously, but most preposterously of the dispensations of Providence!
"But," says one, "what shall we do with our straw? We have such immense quantities of it that it is quite impossible to get it out of the way in any other manner." What shall you do with it? Why manufacture it into manure for your starving fields. If you haven't stock enough to do this it's your own fault and reproach; you ought to have. But certainly you have some stock; and, by taking a little pains to have it done, you will be surprised at the amount which only a few animals can be
made to work up into something out of which by proper management-composting, \&c.,valuable manure may be made. Not by feeding at the stack-a most improvident and slovenly custom-but by feeding in racks, using large quantities for bedding.

It is astonishing how few of even our great grain-growers properly furnish their stock with straw for bedding. They have stacks without number slowly rotting in their fields, and yet allow their poor dependent cattle, horses, sheep and hogs to suffer for want of the nice warm beds which, with but little trouble, could be given them; thus adding to their comfort and at the same time coining gold by the conversion of the straw into manure.

Think of these things, farmers, and then remember to urge their importance upon the attention of your guilty neighbors. In the name of science and common sense, and for the better credit of Western Agriculture, let no more burning straw stacks offend the heavens and the intelligence of sane men.

## Marls and their Application.

We have already urged the value of Marl as a fertilizer, and inasmuch as we have large quantities of it in various portions of our State, it is hoped that all who can will this year test its utility for themselves. The following, from the London Farmer's Magazine should be read with care. It contains much valuable information, both practical and scientific :

Marls are well suited to be used as a manure in top-dressing lands, as the substance crumbles by exposure, and the particles are most minutely subdiviled. The most preferable application consists in laying it on a grass ley in the end of autumn, or in the early winter, when the herbage will be of little value, and when the changes of the weather will effect the decomposition of the marl, by the time the grass shoots in the spring. It will thus secure the regular spreading over the surface, and the bush-harrow and the roll being afterwards employed, the particles will be well reduced and pressed into the soil. The crop of grass will be greatly improved, and when the land is plowed for a grain crop in the following season, the marl will be thoroughly matted in the turf, and the vegetable sward which it has raised will most materially promote, by its decompo-
sition, the subsequent fertility of the land. This mode affords time for the crumbling of the marl, and it raises a close vegetable growth on which the future crops depend for their nutriment. The substances used as top-dressing cannot be incorporated with the soil from want of arable culture, and consequently the effects depend on the influence which it is able to exert on the materials with which it comes into contact. By raising a large quantity of grassy herbage, in the shape of roots, leaves, and culms, it affords by the decomposition of substances, when the land is plowed, a vegetable "pabulum" to the growing crop, to which no manure yet known is superior, if any one be equal to it, either in action or duration. Consequently all top-dressings of an earthy nature should be used with a view of producing this vegetable growth for the support of the future crops. The quantity of marls used in this way on grass land may be stated at an average of 40 to 60 cart loads of two horses.

The use of marls on the fallows of barley and turnips in spring, admits of the better mixing with the soil, provided the suitable reduction of the marl can be accomplished, which may be done by exposure, if the weather be favorable, before the last plowing of the land, and when the nature of the marl itself favors the dissolution. It is often necessary to go over the work, and break the land with hand mallets. The weather is the best operator, and the time of exposure may produce some reciprocal actions. In whatever manner marls are applied, it is most absolutely necessary that the substance be reduced as fine as possible by breaking the lumps, spreading it evenly, by harrowing and rolling when dried after rains, and by being plowed into the ground by means of a shallow furrow. Some marls will crumble to powder immediately on exposure, or very soon after; others require the changes of both winter and summer, and also much attention in improving the action of the weather, by breaking, harrowing and rollitg.

The effects of marls have been much the greatest on dry, healthy grounds, that have been converted into arable cultivation; and on sandy loams, and on all sandy land generally, the applications have been very beneficial. On raw, damp loams, reports are less favorable; the marl attracts moisture, and thus increases the poachy looseness of the land. Clays are much improved by large quantities of marl, but the clay must be pulverized in order to facilitate the incorporation with the marly substance. Practice directs the use of clayey marls on all light soil, and the application of sandy and shell marls to heavier lands; but all these substances have been found useful on any soils, when judiciously employed.

Marls are often made into composts with earths and farm-yard dung, either in layers in the heaps, or in the bottoms of the fold-yards, where they will be soaked by the urinary
juices, and afterwards mixed with the marls. It is thought that such a preparation is more effectual than marl itself. Frequency of marling may produce a hurtful looseness in the land, which is very easily removed by the pasturing of the land in rest for some few years. The avaricious use of the plow has produced the trivial hurtful effects that have been observed from the use of marls.
The action of marls is usually attributed to the quantity of calcareous matter which they contain, and to the change it creates in the land by a mechanical action, and a mueilaginous matter that is derived from the exuviæ of animals. The extremely minute blending of the ingredients of marl has been supposed to constitute the fertilizing quality, each particle having the power of exerting its peculiar property on the soil, and on each other, and of retaining or giving out the substances they may form, that are favorable to vegetation by the different agencies and combinations. The clays impart moisture to the sandy parts, and the sand prevents the clay from being to addhesive, and thus the respective qualities are exerted advantageously on each other. An oleaginous nature has been discovered in the composition, arising from the mixture of the substances with animal and vegetable matter, and to this property much of the fertility which it produces has been ascribed. It is also thought to be an absorbent earth, composed of clay and limestone, and that the useful quality is derived from the very intimate mixture of these valuable ingredients.
The quantity of calcareous matter is no certain criterion either of the quality or of the effect, for the marls that effervesce little or none by the application of an acid are good manures, and marls of great difference in color and in chemical composition have been dug from the same pit, where they lay contiguous and almost mixed with each other, and have shown no discernible difference of effect in any crop, when applied in equal quantities on the same soil. On coarse, healthy pastures, an application of marl produces the usual effect of calcareous matters in banishing the rough foggage, and substituting a close sward of finger grasses. This result will be obtained by the use of any other substances, provided it be properly prepared for the intended purpose.

Marls exposed for years retain the same properties as when newly dug-do not effervesce after calcination, and good marls feel greasy when touched, and friable when dry, and the land is generally good above them; the red and blue colors, with yellow veins, are found to be the best in quality. Marls are known by breaking into small pieces from exposure; by the crackling of the particles of dry marl in the fire, like salt, and by throwing up bubbles to the surface of the water by which it is covered, and by gradually dissolving and forming with the water a soapy sub-
stance like paste, and not unfrequently of a liquid nature, the marl remaining dissolved and suspended in the water without any coagulation. But water alone will produce bubbles when poured on certain dry clays, and hence it is recommended to subjeet marls to water for a time before being tested by an acid.Marl contains no alkaline salt, as it imparts no quality, smell, nor taste, when digested or boiled, and has nothing soluble in water. Muriatic acid may be applied till the effervescence ceases; the loss of weight will show the quan-
tity of air expelled, and the remainder tity of air expelled, and the remainder is earths. The quantity of calcareous earths may be ascertained by dissolving the marl in muriatic acid, diluting the liquid with water, passing it through a filtering paper, and then precipitating the calcareous earths from the clear liquid by a solution from some fixed alkaline salt.

Application of Manure.-It is worth about double, if applied in autumn and spread on the surface, and worked in in spring, especially if preceding corn. Heavy crops of corn have been raised by spreading the manure on grass before winter, and after the grass has begun to spring up green and vigorous the next spring, to turn it under to a moderate depth, and plant. Drawing it out in winter, as it accumulates, answers a good purpose. The application to wheat in autumn has been already spoken of. Compost heaps for this purpose may be made on the intended wheat field the previous spring, by thin alternating layers of manure and soil. In all instances when manure is plowed under, it should be first well harrowed after spreading, to break it fine and intermix it well with the soil. In some instances, its value is thus doubled. It is the fine diffusion with the soil, that renders autumn manuring so valuable, the soluble and enriching parts soaking through every particle of soil. In large lumps, manure cannot be of much use; and in dry seasons it thus injures; while, finely intermixed, it prevents the bad effects of drought.-Count. Gent.

## To Prepare Sandy Soils for Next Year's Crops.

On page 40, of the February number of the Farmer, we treated at some length of the best methods of improving sandy soils. The attention of the interested reader is again directed to that article, and we would further take occasion, in this connection, to recommend anew the distribution of clay upon the surface of such lands where it can be conveniently obtained. It is the very element they especially require for almost any crop, and if applied in the fall will be much improved by the action of weathering and thus yield better returns the coming season.

## Gathering Crops.

Next to getting the seed into the ground at the proper time and in the right condition, the gathering may be held to rank first. Not that the cultivation may be ignored, but that in the matter of harvesting the crop promptness and thoroughness will pay a larger per cent. on the labor and money invested. Too many farmers, after working hard to produce a crop, relax their efforts when they see that their labors have been crowned with success, and thus at a critical time, when much may be easily lost or saved, allow the best time to pass and their products to waste.

Potatoes are frequently suffered to remain undug until they have either begun to rot under the influence of autumn rains, or, yet worse, until they have been frozen up and spoiled. Corn that should have been harvested during the pleasant weather of the autumn months is permitted to lie in the half-fallen shock,-its gathering postponed until much of the grain has been softened and much damaged for any purpose-until rain, snow and mud come to be the necessary accompaniments of what would otherwise have been very agreeable business.

Farmers of Wisconsin, don't let it be this way with you this season. True you have had a laborious year, but never mind; put on a little more steam. The result will more than repay you.

An Illinots Farm.-The largest farm -in Illinois is that of Isaac Funk, who resides near Bloomington, McLean county. The total number of acres occupied and owned by him is 89,900 -one farm of 27,000 acres, said to be worth $\$ 30$ per acre, and three pasture fields containing, respectively, $8,000,3,900$ and 1,000 acres. His great crop is corn, all of which he consumes at home, and is thus able to market about $\$ 70,000$ worth of cattle per year at New York. His stock on hand of horses, mules, hogs, and fat cattle is said to be worth $\$ 1,000,000$.-Chicago Times.

DG According to the Farmer's Magazine, fifteen millions of pounds of cheese were exported from the United States from September 1st, 1859, to September 1st, 1860.

## Manures---Preservation and Value.

Horse Manure is one of the most energetic of the animal manures, and is very easily injured; in fact, without care to give proper treatment, most of that made in summer will be about ruined. Boussingault found that when horse dung was allowed to become thoroughly decomposed it lost nine-tenths of its weight and more than half its value. This was not the effect of burning, but of perfect decomposition. Where the manure is burned in the heap it is little better than ashes. This can be prevented by the application of water to the manure heap, frequent turnings and making compact piles, but this is attended with a good deal of trouble, and few have water in sufficient quantities convenient. Mixing with sod, scrapings of the roads and walks, swamp muck, \&c., will retard decomposition, and should always be composted with horse dung. Manure, however, cannot be made in summer without trouble, and the farmer should, in the spring, apply to the land all that he has on hand, and it is better to give corn a good topdressing before the first or second hoeing, thus using all the accumulation up to that time, than to risk keeping over. This course we have pursued with good results. After this the orchard may receive a top-dressing and a shallow plowing. Such an application will not be wasted. Where manure cannot be taken care of, it is best to apply it to the land at once where it will be accomplishing some good.

The manure of horned cattle contains so much water that it ferments slowly, and may be composted with less trouble and less danger. For this reason, it is good to mix with horse manure. Although it is really of less value than the former, yet from the better condition in which it is usually preserved, is often found to answer a better purpose in practice. The value of manure, however, depends more upon the food consumed than upon the animal by which it is produced. The manure of birds, for instance, is the most powerful, mainly because they feed on grain and insects. The wonderful effects produced by a small quantity of guano, is in consequence of the fact that the birds which produce it feed entirely upon fish, and make their deposits where there is no rain to wash away the most valuable and soluble portions. Flemish farmers pay $\$ 20$ a load for the manure of tame pigeons, which are kept almost exclusively for this purpose, yielding their owners a good revenue.-N.H. Journal of Agriculture.

We beg respectfully to differ from some of the doctrines advocated in the above article.

Horse manure may be decomposed in compost without any loss of valuable constituents, and be rendered much more useful and more immediately available to plants, without any of the ill effects arising from its use when in an undecomposed state. All this may be
brought about by sinking at the lowest point of the manure heap, a cistern supplied with a pump, so that the fluid drainage may be frequently passed back upon the top of the heap; and if this drainage be not sufficient, supply it with water so that at all times the whole mass may be kept so wetted as to entirely prevent fire-fanging. A little sulphuric acid added to the cistern, will change the volatile carbonate of ammonia into the sulphate, which is not volatile, so that no odor will be given off during the decomposition. None of the integrants will be parted with, while the mass will be rendered homogeneous.

When composted with muck and other similar materials, the fluid passing through the mass will pervade all parts, and without turning or forking in any way, the intrinsic value of each portion will be communicated to the whole. Manures are always improved by this mode of treatment. - Working Farmer.

Importation of Grain.-The Mark Lane Express says the aggregate value of grain imported by Great Britain for the first half of the present year may be estimated at $£ 21,000$,000 against $£ 9,500,000$ in 1860 . Of this total about $£ 14,500,000$ represent wheat and flour, our importations of which in the same period of 1860 were below $£ 3,000,000$. The question next in importance is as to the sources whence these supplies have been derived, and the results in that respect continue to present some remarkable features, which must have led to singular variations in the general course of trade. In 1859 France sent us our chief supplies, and contributed about as much as Russia, Prussia, and the United States combined, while from America the amount was merely nominal. In 1860 Prussia took the lead, Russia was second, and the quantity from France was insignificant. This year America has distanced all other countries, and has sent us nearly as much as Prussia, Russia and France combined, the quantity from the latter being less even than in 1860.

To Keep Potatoes in the Cellar.-A writer in the New England Farmer says:-Put them in a pile as deep as you can conveniently. He has for three or four years noticed that where they were the deepest they kept the best. Last autumn he put 125 bushels in one bin, and filled them two and a half or three feet deep. They decayed but little, and he found more rotten ones near the top than anywhere else.

A Golden Rule for Farmers.- Do not go on dividing up or using up your capital by cropping without manure. Make it a cardinal principal of action, never to be swerved from, that you will not, in any instance, in relation to any field or crop, or rotation, plant or sow, without a supply of manure-sufficient at least to preserve the existing fertility of the soil.

## STOCK REGISTER.

Sleepy Staggers.
"Staggers," in the language of MayHsw, " means no more than a staggering or unsteady gait; an incapacity in the limbs to support the body. It therefore by itself, represents only that want of control over voluntary motion which generally accompanies injuries of the brain."

The origin of the disease is over-feeding-a circumstance which surely indicates a preceding starvation or neglect. The careless owner or driver starts off to town or the mill in a hurry, takes his own lunch but forgets the hay and grain for his horses. It is not convenient to get them fed, and thinking that a little fasting will do them no harm, he decides to feed them the more when he gets home. Or, perhaps, having returned home late from his day's work he concludes the horses are too warm to take their grain just then, and so leaving them to grind what hay there may be in the manger, he promises them a good feed after a while and goes to the house. His wife receives him with smiles and a good cup of tea and sundry accompaniments, and after eating heartily, he sits by the fire in the arm chair and goes to sleep. A storm comes up; the cold rain and sleet beat against the window panes, and make the rallying to go way out to the barn seem an almost impossible thing. He sleeps again and fimally concludes to let the horses go just this once and "feed them the more in the morning."

The result in either case is the same: the half-starved brutes get a double dose when the next regular time for feeding comes round and eat it all up of course; the stomach is crammed, the brain is oppressed, and "an uneasy sleep interrupts the gormandizing. The eye closes and the head drops. Suddenly the horse awakens with a start; looks around, becomes assured and takes another mouthful. But before mastication can be completed, sleep intervenes, and the morsel falls from the mouth or continues retained between the jaws."

Sometimes this condition remains for sev-
eral days; the head hanging down or firmly pressed against the manger or stable wall. "The pulse throbs heavily-the breathing is laborious, and the animal snores at each inspiration. The eye is closed; the skin cold and the coat staring; the nasal membrane leaden; the mouth clammy; the ears and tail motionless. The breathing alone testifies that it is a living animal.".

The accompanying eut graphically illustrates the appearance of the poor creature at this stage of the disorder:

## Water for Sheep.

Among the necessities for wintering sheep successfully, water, easy of access must be included. Without a constant supply, when confined to dry food, they will not thrive. If fed regularly and bountifully with roots, this will be sufficient. For various reasons it is best to have the water brought directly into the yards. The sheep will eat snow and ice in preference to seeking water at a distance, especially in stormy weather. They suffer both for the want of water, and from eating what is a poor substitute for it, as any one knows who has attempted to quench his thirst with a snow-ball. If the sheep are forced to leave the yards for water they not only acquire a
 habit of wandering, but casualties are liable to occur.
Many a carcass dragged from the deep spring or creek proves that not without reason does the sheep dread to approach their icy and slippery banks, overcome only by the demands of thirst. Sheep drink little and often.Watch a flock in the yard, even with new-filled racks. Their frequent visits to the watertroughs show that they like drink as

The remedy consists in the use of some agent which will relieve the bowels of the surplus grain. Mayhew recommends a quart of oil, repeated in six hours, should no amendment be detected. When another period of six hours clapse with perceptible improvement, he recommends thirty drops of croton in another quart of oil; "and in case none of these doses effect anything, that the round be repeated."
Pretty heroic treatment, but as he remarks, it is "more than an ordinary disease."

If not relieved, the disease will pass into the next stage, known as the Mad Staggers, when all hope may quite as well be laid aside.

Farmers attend to the cause. This is in your control in most cases, and humanity and economy both demand that they be less common, however unfrequent this terrible disease.
well as food. The
case seems so plain that this appears a needless discussion, but the serious error that "sheep will do well enough without water," has been too generally allowed to permit it to pass unnoticed. Pure water is the cheapest of necessities for the thrift of all stock.Homestead.

## Cavalry Horses.

The following suggestions from the old "Spirit of the Times" are worthy of consideration at this time:
"A few years ago we told them calmly, plainly, and emphatically, they would rue the day when they permitted racing to die out; that the time would come when they would need the courage and endurance of the racer in this breed of horses. We were laughed at for our pains, and men who ought to have known better shrugged their shoulders, remarking that it was our business to talk thus and so. The day which we prophesied has come; yea, verily, we can ask where are your horses? where are your chargers? where is the cavalry to come from to prosecute the war you have
undertaken? It is thoroughly understood by all who have any knowledge on the subject that men high in authority in this State insist that we camnot mount a regiment of cavalry properly. When this was first bruited broad people looked at each other in utter amazement; but such is the case-we have no horses.

What a laughable sight it would be, were it not so serious a matter, to see a thousand men mounted on a heterogeneous lot of horses, crossing over a plowed field with a ditch at one end, the Connestogas stumbling in their efforts to raise their feet over the ridges, falling when forced to a gallop, thetrotters trying to keep up at their unnatural gait, and the hacks that could gallop a little, after reaching the ditch, tumbling into it or trying to wade through instead of clearing it with a single bound; and worse than all would be the action of these brutes when within sound of the cannon's roar, shying, turning, twisting and running away at every explosion; and as for attempting a charge at cold steel, the sight of the bayonets glistening in the sun would make their hearts burst with very terror.

A first success is often more ruinous to a man than a series of petty defeats, for the one gives him an overweening confidence which may lead to his utter destruction; the other teaches fortitude and the means by which misfortune is to be overcome; the parallel is true of a nation.

When the Mexican war was first commenced we told the people that our cavalry was in a state of utter inefficiency, but coming in contact with an effete race of men, and, if possible a more absurd race of horses than the people of the country; a country in which the owners of large stocks of horses preserve as stallions only those animals which are deformed by nature, and would not bring a remunerative price in the stock market;-to such horses and to such a race of people we were opposed, it is therefore not to be wondered at that our own deficiency was not exposed, so easy was our conquest. So determinately were all our friends of opinion that a war could not be brought about except with an inferior race, that a cold shoulder has been turned to all our efforts, and the tests of a horse's value have lost interest to all but a very few.
The great advantage of cavalry is, after the enemy's ranks have been broken by the fire of artillery or a charge of bayonets by infantry, for them to get among the men and prevent the reforming of the ranks, completing the temporary disorder and causing it to result in a total rout. To accomplish this result, horses and riders must be thoroughly trained, capable of performing every evolution with precision and rapidity; the horses must possess endurance, courage, and speed; the latter quality is as necessary as the two former, otherwise the important moment may have passed, ere the cav-
aliers reach the enemy's lines, and they in turn be met with a warm reception; for if charging a line of regulars prepared to meet them their destruction is almost inevitable, yet when brought to bear on militia the opposite result is in nearly every instance to be anticipated; volunteers generally breaking before a body of cavalry as they do when charged by the bayonet; under such circumstances a well-organized body of horse are a most valuable auxiliary on the field of battle when you are opposed to raw recruits; veterans care nothing for a cavalry charge except when already broken, and then when the horse penetrate their lines and get between man and man, and commence the business of trampling them down while the riders use their sabres with terrible effect, then are the foot soldiers fully aware that their glory and honor is departed for that day, and their only hope of safety is in flight, which is at best but a poor recourse. The weight of the horses, the men, and their accoutrements, is a matter for very serious consideration. Horses could not be too large or heavy, provided they could have the proper speed and endurance, in both of which qualities the majority of large horses are lacking. If animals cannot in these days go faster than a trot, or a hand gallop, we might as well return to the use of the elephant as expect to derive any material advantage from a lubberly brute; therefore experience has taught that we must use a smaller, more compact, and purer bred horse. The English hunter comes nearer to the standard of what a cavalry horse should be than any other animal of which we have cognizance; he is very nearly thoroughbred, possessing all the virtues of the latter except extraordinary speed, but this defect is counterbalanced by an increase of stoutness. The next point for our consideration is the size and weight of the men. In former days it was customary to select the largest, strongest, and longest-limbed men that a country would afford, but recent experiments have shown that much lighter and smaller men could be used to greater advantage; that 145 pounds is the maximum for a rider; that himself and his accoutrements should not weigh more than 170 pounds.

Horse Taming in Old Times.-A horsebreaker in "the good old times of Queen Bess," gives the following directions:
"If your horse does not stand still, or hesi-tates-then al rate with a terrible voyce; and beat him yourself with a good stick upon the head between his ears, and then stick him in the spurring pluce iii or iiii times together, with one legge after another, as fast as your legges might walk; your legges must go like two bouching beetles."

Young Brood Mares.- I eonsider, in short, that to breed from a filly that is growing, is to run the hazard of unfitting her for fast work.

## Chester County Whites.

There seems to be quite a diversity of opinion among the admirers of this stock as to what it really is-some claiming one thing and some another. Our own opinion has been that there might be some humbuggery in the great efforts made to foist them as a new breed upon the ever eager public. Nor is such $\overleftarrow{\text { a suspicion }}$ entirely without sanction from some who have given them a practical trial.

Still we are anxious to contribute the influence of our journal to everything really meritorious, and hence, for the benefit of such as crave information on the subject, we publish what is said of their characteristics, \&e., by a "Chester County Farmer" in the American Farmer :

Among the important characteristics of this breed of hogs, is its remarkable aptitude to fatten at any age, and without being fed on grain. On good pasture, with the ordinary "slops" from the kitchen and dairy, the Chester will at all times keep sleek and fat,-in fact, our farmers frequently have trouble in keeping their breeding sows in sufficiently low condition when running to pasture, with nothing but pure water to drink. With this aptitude to fatten, we claim for the Chester, that they will produce more pork upon the same amqunt of food than any other breed, consequently, they are more valuable and profitable to the farmer, than any other breed. A genuine Chester, when well cared for, will gain on an average one pound weight per day till two years old, and has been known to reach one thousand tos. at that age and over. We do not consider it desirable, however, nor is it profitable to attempt to reach this great weight. From 300 to 400 tbs. weight makes the best pork, and a well fed Chester is sure to make this weight at from nine to twelve months old. At eight weeks old -which is the proper age for shipping, and they should never be sent abroad earlier-our shoats measure about thirty inches in length and weigh about fifty tbs.

The following are recognized by our best breeders here as some of the established "points" of this stock:-

Form-Head short and broad, face somewhat dished-wide between the eyes and jowls. Ears fine and thin, standing well out from the head, and pointing forward, (never drooping.) Neck short and thick, well set on the shoulders which are prominent and full. Sides carrying their full width back to the hams and rounded, Hams rounded, swelling out behind and at the sides, and presenting a full and round appearance on all sides. Back straight and broad.
(A pig that has low shoulders or sinks in the back, should at once be rejected as a breeder, -it is only fit for the butcher.)

Color-Clear white and when well washed presents frequently a silky appearance. (The least spot, or approach to a sandy color, indicates a "grade" animal.

Hair-Soft, thin on the back and belly, more thickly set on the sides, and frequently a little curled.

Bones small and fine. Tail fine, tapering and curled.

## Remedy for "Horse Distemper."

Mr. Editor:-You expressed a wish for farmers to write their experience of any matter that might help to benefit their brother farmers, and I greatly approve of that doctrine, if it be of ever so simple a matter.

I thought it was not right to be always receiving instructions through your columns and attempt to give nothing, so I will give my experience in treating my colts when under the disease of Horse Distemper. I had seven which had it last Fall. When first I saw any symptoms of it amongst them I commenced feeding them all with bran; wash once a day. Some times I put a table spoon full of sulphur in and a little salt to each colt. (I used also Buckwheat bran mixed.) Two of them were bad; their throats were nearly closed. I put tar in their mouths. The disease broke inside. In the others outside, and they had it light. I recommend to treat them early and keep them warm.

The disease was very prevalent in this neighborhood last Fall and a great many colts died of it. Yours, \&c., John Bryan.
Cross Plarss, Dane County, Wis.
Horses sometimes gnaw their bridles. One of our horses was in the habit of chewing the rein of his mate, or some other part of the harness within his reach. We dissolved aloes and assafoetida in dilute alcohol, and washed the reins with the tincture. One trial was enough for the beast, as he did not like the medicine.

Hay Required to Keep a Horse.-Five pounds of hay at a feed, or fifteen pounds per day, with twelve quarts of oatmeal, or its equivalent in shorts, will keep a good sized horse in fine condition for all road or farm work, and is amply sufficient. Some will keep on considerably less.

## A Rarey among Horned Cattle.

A correspondent of the N. Y. Tribune, writing from the Illinois State Fair grounds, speaks of a performance with steers as follows:
"Every year since I have been able to learn, I have learned something beneficial to me as a farmer, or something that I could communicate to others to their advantage. I shall try to profit equally by what I see here. I have seen one thing to-day which I wish every farmer, and every man who ever drives oxen, or handles cattle in any way, could see as I have seen. It would teach him the great benefits of the law of kindness. We have all heard of Rarey among horses and have almost loved the man in our admiration of his process of training. I have just seen a Rarey among horned cattle.

Here is a boy perhaps ten years old, training and handing six steers, not yet two years old, with all the ease that an experienced Yankee ox-driver handles a single pair while in the yoke; and he has no yoke, nor rope, nor does he speak a word scarcely above a loud whisper, and only occasionally strikes a blow that would raise a blister upon the skin of a child. All his actions are based upon the law of kindness, with a firm determination that all his orders must be obeyed. Now he brings up a single pair as though yoked together; then two yoke, then three; then he mismatches all of them as though he were about to yoke the off $o x$ on the near side. Then he changes places, and puts odd ones together; then he unyokes, if I may use the term when he does not use a yoke, all of them, and brings them up in a line like a platoon of soldiers, and with greater precision than any "awkward squad." Then he trains them round by two and three, or drops out a single one and orders him to a new place by a motion of his small whip, or, as it seemed to me, often by a mere effort of his will that he desired a change of position. For an hour that I stood watching, there was another pair of older steers standing just outside of the circle of his operations, patiently waiting their turn, until some one asked: "Can you handle eight as well as six ?" "I could," he modestly replied, "if my whip was a little longer. I can't reach the outside one, when in line with this short whip, but I will try." And so he did; and notwithstanding the short whip, all were managed with the utmost ease, and all who saw were taught a lesson which none seemed to tire of learning. I hope they will profit by it. Will those who read also profit so far as to pursue the same course in training all domestic animals. Teach your boys too, to yoke up the young steers, to use them kindly, with patient perseverance, to make them as bidable as this boy has these now on exhibition, and then they will make good, and valuable oxen."

## Training Horses and Boys.

An interview between the venerable Eliphalet Nott, President of Union College, and Mr. Rarey, the celebrated horse-tamer, developed, according to the Philadelphia North American, the curious fact that both gentlemen have acted on exactly the same theory in their widely different spheres of effort-the one a trainer of youth, the other of horses. This fact was brought out in the following conversation:
"I have been twice to see you perform, Mr. Rarey," said the doctor, "and this has begotten in me a desire to see you and compare notes. I have been a trainer of boys for more than half a century, and boys that have proven ungovernable in other hands have readily yielded to mine. Now, do you know I think that your bearing toward the horse is guided by much the same spirit that successful educators manifest toward refractory boys?"
"I am much pleased to think, sir," was the rejoinder, "that such is the case. In training the horse I use no other punishment than restraint. As soon as you know the horse's mind, and the horse comprehends you, the instinct of obedience leads him to do your bidding."
"That is just my view of boys," said the doctor.
"And," resumed Mr. Rarey, "I am satisfied that in even the worst horse the instinct of obedience is stronger than the reverse. The nobler the disposition of the horse, the fiercer and briefer is his resistance. The worst subjects are those in whom resistance is dogged and stubborn."
"But even in such horses you find the efficacy of your system more marked than the present mode of horse breaking?"
"Yes, sir. With such dispositioned horses there is no safety by the usual mode of subjection."
"Then your ideas and mine," said the doctor, "are precisely the same. I have been accustomed to horses from boyhood, and so trained them that at the sound of my voice, with a loose rein, they would stop, even when going down the steepest declivity."
"That is a cardinal point in my system," said Mr. Rarey, "to accustom the horse to my voice as much as to my person."

The result of the interview was confirmatory of the opinion already entertained by both, that neither in the subjugation of unruly boys or rebellious horses is cruelty, or the infliction of physical pain productive of any good result.

Use of the Curry-Comb.-It is said by old hostlers, that a good currying, brushing and rubbing down once a day, are equal to a feed of oats for a horse. However this may be, there can be no doubt that it greatly promotes the health and comfort of horses and cattle.

## THE HORTICULTURIST.

## Orchard Planting.--Fall Preparation

Is a consideration of more relative importance to the Fruit Grower, than that of fall plowing of the wheat field is to the Farmer.

For the same reason so far as the time and team is concerned, but more important still the preparation of the soil and sub-soil by the various changes produced by drainage-frost and the variations of the weather during the winter months.

As a systematic preparation of the orchard grounds we recommend-

1st. Thorough drainage of the soil and subsoil to the depth of three feet-four would be better.

2d. Loosening the sub-soil to the depth of sixteen to twenty inches.

3d. Ridging the ground so that at no time of the year surface water will stand near the tree, if planted on the ridge, and that no after cultivation may increase the depth of soil above the roots at the base of the tree.

The first point mentioned is one long discussed in its general bearings on agriculture, but its value to the fruit grower is ten fold, especially in all heavy clay soils with impervious sub-soil, whether in the valleys or on the hills; indeed in this direction its merits have not been half told.

In fact, by a thorough system of the underdrainage, the second and third points are nearly accomplished, as in time, the most compact soil will become porous by the percolation of water through the soil to reach the underdrain.

The second point, sub-soiling, is one on which our personal experience, the last four years, has been most satisfactory; and now we would as soon think of dispensing with the common plow as with the sub-soiler. By its use we have been permitted to look upon luxuriant freshness in the garden and nursery, when all around was parched and thirsty as the dusty highway.

Its good effects are more immediately appa-
rent to the general farmer and gardener than to the orchard grower; but as the means of giving a healthful depth of new soil to the tree roots, it is the most economical and scientific mode of enriching the orchard ground and preparing it for the reception of trees and plants. And here we wish to be understood that sub-soiling is to loosen the sub-soil, after and below the furrow of the common plow to the depth of twelve to twenty inches ad libitum, by the lifting shoe-soiler, not throwing it out to the surface to remain, as many seem to understand the term.

Ridging the orchard ground is perhaps the most ready way for preparation, and one which every farmer can well do at trifling cost with the ordinary plow, and which we have often recommended and described, but will again describe briefly.

Accurately lay off the ground and stake for the orchard rows one way, then with successive back-furrow plowings raise a ridge so that the highest point shall come exactly where the rows of trees are to be. Or, if the ground is new, untilled and unsub-soiled, it will be better to plow narrow lands of a few furrows width, so that the dead furrow may come on the line of the rows, and by successive plowings in the dead furrow, twelve to twenty inches can be reached with the common plow.

This, then, if lying through the winter, will be greatly improved in its condition by the action of frost and the weather generally.

Then in early spring, by successive plowings, form the ridge, and set the trees thereon with very little hole digging, except by a plow furrow on the tree line.

On this latter plan a neighbor of ours is preparing to plant out several thousand apple trees the coming spring, the same gentleman having set near a thousand pear trees in the same manner last spring.
This plan we highly approve of where general sub-soiling or under-draining is not convenient in the start, as both these operations can be performed during succeeding years. If it is upon the side hill where it is liable to wash, let the ridges run at right angles with
the descent; but if not liable to wash, always the other way. But again we wish to say, mind the main points of preparation. Thorough drainage and loosening of the sub-soil, and ridging to avoid surface water, and deep covering of the roots at the base of the tree.
These labors of preparation should, if possible, be done in the fall, either early or late will do, but the necessity of moving in the matter during the fall will come home to the good sense of every tree planter in the West.

In this connection we wish also to drop a word in favor of the annual cultivation of the orchard; we would like to tell every one of the grassy grain orchardists, to put in the plow, begin this fall, continue next spring, and never grow any of the grasses in your orchard unless you wish to see your trees look faint, siek and weary of life from starvation.
On this point we will talk long and loud when time and space will permit. J. C. Plumb.
$\mathrm{V}_{\text {ine }}$ Hill Nurserizs, Madison, Wis.

## How to Raise Fine Crops of Wheat.

Ed. Wis. Farmer:-As it is the season of the year when preparations are made for the wheat crop, to commence to raise it, I will tell you my method. In the first place, I don't calculate to sow any more than I can prepare the soil for. Plant and manure once in three years; plow about 10 inches deep, if done with one team; cut about the same in width, and not plow over an aere per day. It is very essential that it should be plowed in the fall, that the new soil plowed up may become pulverized by the action of the frost during the winter and spring; also, that the whole soil, stirred by the plow, may become somewhat compact before the wheat is sown.
After I have used all the manure made on the place, I have made a practice of drawing it from town and top-dressing the land before or after sowing, which has paid well, producing about one-third more than that which was not top-dressed.
Sow as early in the spring as the frost is out and land dry.
Prepare the seed by washing in strong brine;
dry with lime; sow one bushel and a half per acre; put it in well; harvest early, before it is dry enough to shell; get it clean by cutting it all, raking and binding it well. The result is that it averaged last year over 40 bushels per acre, and this year $32 \frac{1}{3}$ bushels. One acre that was top-dressed one year ago last spring, yielded 65 bushels. The quality both seasons was the best.
The plan that I have practiced for the few years past has increased the quantity from twenty or twenty-two bushels per acre to the figures above.
The motto is, "Sow less, and do it better ; manure well and get more."
Yours, \&e., M. C. Busherell.

## Product of a Vegetable Garden.

Dr. D. P. Wirson, of Massachusetts, reports the following splendid results of his small gardening for the present season. Let every reader of the Farmer resolve to "go and do likewise" next year, and then-not forget it:

The garden contained one-half acre, on which grew thirty-six apple trees, also twentyone of pear and other fruits. The apple trees are about five years old. All of the land was planted with common garden vegetables, and the following figures will enable you to form a fair estimate of the produce.
Forty-seven bushels Jackson white potatoes ; $8 \frac{1}{2}$ bushels tomatoes; 9 bushels Swede turnips; $2 \frac{1}{2}$ bushels English flat turnips; 3 bushels horticultural pole beans, for table use; 23 bushels China dwarf string beans; 6 bushels carrots; 4 bushels beets; $3 \frac{1}{2}$ bushels British Queen peas; 4 bushels parsnips; 8 bushels second crop turnips; 5 bushels small ears of Burr's sweet corn ; 1340 ears of Burr's sweet corn, for table use; 387 heads flat Dutch cabbage; 278 heads red Dutch cabbage; 14 heads cauliflower; 8 large pumpkins; 79 Hubbard squashes, 14 hills, 537 pounds; 178 summer squashes for table use; 319 cucumbers, white spined, for table use.
Many of the early garden luxuries were enjoyed by my family and friends, before any record was kept, which renders it impossible for me to furnish a full account of the whole produce of the garden. I sold more than enough to pay the expense of manure, ploughing, \&c., which was twenty-three dollars.

My family was constantly supplied with good vegetables, some were given to those who had none, and my cellar is well stocked for the winter. The whole cultivation of the garden was done by my own hands, during the spare moments from my daily occupation, and occupied about two hours per day, from six to eight o'clock in the morning during the season for garden labor.-Mass. Ploughman.

## How to Make a Good Orchard.

Editor Wis. Farmer :-At the request of a mutual friend, G. F. Hastings, Esq., I give you my management and treatment of our little orchard. I will give it, stating its short history, in as few lines as possible.

It is located on a rolling piece of land, soil clayey loam. I fenced it well, harrowed, and plowed it deep; then took my team and went to the nursery to select the trees myself and see that they were properly taken up with good roots. I selected them from varieties that had a smooth, healthy and vigorous appearance, with low tops, \&c.; did not ask many questions as to the name or quality, being determined to get trees that would stand our climate, and fruit early, and continue to do so. I will say here what I believe to be a great mistake with western people generally, that they are over partial to some old variety they used to eat at the East or South. They must have this and that variety whether they will do well or not; and after much time and money have been spent in raising an orchard, their hopes are all blasted, for the trees are knotty, scrubby, sickly, and at last die, and they are then brought to the conclusion that Wisconsin is no place for raising apples.

But to the setting out of my trees: after they were taken from the ground, care was taken to keep the roots moist till they were set in the ground again. The holes were dug large enough to receive the roots in good form, and about the same depth they stood in the nursery-care being taken to work the fine soil amongst the small fibrous roots. And, by the way, the soil that they stood in in the nursery was a sandy soil which produces a great many small fibrous roots, very essential to secure their living and doing well, when taken up and set out.

After they were set they were mulched with straw manure, and have been kept well mulched, packed, hoed, trimmed, and free of worms of all kinds. Washed in the spring with weak lye. No particular set time for trimming; but if a limb was found going wrong or too high, I
cut it off. They were three and some four years old at the time of setting. They were seven years old last spring. All are healthy, smooth, and have grown wonderfully. And the majority are well loaded with good fruit.

To tell the story in short, good trees were selected, then well fed and cared for. The result is they have done as well as they have been done by.

Between the trees I set currant bushes, and we have now bushels of currants. They were treated, after setting, the same as the apple trees were, and the fruit has been very nice and abundant. Yours, \&c., M. C. Bushnell. Omro, August 10, 1861.

## Horticultural Hints.

November will close up most of the horticultural labors of the season. The fruit trees and shrubs have produced an uncommon crop of fine fruit, or great growth of wood, and if never before, they now should be treated as children of civilization, and sensitive objects.
Prepare Fruit Trees for the Winter.-Earth banking, to the limbs is an excellent mode of protection, especially for low trees and dwarfs. If in grass land invert the soil. Form a nice conical mound which will shed water; will also prevent mice eating, bark bursting, and with a little straw mulch around the base will prevent root killing of the Quince and many other tender rooted plants. One penny each will pay the cost of well doing the whole.

Plow the Orchard?-(see article on "Fall Preparation,") especially late; secure good drainage of surface water and melting snows. This is the best time in the whole year to subsoil and under-drain; also this and next month to secure muck, turf, or leaves, for composting next year. Composted manure is invaluable to the gardener and nurseryman.

Attend early to the pruning of large limbsif it must be done-as recommended last month. There is but one other season for heavy pruning, which is immediately after the tree comes into leaf in the spring.

The Nursery, if it has been well treated during the season, is now a beautiful sight,
and an excellent time it is to select trees and plants for the spring setting, as every tree shows now what it is; also an excellent time to transport trees, if careful to preserve from frost. All young seedlings and tender trees, especially young hedge plants, should be well covered for winter, or taken up and holed in, as directed last month.

Grapes should now receive their annual pruning. Vineyard stake and trellis vines should be cut very short, cutting off generally nine tenths of the young wood after the prevailing mode of pruning. But in the renewal system the whole wood is cut back nearly to the ground every other year, and the alternate year a good amount of strong bearing wood is left for the next crop. The younger the vine the more this cutting back. Throw the pruned vine upon the ground and cover with earth, if a tender sort, or if generally hardy, cover with brush, straw, or litter, for the winter. See that no drip or slop from the house falls on any plant during the winter.

Raspberries, Blackberries, and like hardy plants, should be laid down and covered lightly with earth early this month, then as the winter closes in, with a straw mulch, or any other similar material.

Strawberry beds should be lightly covered with mulch. Cut straw, light manure, saw dust, tan or muck, are desirable, as they would not require removing in the spring and would repay ten fold in the next crop.

Pie Plant and Asparagus designed for early use should be covered early and heavily with straw or coarse manure. Seeds of many plants can be sowed with advantage now, with an eye to early use in spring and to ensure their growth,such as onions, parsnips, salads, and the seeds of apple, pear, peach, plum, walnut, \&c., all of which should be covered with some sort of mulch during winter. Many choice bulbs for early bloom can still be planted, but should be well mulched with coarse manure or straw to prolong their growth and preserve them.

Choice roses, especially perpetuals and moss,
should be strawed or sacked early, and well banked, either before or after.

It will pay as well to attend to all these little matters of preparation for winter, as the house and shed banking and corking for comfort of animals and preservation of the winter store of vegetables.
J. C. P.

## Several Fine Varieties of Plums.

[Grown by Dr. P. R. Hoy, of Racine, and forwarded, with brief notes, to the Editor, who has long since demonstrated the correctness of said notes by highly satisfactory cuts.]

White Magnum Bonum.-Not quite ripe. Requires to be thoroughly ripened. When on sandy soil it is a very tolerable fruit. Liable to rot on the tree.

Lombard.-Prodigious bearer. Not more than third rate. Light purple.

Long Prune.-Purple when ripe. Sweet and delicious. Valuable for drying.

Chesteson.-Small but delicious. A good bearer. Purple.

Imperial Gage.-In all respects a good plum. When over-ripe a rather sickish sweet.

Coe's Golden Drop.-Rather coarse. Not a superior fruit with us. Does not always ripen.

Columbia.-The most showy of all plums. Great bearer, but liable to rot.

Jefferson.- One of the best, but not a great bearer with us.

Washington.-Good always.
Smith's Orleans.-In my estimation, the best of all plums.

## Improvement of Vegetables.

There is no vegetable now cultivated, which is not susceptible of almost indefinite improvement. Yet we see very little difference between the crops produced now, and the crops raised by our forefathers. Indian corn, beans, pumpkins, squashes are the same, identically, as we were accustomed to see in our fathers' fields and gardens forty years ago, except that, in some instances, there is an obvious deterioration as regards both size and quality. This is the plain result of carelessness-a sin to which most cultivators will, we fear, be compelled to plead guilty, and of which they are annually, although some seem not to be aware of it, experiencing the fatal effects. The power of art over nature has already been most forcibly ex-
emplified in the vegetable kingdom, and with reference to some of the very productions which, in this enlightened age, we are permitting to "run out." By carefully studying the habits and modes of nutrition and growth covered by the various products of the soil, and by selecting annually the best, most perfectly developed, and most productive products of the field and garden, we may in a very brief period so modify and change them, as almost to remove them from their respective classes. The fine specimens of Indian corn which we see at our agricultural exhibitions have all been improved in this way.

The earliest potato we know of is the Ashleaved Kidney. It is small, white, and of a very perfect kidney shape, uniform in size and form. In quality it is very good, the best of the very early potatoes. In ordinary seasons this potato will be fit to eat the latter part of June, or beginning of July, and will be entirely
ripe by the middle of the latter month, if the ripe by the middle of the latter month, if the soil is not too rich or too moist, when it will
keep green a little later. Next to this in keep green a little later. Next to this in earliness is the Early June, a small, white, round potato, skin a little russety, but smooth. There are several varieties called by the same name, but when growing, the true Early June can be distinguished by its glossy leaves, that look as though they had been varnished. In quality this is hardly as good as the Ash-leaved Kidney, but is a little more productive, and is a fair potato for an early variety. Neither of these yields enough to pay for growing by farmers, except for family use, or where they can be sold at a high price-say a dollar a bushel-in some neighboring city.
Next to the above, and very good for a succession, is the Mountain June, a large, white patato, yielding well, but not of the best quality, though far from being a bad potato for the season, especially when grown on dry land.The Buckeye ripens about the same time as Mountain June, and is a large potato, giving an excellent crop. When grown on dry and rather poor ground, it is very good, but on soil that is rather rich, or moist, it grow too large, becomes hollow, and somewhat watery.-Rural
New Yorker. New Yorker.

## The Catawissa Raspberry.

This is one of the most interesting of the numerous varieties of the raspberry. Besides being a large, handsome and pleasant fruit, it bears two crops annually-the first at the ordinary period and the second in Octoberand thus can be enjoyed when other varieties have had their season and passed away.
We have had the pleasure of eating some of them during the month just past. They were
grown by Mr. A. G. Hanford, of Waukesha, and well sustained their high reputation.

## The Germantown Telegraph says:

There can be no longer any question as to the merit of this raspberry. We have now tested it for three years, and pronounce it to be a real desideratu.. It bears two crops of fruit in a season; but as many persons have other kinds which are better bearers at the time of ripening of the crop, they combine the energies of the cane upon the second crop which ripens late in the autumn; indeed, it continues to ripen from September to the first of November, should the weather not become too severe. At this writing (November 1st) we have upon the bushes large and perfegt fruit, as highly flavered as they can be in July. Yesterday, (October 31st), from the canes of five stools, a little basket of fine fruit was taken; and the same quantity twice a week for some seven weeks.
We know of several pretty extensive growers of the Catawissa, who cut down all the canes after ceasing to bear in the fall, close to the ground-this will give strength to the new canes the ensuing season, which supply the late crop. The early crop is taken from the wood allowed to remain over winter. Those who prefer two crops, must, about the middle of this month, prune the vines ready for staking in the spring, bend them carefully down to the ground and cover them with three or six inches of earth, shaped to a point on the top. When this year's wood is removed, cover the stools with an inch or two of soil, banking up in the same way. We have found this better than any other protection against frost.
The way to propagate this raspbery, is to take up the roots, say the latter end of January or beginning of February-cut them up into inch pieces, as the eyes may indicateplant them in a box of sand about one inch under the surface-place them under glass in a hot-bed, and keep moderately moist. One old stool will produce from twelve to twenty new canes.

The Climbing Plants.-No elass of plants are more useful in the hands of the skillful gardner than the climbers. They possess almost miraculous powers, transforming any unsightly out-building into an object of real beauty. No good gardener will have any bare board fences about his premises,-all are wreathed and festooned, and made gay and graceful. Then for covering cottage verandahs, what can equal this class of plants? They put to the blush all the expensive work of the architect, and the builder, and make the poor man's cottage appear more elegantpossessing more of nature-more of quiet grace-than the place of a prince. For this purpose, the hardy varieties of grape vines are very useful.-Rural New Yorker.

## MECHANICAL \& COMMERCIAL.

## [Communicated.]

## National Trial of Agricultural Machinery.

We understand that the preliminary steps were taken at the late Illinois State (Chicago) Fair, to get up a Grand National Trial of Agricultural Machinery during the coming season. The movement was set on foot by the machine men themselves, who from year to year of late, have been getting more and more disgusted with the helter skelter way that such matters are necessarily managed, when attempted at all, during the few hurrying days of a fair; when not unfrequently superficial, and may be interested parties assume to act as Judges and to pass awards upon ingenious and complicated machinery; of which, perhaps, they know nothing, and may be careless.
It is not more difficult to tell by looking at a race horse, what precise time he can make, that what or how well a machine will perform without absolutely trying it in the field and for days together.
The proposed trial is intended to be as thorough as possible, with every class of machines entered for the purpose. And instead of being merely a reaper and mower trial as hitherto, to be sufficiently comprehensive to embrace every important class of farm machinery. For instance one class to embrace all soil workers; not only plows, but all their competitors, put through every kind of soil and circumstance calculated to test and determine their absolute as well as comparative merits.
Next in order would come seed planters of every important description, both for hill and drill work.
Then perhaps the cultivators of the soil in crop in all their varieties of style and operation.
Then the mowing and harvesting machines for a long and thorough trial in every kind of work and with every possible test.
Then the threshers and eleaners and granary and barn machinery generally.

Such is an outline of what is proposed and intended to be carried out more thoroughly
than ever hitherto in this country, and with the view of absolutely determining which the best machines are in fact, and not as is too often done, which the smartest men are to fish for premiums. In fact it is proposed to enact the death penalty for all who in any way undertake to influence committees or decisions. It is intended that every decision and award shall be as carefully arrived at as the decision of a Supreme Court or verdict of a Jury. To the end that the trial may be of some absolute use and benefit to community; furnishing as it will, correct and reliable data of merits and demerits.
Perhaps some may be impressed with the idea that the undertaking is too large to be successfully carried through in a single season; but to this we would reply that the plan of operations would probably be to appoint special and independent committees for each department who would proceed under the instruction, rules, and superintendence of the general committee to make their trial tests at such time and place as might be thought best and determined upon. Thus the trial of plows, \&c., may take place at any one point and its proper season, and of the best class of machines at another when the right time arrives for it to be done to the greatest advantage. So that one will not materially or necessarily interfere with another, and thus during the whole season the entire programme will be fully and thoroughly worked out. The places for the different trials would be selected under a full consideration of all the circumstances.

A proper and full programme of the whole matter will probably be put forth to the public in due season.
To such as may think it not an opportune time on account of war difficulties, we reply that we hold to just the reverse idea, it will not be the object of such trials to collect large crowds of men, idle curiosity seekers, but merely and mainly the amateurs, experts and directly interested parties whom the war will not divert much, if any, and the South, in such a matter, of course, would not be missed at any time.
P.


## Powers' Universal Self-Rake.

The above cut gives a good general idea of this new novelty in the way of labor-saving inventions referred to in our last issue. It may be briefly described as follows:
" $A$ " represents the rake in its vertical position, just ready to fall down behind the reel to the position of the dotted line upon the platform "C," and into the grain when upon the platform, which is at once swept off in a bundle by the revolutionary motion of the rake, which is made to revolve entirely around, as often as a bundle is formed. The revolution is performed by a pair of bevel wheels underneath the dish "B," the one on line shaft "D," and the other on the lower end of an upright spindle coming up through the center of the dish. See cut " $E$," on the top of this spindle or vertical shaft, the rake is pivoted in a joint "F." Upon the rear end of the rake is a friction roller, which by being operated upon by the cams or ledges of the dish " $E$ " causes the rake the instant it has left the platform, (or throws off the bundle, ) to raise gradually to a vertical position while passing the standing machinery and driver's seat on the reaper. Still the constantly revolving motion of the shaft keeps it turning, until it is again around in the right position, and ready to again fall into the grain; the roller upon the end of the rake being permitted to escape upwards between the parallel
ledges shown in dish "E." The rake is facilitated in its fall by a stiff double coiled wire spring, seen at "F." Which spring is so contrived as to easily be made to exert more or less force according to circumstances. Thus the constant revolutions of the rake become nearly or quite as simple as those of the reel, and apparently requiring but little more power to drive it.

One great advantage this style of rake appears to possess over all others, arises from the fact that it is so geared as to admit of arranging it to run any sized bundle that may be desired according to the lightness or heaviness of the grain, not for a single bundle as in the old style of self-rakes, but to run at any speed that is desired for all day, longer or shorter. This will prove a great advantage, and one that all farmers who have used the old unchanging style will readily appreciate.

The whole arrangement is light, weighing only forty or fifty pounds, and so compact and simple in action, as to surprise all who see it, with wonder that it had not been thought of before, especially when it is remembered how much labor and pains have been bestowed upon the subject of inventing a self-rake that would successfully displace the extra man, upon this great labor-saving machine of the age-the reaper. We hope this rake will realize all the high expectations formed of it, and cannot see why it may not. We also hope, at no distant time, to see an entirely suecessful and practical self-binder, requiring no man or boy to run it; thus enabling the reaper to perform its complete and full mission of going forth with merely a driver to cut, rake, and tie up the grain ready for the boys to set in shocks, thus excusing man altogether from raking and binding. Good fortune hasten the day, the world must be fed with cheap bread, and only mechanical ingenuity can cheapen the cost of producing it.

An Undesirable Machine.-There is a class of men who are ever ready to pump you to any extent if you only give them s handle.

## Ancient Commercial Cities of the Low Countries.

## BRUSSELS.

Brussels, one of the most ancient cities of the Province of Brabant, and now the capital of Belgium, forms an amphitheatre upon the bank of the Senne, a mere rivulet of thirty feet in width.

This flourishing inland city still retains an hundred thousand inhabitants and several cathedrals, which were erected in the eleventh and twelfth centuries, and the city itself was founded as early as the seventh century.

It grew under popular institutions. As early as the thirteenth century it adopted the trial
by jury.

It flourished under the Duke of Burgundy, and under various sovereigns has been embellished by magnificent churches, hospitals, a savings bank with large deposits, boulevards, canals and railways, a theatre, college, academy, picture-gallery and observatory.

It was once distinguished for its manufactures, but was checked in its prosperity by the Duke of Alva.

In 1695 it was bombarded by Marshal Villeroy.

In 1706 it was taken by the Duke of Marlborough.

> In 1746 it was taken by Marshal Saxe.
> " 1794 "

LIEGE.
In the seventh century Liege was known as the village of Legia, lying on the navigable waters of the Maese, and near the centre of a coal field fifteen miles in length and five in width; it soon began to expand, and, erecting a cathedral in the eighth century, became a
bishopric.

As it continued to expand its bishops became princes. Its burghers, however, were always imbued with an intense love for their popular institutions, under which they grew and prospered until its population, in the fifteenth century, rose to 120,000 , from which it gradually declined, under a less liberal government and successive wars, to one-half that number in 1838, but is now gradually recovering under the constitutional government of the King of Belgium.
Liege has been distinguished for its extensive coal trade and manufacture of iron, copper, alum and sulphur, and for many years has annually produced two hundred thousand muskets, fowling-pieces and other fire-arms, and five hundred pieces of cannon. It is, in fact, one of the chief arsenals of Europe.

In modern times the ancient palace of the Prince Bishops has been devoted to the manufacture of steam engines, by Messrs. Cockerell, of England, who employed there sixty steam engines and twenty-two hundred operatives. A strange transition, from the elegant and festive entertainments of the founders of the palace.

Liege is connected with the great canal and
railway system of Belgium, and the banks of the, Maese are lined by a commodious quay for the vessels which navigate that river.
In 1408 Liege was taken by Charles the Bold of Burgundy, and in modern times has been annexed to Belgium.

## LISLE OR LILLE.

This city, once a part of Flanders, was founded A. D. 640, and flourished under the liberal sway of the counts of Flanders, who seem to have early discovered that commerce, manufactures and wealth were best promoted by liberal charters, and to have allowed their growing cities to establish systems of self-government.
Lisle had risen to great importance, when it was besieged and taken in 1667 by Louis XIV., and annexed to France. After a lapse of forty-one years it was recaptured from France by the Duke of Marlborough, but at the treaty of peace reverted to France, and remains one of the few permanent acquisitions from the costly wars of her great monareh.

In 1836 Lisle contained 72,000 people. Its ancient manufactures of laces, velvets, serges and linen still survive, and to these have been added cotton and beet sugar.

It has an active commerce by canal and railway.

## LOUVAIN.

This city, which now forms a portion of Belgium, was in ancient times a celebrated city of Brabant, and subsequently of Burgundy. During the fourteenth century its manufactures of linen and wool rose to such a height of prosperity that it is reported to have held 150,000 artisans; and although this tradition has been questioned, the great extent of its ramparts, now converted into boulevards seven miles in circuit, attest its former grandeur. It is accessible to vessels of 150 tons burthen, by a canal which communicates with the Scheldt, and contains an university of great celebrity, to which are attached no less than forty colleges. Having revolted from the Duke of Brabant, near the close of the fourteenth century, it sustained losses from which it has never recovered.

## DELFT.

This ancient town, which lies between the Hague and Rotterdam, and within four miles of the latter city, was founded in 1074, and was long renowned for the manufacture of porcelain, cloths and carpets. Its porcelain was carried to all parts of the world by Dutch commerce until the cheaper wares of England gained a preference.

Its population is now but 15,000 , and its modern expansion is in the almost contiguous seaport of Rotterdam, the second city of Hol-
land.

## Fall Care of Implements and Machinery.

"Line upon line!" Yes, so long as the necessity continues so great as at present. One would naturally suppose that in these hard times, everything that costs much money would become an object of peculiar care. The reverse, however, appears to be true, for we find everywhere in our travels valuable plows, harrows, drills, rakes, rollers and reapers, ranging in price from ten to two hundred dollars, lying out in the fields just where they happen to have been last used.

Ask any farmer in the country whether these several implements and machines are not more damaged by standing out in the alternate sunshine and storm of autumn than if kept in constant service with proper care, and he will answer, "yes," without a moment's hesitation. What then is the secret of this deplorable and shameful neglect, of which complaint is here made ?

It is all answered in one word, which, if we had the power, we would brand upon the forehead of every slack, slobbering farmer in the country-shiftlessness.

American Implements.-An English writer of character, in a recent communication published in London, thus compliments Yankee ingenuity and enterprise:
"Some years ago, a very clumsy, heavy wheel-plow was in use; it required two men, with four, sometimes six horses. This is now superseded entirely by the swing-plow (after the Scotch and American models) which requires only one man and two horses, and does its work better. The hand implements have only attracted attention of late years; those now used are generally made after American models."

Industrial and Commercial Towns of Wis-consin.-This series of articles will be resumed in the December No. Since the issue of the August No. we have been so thoroughly occupied in attending Fairs, County and State, as to have no time for the work of providing ourself with the necessary information.

SCIENCE, ART, STATISTICS.

## Flax Cotton.

An Iowa correspondent of a morning paper talking of the culture and preparation of flax in that State, writes from Fairfield:

We have had in operation at this place one of "Randall's Brake's" and a "Scutcher or Duster," both manufactured in Rhode Island, for the purpose of preparing flax straw for the manufactory. The process is as follows :

The flax is mowed with an ordinary scythe or mowing machine, before it is thoroughly ripe; is cured in every respect the same as hay. It may be threshed the same as any other grain, the tangling of the straw not injuring the fibre in the least. It is not necessary that it should undergo a rotting process, as it breaks equally as well without, the only advantage of rotted over unrotted straw being in the distance it may have to be hauled, as the former weighs about one half less than the latter, there being a corresponding difference in price.

The brake separates the woody portion or shaves it into small particles, which are removed by the duster. It is then ready for baleing and shipping to the manufacturer, where it undergoes the cottonizing process. One ton of straw yields from 500 to 1000 pounds of lint.About 200 tons of the unrotted straw has been engaged in the vicinity of this place at $\$ 5$ per ton, by the party who has control of the machinery here. This is intended merely as an introduction to the operation for next season, when a large amount of machinery will be located here for the purpose of preparing the straw for market. Two of the same brakes are in operation at Mt. Pleasant, Henry Co., Iowa, with the same success as here.

I do not think that we can entertain a doubt as to the success of this movement. - With Yankee ingenuity and Western perseverance both interested, there can be no such thing as fail.

## The Lost Arts.

A great deal of nonsense has been uttered by sensation lecturers and magazine writers about wonderful arts that perished with the ancients. To trust in the lamentations of these wiseacres over the "lost arts," one would think we had fallen upon very degenerate times indeed. But none of these doleful stories are true. Cleopatra, no doubt, was a very fine woman, but she never dissolved pearls in wine. Archimedes was a great man in his day; but he never set fire to the Roman ships with burning glasses, as the fable relates.

The ancients had no useful arts which we do not understand better and practice more skillfully than they did. The humblest American mechanic could teach the polished Greek and
cunning Egyptian sciences and arts of which they never dreamed. The ancients, indeed, did many wonderful things which have not been since repeated, but they were only such things as are not worth doing over again. If we had occasion to build such a foolish thing as a pyramid, we would improve on our model in every respect; and instead of keeping a hundred half starved slaves at the work for twenty years, we would turn it out finished in a few months. George Law and a hundred others would be willing to take the contract at a day's notice.

If any people, now-a-days, lived in a condition like the ancients, they would be objects for sincere pity, and it would be our duty speedily to send missionaries among them. What a lamentable sight would be a nation of great mental vigor, half clothed and half fed, tilling the earth with wooden plows, without soap,
pins, friction matches or india rubber! How pins, friction matches or india rubber! How
queenly would one of our factory girls appear queenly would one of our factory girls appear
to them! Beggars, now-a-days, with regard to the comforts of life, fare better than ancient
to the cith regard
kings.-Scientific kings.-Scientific American.

Flax Cotton.-A correspondent from Boston thus speaks of the recent invention for "flaxing out" King Cotton:

There are now in operation in this city experimental works for the manufacture of flax fibre into a material called febrilla or flax cotton. This can be produced in any quantity at between seven and eight cents per pound, and the cloth made from it is better in every respect, and will take and preserve colors better than cloth made from cotton. The raw material, flax, wild or cultivated, can be produced and is produced in Canada and all the Northern States in vast quantities. Col. Lander in one of his recent reports speaks of coming to plains covered with immense quantities of this plant growing wild.
Now, here is an article which even now can be had in quantities so that its material can be produced at from two or three cents per pound less than cotton, which makes a better cloth, and which is destined to supersede cotton. Slowly but surely the parties owning the patents for the process for manufacturing this article are working it into the attention of our people.

月Э5 A needle may be magnetized permanently by passing the north pole of a magnet from the eye to the point several times, the friction being always in the same direction. The magnet must always be lifted up when it reaches the point.
phur boiled for half an hour one pound of sulis a perfect for half an hour in an iron vessel is a perfect protection from damp to brick walls. It should be applied with a brush, while warm.

## A New and Valuable Invention.

Mr. S. N. Rice, of this village, has invented, and has now nearly finished, a musical instrument, that, in our opinion, is destined to take entire precedence of the piano, and in fact, all that class of instruments. The tone of this instrument approaches nearer the human voice than anything in the music line that we ever heard-it is, in fact, so near that it is almost impossible to distinguish one from the other. It also resembles somewhat the tone of an organ, in its deep and lengthened vibrations. The principle upon which the tone is produced, is entirely different from any other instrument.
It is fourteen years since the idea first occurred to Mr. Rice, and was first suggested to him in his endeavors to improve upon the piano. The cost of the instrument will be about the same as the piano. Mr. Rice intends soon to apply for a patent, and has made arrangements with a wealthy gentleman in Chicago, to furnish means for manufacturing. It is truly an important and useful invention, and demonstrates a great inventive genius in the originator. We trust that fortune which has so long tempted him, may now reward his efforts with success.-Horicon Gazette.

Powrr.-Steam is no stronger now than it was a hundred years ago; but is put to better use. A clever fellow was acquainted with the expansive force of steam; he also saw the wealth of wheat and grass in Michigan. Then he cunningly screws on the steam pipe to the wheat crop. Puff now, 0 steam. The steam puffs and expands as before, but this time it is dragging all Michigan at its back to hungry New York and hungry England. Coal lay in ledges under the ground since the flood, until a laborer, with pick and windlass, brings it to the surface. We may well call it black diamonds. Every basket is power and civilization. For coal is a portable climate. It carries the heat of the tropics to Labrador and the polar circle; and it is the means of transporting itself whithersoever it is wanted. Watt and Stephenson whispered in the ear of mankind their secret, that a half-ounce of coal will draw two tons a mile, and coal carries coal, by rail and by boat, to make Canada as warm as Calcutta, and with its comfort brings its industrial power.-Emerson's "Conduct of Life."

DG5 Pennsylvania made the first turn-pike road in the United States, laid the first railroad, established the first water works, ran the first locomotive, established the first hospital, the first law school, the first public museum, the first hall of music, and the first library in the world opened freely to all. Good for Pennsylvania.

## THE HOME.

## What Might be Done.

## by charles mackay.

What might be done if men were wiseWhat glorious deeds, my suffering brother, Would they unite
In love and right,
And cease their scorn of one another!
Oppression's heart might be imbued With kindling drops of loving kindness ; All knowledge pour,
From shore to shore-
Light on the eyes of mental blindness.
All slavery, warfare, lies and wrongs, All vice and crime might die together; And milk and corn,
To each man born,
Be free as warmth in summer weather.
The meanest wretch that ever trod,
The deepest sunk in guilt and sorrow, Might stand erect,
In self-respect,
And share the teeming world to-morrow.
What might be done ? This might be done, And more than this, my suffering brother; More than the tongue
E'er said or sung,
If men were wise, and loved each other.

## A Few Plain Words to Good Husbands.

We use good, in the above heading, in a qualfied sense; since husbands who are absolutely good may be supposed to need no word-especially of the kind we have to offer. To explain, we intend those who are kindly and generously disposed, but who have the fault of sometimes forgetting their duty in certain important particulars; so that their good wives, as a consequence, enjoy less of the comforts and luxuries of life to which they are justly entitled.

Winter is coming. Storm, and snow, and mud, while they necessarily curtail your own operations without, will, on the other hand, increase the labors of the housewife within. Will you not, therefore, take more pains than usual-more than ever heretofore-to provide those who have the care of the house and who are expected to minister to your personal comfort, with the best possible facilities for performing their responsible and often arduous and trying tasks.

See that the winter stock of vegetables and provision stores of all kinds are nicely put away in the cellar, and so arranged as to be easy of access.

Take care that there be a good quantity of wood at the door, and that it be such as can be burned without that provoking steam and smoulder and smoke, which are allowed to prove so annoying and irritating to four-fifths of the farmers' wives. Well seasoned wood, properly cut and stacked up under cover of a convenient house, if you have it, and if not, then under a temporary shed, is an important matter, and will pay a large per cent. by saving time, money, and wear and tear of patience.

Again, provide the several rooms of your dwelling with suitable wood boxes, and yourselves see that some man or boy about the premises keeps them filled with wood. It is a very poor way to have wood piled upon the floor, making litter and bruising the wall. A common rough box, such as any farmer can make in a few minutes, can be made to look very neat by covering it with paper, and will save a great deal of time and bother on the housekeeper's part.

Now is the time, also, to make walks from the house across the door yard in the directions most traveled. It is a source of great vexation and labor to any tidy housewife to have quantities of mud and gravel tracked into the house every time the door is opened to friend or stranger. A few boards, bricks, or stone, judiciously used, will obviate it all; see that they be not wanting, and that the work be done now, before the hard rains set in.

Once more: During the long winter evenings, when your self-sacrificing and untiring companions have "done up the work" and are prepared to sit down to the further task of knitting stockings and mittens for the family, or mending or making garments for the household, don't be found either lounging about some place of resort, or even sleeping like an animal before the fire; but rather employ your precious time in reading some profitable book, newspaper or periodical-(not forgetting the Farmer)-nor yet silently reading, but in a clear and distinct voice audible and pleasant to her. This is the way to lay up stores of knowledge that shall advantage you both, in the discharge
of the responsible duties of life-the way to cherish and strengthen that holy affection, without which marriage is a terrible mockery, and the lives of both husband and wife a miost serious and mournful failure.
Finally, forget none of these things.

## Not Lost for Ever.

Not lost for ever! though on earth we've parted; Not lost forever though we meet no more: They do not wander lone and broken hearted Who see Heaven's radiance on the further shore.
Not lost for ever! every gentle token, That memory wins me from the far away, Shall fill my soul, though all the ties are broken, With tender grace that never can decay.
Not lost for ever! while around me springing
The violets weep, the roses blush and blom, The violets weep, the roses blush and bloom; And summer birds, in summer woodlands singing,
Flood with sof music all the trand Flood with soft music all the tranquil gloom.
There will be meaning in the stars, the flowers,
The grand and solemn voices of the The grand and solemn voices of the sea, Telling of happy dreams, and happy hours, of life and sunshine, which it caught from thee.
Not lost for ever! thou shalt still be near me,
Through every future, and in every clime;
When cares oppress, or gentle memories cheer me,
Thou shalt be with me, dearest, all the time!

## Libel on American Ladies.

An atrocious fellow, who signs himself M. Kohl, contributes an article on American women to Bentley's Miscellany for September. From his article we copy the annexed ex-
tracts:tracts :-

## how the ladies look.

The great majority of American women are moderately pretty, very passable, or pleasingly pretty. Still their charms are concentrated more in their features than in their demeanor, figure, or corporeal shape. A classical bust, rounded arms, and well-developed limbs are the greatest rarity among them. You may gaze on a hundred and not discern one shapely waist. The effeminate manners of these anything but Spartan republican ladies, their horror of bodily movement and physical exertion, produce a neglect and decay of the entire muscular system. Walking in the open air is something quite unusual with them, for in their country, where there are no footpaths or promenades, they move about in carriages, and rarely on horseback. The rest of the day they spend, after the fashion of ladies in eastern harems, on softly covered sofas, or in their favorite rocking-chairs by fire-sides. Many
American husbands ought to discard rockingAmeriean husbands ought to discard rooking-
chairs-if they wish tidy-looking children. chairs-if they wish tidy-looking children.
They are used only by lazy women and slovens. They are used only by lazy women and slovens.

## american beauties.

Full beauties, a la Rubens, are never found among American women, and equally rare are
those graceful, well-rounded, elastic, Junico forms which may still be seen in Italy and other European countries. The ladies of Kentucky alone offer an exception to this; but the rest all resemble tulips, in whom only the head delights. Their faces, too, are pleasanter through the delicacy of the expression. Their complexion is hardly ever rosy, and rarely lively and fresh. They are all somewhat pallid, like zealous romance readers among ourselves. They seem to be hot-house plants, and their entire education and formation in the fashionable ladies' academies is on the forcing system. These pretty, delicate palefaces are met with not only in capitals, but far away up the Mississippi, in the new settlements, and in the prairies among the Indians.

## HOW THE UNMARRIED ACT.

If there be any especial beauty among the daughters of a family, she assumes the mastery so utterly that, so to speak, everything is done in her name. Even though the official invitations to balls and parties are made in the parents' names, the daughter has most certainly selected the candidates. She will also invite any one she pleases, or may be introduced to, without asking papa or mamma. When young people arrange to visit any house in the evening, they do not say, as in Paris, "Shall we visit Madame N. to-night?", but "Shall we go
call on Miss A. or Niss B.?" call on Miss A. or Miss B.?" The good papa, some rum-bibbing member of Congress, or senator, bothered with political committees, is not at all taken into consideration. On entering the house, the daughter is naturally seen sitting in the centre of the sofa, and the conversation is exclusively addressed to her. In many cases the mother is quite passed. over. If she be at all wearisome, she generally sits with the grandmother warming herself at the fire. It often happens that a stranger may stand on very intimate terms with the daughter ere he has been introduced to the mother. The liberties which may be taken with young ladies in conversation are, according to her notions, very great, even more so than they take themselves, or provoke. They are very forward and $\boldsymbol{\sigma}$ elf-conscious, and this can be seen at their meetings in the street or on any public occasions. They look about them pertly, and openly stare into the faces of passing
gentlemen, salute them first, gentlemen, salute them first, cast their eyes down bashfully, and approach them timidly when they have received the signal to begin the conversation, or what the Americans call, so characteristically, the flirtation. For the conversations of the two sexes rarely consist of more than flirtations. The word is untranslatable; the ideas of paying court, coquettish and playful love-making, and trifling-gossiping are comprised in it. The young chivalrous Ameriean "beaux" and their "belles" are wondrously practised hands at it. The couple have scarcely met ere the lisping soft causerie
begins, and goes on uninterruptedly, as if the watchwork had been wound up for the purpose. They twitter and flutter incessantly like a pair of turtle-doves; like two trout in a stream, they swim around each other for hours, until the beau breaks off the affair, because he remembers that he wants a glass of rum and water, or a cigar.

## HOW THE MARRIED LADIES ACT.

In America, this terrible degenerated reverence for women, which might be called more truly pampering and spoiling, is naturally felt mostly by husbands, who have entered upon a life-long slavery. If a lovely American girl sinks into the arms of a man, to be bound to him for life, she does it much in the same way as she throws herself into an easy chair. Marriage is her pillow, her sofa, on which she proposes henceforth to comfortably repose. Upon it she confidently throws all the burden of her cares and troubles; she regards the husband as her factotum, who has to provide for all her wants. He must procure her a house according to her fancy, he must furnish this house exactly as she wishes it, he must arrange and administer kitchen and cellar, and every morning, before breakfast, make the necessary purchases for the day's meals. Even in Washington, at times you may see senators, statesmen, renowned in the world and influential in the papers, hurrying to market places early with a basket on their arm, and carrying home salad, pastry, green peas, strawberries, or other vegetable produce. Even farmers' wives often hold themselves much too high for business of this sort, and scenes of the following nature may be seen at market: A young farmer's wife I once saw sitting in a little one-horse chaise and holding the reins. In her elegant dress she could not, of course, be expected to go into the dust and confusion of the market, so she had sent off her husband. He was busy among the stalls, like a swallow collecting insects for her young, and presently appeared again laden with all sorts of boxes and parcels. These the farmer's wife, naturally, could not take on her silk lap, so the husband had to hold them carefully in the chaise. The wife, however, whipped up the horse, an they started homeward, the wife as driver, and the husband as servant-to me a symbolic picture of American married life. It is, however, only by chance that the wife accompanies the husband on such expeditions; usually she remains at home and busies herself with her toilet, dusting her elegant furniture and fondling her children. Only one description of purchase American women attend to themselves, and that is articles of dress. A drive to the elegant shops of the city is, with the exception of the walk to the church on Sundays, almost the only regular promenade an American lady undertakes. These trips take place almost daily, for the wardrobe of such a lady is a greedy mælstrom, which has every morning a fresh appetite and fresh
wants, and is never satisfied. It is impossible to understand what becomes of all the silks and satins which the ladies spread out upon the sofa expressly provided for them in the fashionable shops, and desire to be sent home. At times they order their husband to accompany them when shopping, to act as privy purser. If he has more pressing business, he finds the bill on his return home, and must look to the settlement of it, for American ladies never have any money, and do not understand its management. They have none of that house-keeping economy which in Europe is regarded as a virtue, but in America, especially with the ladies, is a despised and unknown quality.

## An Indian Wife.

"I was the wife," said the Indian woman, " of a Blackfoot warrior, and I served him faithfully. Who was so well served as he ?Whose lodge was so well provided, or kept so clean? I brought wood in the morning, and placed water always at hand. I watched for his coming, and he found his meat cooked and ready. If he rose to go forth there was nothing to delay him. I searched the thought that was in his heart, to save him the trouble of speaking. When I went abroad on errands for him, the chiefs and warriors smiled on me, and the young braves spoke soft things in secret; but my feet were in the straight path, and my eyes could see nothing but him. When he went out to hunt, or to war, who aided to equip him, but I? When he returned, I met him at the door, I took his gun, and he entered without further thought. While he sat and smoked I unloaded his horses, tied them to the stakes, and brought in their loads, and was quickly at his feet. If his moccasins were wet, I took them off, and put on others, that were dry and warm. I dressed all the skins he had taken in the chase. He could never say to me, 'Why was it not done?' He hunted the deer, the antelope, and the buffalo, and he watched for the enemy. Everything else was done by me. When our people moved their camp he mounted his horse and rode away, free as though he had fallen from the skies. He had nothing to do with the labor of the camp; it was I that packed the horses and led them on the journey. When we halted in the evening, and he sat with the other braves and smoked, it was I that pitched his tent; and when we came to eat and sleep, his supper and his bed were ready."Irving.

A Qualification.-A merchant, lately advertising for a clerk, "who could bear confinement," received an answer from one who had been ten years in a State prison!

Those who are always peering into the affairs of their neighbors constitute a very mean sort of peerage.

## Bits of Spice.

Wink at small injuries rather than avenge them. If, to destroy a single bee, you throw down the hive, instead of one enemy you make a thousand.

The tears of beauty are like the clouds floating over a heaven of stars, bedimming them for a moment that they may shine with greater lustre than before.
"It is a shame, husband, that I have to sit here mending your old clothes." "Don't say a word about it, wife; the least said the sooner mended."

A bankrupt was condoled with the other day for his embarrassment. "Oh, I'm not embarrassed at all," said he, "it's my creditors that are embarrassed."

When Caesar slipped and fell, on landing in Africa, he is said to have exclaimed: "Land of Africa, I take possession of thee!" Thierry in his "History of the Norman Conquest," says: "The Duke (the conqueror) landed last of all; the moment his foot touched the sand, he made a false step and fell on his face. A murmur rose, and voices cried 'Heaven preserve us! a bad sign.' But William, rising, said directly, 'What is the matter? What are you wondering at? I have seized the ground with my hands, and by the brightness of God, so far as it extends, it is mine, it is yours.'"

Froissart relates that Edward the Third fell with such violence on the sea shore at La Hogue that the blood gushed from his nose, and a cry of consternation was raised; but the king answered quickly, and said: "This is a good token for me, for the land desireth to have me;" " of the which answer his men were right joyful."

Voltaire, speaking highly of Haller, was told that he was very generous in so doing, since Haller said just the contrary of him. "Perhaps," remarked Voltaire, after a short pause, "we are both of us mistaken." Libanius writes to Aristænetus, "You are always speaking ill of me. I speak nothing but good of you. Do you not fear that neither of us shall be believed ?" Themistocles, in his lower fortune, leaned to a gentleman who scorned him; when he grew to his greatness, which was soon after, he sought to him. Themistocles said,"We are both grown wise, but too late."
"Bion was sailing, and there fell out a great tempest, and the mariners, that were wicked and dissolute fellows, called upon the gods; but Bion said to them-'Peace! let them not know that you are here.'"

Some men's mouths seem to be like the dikes of Holland-made to keep out water.

Truth itself becomes falsehood if it is presented in any other than its right relations.There is no truth but the " whole truth."

An Eccentric Will.-The will of the late Earl of Pembroke contained the following bequests: "Item-I give all my deer to the Earl of Salisbury, who I know will preserve them, because he denied the King a buck out of one of his own parks. Item-I give nothing to Lord Say; which legacy I give him because I know he will bestow it upon the poor. ItemTo Tom May I give five shillings; I intended him more, but whoever has seen his 'History of the Parliament,' thinks five shillings is too much. Item-I give Lieutenant Gen. Cromwell one word of mine, because he never kept his ovon. Item-I give up the ghost."

No man has a right to do as he pleases, unless he pleases to do right.
He who thinks he can do without others is mistaken. He who thinks others can do without him, is still mere mistaken.
"Dear me," said a shrewish mamma, "where can that boy have got his temper from? Not from me, I'm sure." "No indeed, my dear," said the patient husband, "I can't perceive that you've lost any of yours."
If a man is dissipated, his fortune will probably soon be so too.

Why is necessity like a great many lawyers? Because it knows no law.

If a woman is truly beautiful, let not her beauty be made dim by the flash of diamonds. Model wives formerly took "a stitch in time." Now, with the aid of a sewing machine, they take one in no time.

Men who endeavor to look fierce by cultivating profuse whiskers, must be harem-scarem fellows.

## HEALTH AND DISEASE.

## Cure for Corns.

It is astonishing how few people there are whose feet are entirely free from those miserable torments, corns. Scarcely one person of a hundred escapes them. Deforming and crippling the feet, and, worse than all, causing the most intense suffering, it is presumed that almost any remedy-however inconvenient its application-would be hailed with great pleasure.

We, therefore, offer a cure, which, in a large number of cases, within our knowledge, has been entirely successful. It is this :

Thoroughly soak the corn in warm water; pare as closely as possible without drawing blood, and apply a salve, consisting of simple white lead paint, (such as is found on the sides
of ordinary kegs of white lead), thinly spread upon a small piece of bladder. Bladder is preferred to cloth, simply because it may be used very thin and yet be impervious to the oil contained in the paint. The plaster should be renewed every night on going to bed, for a few days successively, when the corn will have entirely disappeared. Ever after, let the shoe be so loose as not to press severely upon the part, and there need be no further trouble with corns.

Blistered Hands and Feet.-As a remedy against blistering of hands in rewing and fishing, \&c., or of feet in walking, the quickest is, lighting a tallow candle and letting the tallow drop into cold water (to purify it, it is said, from salt), then rubbing the tallow on the feet or hands-mixed with brandy or any other strong spirits. For mere tenderness, nothing is better than the above, or vinegar a little diluted with water.

How to Cure a "Runaround."-I send a good recipe for curing a runaround :-Take one teaspoonful of saleratus and two teaspoonfuls of water; heat it boiling hot. Then soak the affected finger in the lye a few seconds. Repeat two or three times. I have never known this simple remedy to fail in effecting a cure, if applied in time.-Mrs. W. A. Hart, Friendship, N. Y., 1861.

## DOMESTIC ECONOMY.

## Greening Pickles with Grape Leaves.

It is considered very desirable by housekeepers that pickled cucumbers, mangoes, \&c., should be of a deep green color. They taste no better, but they look nicer. To produce this greenness, it has been customary to place the pickles in a brass or copper vessel, pour hot alum water over them, and let them remain until of the desired color; that is until the salt of copper, verdigris, has acted upon them sufficiently. A better way of doing it without the aid of poisons, is recommended by Mrs. Haskell's Encyclopedia, which is as follows:"When packing the cucumbers in salt, line the barrel, bottom and sides, with grape leaves, and pack between the layers of cucumbers a quantity of the fresh leaves, until the barrel is full. When salted through, remove them from the brine, and pour boiling water upon the pickles, several times. If not the desired color, line a tub in the same manner that the barrel was prepared, and pack the pickles with a large quantity of the leaves. Heat vinegar boiling hot, pour it over the pickles, and cover them tightly. If, the next morning, they are
not sufficiently greened, drain off the vinegar, reheat it, and pour it again over them; repeat the process until of the color desired. When they are sufficiently greened, pour over them hot vinegar; if they taste of the leaves, change the vinegar after a week.

Cream Muffins.-Take a quart of sour cream and two eggs well beaten; a tablespoonful of salt; stir the eggs into the cream gradually; add sifted flour enough to make a thick batter; dissolve a teaspoonful of soda in as much vinegar as will cover it, and stir in at the last. Bake in small cakes on the griddle.-Ohio Valley Farmer.

Apple Pudding.-Pare and cut the apples as you would for mince meat. Crumble stale wheat bread and beef suet very fine; put a layer of bread and suet in the bottom of the pan and then a layer of apples; continue the process until the pan is filled with bread, suet and apples; make a rich custard and pour over it and bake in a good oven. Eat it with any sauce to suit your taste.-American Farmer.

Apple Float.-Take the white of three eggs, whipped into a good froth; have a quart of stewed apples sweetened with white sugar ; the apples must be perfectly cold; beat the eggs and apples together; add the apples gradually to the froth; do not let the float stand long before it is wanted, as it will fall and be tough; eat it with rich cream; it is a very pretty and very nice dessert. When beaten well, it is nearly as white as the eggs themselves.-Ib.

## YOUTH'S CORNER.

## Our Country.

Land of two Oceans! Yours and mine, 0 friends of God and Man. Behold How covered by His hand it lay In the blue mists and air of gold, Arched by the everlasting spray of ocean that to ocean rolled, Waiting for it time's grander day.

Land of the Past! Glory and shame Still face to face, in deeds of time, Clasp hands and lead, while God's truth waits : But where can soul of pride so climb, To such emblazonry of dates, As in the history sublime
Of hero men who laid these States?
Land of the starry flag whose folds The Bird of Jove came down to bear, Whose mystic bars of white and red Flashed day from heaviest despair, High waving o'er earth's noblest deadThe great world's flag by which to swear, When solemn words were stoutly said!
Beautiful land! As lover for love, Through war's red field or fields of flowers Our prayer to Heaven is still for thee. From shore to shore we clasp thee ours; With all we are or hope to be
Of days, of substance, and of powers, Our country one, great, proud and free.

## Talk with Children about the War.--No. 3.

In our last we told you something about Governments and how necessary it was found to have some sort of a one to protect life and property and secure any degree of happiness and safety to society. I think, too, that we came to the conclusion that almost any Government is better than none at all. Now we will tell you just a very little about this Government under which we live. Just enough to show you that the war we are making upon those who are trying to tear it down is all right.

In the first place those great and good men, who, with Washington at their head, fought the battles of the Revolution, and gained their independence, made up their minds that they would not have a King in the new government they were going to set up. They had had enough trouble in ridding themselves of old George the Third of England to want something quite different from the state of things he had brought about while they were under his rule. So after they had fought that wicked King for many long years, and at last had conquered and driven his armies over the sea, they looked into each others' eyes and said, "This is a great thing we have done, and God is on our side. Let us now ask of Him wisdom to set up such a Government as shall make us strong and safe and happy so that no King from over the sea dare ever trouble us again." And so it was the wisest and best of them all came together, and after a long time, they framed what is called the Constitution of the United States. To be sure this was nothing but a piece of paper, but the writing upon it said in very plain words what might and what might not be done, both by the separate States and by the General Government. And when it was sent round to all the people they said "Yes, this is just what we want. Under this Constitution we can live and be safe and happy and come to be rich and strong and a mighty nation." So thirteen States came into the Union, and the people were glad and took a solemn oath not to do anything or allow anything that was contrary to it.

Then it was that the beautiful Flag that the rebels are now trying to tear down was set up to be the emblem of this good Government. That is it was to be the American Flag, so that wherever it was carried, all who saw it, would know what country it represented. No nation but ours could carry it, and wherever our people went with this Flag they would be safe, both in life and property, because if any harm was done to them, the whole country would rise up to set it right again and punish the wicked doers. You all know what this Flag is, and how beautifully it waves with its Stars and its Stripes and its Eagle. For almost a hundred years it has been the pride and glory of our land, and under it we have grown to be a mighty nation indeed, till from thirteen it has now shining down from it thirty-four Stars, each one standing for a State, and more people live under it and love it than you could count in a long life-time, even if you should do nothing else from morning till night all your days.

But about the war. Well, while all the world was looking on and wondering to see how well we were doing, and nearly all the world wishing for a Government like ours, some wicked men here at home began to plan how they could destroy it and set up one that would suit their bad hearts and purposes. It seems hard to believe, but they made up such terrible stories, and kept the truth so hidden from the people who lived near them, that they at length induced many many thousands to join them. They began their dreadful work by stealing all they could of our property, many millions of dollars'worth of which they seized. Not content with this, they put our men and women, who lived where they could get them, in prison, and, at last, they fired upon our beautiful Flag and began, by thousands and tens of thousands to kill all they could of our people.

By our people I mean those who do not think and do as they do; those who still love the dear old Flag and Government of our Fathers, and are doing all they can to stop this dreadful work. It would be a long story to tell you all the wicked things they have done, and about the noble men who have been killed already in
trying to put a stop to their bad conduct. You must ask your folks at home to tell you all the things that we have said to you makes you think of, for after all, what we have written was more to induce you to ask questions of those around you than anything else.

But enough has been said to show you how good a work it is, and why good men are hurrying to the army and leaving all their dear friends with the hope of doing a share in putting down this wicked rebellion. But can we do it ? Of course we can; it is the good cause of freedom we are fighting for, and the same dear God who led our armies to victory in the war of the Revolution is now upon our side, because he is always on the right side.

But many little girls and boys whose eyes sparkle when they see father and brother going away with music and banners and all the people blessing them, will see them come back no more on earth. War is a dreadful thing, and only in such a cause as this, and when it can be settled no other way, can God and good people be glad to have it come.

## To Country Boys and Girls.

Girls and boys of the country, what are you going to do this winter? We fancy we hear a great variety of answers to this question. If written out, they would read about as follows :

Richard-"I know what $I$ am going to do. I'm going to have me a grand new sled. Uncle Pete has promised to make me one-a real nice, long one-long enough so that I and two or three more boys can sit on it all together-and with iron shoes too, turned up ever so high, and my name painted in bright colors on the side. And then, you see, when the snow comes, and the hill over in the pasture is nicely covered, we boys'll have a great time sliding down hill. Mr. Newell's and Mr. Jones' boys had fine times last winter; but I had no sled of my own, and you see this year I'm going to make up for it."

Charles-"I'm going to learn to skate.Father gave me five cents a day for helping to pick up potatoes, and mother two or three times gave me three cents for being a good boy and rocking the cradle while she was ironing; and
now I've got six shillings, all my own! Tim Fisher says I can buy a real good pair of skates for that, and I'm going to do it. And then, if the snow'll only keep off the pond, we'll have a gay time-the boys and I."

Henry-"Pshaw! I think there's a great deal more fun hunting rabbits, and quails and other birds. Last winter brother Joseph made me a good trap, and I caught even so manyand one beautiful red bird. But I put it in a little cage, and after about a week it died.The rabbits cry when they are caught, and Johnny makes a great fuss about my killing them and cries too ; but it's real sport to catch them, and George Maynard says God made them on purpose to be killed."

Joseph-" $I$ 'm going to school. Mother says if I want to be a great and good man, I must learn a great many things, and as father is not rich and the times are pretty hard, I shall have to help him all I can about the work, and so may not get to attend school very much. Winter before last I went to school, over there, in the old red school house, and got pretty nearly through the geography, and as far as fractions in the arithmetic. This winter I am going to study writing and grammar; so that I can write nice letters to Aunt Susan, and may be, sometimes, a letter that the editor of the Farmer will put in the Youth's Corner. Our teacher is a real kind, good man, and if we are good children, when recess comes, he goes out and helps us make snow men, and often skates and slides down hill with us, and plays fox and geese at noon. Oh, we have such nice times !"

Such are some of the answers of the boys, and we presume any of the young readers of the Corner could tell us without a moment's hesitation which one of the boys is the best, and will make the wisest and most useful man. Boys, how many of you will follow the example of Joseph ?

As to the little girls, we imagine that they all at once agree with Joseph, that it is better not to grow up in ignorance merely for the sake of having more time for frolic; and we have no question that they will do all they can
to help their mammas; that they will learn to love their books, and thus grow up to be truly beautiful, good and intelligent women.

Trur Courage.-A company of boys instreet, Boston, one day, after school, were engaged in snow balling. William had made a good hard snow ball. In throwing it he "put in too much powder," as the boys say-he threw it too hard-and it went further than he intended, right through a parlor window. All the boys shouted: "There, you will cateh it now; run, Bill, run !" Then they took to their heels. But the brave William straightened up and said, "I shall not run." He then started directly for the house where the window had been broken. He rang at the door, acknowledged what he had done, and expressed his regret. He then gave his name, and the name of his father, and his father's place of business, and said the injury should be repaired. Was not that noble? That was true courage. It is cowardice that would lead a boy, when he has done an injury like that, to sneak away, and run to conceal it. Give us William, whenever any real courage is called for, rather than all those boys who cried out, "run, Bill, run!"He will face the danger, while they will sneak. -Wellspring.

A Great many Things about War.-Next month we shall publish many beautiful pictures of swords, guns, \&c., and tell you, children, many things about them that you have been long waiting to know. We intended to do so this month, but as we write these few things way down in "old Virginia" it happens to be inconvenient.

Mrs. Swisshelm, in her letters to young ladies, says that "every country girl knows how to color red with madder." This we believe to be an ethnological fact, as we have always noticed that with all girls, the madder they get the redder they grow.

A schoolboy having good-naturedly helped another in a difficult ciphering lesson, was angrily questioned by the dominie: "Why did you work his lesson ?" "To lessen his work," replied the youngster.
"Peter," said a teacher to one of his pupils, "you are such a bad boy that you are not fit to sit in company of good boys on the bench. Come up here and sit by me sir!"

[^13]
## EDUCATIONAL.

## Get Good Teachers for your District Schools.

As the time is at hand when arrangements must be made for the opening of winter schools all through the country, we would urge upon the attention of Directors and Parents the importance of making great effort to secure the services of the best teachers.
There will be found many in almost every country neighborhood, who, from the want of the advantages of education themselves, or from an innate selfishness and consequent indifference to the public weal, do not, and cannot, properly estimate the value of judicious early culture. It is certainly a misfortune to any community that there should be such men in it, but then it is the true office of educational instrumentalities to open their blind eyes and gradually lift them up to a better appreciation of the dignity of human nature and the measure of its possibilities.
True, it is not an easy task to convince a man of the beauty and value of light and the glories which it reveals; and it is about as difficult to convince an ignorant parent of the importance to his child, and the great public in which that child is to become an influence for good or evil, of such educational advantages as will ensure its best intellectual and moral development and furnishing. To him the cheap teacher is just as good as any, and the old text books that he once pretended to use himself, or such as can be obtained at second hand and for a trifle less than cost, will answer the purpose very well. A teacher is a teacher and a book is a book.
We are sorry to say, we have found such men even in Wisconsin. Some of them have large farms and are worth their thousands; which circumstance, unhappily, adds to their baneful influence, and now and then gives them something like a control over those of their neighbors who are poor, but often greatly superior to them in intelligence and the higher moral qualities.
But their influence must be met and coun-
teracted in all our school districts, and we look to you, intelligent readers of the Farmer, to accomplish this work. Show them if you can, the importance to their children of the best possible instruction during the few months, or, at most, years, of their pupilage-of such instructors as will appreciate their capacities and tastes, and give them that culture which is best adapted to their natures and to the sphere in life in which they will be most likely to move-of teachers who have themselves been thoroughly disciplined, and know how to discipline others in such manner as to build up the best character that can be produced out of the material furnished,-but whether you succeed in convincing them or not, see to it that the great interests of the children of your respective districts are committed to none but such as are intellectually, educationally and morally competent to the responsible task. They can be found in most instances if the requisite effort is used ; and if you have to pay them twice the ordinary price for their services, they will prove in the end to have been infinitely cheaper than the cheap teachers too commonly employed.

Nothing less than this can be palmed off upon the future as a full discharge of dutynothing less will answer the just demands of posterity and country.

## Go to School Meeting.

If those who have children to educate, and are not able to do so unless they have a good school at home, would consider the power they have to vote a tax sufficient to make their school just as good as they want, it seems our school meetings would be more fully attended.

There is hardly a school district or village in the State, in which that class is not a majority, who can never give their children any school privileges except such as are found in their own district. This class have the right by law, and the power to make their own school such as will answer the highest purpose of an education to their children, at a cost to themselves comparatively trifling; for their wealthy neighbors must pay most of the tax, and yet they stay at home and allow a few men of wealth who can give their children the benefit of the High School or Academy abroad if need be, to determine the character of the accommodations and the grade of instruction in the home school.

It is among this class that are found the noisiest advocates of the "Irrepressible Conflict," and "Squatter Sovereignty." These are the men who spend the most time discussing the political cant and nonsense of the day; who are sure every time to vote for President or Governor-matters which, decided either way, would make but very little difference to them or their children,-and yet, when the day of school meeting comes, and they are allowed to exercise the highest privilege our laws give to American citizens-that of voting the money of the rich to educate the children of the poor -they cannot find time to attend it !-E. B. G., in Wisconsin Journal of Education.

## Through a Book.

I have never experienced a sensation more difficult to describe to myself, than that felt in finishing the first reading of an entertaining book. One inertia, inability to go on, inability to stop, at the same time. It is like trying to find a balustrade in the dark. He reads the last sentence as one sometimes takes a high step, not knowing that he is at the top of the stairs.

There are books we read as we carry in stovewood. We come to finis with a sense of relief. Yet the stove-wood is useful, and so are such books-Dick's works, Rollin, Josephus. Some books get us through them easily, imperceptibly, as a steamboat landing when we are asleep. There are others that leave us suddenly, unexpectedly, in inextricable places, like an express train at a western terminus.
One comes from reading a play of Shakspeare, as from a grand palace of music and wonder and splendor. Sounds reverberate in his ears, tumult disturbs his mind, and solemn magnificence hovers around him long.

Some books surfeit. We rise from them as from a great reception dinner, with many tastes in our mouths but no appetite will ever come again. Other books are like Hostetter's bitters, only good to tone the stomach.

There is no "through" to certain authors. Emerson's works are circles. As well begin in the middle as at either end.

A few books won't let you stay through them. The conclusion invites you to the preface and that entices you to chap. I., and so you read and read as visitors at the fair go in and out of Floral Hall.

Who can forget the pride he felt on laying aside the first book his juvenile intellect mastered? Those were proud days on which thè second reader was disposed of, and the primary geography. But remember the triumph with which the first (not school book) was made your own. Was boy ever more exalted than on the day be finished Robinson Crusoe? The Alonzo and Melissa period comes later. Then books no longer absorb us, we begin to absorb them.-Journal of Progress.

## WAR MISCELLANY.



国 If any Man shall attempt to cut down the American Flag, shoot him on the spot.-John A. Dix.

## The Sea-Fight.

Tne sun hath ridden into the sky,
And the night gone to her lair;
Yet all is asleep
On the mighty deep,
And all in the calm, gray air.
All seemeth as calm as an infant's dream, As far as the eye may ken: But the cannon blast, That just now passed, Hath awakened ten thousand men.
An order is blown from ship to ship;
All round and round it rings; And each sailor is stirred By the warlike word,
And his jacket he downward flings.
He strippeth his arms to his shoulders strong;
He girdeth his loins about; And he answers the cry of his foemen nigh, With a cheer and a noble shout.
What follows?-a puff, and a flash of light, And the booming of a gun; And a scream, that shoots And we know that a fight's begun.
A thousand shot are at once let loose:
Each flies from its brazen den,
(Like the plague's swift breath,)
On its deed of death,
And smites down a file of men.
The guns in their thick-tongued thunder speak, And the frigates all rock and ride, And timbers crash,
And the mad waves dash,
Forming all far and wide:
And high as the skies run piercing cries, All telling one tale of wooe -

That the struggle still,
Between good and ill,
Goes on in the earth below.
Day pauses, in gloom, on his western road:
The moon returns again:
But, of all who looked bright, In the morning light,
There are only a thousand men.
Look up, at the brooding clouds on high !
Look up, at the awful sun!
And, behold,-the sea flood Is all red with blood:
Hush !-a battle is lost,-and won! [B. Cornwall.

## The Defences at Washington and the Grand Army of the Potomac.

We had seen Washington frequently in other days-in winter, spring, summer and autumn -a wide-spread, rather rusty, Southern-looking city, situated on handsome ground, overlooking the noble Potomac, and commanding a fine view of some of the most sacred spots on "Old Virginia's shore"-its broad avenues, magnificent public works, monuments and gardens and widely separated dwellings distinguishing it somewhat from the American cities; -and we have once, at least, made detailed reference to these several characteristics.

But all these circumstances are now of trifling importance. To-day Washington stands, in an especial sense, the representative and visible symbol of the Government. Under its shadow the vast army of the Republic is encamped; upon all its surrounding hills are planted the batteries formed for its defence; and on the broad, beautiful river whose waters, mingled from Northern and Southern streams, lave the base of Mount Vernon, the sacred resting place of the Father of his country, lie sullenly at anchor or daily pass and repass bustling men of war.

What a change since 1858, when, in friendly company with Flint and Sutton, of Mass., and Merryman of Baltimore, we sailed down the unruffled Potomac to Acquia Creek and thence to Richmond, where, for the time, the active, business Northron and the haughty, aristocratic Southron met on common ground, to rejoice over the grand industrial progress of our glorious and unshaken Union! True, the cause of all our present calamities was then and there apparent, but the love of all for country and the faith of all in the great future of America, made this present, sad disruption seem a thing almost impossible.

There the fact stands, however, palpable and mournful-America shaken to its foundations, many of its strongholds and most important stragetic positions in the hands of an unscrupulous, desperate, traitorous foe, and the very capital of the nation beleagured by bold and determined insurrectionary armies-their can-
non daily thundering in the ears of the President!

The question of our defences is, therefore, one of deepest interest. And, as but few of our readers have had the opportunity of a personal inspection of them, it is presumed that a brief account from the Editor of the Farmer, and written in their very midst, will not be unacceptable.

The error is, perhaps, common, of supposing that Washington City is, itself, one grand camp, with its armies of tens and hundreds of thousands of men, all surrounded with, and protected by, immediate intrenchments and batteries. The facts are quite different. Great armies do not operate on so minute detailed a scale. Great thoroughfares and natural approaches are possessed and guarded so that access is impossible to any considerable or even a small armed force. But this by no means requires the military occupation of every hillock, or that every turnpike should be commanded by heavy batteries.

Thus, here at Washington, the approach must be from the Virginia side of the river, for the reason that the loyal states, and Maryland, which is under the control of the loyal states, lies immediately behind it. It must be direct, also, since the stream is only passable at certain points-at least for an army of any magnitude-and our own army is sufficient, along its whole course, to prevent the enemy from crossing and attacking the city in flank or rear. It is apparent, therefore, that in order to further protect Washington, it is simply necessary to construct and properly garrison fortifications at the crossings-which are Leng Bridge and Chain Bridge-and upon the high lands beyond the Potomac, which, by means of heavy artillery, can command the city. This is what has been done.

The Washington and Baltimore R. R. is guarded all the way by small bodies of troops at short intervals, and by large bodies at the junction with the Balt. \& Ohio R. R.-known as the Relay House-and at other important points. Indeed, there is a chain of these guards all the way across the State of Mary-
land; so that the railroad is securely in the hands of the government. Along the whole length of the Potomac are strong detatchments and divisions, of the Grand Army; numerous brigades of infantry, horse and artillery, at distances varying from one to two, three and four miles from the capital, and within hailing distance of each other, encircle the city on the north and east; and on the Virginia side, is a chain of forts, mounting heavy artillery, and extending along the range of Virginia hills for many miles above and below the city.

The army probably amounts to 200,000 to 250,000 men, and is in excellent condition. The chief officers in command appear to have the confidence of the troops, and are doing much to effect that thorough discipline, without which the men must not only have no confidence in themselves as soldiers, but would really be little better, practically, than a patriotic mob. It is a beautiful and yet sad spectacle, as witnessed from the dome of the Nation Capitol-that of the fifteen or twenty grand camps, with numberless smaller ones, which proudly encompass the heart of the Republic; the tented and bannered host impatiently waiting for the set time when they shall be permitted to go forth to do valiant battle for the holy cause of "Liberty and the Union."
The fortifications on the rebel side of the Potomac are of the most approved style, and equivalent in defensive value to tens of thousands of troops.
The manufacture of ordnance, and of shot and shell is being vigorously and extensively carried on at the navy yard and arsenal. Indeed there appears to be great activity and energy here in all branohes of the military service, and in every part of the vast army of the Potomac.
Moreover, the end of the coming is not yet. Every day there are new arrivals of squadrons of cavalry, regiments of infantry and batteries of artillery. At the present rate it cannot be long before the number of troops, well armed and equipped, will equal three hundred thousand men-a much larger army than Napoleon
or any other commander of modern times was ever able to move at one time.

At Austerlitz, where Buonaparte defeated the combined armies of Russia and Austria, he had but 80,000 men ; the allies, 100,000 . At Jena, where he shattered the power of Prussia, his force was but 130,000 . At the famous battle of Wagram he marshalled but 160,000 troops; at Leipsic-where was fought the great combat of the giants- 175,000 .

In this country, no battle was ever fought, we believe, wherein even 70,000 men took part on both sides. How grand, then, is this present array of, say, a quarter of a million of armed men, provided with all the terrible modern inventions for the destruction of life, waiting to move, as with the tread of an earthquake against a brave and desperate foe of almost equal mumbers! How eagerly the despotisms of the old world, how anxiously the struggling little republics of the old and new, look for the hour of the grand conflict which may decide the fate of the most imposing and progressive nation on earth-nay, more, which may decide the fate of the great republican idea for ages to come!

The latest accounts from the Gulf squadron state that the whole line of coast, from Galveston to the Florida reefs, is in a perfect state of blockade, and that the garrison at Fort Pickens is in a position to attack Pensacola and the adjoining forts of McRea and Barrancas. There is no doubt in the minds of the best officers there that the place can be taken without serious difficulty.

Great Rifle Guns.-In the Elswick Ordnance works of Sir William Armstrong \& Co., near Newcastle, England, no less than three thousand men and boys are continually employed. A great 300 -pounder battery gun is to be constructed there for the British government. Its bore is $10 \frac{1}{2}$ inches; length 14 feet ; weight 12 tons; and is to be a muzzle-loader. A 200-pounder breach loader is now being manufactured at these works, and six or eight rifled guns, of various calibres, are turned out weekly.

Army Supplies.-Hon. Geo. A. Shaw, Inspector General of army supplies made in New England, says that there are twenty mills now engaged in manufacturing cloth for the government, and that the amount of goods ordered are valued at $\$ 20,000,000$.

## America, as Seen through French Spectacles.

[The following extract is from a published letter, said by the Home Journal to have been written by a Frenchman of rank, now in this country. It contains some truths that may well be pondered:]
But it is the political aspect of their affairs which is the most extraordinary and most lamentable. The masses here are herded and driven, like the flocks of the Landes, by a class of men they set up on stilts and dignify with the title of politicians. These persons, by flattering the local jealousies and prejudices of their neighborhoods, have established a perfect system of despotism over the bulk of the public, partaking even of the intensity of a religious tyranny, since they have persuaded them that it is sinful to rebel against a species of divinity they call Party. To such a height has this been carried, that (though it is still customary to boast themselves the freest on earth) I am confident there is no civilized contemporaneous people that have practically so little influence in the management of their own affairs. Unfortunately, their managers, being mostly needy, have no permanent interest in the welfare of the country, intent only on filling their purses, have used their power almost universally, in the spirit of a pekin.
[This is an untranslatable piece of French slang, which might perhaps be paraphrased into "a mean little snob of a civilian."]

Accordingly, they have sacrificed to small personal purposes, the honor, the interest, perhaps the very existence of the nation. These politicians are, in reality, the parties to whom the distressing civil war now raging here is mainly due. Continually overbidding one another in the development of the dominant bitterness of their sections, they had at length so committed themselves to extreme measures of hostility, that they had nothing left but to urge things to a crisis however deplorable, or be undone. To the latter alternative they could not consent. No American politican can. Behold the consequence !

But the people, at last, have begun to distrust them ; so that, perhaps, the most happy result of this internecine strife, however it may otherwise result, will be the complete sweeping away of an entire generation of these miserable vermin-(ces vermisseaux miserables.)

We have seen, in Europe, at various times, statesmen, who, however ambitious and corrupt, have at least cherished a patriotism in the grand way which has redeemed them from contempt. But here there is absolutely no such thing as a statesman, no such sentiment among the politicians as patriotism. One passion governs them-the desire of self-advancement. It might be put into the form of an apostrophe:"Let the country perish, so I get office."

I have said these politicians have no patri-
ism. They seem to be equally devoid of the notion of honor, changing about from faction to faction, and betraying equally friend or foe, when they conceive it to suit their individual interest. From this arises, I suppose, the facility with which, in the most serious concerns, these men falsify all the earlier professions of their lives. I am told that, in the present complication, there have been cases where a man has shed tears when parting with the starspangled banner, and wiped his eyes with the confederate flag. Wonderful go-ahead people !

My friend, I have, perhaps, in portions of this letter I have written, laughed, when, for the honor of humanity, I should rather have stormed. For, indeed, it must be said, that there is a pulse-hastening moral grandeur in the spectacle of millions of men embarking in an uncertain and terrible contest, for the conservation of an idea-the idea of a united people, sole possessors of a continent. Unhappily, the other party are also battling for an ideafor the extension of their weakness over a portion of this same continent now free from the blight that afflicts them. Ah, my friend, these are sad things to see and to say. But, what a powerful nation they might have have become: how feeble they may yet be! What a plain destiny was before them: and who shall read their future now ! Providence planted them a tree to overshadow half the earth; but Providence placed, at the same time, a canker at its heart ; and now we find that the disease has almost eaten out the healthy life. But let us trust that this great nation, true to itself, will yet recover its first vitality. For me, Frenchman though I be, my heart sickens at the apprehension of a failure; Frenchman though I be, my soul goes out in an earnest and glowing prayer for the restoration of this more than magnificent Union ("cette Union plus qus magnifique.")

## A State.

What constitutes a State?
Not high raised battlements or labored mounds, Thick wall or moated gate:

Not cities proud with spires and turrets crowned; Not bays and broad armed ports,

Where, laughing at the storms, rich navies ride; Not starred and spangled courts,
Where low-browed baseness wafts perfume to pride. No; men, high-minded men,

With powers as far above dull brutes endued, In forest, brake or den,

As beasts excel cold brakes, or brambles rude; Men, who their duties know,
But know their rights, and knowing, dare maintain, Prevent the long-aimed blow,
And crush the tyrant while they rend the chain.
These constitute a State,
And sovereign law, the State's collected will,
O'er thrones and globes elate,
Sits Empress-crowning good, repressing ill.
News of the War.-A good story is told of a lady lately traveling on the cars, who got so absorbed in reading the war news, that she requested the canductor to let her know when the train stopped at Manassas Junction.

## NEWS SUMMARY.

## DOINGS OF AGRICULTURAL SOCIETIES.

Michigan State Fair.-We had the pleasure of spending parts of two days at the late State Fair of Michigan, which, in spite of the war excitement and many other circumstances of embarrassment, bad weather included-was very creditable as an exhibition, and, as we were informed, quite successful in the important matter of receipts.

The grounds were the same as those occupied last year-indeed, a number of years pastand though convenient of approach, and ample for the purposes of the exhibition, they appeared to us a little rusty and untidy. Even a very limited use of carpenter's tools and white wash would have made a vast difference in their general appearance. The ground, too, is faulty, in that it is flat, and liable to the worst kind of mud in wet weather.
The business, in all the departments, seemed to be attended to well and with but little fric-tion-thus giving good evidence that the officers were able, efficient and faithful.
We have no room for a detailed description of the several departments, nor even a reference to everything in which we were for the time, interested.

## THE STOCK DEPARTMENT.

was well filled in most of the important branches. Show of Short-horns good; of Devons, tolerable fair ; of Herefords, excellent ; of Alderneys and Ayrshires, small, though quite as good as at most of our Northwestern State Fairs; of Fat Cattle, very fine.

The exhibition of Sheep especially excelled in the number and superior quality of South Downs; some of which equaled any animals of that breed that we have ever seen.

Hogs were present in good number and variety, but not so particularly worthy of commendation.

Horses were there in great numbers and of superior character-thorough-breds, roadsters, draft horses, and horses for "all work." We witnessed but one or two trials of speed, but
were fortunate enough to see "Magna Charta" -Michigan's best horse-prove himself splendidly on the course.

MACHINERY AND IMPLEMENTS.
This departrnent was also very creditably represented. Reapers, drills, mowers, plows, \&c., were there in considerable numbers. A clever Thresher and Winnower particularly interested us. We cannot stop to describe it, nor have we here (at Washington), the means of furnishing the name of the inventor. It was operated several times on the grounds, and appeared to give quite universal satisfaction. It strips off the heads, rubs out the seed and delivers it, in condition to be sown, at the other end of the machine. We noticed also a miniature grist mill in operation. It employs burr stones of peculiar shape, and in general style of construction is modeledafter the coffee-mill.

## FRUIT TENT

was not so well filled as last year, owing to the unfavorableness of the season. About onethird or one-fourth of the fruit on exhibition was from Wisconsin-though we are sorry to say the quality of the Badger portion was hardly a representation of our excellent this year's fruits. The exhibitor's name we did not get.

## FLORAL HALL.

Though not so crowded with flowers and works of art as in 1860 , was nevertheless beautifully decorated, and made one of the most attractive features of the exhibition. A large aquarium, full of sundry varieties of fish, large and small, occupied the centre, and constantly drew about it large crowds of delighted spectators.
We are under obligations to the President and Secretary-Messrs. Welle and Johnstone -for many favors, and it would afford us great pleasure to have an opportunity to welcome them both to our own State Exhibitions at any time in the future.
Miehigan is a noble State-noble in her resources, progress and people-and most earnestly do we hope for her a prosperous and brilliant career among the great and progressive States of the Northwest.

The Rebsl Causk.-An intelligent gentleman, who managed to escape from the interior of a Gulf State, says that the feeling at the South, the number of troops in the field, and the reported universality of belief in the goodness of the rebel cause, or certainty of success, are exaggerated. Public opinion forces every man able to bear arms into the service. The stay-at-homes receive from their female friends presents of hoop skirts. Trains bearing soldiers, which go daily, are welcomed at every station by the whole population still at home, which cheers and feeds the soldiers. The slaves are quiet but expectant, and understand the meaning of the war and its possible consequences to them.

Growth of Cotron in Pannsyinania.-The Philadelphia Press has an article in which the possibility of successfully cultivating cotton in the middle States is discussed at some length. It is the general opinion, that the climate of the middle States is altogether unfavorable to the growth of this produet; yet the Press publishes a letter from a well known gentleman, residing in Brazil, which goes to show that on the table lands there, where the climate is nearly identical with our own, a species of superior cotton is produced on plants which flourish year after year amid frosts that are fatal to vegetation of less hardy character.

The Purchase of Prepared Food.-Secretary Cameron has ordered the Commissary General hereafter to buy desiccated vegetables and other prepared food from American manufacturers, and not to make any more contracts for foreign articles, giving as his reason his desire that all the money of the country should be kept here to carry on the war.

A Costly Rebrllion to Slaveholders.A Leavenworth paper says it has information to the effect that one hundred slaves leave Missouri every day for Kansas. At this rate, should this rebellion hold on for a year or so, it will need no emancipation proclamation to make Missouri a free State.

Cartridges for the Government.-On Monday, Tuesday and Wednesday, of this week, five million cartridges were sent away from the Watervliet Arsenal. Four complete sixpounder batteries and six thirty-two pounder batteries were also completed and shipped.Albany Knickerbocker, 27 th.

Kansas.-This young State has furnished, complete or nearly full, nine regiments for the war, besides turning out thirty day men when the emergency required; and every able-bodied men in the State is said to be undergoing drill, and ready for drill.

Prices in Virginia.-We subjoin a list of the prices of the various articles in that place, which Mrs. - has kindly permitted us to copy :
Coffee, per pound ...................................................... 50 cents. Common Brown Sugar........................................... 25
Tallow Candles.
Lard. .37
Bacon............................................................................................................
Butter, when it can be ootained, from................ 50 cts up. Common Tea, per pound................................. $\$ 2.00$ Common Shirting, Muslin, per yard......................................... Cotton thread, per spool....
-Philadelphia Enquirer.

## STATE MATTERS.

## Another Big Clip of Wool.-Editor

Wisconsin Farmer:-I noticed in the Farmer for 1860, a letter from Mr. Asaph Pratt, of Lima Center, giving an account of the shearing of his Spanish Merino sheep, and expressing the belief that the amount of wool shorn from them was hard to beat. Now I have some full-blood Spanish Merinoes imported from Vermont late in the month of November last, and the long journey of ten days-eight days of which they were in crowded cars, with no chance to feed-together with the change of climate and water, lessened the weight of their fleece, many good judges think, a pound or more per head. I shall not beat him on the bucks this year, but the ewes go ahead of his or of any I have heard of in this State. I have three bucks which sheared as follows: one 16 ths. three oz., (shearing in Vermont the year before, 18 fbs .4 oz .) one 14 tbs ., and one 13 tbs. 8 oz . My lambs or yearling ewes, nine in number, sheared on an average 6 fbs .2 oz ., which I think hard to beat in this State or any other, as my sheep were selected from some of the purest bloods and best flocks in Vermont. But if I am beaten, I will try again.

I have raised quite a number of buck lambs this year from the above mentioned ewes, which I will sell on reasonable terms. I also have some choice older bucks. Any who wish to improve their flocks by some of the best bloods in the State, will please call before purchasing elsewhere. A. Jongs.
Lexds Center, Columbia Co., Oct. 19th, 1861.
[The preceding communication came too late to hand to appear in its proper place. The Vermont Merinoes, first introduced we believe by Consul Jarvis, have a high reputation.]

The trip of the Steamer Portage to the city after which it was named, wás deemed by its friends a perfect success, demonstrating the feasibility of the route of the Upper Fox for freighting purposes. She took down two barges heavily loaded, one with wheat and the other with flour. The Register says that she takes wheat from Portage to Green Bay at 5 cents per bushel, a saving of over half the rates by rail.

Drar Sir :-In a past number of the Farmer you ask for information in regard to the Jersey Peach Blows and Early York Potatoes. We have raised both varieties for two years, and like them so well that we shall plant no other kind the coming season. The yield is good, and for table use are hard to beat. E. L. R.
Bloompield, Walworth Co., Oct. 2, '61.
The American Agriculturist for this month awards the palm to Wisconsin for raising wheat. In a paragraph relative to it, the Agriculturist says:
The largest yield of wheat which has been communicated to us, is that raised by Samuel Charlesworth, Esq., Winnebago county, Wisconsin, who harvested sixty-three bushels from one acre. Has any one done better, and if so, how was it done?

Pous Grove, Jackson Co., Oct. 20, 1861.
The wheat crop is light; think it will not average 12 bushels per acre. Oats better.Corn and potatoes first rate.

Please send clubbing rates early. We will try what we can do for the Farmer.

$$
\text { As ever your friend, } \quad \text { w. P. c. }
$$

## NATIONAL AFFAIRS.

Nothing yet accomplished worthy of note, except the better organization and discipline of the army and the slow progress of the Union cause in North Carolina, Kentucky and Missouri.

The forts at Cape Hatteras have been strengthened; large bodies of Federal troops have been stationed in various parts of Kentucky; and Fremont, at the head of some thirty thousand well drilled and finely equipped soldiers, is driving the rebel Price from his threatening positions in south-western Missouri. It is doubtful whether he will have an
opportunity to give him battle, but if he should, we may safely reckon on a brilliant Federal victory.
In Virginia but little is doing. Occasionally a brush between advanced pickets, and once in a long while a small skirmish in which a half-dozen men are killed and wounded. of the latter class of engagments, the most conspicuous as well as the most interesting to citizens of Wisconsin, was the battle at Harper's Ferry, on Tuesday the 15th ult., in which Col. Genry with three or four hundred men-including companies of the 3 d Wis.-is said not only to have sustained an attack from three thousand rebels, but to have driven them from the field at the point of the bayonet and pursued them a distance of three miles! This report would seem incredible had it not been made rather officially to the war department by Gen. Banks.
In the neighborhood of Washington, the enemy have fallen back from time to time until they now occupy very nearly the position they held before the battle of Bull Run. At this writing, (Oct. 18th) the army of the Union is in the possession of Munson's Hill and probably, also, of Fairfax and Mt. Vernon; and our lines are being extended almost daily, though inch by inch!
The Potomac, though not absolutely impassible, is nevertheless practically blockaded by the several formidable batteries along its banks. An attempt, on the night of the 16th, to steam past was effectually resisted, and ships of various descriptions, to the number of some fifteen, were lying below Alexandria, waiting for a favorable time to run by without being sunk.

The Pensacola-a splendid new man-of-war, carying 40 heavy guns, two of them eleven inch Columbiads-was tugged out from the navy yard on Monday, the 14th ult., to Alexandria, and as soon as thoroughly ready to sail, will give the nebel batteries a chance to "try their metal" on one of the most powerful ships in the American navy.
Rumor says that Mason and Slidell have succeeded in running the blockade at Charles-
ton, and are on their way to Europe to try their skill at diplomacy. They are both able and desperate men, and may possibly do us some harm.
On the other hand, it is reported, with show of truth, that a detatchment from our blockading squadron at New Orleans, has taken possession of an important island in the mouth of the Mississippi, which controls the navigation of that river more effectually than could be done by a strong fleet in the Gulf.

## FOREIGN AFFAIRS.

There is, as yet, no discoverable change in the views and disposition of foreign nations towards the American Government. England abates none of hèr longing; France is still rather non-committal, and Germany and Russia sympathize with the Federal cause.
The following extract is interesting, as showing the views entertained by some English gentlemen who lay claims to statesmanship:
Sir Edward Bulwer Lytton made his usual yacriy ad
rress at the meeting of the Herts Agricultural dress at the meeting of the Herts Agricultural Society September 25. Affer demonstrating the importance of
the Austrian Monarchy in the the Austrian Monarchy in the European scheme, he treat-
ed the American diffellties as foll ed the American difficulties as forlopeas:
"Many of you will remember that when I took the
hair, now so ably filled, at our met chair, now so ably filled, at our meeting in this town,
there came with me may there came with me as my guest and yours, Mr, Dallas,
the distinguished Diplomatic Minister of the distinguished Diplomatic Minister of the then United States of America. You will remember the enthusiasm with which he was deservedly greeted, and the epplause
 can kinsfolk, with whom, nevertheless, there was at that
moment, as there has moment, as there has been often before, one of those irri-
tating questions in which tating questions in which much was sternly asked by young Brother Jonathan and mildy conceded by old John Bull. Well, we Englishmen respected the glant Republic in its apparent unity and its fanciod strength,
and no true Englishman will be men and no true Englishman will be mean enough to exult in
the pangs of its separat war. But even then, when Mr. Dalle horrors of its civil War. But even then, when Mr. Dallas was our guest, I never conceived, nor do I understand how any far-thinking statesman could conceive, that a fourth part of tho earth could be held under one imperial form of government. That separation between North and Bouth America which is now being brought about by clvil war, I have
long foreseen and foretold to be inevitthble; long foreseen and foretold to be inevitable; and $\mathbf{I}$ ven-
ture ture to predict that the younger men here, present will live to see not tww, but at least four, and probably more than four separate and sovereign commonwealths arising out of those populations which a year ago united their Legislatures under one President, and arrice their merr
chandize under a single flain. And so chandize under a single eflag. And, so far from thinking
that these separations will be injurious to the future dogthat these separations will be injurious to the fatured deos.
tinies of America, or inflict a blow on that graid princt ple of self.government in which the substance of fiberty consists, 1 beliere that such separations will be attended
with hapy respltat with happy results to the eafety of Kurope, and the development of American civilization. If it could have
been possible that been possible that, as population and wealth increased,
all the vast continent of all the vast continent of America, with her mighty sea. board, and the fleets which her increasing ambition, as werl a her extenting com merce, would have formed and armed, could have remained under one form of government, in which the executive has little or no control over a populace exceedingly adventurous and excitable, why
then America would have hung over Europe like a gathering and destructive thunder cloud. No single kingdom in Europe could have been strong enongh to maintain itself against a nation that had once consolidated the gigantic resources of a quarter of the globe. And this unwieldy extent of empire would have been as fatal to the permanent safety and development of America herself as the experience of all history tells us, an empire too vast to maintain the healthy circulation of its own life-blood ever has been, since the world began, to the races over which it spread. By their own weight, the old colossal empires of the East fell to ruin. It was by her own vast extent of dominion that Rome first lost her liberties, under the very armies which that extent of dominion compelled her to maintain, and finally rendered up her dominion itself to the revenge of the barbarians she had invaded. The immense monarchy founded by the genius of Charlemagne fell to pieces soon after his death, and those pieces are now the kingdoms of Europe. But, neitheir the empires of the East nor the commonwealth of Rome, nor the monarchy of Charlemagne could compare in extent and resources to the continent of America, (and you will remember that the United States claimed a right to the whole of that continent, ) and the ultimate fate of America under one feeble executive-the feeblest executive, perhaps, ever known in a civilized com-munity-would have been no exception to the truths of history and the laws of nature. But in proportion as America shall become sub-divided into different states, each of which is large enough for greatness-larger than a European kingdom-her ambition will be less formidable to the rest of the world, and I do not donbt that the action of emulation and rivalry between one Free State and another, speaking the same language and enjoying that educated culture which inspires an affection for all that enlightens and exalts humanity, will produce the same effects upon art and commerce, and the improvements in practical government, which the same kind of competition produced in the old commonwealth of Greece. Heaven grant that my convictions may not be erroneous. I am not, then, one of those who say that the impending separation of the American States proves a failure of her experiment of Democracy. Any other form of government would have equally failed in keeping together sections of a community so geographically cast, with interests antagonistic to each other. But this I may say, that when we see liberty and law alike suspended in the moment of danger, printing presses destroyed by an unresisted mob, or the opinions of public writers stifled by a Democratic Government,-when we see an American President so bewildered by his own armies, or so despairing of the skill of his own Generals, that he offers to the Italian Garibaldi the command of American patriots,-I think, without vanity, we may say that in those arts of good government which can preserve freedom in the hour of danger, and enable a nation to right itself by the brains and the hearts of its own children, America has more to learn from England than England has from America. Let us, then, turn our eyes back to our own country, humbly grateful for the blessings we enjoy, and manfully resolved to defend and maintain them."

It siould be remarked, however, that the better class, though perhaps, not at the present time, the most leading statesmen of England, entertain views directly opposed to those of Mr. Bulwer. We regret particularly that our space will not allow the publication of a most admirable reply to the above.

Eurozean papers are just now gossiping considerably as to the object of a personal interview between the French Emperor and the King of Prussia. The common opinion seems to be that it looks to the extension of the French empire, and the consolidation of the petty German States with the Kingdom of Prus-
sia into a single empire under the rule of the Prussian King.

Such a move would be one of the most important of all modern changes among the European powers, and of course the conjecture occasions animated discussion.

The fleet bound for the Mexican coast, to which reference has heretofore been made, is now understood to consist of Spanish, English and French ships in league, and to be designed simply for compelling the payment of debts long due to individual citizens of these governments, and a guaranty of protection to foreign residents in that distracted and thoroughly misruled republic. The movement is said by leading English papers to be intended for no other purpose, and to have received the sanction of the President of the United States.

According to latest accounts, cotton had advanced in price in England, and the market at Liverpool was remarkably lively. Many of the factories have made a reduction of 20 to 30 hours per week, in the working time of employees. This, of course, will have the effect to prolong the time of consumption of the cotton on hand, but must surely bring want and distress to many poor people who will thus be partly thrown out of employ.

Late advices from the Sandwich Islands state that King Kamehamaha has retired to his country seat at Kona, for the purpose of devoting himself principally to experiments with cotton.

## The Honolulu Commercial Advertiser says :

"The King has recently purchased some cotton seeds, and intends to appropriate a portion of his land to the cultivation of cotton, so as to give it a fair trial, though he says he has not much faith that the Islands are to be suddenly enriched by this branch of agriculture, but is ready and anxious to take the lead and give the force of his example. Like every other new branch of industry, money must be expended and lost in experimenting; and when the necessary experience is gained, some one will succeed in making cotton-growing profitable."

Recent mails from Japan bring accounts of an attempt on the part of a number of Japanese soldiers, to massacre the British Legation at Jeddo.

Fortunately, a body of soldiers arrived in
time to drive the would-be assassins away, but not before Mr. Oliphant, Secretary of the Legation, had received some severe wounds, and Mr. Consul G. S. Morrison was cut in the head. By whom the gang was raised for effecting these murderous deeds has yet to be discovered. No doubt but they will be traced, and on the discovery, we may feel sure that the ramifications of the anti-foreign party at court will be laid bare, and great good result. Indeed, it wanted something of this kind to enable Mr. Alcock to carry the matter home, and bring about a permanent and beneficial change in our relations with the Japanese Empire.

The story of the assault is briefly as follows: A band of about twenty spent the day at a tea-house in the vicinity of the British Minister's quarters, and between 9 and 10 o'clock, when all hands were in the arms of Morpheus, they drove in the door of the grounds and entered the house. Two of them, one in armor, then approached the quarters of Mr. Consul 6. S. Morrison, but being seen by his servant, he was warned in time to get a sword and pistol before the assailants came up. Mr. Oliphant, having heard the noise, rushed out of his room with a hunting whip only, and was immediately assalled by one of the two spoken of, who gave him a severe gash on the
right shoulder. Hearing Mr. Oliphant cry out, Mr. Morrison drew aside the screen of his room, and found himself face to face with the miscreants, one of whom he shot dead; the other he fired at, but the ball glanced off the armor; the Japanese, in return, cutting Morrison across the head, and again wounding Mr. Oliphant in the wrist. At this juncture Mr. Wirgman and Mr. Reginald Russell approached, and, though they were unarmed, their appearance had the effect, it would seem, of inducing the band to retreat, bearing with them the body of the Japanese shot by Mr. Morrison, which, however, they only took into the garden, where they were met by Japanese soldiers and driven away-five being killed in the affray, and seven of the Japanese soldiers wounded.
(®) There is not any news from Italy except statements of the further suppression of brigandage. Baron Ricasoli says that the national flag of Italy floats over 800,000 "tons of shipping, manned by 100,000 sailors." These are much larger figures than we were prepared for. War has not yet commenced between the Turks and Montenegrins.

Nelson and Collingwood.-The naval history of England affords a striking example of the sympathizing spirit of noble emulation:"See," cried Nelson, (at Trafalgar,) pointing to the Royal Sovereign as she steered right for the centre of the enemy's line, cut through it, and engaged a three-decker, "see how that noble fellow Collingwood carries his ship into action." Collingwood, delighted at being first in the heat of the fire, and knowing the feelings of his commander and old friend, turned to his Captain and said, "Rotherham, what would Nelson give to be here!"

Covitivg the Dead.-The day after the battie of Rocroy a French officer asked a Spaniard what were the numbers' of the veteran infantry before the battle. "You have only," replied he, "to count the dead and the prisoners." A Russian officer being asked the number of the troops to which he was opposed, pointed to the field of death, and said, "you may count them; they are all there."

The King of the Netherlands has followed the example of France and Belgium, and has relieved British subjects travelling in Holland from the passport encumbrance. Sweden and Norway are about to take a similar step.

The Royal Commissioners have appointed Thursday, the 1st of May, 1862, as the day for the opening of the great Exhibition in London. The commissioners will receive all articles sent to them from the 12th of February to the 31st of Mareh.

Nat The famous iron-cased frigate, the Warrior, recently built in England, is 6,000 tons burden; she can throw a broadside of 1,400 ths. of metal, and has cost $£ 360,000$. She is half as large again as the next largest ship in the British navy, and could blow that ship out of the water. Each of her guns is above five times the calibre of those with which threedeckers fought their actions in days gone by.

An ancient London institution has been abolished. The "annoyance jury" system of Westminister, created so far back as the reign of Queen Elizabeth, ceased to exist September 28 th. The Dean and Court of Burgesses are now to appoint inspectors, to act in the place of householders, who were wont to parade the streets and inspect the weights and measures of the shopkeepers.

England does not liberally patronise its own authors. Dickens' last story, "Great Rxpectations," has run through only four editions, each of one thousand, in England, while one publishing firm in Philadelphia have already sold about fifteen thousand copies, with thirtyfour illustrations, by McLean, of New York, none of which have appeared in London.

The Manchester (Eng.) calico dyers and printers have discovered that apple juice makes their colors fast in printed cottons, and they have been buying up all the apples they can get in Devonshire and Somersetshire, giving a price that has not been known in the dearest years.
:95 The first Jewish hotel ever opened in the capital of Austria, and employing none but Hebrew servants, has just published its advertisement in Vienna.

## EDITORIAL MISCELLANY.

## Visit to the Seat of War in the East-In-

 cidents of Travel and of a Week in Washington.Prompted by a desire to obtain further information relative to the Exhibition of the Industry of all Nations, to be held in London next year, and to secure to the Northwestern States their fair share of control in the organization and management of the American portion of that Exhibition, we left Wisconsin Sept. 30th, for Washington City, via Chicago, Fort Wayne \& Pittsbuigh R. R.,-the best Southern route to the Eastern States and the National Capital.
It a happened that Busteed's Battery of Chicago Light Artillery made up the larger part of the train, and, consequently, we were afforded a fine opportunity of seeing how soldiers fare and behave when in transitu, and of witnessing the patriotic demonstrations customarily made during these martial times, along the great routes of travel.
The C. L. A. Co. were a band of as sturdy and resolute young men as we have "seen go off to the wars" since the present struggle commenced. Captain Busteed, their gallant commander, was still suffering from severe wounds received in the several engagements in Missouri, previous to the battle of Lexington, and was so much the idol of his troops that they would not go without him.Nor was the attachment all on one side, for though promoted by direct appointment from the War Department, to a Colonelcy, he could not be induced to leave the little band of sterling fellows who had rallied to his war-stained banner. To them all, hail! and farewell!

Every city, village and cottage, from Chicago to Washington, appeared to understand that another train of soldiers was coming, and the people were all out to greet them with banners and cheers, and welcome refreshments for the "inner man." Hail to the soldiers of the Union! Huzza! Good bye-God bless you! were repeated a thousand times by young and old-by some in tones of buoyant hope and wild enthusiasm; by others with trembling voice and tenderest pathos. Even yet these shouted words are ringing in our ears. We shall never forget them.

But the most touching enthusiasm was that of the soldier guards along the line of the R. R., through Maryland. Tented by every bridge, crossing and curve of the road, and at shot-hearing distances throughout the whole line, the wild joy of the welcome they gave to our boys of the grape, shell and canister division of the federal forces, coming to swell the Grand Army of the Union, brought tears to the eyes of many a stout-hearted nonmilitary passenger, and made him wish to take their places for a time, at the post of danger, and relieve them of the hardships and privations of the camp.

## iscidents at washingeton.

Of the defences of Washington we have already spoken in "War Miscellany;" there is much tran\&piring there,
however, which, though hardly important enough to get into the newspapers, is, nevertheless, interesting to a stranger to the operations of war. We notice a few items:

## Changing camps.

None of the troops-except it be at the Forts across the river-remain permanently in the camp where first quartered. On the contrary, there is almost a constant shifting; so that you have no certainty that where was a camp yesterday there will be one to-morrow. Sometimes these movements are around the outskirts of the city, and therefore, not observed. Sometimes through the avennes to the Capital-though usually as noiselessly as possible, and oftener than otherwise in the night. By this means the public are kept constantly in the fog as to the number of troops about the city; while the soldiers are the better drilled in the making of camps and in performing rapid movements, and-what is quite as important as anything, in this stand-still time of our army-are so far kept busy and interested in new scenes and circumstances as not to suffer from monotony and discouragement. Sometimes the avenue is full of troops, going from one camp to another, or moving over to the site of some fort on the other side of the river; and yet, so common have become these movements, that they scarcely attract any attention. If accompanied by a band, one will be likely to halt a moment on the side-walk, or, perhaps, step to his window and enquire who they are and where from; but further than this, nothing.

Of course, so much changing of position necessitates a large wagon force for transportation; and accordingly, there is almost a constant rumbling of baggage-wagons on the stone-paved streets. Not unfrequently these trains will be half a mile long-the wagons all alike in construction and finish, and each drawn by four horses, or mules. The cover usually bears the number and State of the regiment to which the wagon belongs.
bustle in the city.
But a good deal of wagoning is necessary to the proper supply of the encampments with provisions, new clothing, mail matter, \&c., and this largely increases the noise and bustle of the streets. About the Post Office Department and great bakery it is not an uncommon thing to see 50 of these wagons waiting to be served. And as each item of business is in charge of some officer or agentperhaps half a dozen of them-and as ench one of the agents makes it a point to serve himself as well, in the way of seeing friends, making little purchases of various kinds, \&c., the side-walks, stores and hotels are pretty well filled with men in military costumes. While the Provost Guard patrolling the streets from morning until night, and from night until morning, not unfrequently crowding citizens upon the curb-stone in their passage, and always stopping every man in military dress and demanding his pass, still further contribute to the ceaseless stir of the city, and to a permanency of realization that war-or rather preparation for war-is the great business of the day. And thus Washington, from being usually one of the most quiet, every-day-of-the-week-Sunday
towns, has suddenly come to be the most active business city in America.

## THE WAY the army 18 PROVIDED WITH BREAD.

It is no small job to feed $\mathbf{2 5 0 , 0 0 0}$ hungry mouths. And as health is all important to the soldier, the quality of the food is a thing of great interest.

For a time, the soldiers at Washington were allowed to make their own bread and do their own cooking generally; but this was soon found to be poor economy, and their bread is now manufactured on an immense scale, in the basement of the Capitol.

The spacious halls and apartments where but lately walked the Legislators of the Republic, are now filled with stores of flour, and the efficient gentleman, Lieut. Thomas J. Cate, of the U. S. Army, carries on the great establishment with a force of one hundred and seventy hands, and with practical results which are perfectly surprising to any one not acquainted with anything more extensive than the old family oven. Nearly two hundred barrels of flour are daily consumed at this single bakery, and twelve wagons are continually employed in carrying out to the several camps the sixty thousand loaves. The bread is of excellent quality-much better than we usually find even in the homes of our private citizens.

## SUPplies of meat.

Every day are seen coming into the city immense droves and R. R. trains of cattle, sheep and swine. Beef is in greatest demand. The quantities consumed are startling-perhaps the more so to us because of our lack of carnivorous propensities. There are probably several butcheries, but one of the most extensive is that just across the Potomac, near the end of Long Bridge.

Stumbling one dark night while walking alone over there, upon the Mountain of White Skulls, accumulated within the past few weeks, we were probably not in a condition to underrate the magnitude of the butcherous operations carried on at that point. We were unable to ascertain the number of cattle slaughtered each day, but doubt not that they equal several hundred head.
grand review of cavalry and artillery.
These are occasions of so much interest that we presume accurate and detailed accounts of them have been published in all the papers of the country. We were fortunate enough to be present on the 8 th ult., when the most imposing review of Cavalry and Artillery was made by Gen. McClellan, that has ever been witnessed in this country.

The number of troops was published in the Washington papers as six thousand Cavalry and seventeen batteries of Artillery-102 guns-but the large amount of space required for troops of these two classes made the number seem much larger; and the common estimate among those who had not heard what was to be the number, was thirty to forty thousand.

A heavy rain the previous night laid all dust and made the bright day as pleasant as could have been asked. By noon the troops were on the ground, and a few moments after, Gen. McClellan, with his brilliant staff of Brigadier Generals came dashing along the lines, viewing every
squadron and battery until he reached a commanding position, where he halted, drew up his staff in a right line, and awalted the passing of the troops-the Artillery first and Cavalry next.
While at rest in their several positions, they covered the undulating plain for more than a mile in extent, and made a very imposing array. But it was when they began to move at the sound of the bugles, battery after battery, and squadron after squadron, that they charmed the eye of every beholder, and made the two hours of their passing seem at once a whole day, and but a few moments. Bating the fact that many of the horsemen rode rather awkwardly, the appearance of the entire body of troops was splendid, and they won many high encomiums from experienced military men.

Fortunate in predicting the spot where the General and his staff would station themselves, we obtained and held a position in their very midst, and were thus enabled to, identify Gens. McDowell, Stone, Blenker, Sickles, Prince de Joinville, and other distinguished persons.
Gen. McClellan was, of course, the most prominent figure of the whole group, although but for his successive salutes, as the officers of the army passed in review before him, it would not have been easy for a stranger to distinguish him from his numerous fine looking subordinates. Though of low stature when standing, he makes a tall and rather fine figure on horseback. Characterized by a fine, healthy looking face, free from lines of care, and by a deep, full chest and broad shoulders, he impressed us especially with his intelligence, self-reliance, activity, vigor and power of endurance. Judging from his face, we should not credit him with either breadth or profundity. And we found ourself involuntarily smiling when we heard him compared to Napoleon and Washington. In opportunity he is superior to either, and fortune may give to him an immortal name, but if he is really and essentially a great man, our physiognomical and psychological science are seriously at fault. His military spirit showed itself in every posture and movement of his body. Even his foot could not rest quietly in the stirrup, but, as if animated by a separate soul of its own, kept zealously beating time in harmony with the music.
Of the other officers we have not time to speak now.Prince de Joinville sat upon a clumsy old horse just in the rear of McClellan, and in his coarse, loose garments and slouchy felt hat, looked more like an easy, clever cattle buyer than a Prince. His sons were with him in military dress, and appeared like fine, dashing young fellows.

## CROssing the river.

This cannot be done at the pleasure of civilians, but is entirely dependent upon the will of the Provost Marshal, Gen. Scott or Gen. McClellan, from one or the other of whom a pass must be obtained. "Very important business" is the only declared ground upon which this is granted, and the crossing, therefore, is not so common as formerly. Having "important business" with our Wisconsin troops stationed at Arlington Heights, we obtained a pass-after long and patiently waiting, in the rain, for
our turn to come-and made a survey of the fortifications, and visited several of our noble Wisconsin regiments.The boys seemed to be very comfortably situated, and universally eager for "the good time coming."
the proposed collision of the grand armizs Is still postponed, and is, by no one, considered very imminent. The Army of the Union is daily strengthening itself, and impatiently waiting for cold weather; while the Rebels are wearing out their clothes, consuming all available food, and beginning to be distracted by threatened attacks on the coast. It is humiliating to be obliged to stand still with a quarter of a million of men and allow the enemy to flaunt his vile banners in our very faces, but it may be better, after all, to wait until we are ready to make several simultaneous attacks, in front, flank and rear, than to press at once upon the enemy in his fortifications, and hazard everything in a single battle.

The World's Fair.-During the Extra Session of Congress in July last, the following joint resolution was paesed:
"That the President be, and he is hereby authorized to take such measures as shall to him seem best to facilitate a proper representation of the industrial interests of the
United States at the Exhibition of the Industry of all United States at the Exhibition of the Industry of all Nations, to be holden at London in the year 1862; and the sum of $\$ 2,0 c 0$ is hereby appropriated for the incidental expenses thereof."
The President approved the resolution, but owing to the immense burden of care upon his mind, anthorized the Secretaries of State and of the Interior to exercise the power vested in him by Congress, viz.: to take such measures as should seem to them best to facilitate a proper representation of the industrial interests of the United States at said Exhibition. These gentlemen ac-cordingly-or rather Mr. SEWARD, for Secretary Smith disclaims the responsibility of either the measure or the appointments-appointed a Board of Commissioners, whose duty it should be to devise and carry into execution the best plan for getting out a creditable exhibition from this country-not to attend the Fair at London, as has been erroneously published in the papers.

This plan was, perhaps, well adapted to secure the end proposed; bnt if it was desired to interest the industrial people of all sections of the country and call out such an exhibition as would fairly and honorably represent all parts of the United States, it is a little remarkable that none of the Commissioners entrusted with this work should have been selected from that vast and important portion of our country distinctively known as the Northwest. Still more remarkable is it, that, after the omission had been respectfully pointed out by an authorized representative of the State Boards of Agriculture of five of those States, and after the President himself had requested the appointment of at least one Commissioner for these States, this self constituted Commissioner and Chairman of the Board of Commissioners, Mr. Seward, should have obstinately refused to correct the error! Such are the facts, however, and as he boldly declares his willingness to "take the responsibility," we hope the people of the

Great Northwest will cleverly allow him to bear it. It is but just to the Board, however, to state, that several of the Commissioners saw the blunder and earnestly requested the extension of the Commissions so as to give to all divisions of the country a fair representation in the organization of the enterprise, so far as this country is concerned; and that failing of this, they did actually so far repair the neglect as to appoint an Agent in each of the Northwestern States to carry out therein the plans by them devised.

In our next number, we shall be prepared to give all necessary information pertaining to the Exhibition, and to advise as to the course which, in our judgment, should be pursued.

The Editor's Apology.-As will appear from several articles in News Department and Editorial Miscellany, this number of the Farmer has been edited at a distance; and although the labor has been greater, as we have been unable to read the proof we shall be surprised if there are not slight mistakes of one kind or another on almost every page. Our readers will be kind enough to bear this fact in mind, and not hold us to a rigid account for such errors as may have been overlooked by those who have had the proof-reading in charge. A few minor articles, not of our selection, have also been inserted by the printer, to fill vacant spaces in the Departments.

Trial of Scales.-We have seen astatement of the recent official trial in one of the principal counties in this State, of twenty-five Grain and Stock scales. They were the ordinary out-door wagon scales, and were tested just as they were found in common use, thus making it one of the best possible practical tests. Sixteen of them were of Fairbanks' make, and nine of various other kinds, including some which have lately been claimed as superior to Fairbanks'. The result showed a remarkable degree of accuracy in those of Fairbanks' make, while all others were condemned as not sufficiently accurate for use. The importance of this fact will be appreciated without comment. We publish it because it is one in which the public are interested.-Chicago Tribune.

## NOTICES OF NEW ADVERTISEMENTS.

Mr. Powers continues his talk about Farm Tools and Machinery, and first of all advises farmers to take care of such as they have.

The Mendota Agricultural Works of this city have an established reputation. Farmers, Mechanics and Millers, not already informed, will do well to examine into the merits of the work done at this establishment.

Bateham, Hanford \& Co., Proprietors of the Columbus (Ohio) Nursery, offer a large and fine assortment in their line. Mr. Hanford is well known to our readers already, as an old and experienced Nurseryman.
Mr. John Wilcox, of Omro, also calls attention to his Apple Seedlings and "Wilson's Albany Strawberries," in the "Winnebago Nursery."

# THE WISCONSIN FARMER. 

## J. W. HOYT, $:=: \quad: \quad: \quad: \quad:$ EDITOR.

Vol. XIII.
MADISON, DECEMBER 1, 1861.
No. 12.

## Agricultural Papers---How to make them More Useful.

We can remember distinctly when there were not more than a half dozen Agricultural papers of any description in America. And some of these were but a rehash of the ill-adapted teachings of about an equal number of transatlantic journals. But what a change has been wrought within the last quarter of a century! To-day every Northern and many a Southern State has its journal devoted to the progress of rural pursuits, and not a few can even boast of several such publications; so that with a few standard European journals we now receive and regularly put upon file nearly a hundred valuable periodicals of various forms, all zealously-and most of them intelligently-devoted to this one great work -the adyancement of the productive interests of the world and the elevation of the laboring masses upon whom those interests directly depend!

See, too, what immense progress has actually been made by the industrial arts within this brief period! The old Bull plow, with wooden mold-board and horn handles has given place to innumerable models skillfully fashioned, under the guidance of scientific principles with a view to the various uses to which they are to be put, constructed of the most economical material furnished by nature and art, and capable of performing the desired work with great saving of power, time and patience, and of doing that work certainly one hundred per cent. better than formerly. The slow-gathering, back-breaking sickle has been superseded by the majestic, field-cropping harvester. The old-fashioned flail, which in the days of yore
and since the time of the Hebrews has labored, with slow and ineffectual thumps to beat out its few bushels per diem, hangs up there on its peg in the barn-a relic of the past. Its work is now done by horse-power machinery or by the wondrous agency of steam, and hundreds of bushels are threshed and winnowed while pecks were merely thumped out before. So also of a hundred other wenderful labor-saving machines for draining, fertilizing, preparing the earth, for cultivating and harvesting erops.

And where is the intelligent man who will deny that wise practical books and periodicals devoted to the attainment of these very ends -ever pointing out the deflciencies of the old -urging the importance of new adaptions and sometimes suggesting the most feasible meansinsisting that Agriculture involves principles which were as fixed and definite as the laws of planetary motion, and that these principles should be studied and known by every tiller of the soil-inculcating in all who are in any way connected with industrial pursuits correct ideas of the value and nobleness of their calling, and stimulating them to new efforts for its elevation and progress,-we say, where is the intelligent man who will deny that agencies which have done and are doing all this are of incalculable importance and should meet with the most cordial support and untiring co-operation of every one who desires the prosperity of himself and his country and the advancement of his race.
It is not claimed that all their teachings are infallibly correct; but if the promulgation of truths and principles established by the inductions of science and long series of careful experiments, and if the publication of the expriences
and observations of sound practical men are calculated to benefit those whom those truths and experiences directly and vitally concern, then must all able and judicious agricultural papers prove a very great benefit to such farmers as can be induced to read them with inquiring and understanding minds.

Every farmer, therefore, who desires the welfare of his fellows and the highest promotion of the art of his choice, will not only be, himself, a careful gleaner from such agricultural periodicals as he may find it possible to take (and pay for!) but will also zealously labor to increase their usefulness by induceing his less interested neighbors to follow his example.

If the thousands of farmers in each of the States would see this matter as it is and then put their convictions into deeds, they would thereby insure great gain to themselves, the industrial prosperity of the nation and the rapid advancement of our noble profession to that high position among the occupations of men which seems to have been designed for it by the God of nature and of man.
> [From the Rural New Yorker.]
> War and Agriculture.

Eds. Rutal New Yorker:-Will you allow an old man, one who has lived during wars and rumors of wars, on both sides of the Atlantic, and witnessed their effect upon agriculture, to say a few words to my brother farmers in this time of alarm and excitement. Every one seems to be carried away with the excite-ment,-every one seems to take it for granted that war must necessarily bring hard times and embarrassment, and ruin, to all our commercial interests. Now, if we continue this course, want of confidence, and general embarrassment will assuredly follow. If we keep up this mad dog cry against our own prosperity, we shall of course suffer. The dog against which the cry is raised, though perfectly well, suffers just as much as though rabid. But is this necessary? Is this commercial ruin the necessary result of the war, or is it the result of our own unreasonable fear and alarm? It is the first time in the history of the world that I have known war to cause hard times. In Europe war is always considered the sure percursor of commercial activity and general prosperity, and particularly so to the farmer and those engaged in the work of producing. The English farmer, though he may moralize a little upon the evils of fighting, receives the declaration of war with a good deal of ill-con-
cealed pleasure, knowing as he does that while many may suffer he will gain in wealth. Produce, manufactures, almost everything, advances in value, in fact puts on what is called "war prices," money is circulated freely, every one is actively employed, and general prosperity is the order of the day. Even the commonest farm laborers feel the influence of the times in a few shillings extra per week.

The greatest draw-back to this prosperity is the fact that peace must follow war. Then, when everybody is trying to rejoice at the declaration of peace, the farmer, the merchant, and the mechanic, finds it difficult to conceal his fears. In a little while business becomes dull, farmers have to dispose of their crops at lower rates, speculators who purchased at war prices have to sell at peace prices, and the result is, many failures and general stagnation. Farmers who became really or prospectively wealthy, and lived in a corresponding style, find it difficult to conform to their altered circumstances, and pay their debts, and in this work they often have to be aided by the sheriff. Only those who had the sagacity to look forward to the probability of peace, and take in sail, are able to weather the storm.

What is there about the present war to cause a different state of things than that which is found to be the common result of war? In the first place our Eastern cities lose their Southern trade, and a good deal of money owned by Southern creditors. This will affect business in these cities, and may perhaps more than counterbalance the extra activity which would be the natural result of war, but cannot, I think, bring upon the country any very great or general, embarrassment. The farmers in some parts of the West usually send their produce down the Mississippi, to find a Southern market. The blockade has of course destroyed this market, and the result will be somewhat injurious to the farmers of that section. Bulky produce that will not pay for shipment East must be necessarily low, but cattle and all things that can find an Eastern market will bring remunerating prices.

These are the only things that suggest. themselves to my mind that will in any measure tend to cause derangement of business, and in them I see no cause for the great outcry that is now being made. On the contrary, I think this will be a year of prosperity, equal to any which the farmers of America have enjoyed during the last twenty years. A million of dollars is being expended every day by the government, and this money is not sent abroad, but circulated among the people in payment for provision, clothing, \&c. Its influence must be felt for good, throughout all the avenues of trade, and will jingle in the pocket of many a farmer who now has a long face, a heavy heart and an empty pocket. But, some say, we are ruining our country by the vast outlay of money now making by the government. Such
statements have been made, too, in the English press, and Mr. Bright, of Manchester, in an address in which he treated of American affairs, showed that the expenses of the present year of war in America are less than the expenses of the British government in the year of peace. We, who have so often boasted of the strength and glory of our country, must acknowledge what we have said and sung to be only an idle boast, if we now consider that a year of expense, such as England endures every year, can bring our favored land to the verge of ruin.
I do not feel competent to treat of the war and its effects, morally, politically, or commercially, and only throw out these few hints for the benefit of my brother farmers, who are now very unnecessarily alarmed. One frightened man will frighten a crowd, and one cowardly or frightened regiment will cause confusion in an army.

Old Farmer.
Monroe County, N. Y., 1861.

## "Shall we Continue to Sell, or Hold on to our Grain?"

Our advice has been since the earliest returns from the grain-growers of this country and of the old world, "Hold on, if practicable!", Some of our readere received this advice with slight misgivings, but the recent market reports from England and France afford the strongest sanetion for its soundness.

According to concurrent testimony in the most reliable English papers, the aggregate deficiency of the wheat crop in Great Britain, the present year, is twenty-four millions of bushels greater than usual, making the demand for foreign grain sixty-four instead of forty millions of bushels.

In France the estimated defleiency is still greater, amounting, according to the Journal d'Agriculture Pratique, to not less than about eighty millions of bushels-an amount, which when added to the English deficiency, swells the aggregate to the enormous sum of ONE HUNDRED AND FORTY-FOUR MILLIONS FOR THESE two countries alone!

But this is not all: Belgium, Holland, Spain, Italy, Portugal and other European countries must also become buyers. It is apparent, therefore, that the demand for our surplus wheat must, after a little time, exceed even the expectations of the most sanguine American producer. Indeed some of the English
journals are already becoming nervous in view of high prices, and are urging immediate and simultaneous purchases in all the great grainexporting ports of Europe and America.

When we add to this foreign demand the increased demand at home, growing out of the waste of war and the necessarily smaller aggregate yield next year, owing to thousands of our farmers having forsaking the fields of husbandry for the field of battle-we say, when these circumstances are all combined, nothing can be clearer than that American wheat not yet exported, must bear a much more remunerative price than that hitherto sold.

But already vast amounts have been shipped to other shores-vaster than ever before within the same period, as will appear by the following comparative statement of the value of breadstuffs and provisions shipped from New York to foreign ports during the week ending Oct. 1st, and since January 1:

|  | 1859. | 1860. |
| :--- | :---: | :---: |
|  | 1861. |  |
| For the week, $\ldots \ldots .$. | $\$ 1,520,164$ | $2,796,258$ |
| Since Jan. 1, 1861, .. $\$ 49,968,740$ | $69,757,794$ | $9,042,333$ |
|  |  | $96,057,241$ |

To such as have had debts on their hands that ought especially to be paid, we have always said, "Sell the fruits of your labor and pay them." So we say now. But all kinds of sound grain not urgently demanded for the liquidation of debts should be securely garnered and patiently kept for "the good time coming."

## Example of Washington as a Farmer.

But if we wish, my friends to establish by one bright example the dignity of the farmer's calling, I would remind you that the man who stands alone in the respect and affection of his countrymen, the consummate chieftain, statesman and patriot, was not less a consummate farmer. Inheriting from his older brother the estate of Mount Vernon, he made considerable additions to it by purchase, so that at the time of his decease it amounted altogether to some eight thousand acres. One half of this was in wood or in lawns, lying in a state of nature, but above four thousand acres were in tillage, of which the management was directed by Washington himself. Besides the ordinary operations of husbandry, there were upon the estate a flour-mill, brickyards, a carpenter's establishment, and extensive fisheries. The property was divided into five farms of unequal dimensions, each with its appropriate set of laborers, under the direction of aum overseer
-the whole, especially during the President's long absences from home, under one superintendent. Each of the overseers was required to make a written report weekly to the superintendent, in which a minute account was given of everything done on the farm in the course of the week, including the condition of the stock, and the number of day's work of each laborer. These reports were recorded in a book by the superintendent, and the originals sent in a weekly letter to the President. The President returned a weekly answer, usually a letter of four pages, sometimes twice that length, carefully prepared from a rough draft, and then neatly copied by himself, after which a press copy was taken. A series of these letters, hitherto unpublished, has lately come into my hands, comprising the President's correspondence with his superintendent, from the commencement of his second administration down to his retirement from office. They evince an adherence to system, a grasp of detail, a minuteness and accuracy of observation, and an executive ability truly marvellous. The rotation of crops in his numerous fields was conducted on a plan laid down with great minuteness by himself. The culture of tobacco at this time had ceased at Mount Vernon, and the whole attention of the President was given to those crops which are cultivated in this part of the country. Not content with general results, nor relying exclusively on the discretion of his intelligent superintendent, he gave instructions from the seat of government, on the smallest details of management, and the time and manner in which every operation on the estate was to be performed. Even when he was on the march to suppress the insurrection in the western counties of Pennsylvania, in 1794, his correspondence was not wholly interrupted. One short letter was written from Reading, and another from Carlisle, on his way to the rendezvous of the army. In these letters he mentions the appearance of the buckwheat and the potatoes, which he saw on the farms by the roadside, and gives a general direction for the care of his stock at the approach of cold weather. The father of his country does not seem to have thought that a rebellion ought to engross our minds to the interruption of the ordinary duties of life. On the 10th of December, 1799, Washington addressed a long letter to the superintendent of his farms, the last elaborate production of his pen, enclosing a plan drawn up on thirty written folio pages, containing directions for their cultivation for several years to come. In seven days from the date of this letter, his own venerated form "was sown a natural body, to be raised a spiritual body."-Edward Everett.

We commend the reading of the above to those wise would be statesmen who can see no patriotism in watching over and fostering the arts of industry during the time of war.

## An Easy Way to do Good.

When you meet your neighboring farmer, ascertain whether he takes an agricultural paper. If not, tell him of the good old Wisconsin Farmer, that for years, and for very small pay, has been faithfully engaged in diffusing valuable information, among the people of the Northwest and stimulating poor, miserable, land-skinning, straw-burning, cattlestarving farmers to the adoption of a better system of agriculture. Tell him, too, of its high character as a Home and News Journalof its numerous carefully prepared departments adapted to the wants of every member of the family and of the community. Talk to him of the advantage to his children of becoming gradually familiar with the principles involved in the noble occupation of their father, and of the influence which a pure and high-toned agricultural literature must have upon their estimate of a calling from which farmers' children are generally too much inclined to escape.
If necessary, lend him a number and get him to read it. In a word, persuade him to ${ }^{*}$ become a subscriber for the year 1862, and thereby secure to himself and family a great benefit and contribute to the advancement of the important work of industrial progress in the Northwest.

Friends of the Farmer, will you do it?

## Selecting Seed Corn.

A correspondent of the Boston Cultiuator offers the following suggestions respecting the proper selection of corn for planting. We think they are very good; and while they are generally pursued by good farmers, there are many others, not so careful and observant, who may be induced to follow them by having the hints held up before them, and a little gentle urging, which we now give, to read and heed them:

1. Pick the ears that set nearest to the ground.
2. Those ears having a short foot stalk.
3. From stalks having the most ears. Generally but one ear on a stalk is proper for seed, and that usually the second ear. If the first ear is as good, take that.
4. Never take from a stalk having but one ear, if stalks can be found having two or more ears.
5. Always take ears that are filled out full to the end, and that run beyond the husk, if such can be had.
6. Lay up four or five times as much as will probably be wanted.
7. When you come to plant, before shelling, break every ear and see if the pith of the cob is dried up and hollow, for if it is not, the corn is not fully ripe. Then shell off the but and tip till you come to the long grains.
If farmers will follow this course yearly, the crop may be greatly increased. Great crops can never be raised from stalks having but one ear. The carelessness of farmers in selecting seed corn is one great cause why corn crops are generally of so little profit. So far as I know, the general practice of farmers in selecting seed corn, is to take the best and fairest ears in the pile, without knowing if there were one or more ears on a stalk, and most likely there was but one.

## Don't Procrastinate.

Farmers, forget not that next year your working force will most probably be less and more expensive than in years past. By Christmas, Wisconsin will have sent to the war twenty thousand of her sturdy working men. It behooves you, therefore, to do everything in your power during the winter months to help forward the work of the coming spring. Plowing, clearing, preparations for fencing, the getting up a good store of wood, repairing of implements, selection of seeds, fruit trees, and all else that can be done must not be omitted.

There should be but little dreaming by the fireside this winter.

Value of Ashes.-The Rev. Mr. Weaver inquired if any one present could tell him the value of wood ashes to a farmer for manure?

Prof. Mapes stated that they were really worth 50 cents a bushel, and that he could afford now to pay that for 1,000 bushels of good hard wood-ashes to apply to his farm.

Mr. Carpenter said that the selling rate in Westchester County is 15 cents a bushel, and farmers value them only at that sum.

Prof. Nash said that he had tried them extensively, and was fully convinced that good hard wood ashes were worth 50 cents a bushel upon good loamy land. He had the ashes of 100 cords of wood a year, and refused to sell them at any less than 50 cents a bushel, which his neighbors were unwilling to pay, and so he had the use and profit of them.-Rep. Amer. Int. Club.

## The Potato Rot.

A number of our American and European exchanges are complaining of the ravages of this strange disease.

The Prairie Farmer says, "There can be little question that the potato crop of the West will fall from $\frac{1}{3}$ to $\frac{1}{2}$ below the average yield" on aecount of the rot. Again, "so far as we learn, the disease is making greatest havoc among the finest varieties, such as the Mexican, Prince Albert, Meshanock, Carter, \&c., while the coarser yellow meated varieties are to a great extent escaping."
In Ireland and Scotland the disease is doing great damage and has already materially affected the price of breadstuffs. The Dublin Gazette says, "In some quarters the farmers seem to have given up all hope of saving any portion of the crop. Never since 1846 and ' 47 has there been so general a failure in the potato produce as this year exhibits."

We have, as yet, heard no very serious complaint in Wisconsin, and most sincerely hope this plague may pass us by.

Be Saving of your Grain.-Grain of all kinds has been so cheap the past season, that many farmers have grown careless in storing and handling it. This should not be. A wise man will look to the morrow. Breadstuffs are not always to be a drug in the market. War prices will come bye and bye, and then to have saved all with a scrupulous care will appear in its true light-a private gain and public virtue.

## Linseed Crop.

Within the past week, the manufacturers of Linseed Oil in the West, held a meeting in this city for the purpose of comparing notes, with reference to their future action.
The statistics furnished, showed that the whole amount of seed given out to farmers, in the spring of 1860, was, in round numbers, 40,000 bushels; and that the average product was eight fold, or eight bushels to the one sown. This year the whole amount given out did not exceed 25,000 bushels, and further that there has been much less independent seed sown this year, than last. The cause of this falling off was the wet weather in April, which rendered sowing in all cases difficult, and in
some cases, in flat land with a clay sub-soil, impossible. The growing erop, we understand, looks well, and promises an average yield, in case the weather proves favorable.

The whole number of oil mills in the West is sixteen, all of which, we believe, were represented.

Now, the product of oil is generally two gallons per bushel, so that basing our calculations upon the above figures, leaving out the deficiency in independent seed, the comparison is as follows:
1860 , product of oil, $\qquad$ .gallons 784,000 1861, "
$\qquad$ . 8384,000
Based upon this fact, thus made known, the manufacturers agreed not to sell their present stock of oil less than 55 c , which is an advance of $4 @ 5 \mathrm{c}$ per gallon over the rate it had been selling at.-Cincinnati Commercial.

Springrield, Sept. 28th, 1861.
Dear Sir:-I noticed in your Wis. Farmer, Vol. XI., No. 9, September, 1859 , an article written by J. G. Knapp, for the State Agricultural Society, upon the manufacture of Chinese Sugar Cane. He speaks of the use of Bisulphate of Lime, and states that it ought to be furnished at about 5 cents. I sent to Raune for the article; they sent me what they called the Bisulphate, a small bottle containing about 1 th. 5 oz . It is labelpd "Sulphite of Lime."

Now any information that you can give me upon the subject will be kindly and thankfully received. I am satisfied that there can be a good article of sugar as well as syrup made from the sugar cane. I have quite a large crop, and would like to improve from last year if possible. Please inform me whether you think this is the true article which they sent me, or whether it is a different article from that which I should use, or any other information that will benefit me in the manufacture of the cane. In doing so, it will also be a public favor, for we have got to arrive at perfection by trying experiments. Yours truly, J. W. Ames.
Remarks.-From some cause, the above communication, though dated Sept. 28, never came to hand until this week, (Nov. 6th,) and it is now too late, probably, to make our answer available for present uses.
We cannot, of course, determine from the above information, whether the specimen pur-
chased by our friend is the genuine Bi-sulphite of Lime. It may be cheaply manufactured, and the temptation to cheat in its sale cannot be very great. If the article in question has a faintly yellowish or milky tint and a slightly acidulous taste, it is probably genuine. The method of use has already been treated of in this journal.

## The Farmers and the Currency.

At an adjourned meeting of the Elgin Farmers Club, held at the School House, near W. Wings, on Friday, the 18th inst., the following preamble and resolutions were adopted:
Whergas, The great financial crisis of ' 57 and ' 60 has fallen with such crushing weight upon the producing class by receiving in exchange for their produce what was called currency by the bankers when issued, but when presented at their counters for redemption it was termed "stumptail;" and,
Whereas, Our Government is at present furnishing a circulating medium which we believe to be safe and reliable; therefore,
Resolved, That the interests of the producer will be better subserved by not receiving bank notes in exchange for produce. And further
Resolved, That we deem it wise, prudent and safe to receive such money only as the Federal Government
recognizes as lavful tender. recognizes as lavoful tender.

October, 23, 1861.
Benj. Cox, Sec'y.
We believe the time has come when the business men of our country should carry out practically the suggestions embodied in the above resolutions and save the country from future bank frauds. There is at this time enough specie and Government paper for all practical purposes, and if we could, we would make our voice of warning be heard by every farmer in the land in earnest warning to demand the gold and silver for his produce. This has become the practical issue at Freeport, Illinois, and other places, and no deduction on prices of produce in consequence.
B. $\mathbf{c}$.

Cost of Corn in Liverpool.-The New York Herald gives us some interesting figures on freights, \&c., which shows that a bushel of corn, produced in the centre of the State of Illinois, at 10 cents the bushel, will cost 90 cents in Liverpool, as follows:


We should judge transporting freight just now a better business than raising grain. It will be seen that the lake freight to Buffalo and the canal freight to New York, amount to nearly double the ocean freight, and for about one half the distance.

## STOCK REGISTER.

## The War and the Wool Trade.

It is known to our readers that we have always been a zealous advocate of the woolgrowing interests of Wisconsin. In numerous editorials and addresses and before legislative committees we have done what we could to enforce the importance of this branch of husbandry. Nor do we propose, because just now, there is a partial stagnation of the wool trade, and some who may have engaged in the business with high hopes are a little disheartened, to retract anything we have said on the subject.

Sheep-raising is just as imperatively demanded to-day by our peculiarities of surface, soil and climate, as a State, and by our remoteness from the great national markets, as it was twelve months ago.

The war has had the effect to partially paralyze some of the woolen factories of the country, and to create an unwonted demand for coarse and middle wools to the temporary exclusion of fine wools. But this is no sufficient ground for discouragement. There is by no means a surplus of fine wools in the world; and when commerce and the mechanical arts shall have recovered from the shock of war, they will undoubtedly again be in good demand and bear remunerative prices.

There is one social and political principle, however, that should be considered in this connection: war has the effect, in all times and in all countries, to make the people plain and economical. The thousands who fight our battles must be clothed in strong coarse cloth; and as the soldiery are but recently and immediately from our fields and workshops, counting rooms and professional offices-our own fathers, sons, brothers and friends-we who are left behind will sympathetically adopt the the plainer fabries also, and thus inaugurate a 'fashion which will at least continue until the return of more prosperous times. This will, of course increase the demand for good coarse wools and insure larger profits than heretofore to those who grow them.

For these reasons it is probable that the Leicesters and Southdowns and crosses and grades of these with Merinoes and native sheep will be popular for the next few years.

## Poisonous Properties of Brine.

It may not be known to all that brine, in which meat or fish have been salted, is poisonous to domestic animals. If left in their way they will partake as freely of it as they will of pure salt, when it very often proves fatal. The L' Union Medicale, a French publication, gives an account of the researches of M. Reynal in regard to the poisonous properties of brine. From a series of experiments detailed, he draws the following conclusions:

First, That three or four months after its preparation it acquires poisonous properties.

Second, That the mean poisonous dose for a horse is about four pints; for the hog, one pint; and for a dog, four to five gallons.

Third, That in less doses it produces vomiting in the dog and hog.

Fourth, That the employment of this substance mixed with the food, continued for a certain time, even in small quantities, may be fatal.

We know from experience, says the Valley Farmer, that brine, if swallowed by hogs and other animals, will prove fatal, yet we doubt if the subject is susceptible of the definite results as stated by M. Reynal, for the degree of the poisonous properties of the brine depends on various circumstances. We have known a much less quantity to prove fatal than that stated above.

## Wintering Cattle.

A correspondent of the Rural New Yorker, writing from Illinois, furnishes that paper with an interesting account of his visit to Mr. Isaac Funk, of that State, from which we make the following extracts:

The largest farm in Illinois is that of Isaac Funk, who resides near Bloomington, McLean county. The total number of acres occupied and owned by him is 89,900 acres-one farm of 27,000 acres, said to be worth $\$ 30$ per acre, and three pasture fields containing, respectively, $8,000,3,900$ and 1,000 acres. His great crop is corn, all of which he consumes at home, and is thus able to market about $\$ 70,000$ worth of cattle per year at New York. His stock on hand of horses, mules, hogs and fat cattle is said to be worth $\$ 1,000,000$.
Mr. Funk usually winters over from 700 to 1,000 head of cattle, and stall-feeds for early spring market from 300 to 500 head. He markets his stall-fed cattle about the first of April. He buys cattle all the time, whenever he can do so profitably. Those he sells in the
summer and fall are generally three years old. The class he stall-feeds are generally four years old. The Eastern reader will think it a queer kind of stall-feeding, when he is assured that not one of these animals go inside a stall or are tied up during the winter. A little further and we will give Isaac Funk's definition of stallfeeding. He prefers to buy cattle (steers) the spring they are two years old. They usually cost then, if good ones, from $\$ 18$ to $\$ 25$ per head. These are kept one summer, one winter, and the half the next summer, when they are in condition to market, and will average from $\$ 45$ to $\$ 52$ per head. He winters his cattle on shocked corn. The steers that are to be wintered through and marketed in mid-summer are "strong-fed." Those that are to go to market the last of March or first of April, are "stall-fed." The difference in the two modes of feeding is that the bullock that is being stall-fed gets all he can eat and a good deal more, while the one that is "strong-fed," gets enough to keep him thriving finely all winter-gaining in flesh, and growing too. The corn is drawn from the field on wagons, to the pasture or lot where the cattle are herded. One man feeds from 75 to 100 head. And this care occupies him from early morning till late at night. He rises and eats breakfast by candle light, and draws corn with from two to four yoke of oxen-the amount of team depending upon the condition of the soil-all day, and returns and eats his supper by candle light again. Mr. Funk says the true way to feed is to provide two fields for each company of cattle. Feed the cattle in one field to-day, and in the second to-morrow; to-morrow turn one hog for every strong-fed, or two hogs for each 'stall-fed animal into the field in which the cattle were fed to-day; changing each day, the hogs following the cattle. He says one acre of good corn will winter one bullock if strong-fed; if stall-fed it will require one acre and a half per bullock. The cattle have no other feed, and no protection, except timber, if they happen to be feeding near it. Salts his stock with his feed about every third day, and provides them plenty of water.

Keeping Horses' Legs and Feet in Order. -If I was asked to account for my horses' legs and feet being in better order than those of my neighbor, I should attribute it to the four following circumstances: First, that they are all shod with few nails, so placed in the shoe as to permit the foot to expand every time they move; second, that they all live in boxes instead of stalls, and can move whenever they please; third, that they have two hours daily walking exercise when they are not at work; and fourth, that I have not a head-stall or track-chain in my stall. These four circumstances comprehend the whole mystery of keeping horses' legs fine, and their feet in sound working condition up to a good old age.-Miles.

## Why Horses Kick.-Rarey's Method of Cure.

Kicking is the worst vice which horses are taught. Few men will deny the first part of the assertion, but some will doubt that the vice is the result of education; for, say they, "Does not the horse kick by natural instinct, as a protection against enemies?" Certainly he does, and if he is made to think (for horses do think) that every touch upon his flank and hind quarters, and every rattle he hears behind him, are from an enemy, he will let drive in the most natural manner.

The character of a horse is established during the first four or five years of his life. If through accident or design, a colt be alarmed from behind a few times-particularly if he receive a sudden blow-he will learn to expect danger from that quarter, and to ward it off with his heels; and the finer and more spirited his organization, the more likely he will be to acquire the vice. For example, a young colt had become quite troublesome by entering neighboring fields, over the dilapidated fences of his owner. After repeated annoyance, and much vain expostulation, one of the aggrieved parties caught the colt while trespassing; fastened a tin pan to his tail, and turned him loose. Away went the frightened animal, plunging and kicking to get rid of the fearful enemy banging at his heels, and he nearly killed himself before breaking it loose. From that day he was a confirmed kicker; not a leaf could rustle in his rear, but his heels would fly like lightning: and he was harnessed and driven only at the peril of life. Another colt was taught to kick while confined in the stable, by his owner ignorantly trying to "break his spirit." This he did by belaboring with a cowhide, and yelling at the top of his voice! The horse was frightened into the belief that man was an enemy, and he acted accordingly, kicking at every one who did not terrify him into temporary submission. This was as sensible as the advice of an English horse-breaker of the olden time: "If your horse does not stand still, or hesitates, then alrate (yell) with a terrible voyce, and beat him yourself with a good stick upon his head between his ears, and stick him in the spurring place, iii or iiii times together, with one legge after another as fast as your legges might walk; your legges must go like two bouncing beetles!"

In the training of the colt, too little attention is paid to educating the whole animal. He should be gently and continually handled, not only about the head and mouth, but from "end to end." First invite his affection by little presents of corn, or a few crumbs of bread. Having gained his confidence, smooth his neek, then gradually extend your attentions along his back, and down his flank, and so on day by day advancing a little at a time, until you may safely handle every part. In time he will learn to bear a smart slap upon the

## THE WISCONSIN FARMER.

haunches without thought of retaliation; and when once he has learned this, he cannot be made to kick by any fair usage. The man who abuses a horse, deserves a kick.

But can a confirmed kicker be cured? Rarey says yes, and if one can exercise Rarey's firmness, good sense, and patience, we believe he can make the worst kicker safe. We witnessed his treatment of a most dangerous mare, and the effects of the one lesson given seemed marvelous. He first applied the strap to the foreleg, then led her around upon three legs, until the creature found she could not kick. He next threw her, and commenced handling her flank and hind quarters, at which she kicked violently. But she soon found that nothing resulted from it; nobody was hurt, frightened or angered, and in about fifteen minutes her intrepid conqueror lay down and placed her hind foot upon his head. When she was released, he mounted and dismounted repeatedly, until she allowed him to sit quietly upon her haunches. Such lessons, repeated half a dozen times or more, as the case might need, he said would tame her hind quarters. Our advice is, first, don't teach your horse to kick; but if unfortunately you have been cheated in trade, and are the owner of a dangerous beast, don't try to cheat any one else : try the Rarey method thoroughly, or employ an experienced horseman to do it, and so make the best of a bad bargain.

## Abuses of the Horse. -- No. 2.

## injuries to the jaw.

In view of the natural beauty of form and carriage of the horse and of his wonderful disposition to cheerfully sacrifice himself for the greater comfort and convenience of his feebler master, whose tyranny he conld almost always punish with instant destruction if he chose, it is remarkable and most unpardonable that this noble animal should so often be shamefully abused by a cruel use of the reins.

We have a thousand times pitied him as we see him suddenly yanked up into that excrutiating attitude which some numb-skull of a rider or driver fancied was particularly splendid, and as often wished that we had the same bit in the mouth of his torturer that we might teach him one simple lesson of humanity and common sense.

No horse in the world can be improved by such treatment, while thousands are ruined by it every year.

A horse with a handsomely shaped neek
naturally carries his chin quite near to the chest. So that the iron of the snaffle, instead of pressing against the angles of the mouth, bears directly upon the gums as seen in the annexed cut. It must be apparent, therefore,
 that, if the jaw be not broken, as it has been sometimes by a sudden jerk, the gums can hardly escape severe wounds and the bone will occasionally be bruised as shown by the dark marks in the accompanying cut, before and behind the tusks; in which case the gum must slough and a portion of the bone exfoliate, or, if not cast off, give origin to foul and
 ragged ulcers.

Again, the lower margin of the jaw-bone is liable to injury from the curb chain, which too many are in the habit of jerking without stint or mercy until the bone, through bruises at length throws out a loathsome osseous knot as seen below.


The treatment of all these cases of injured bone consists-according to MayHew, from whose able work the above cuts are copiedin keeping the gum open by means of a knife until the bruised portion of bone is cast off, and in syringing the part several times daily with a lotion composed of chloride of zinc one
scruple, water one pint, aniseed a sufficient quantity. But here as in all other cases of disease, an ounce of prevention is worth forty pounds of cure.

Teach your sons and hired men to handle the reins gently and in all things to treat that noble servant of man, the horse, with patient kindness-yourself setting them the example.

## Training Steers.

A correspondent of the Amer. Stock Journal, gives his experience in the training of Steers. He says they should be-

1. Accustomed to your presence.
2. Trained to be yoked,-to travel in the yoke, and turn right and left at command.
3. Trained to work.

The first should be accomplished long before " breaking," as it is termed; if, however, it is not, it may be very easily done by handling the animal-if it must be by force, handle, always being deliberate and careful in action, and never be thrown off your guard so much as to strike or kick. The creature will soon learn he has nothing to fear,-now let him know he has something to gain by giving him a nubbin of corn, or scratching his neck, back, etc.Whenever you undertake to handle an animal, accomplish what you undertake; and if you have any doubts as to the result, do not begin until you have force enough to be sure of success. If you do begin and fail at first, persevere until you finally conquer-that's the word, conquer.

Any animal is a long time forgetting a triumph. I would rather teach ten wild steers to handle that have never been tampered with, than one, that has once come off "best." The most skillful man we ever saw at handling cattle, did it with the least expense of feeling to them, and yet, when they refused to perform, he used the most imperative force to compel obedience. An animal came from his hands tamer and more gentle than from one who resolves not to force. Use, then, force enough,do what you attempt, but be always mild and gentle-show no temper.

Training to the yoke.-This is easiest and best done in the barn yard. Drive them quietly around for considerable time-mind, you drive them, if not they run and scamper where they like, without perceiving that you are master. After half a day of such driving many steers will submit to be yoked by the driver alone, and wild ones can soon be so wearied as to be readily yoked. In this regard you have to judge whether best to yoke by calling in help, or keeping them going until you can yoke them alone by yourself. When you have them yoked be gentle with them-let them know you
are masters-keep them going until weary, and but very little after.

It is easy to learn steers to turn right and left, when you have them in the yard under your control. Touch the near one when you wish them to go to the right-the off one when to the left; or if you wish them to turn about, start one ahead quick by a touch, while you motion the other back at the same time.

Training Steers to work.-This is by far the most critical part of " breaking steers," and should be accomplished by gradual approaches, being careful not to worry nor weary them. Suit their tasks to their strength and endurance, and have patience now, that when they are fully grown, they may not be prematurely "old "cattle." How many pairs of so-called old, slow cattle, are really so? They are old in appearance, and slow, because when young their spirit was destroyed by over-work. Cattle are more unfitted than any other animal to severe labor, before attaining their full growth and constitutional development.

In breaking steers, bear in mind that you must subdue their will, but maintain unimpaired their natural animal spirits.
One year ago we trained two pairs of steers: one pair was wild and had to be eaught with the lasso. This pair we had gentle and tractable in one week, and yet one of them possessed an almost unconquerable will. In getting him home we yoked him with his mate and could not drive them. We then hitched a strong pair of oxen ahead and drew him-he part of the time sliding on the ground and part the time pulling back all he was able, but firm; and in one hour he was subdued, and we had no further trouble with him.
In training steers use all the force necessary to bring them under your control; then gentle them by being mild and gentle yourself. No animal thinks less of you for conquering, if you do not abuse your superiority.

## Feeding Horses.

The London Omnibus Company have lately made a report on feeding horses, which discloses some interesting information, not only to farmers, but to every owner of a horse. As a great number of horses are used in the army for cavalry, artillery and draught purposes, the facts stated are of great value at the present time.

The London Company use no less ihan 6,000 horses ; 3,000 of this number had for their feed bruised oats and cut hay and straw, and the other 3,000 got whole oats and hay. The allowance accorded to the first was-bruised oats, 16 Ibs.; cut hay, $7 \frac{1}{2}$ Ibs.; cut straw, $2 \frac{1}{8}$ tbs. The bruised oats, cut hay and cut straw amounted to 26 Ibs ., and the unbruised oats, \&c., 32 tbs. The horse which had bruised oats, with cut hay and straw, and consumed 26 tbs. per day, could do the same work as
well, and was kept in as good condition, as the horse which received 32 lbs. per day. Here was a saving of 6 tbs per day on the feeding of each horse receiving bruised oats, cut hay and cut straw. The advantage of bruised oats and cut hay over unbruised oats and uncut hay is estimated at five cents per day on each horse, amounting to $\$ 300$ a day for the company's 6,000 horses. It is by no means an unimportant result with which this experiment has supplied us. To the farmer who expends a large sum in the support of horse power, there ${ }^{*}$ are two points this experiment clearly establishes which, in practice, must be profitable: first, the saving of food to the amount of 6 fbs . per day; and second, no loss of horse-power arising from that saving.-Scientific American.

## Cramp or Spasm in Horses.

I was requested a short time ago to visit a horse, said to be the subject of "stifle lameness." The patient, a gray gelding, aged eight years, was put up at the stable on the evening preceding my visit, apparently in perfect health. Early in the morning, ere I was called, the "feeder" observed that the horse was incapable of moving the near hind limb, and it appeared to be, as I was informed, "as stiff as a crowbar."

On making an examination of the body of the animal, he appeared to be in perfect health; yet he was unable to raise the limb in the slightest degree from the stable floor. The case was accordingly diagnosed as a cramp of the flexors.

Treatment.-The body and lower parts of the limb were clothed with blankets and flannel bandages, and the affected limb was diligently rubbed for half an hour with a portion of the following liniment: Oil of Cedar, 1 oz .; Sulphuric Ether, 2 ozs.; Proof 'Spirit, 1 pint.

In the course of a few hours after the first application, the difficulty had entirely disappeared.

The owner informed me, that the horse had, the day prior to the attack, been exposed to the cold and continuous rain storm, and probably this operated as the exciting cause of the spasm.-Amer. Stock Journal.

Remedy for Blind Staggers.-A writer in the Charleston Conrier gives 'an effectual remedy for that formidable disease in horses, the blind staggers," the recipe being as follows: "Gum camphor, 1 oz .; whisky or brandy, 1 pint-dissolve. Dose, 1 gill, in a half pint of gum arabic, flax-seed, or other mucilaginous tea, given every three or four hours; seldom necessary to give more than three doses. The horse must be kept from water twenty-four hours. Never bleed in this disease."

## Shelter for Sheep.

We have heard farmers contend, that the only shelter needed by sheep, was a stone fence, a hill, or piece of woods, to keep the wind off; and one of this class (we take it,) learned better from the following incident, which he relates in Field Notes:
"Last winter I fed about eighty ewes in my meadow, as above stated. [Helping themselves to hay from stacks, or to "old fog" on the meadow, with a little grain daily.] I had in an adjoining field an old house. I made the way open to the meadow; I did not force the sheep into the house, but left them to be their own judges about going in. It would have done you good to see them marching out in the morning to their feed, in single file, and back in the evening to shelter from the chilling blasts of a cold winter night ; and if the day was extremely cold, they took up their line of march twice a day back and forth. I think they did not lay out in the open air to exceed half a dozen nights during the whole winter, and those nights were moderately warm. I was so well pleased with this arrangement in the spring, that I immediately put two shelters, one in the meadow-frame thirty-two feet by fourteen, posts four feet high, weather-boarded and roofed-to be used at pleasure by the sheep. The other I built in one corner of a field, by setting up three rows of posts in the ground, the highest in the middle, and roofed both ways, and open on the east side, to be used by my ewes and young lambs of nights and stormy days."

## Cure for Thumps in Hogs.

Ed. Valley Farmer: I wish to make my acknowledgments to the Valley Farmer, and to Mr. J. W. Salter, for a valuable remedy for the cure of Pneumonia and Thumps in hogs.
About a month since I noticed that a very valuable pig, which I procured for breeding purposes, began to lose his appetite, and soon his respiration became hurried, and attended with a quick, jerking motion of the sides. He also coughed considerably. Never having had any experience with such a disease, I searched for a description of the disease and a remedy. In the August No. of the Valley Farmer I found what I considered a case similar to mine, i. e. Thumps. I tried the remedy, veratrum viride, ten drops, three times a day, in milk. His appetite improved immediately, but it was a week or two before his breathing was less rapid or his cough diminished. He is now about cured, and thriving very fast. I also turned the pig out of his pen in which he had been confined before.-0. C. Graves.

See that your hogs have clean beds.

## THE POULTERER.

## Fresh Eggs the Year Round.

There is poetry on the dung-hill as well as in the meadow or hearth-stone. We all remember the cricket in the old-fashioned fireplace: it is a touching little thought, going back far into childhood. There are also the cackling hens and chanticleer of boyhood.The cricket now is mainly confined to the field; but the cock struts as proudly as ever on his favorite dung-hill. Eggs are still hunted for, and obtained-fresh; but only in the country, and then, alas! not always.

Fresh eggs! It is not necessary to dilate here, or poetize further, on the subject-a trick of ours. . We will say this mueh-and we can say it with authority-that fresh eggs may be had at all times, and with little trouble. Is not that an item in the sum of life's experience? We will not eat a spoiled egg; and all but fresh eggs we consider spoiled: old eggs are not fit to eat; they are like old butter.

But how shall we obtain fresh eggs? Hens, it is said, don't pay ; many have tried it, and these discourage others. But some have tried it, who continue the practice of raising their own eggs, and sell largely. These certainly must find it profitable, for a man does not, knowingly, throw away his money. We have seen the process tried, and fail; and we have seen it tried, and succeed. It is precisely in this as in other things : in making butter for instance, or coffee, or raising stock. If properly conducted, it will pay; otherwise it would soon cease to be practiced.

To have fresh eggs the year round, and without loss to the producer, must be a consummation devoutly to be wished. It is an easy matter with a little care.

Take one or two dozen of hens, (young hens, and of the same breed, are best, ) the number agreeing with the size of the family. Let your building-a rough shanty will do-be dry and airy. Hens, as well as men, require fresh air, and dread moisture. They also suffer from cold-so their quarters in winter should be warm; but always dry, and kept clean. It should be often cleaned and sprinkled with lime; and it would benefit it to whitewash the inside. Eight feet by five, or smaller, will do. The roost poles should be three by four (joist), placed along the back part of the building, with a poop in the centre of each; about three feet from the floor, and half that distance apart. Place a board for the hens to walk up.

As to feeding, give them almost anything. They will thrive upon variety. They should be fed three times a day, and regularly. Indian meal made into dough and slightly peppered, is excellent to make them lay; with a little meat every other day; and raw onions once a week, and raw potatoes chopped up.

Potatoes and onions should not be neglected. But corn is the greatest reliance. Let them have access to pure water. Gravel, bits of plastering, and particularly oyster-shells pounded fine, are indispensable to laying.

Make your hens happy and contented. This is a great point. Comfortable quarters, enough to eat (just enough and no more), with materials in reach for egg-shells (gravel, pounded oyster-shells, \&c.)-these are the main things. But the minutir must not be forgetten. A happy hen will lay; and a happy hen is one that lacks for nothing. The lime should be slacked. It keeps away vermin and disease. Of course an aperture must be left for the hens to pass in and out. They should be as little molested as possible - never frightened nor watched. Study to make them a happy family, and they will make you happy in return. And do not be discouraged if at first you are not remunerated for your outlay. They will soon take to their new life. But you must attend to them: they are sensitive towards neglect.

If you have no relish for the thing, you will not be apt to succeed-you will not take the proper care. There is not the sympathy between you and your colony, which is appreciated at once and acted upon. There is philosophy in the treatment of hens, as well as in anything else. There is but one fact about everything, and that must be possessed. The fact about hens is, mostly, good treatmentnot in food merely, but in everything. There may be an abundance of food, and yet the hens suffer in other respects. These must be remedied. A warm, ventilated building (not heated-avoid all extremes), with windows for light; large enough, and undisturbed; quiet, save by the singing or cackling of hens; kept clean, with slacked lime kept on the floor; and pure water always in reach and ready of access; and regularly fed three times a day with what food will be eaten, and no more:- these are the principal things that form the good treatment of hens, and, with the minutiæ added, will make them lay. Once fully establish your system, and it will be easy afterward.Valley Farmer.

Profitable Poultry. - Asahel Wright of Deerfield, from 30 hens, and 28 doz. eggs in the month of February, or an average a dozen each day. The food of these fowls was varied as much as possible, and care was taken not to have the same thing two days together. One day it was boiled corn, another day boiled potatoes, another day boiled beets, and neither meat, table crumbs or hasty pudding, came in their turn amiss. We rather guess that Mrs. Wright keeps an eye on the biddies in the winter, as we know she must about the time of planting her model flower garden in the spring and summer. There is always profit in taking pains, and loss in carelessness.

## THE BEE KEEPER.

## Random Thoughts upon the Bee.--No. 2.

The chief object of this number is to review the past, and endeavor to ascertain, how long the Bee has been made a subject of investigation.

We find that Democritus, who died 361 years before Christ, aged 109 years, is the first apiarian whose works have come down to us. The knowledge of the bee at that age, was confined to the speculative knowledge of natural history, rather than a practical knowledge of the economy and value of this most useful animal.

Alexander De Montfort, wrote the two first modern treaties upon the bee about the middle of the 17th century, entitled, "The Portrait of the Honey Fly, its Virtues, Form, \&c." Also, "The Spring of the Honey Fly," divided into two parts; in which will be found a curious, true and new history of the admirable and natural conduct of the bee. De Montfort notices a long catalogue of ancient writers upon bees, particularly Aristotle, Columella, Varro, and many others; he further adds the first practical touch to their visionary speculation. Virgil says that a bee is a ray of the Divinity; Plutarch, that it is a magazine of Virtues; Quintilian, that it is the Chief of the Geometricians ; and De Montfort, the bee surpasses, in architecture, the skill of Archimedes. Plato who flourished about forty years before Democritus. ascribes to the bee a certain portion of that angry divinity which inspires poets, and cautions his disciples against disturbing either of them.

At the close of the 17 th century, appeared Swammerdam, Moraldi and Ferchault, all men of science, who opened to our view the natural history of the bee; but Hodierna, of Totria, first disclosed the fact, that all young swarms spring from the eggs of the Queen Mother. These men laid the foundation of the true apiarian science, and were translated into many languages.

This interesting subject engrossed the attention of a host of writers through the 18 th
century, and at the close of it, Huber, (though blind nearly), was the most visionary of all. Bonner, a Scotchman, is the first good practical apiarian that has appeared.
W. H. Morrison.

Tror, Wisconsin.

## Wintering Late Swarms.

In the Co. Gent., Aug. 22d, "A Young Farmer" asks, "Is there no way to preserve a late swarm of bees over winter, or must they be taken up after the old fashion." I could say both yes and no to this question. I must know its conditions to give the proper answer. The simple fact of being late, has no effect on its wintering qualities. I have had swarms after the 15 th of August that wintered without the least trouble, having provided themselves with everything necessary from the flowers. I have had them in May that failed to do so, and were lost in consequence. If a swarm in addition to being late is small, and has constructed but few combs, and has but little honey, which I suppose is the kind of swarm meat by A Young Farmer, the chances of successful wintering in this latitude $\left(43^{\circ}\right)$ are very few, and I would advise that all such be taken up if the owner has not philosophy to put up with a loss. By killing the bees of such a hive now, as soon as the brood is hatched, and getting all out from between the combs, and setting the hive and contents away in good order for another year, it would be valuable-with just as much to a new swarm as so much honey and comb of its own making.

But should it be desired to keep a colony, however remote the chances of success might be, I will give some of the requisites and a few directions. First, a good colony of bees is important. If too few, add those of some condemned stock or swarm, or unite two or more small ones, smoking to prevent quarreling, with tobacco or puff-ball, and confining them to the hive some two or three days. Another equally important item is honey. They should have combs sufficient to hold enough for win-ter-one with less should be disposed of as above. Feeding should be done sometime in October, after the brood has all matured. Let it be done in as short a time as possible, otherwise the brood which the feeding will induce them to rear will consume too much of it. Not much less than twenty or twenty-five pounds of contents-bees, sufficient. Surplus boxes part full, set on the hive, with a hole for communication, will be emptied in a short time, and still more quickly if the caps are cut from the ends of the cells, before putting them on. Combs taken from a hive and put in a box will answer just as well. Strained honey, if taken from a healthy hive, will do to feed without any preparation. Put it in a shallow dish with some floating material
to keep the bees from drowning, and set it on the hive. If the dish is very smooth at the sides, something must be put by them to assist the bees in creeping in and out. When feeding at this season, particular care is requisite in all cases to have the box cover to fit closely, to keep out robber bees from other hives. They are quite apt to scent the honey and make an effort to carry it away, and sometimes when we have fed enough to bring the hive up to the required weight we find it lighter than when we began. When honey cannot be had, sugar may be substituted many times with good results; but this had better be fed as consumed through the winter. The hive is taken to a dark, warm cellar, turned bottom up, and the edges of the comb cut off square, and some shallow dish set on them. Syrup made of good white sugar as near the consistence of honey as possible is poured in. Two or three gills is enough for a week. The dish will be fastened to the combs very soon, and should not be broken loose till done feeding, as it disturbs the bees, which should be kept as quiet as possible while in the house. Whenever a pleasant day occurs, suitable for the bees to fly, all that have been fed should be set out for an airing. We cannot get the feed of an exact consistency of honey, and will sometimes-quite oftenproduce dysentary, making it necessary for them to have an opportunity to leave the hive whenever the weather will admit. Such as were fed in October often leave some of their honey unsealed that will sometimes sour and induce the same effect. If pleasont days occur once or twice a month, so that they can fly, such fed swarms will do very well, but in steady cold weather for a long time they are quite sure to suffer.-M. Quinby, in Co. Gent.

## Wintering Bees.

The following remarks on this subject, are from T. B. Minor, author of the "Bee-Keeper's Manual." They are not strictly applicable to this climate, but involve principles and practices which ought to be familiar to every keeper of bees :
The great draw-back to successful bee-culture, is the loss they sustain in the winter. Independent of some general remarks recently made on this subject, we will now add a few suggestions.
In all latitudes south of New York city, where the snow seldom falls to last over a day or two, we think the hives may as well remain out upon their stands, as the weather in such elimates is not so cold as to do them much injury. Bees, when the hives are prosperous, will stand a few days of very severe cold weather, provided that the sun shines warm enough, once a week, to warm the hives, and cause the frost
which accumulates frequently at the tops of the combs to melt and run down.
It is a good plan, when hives are left all winter upon their stands, to remove the small boxes in the supers, and fill the upper sections of the hives with fine hay, packed in rather closely. We now refer to any hive that is constructed in two parts, or those that have doors in their backs to allow a set of small boxes to be slid in, in which the bees stow their surplus honey.s The moisture generated by the bees will ascend through the holes leading to the supers, and become collected in the hay. In the spring it will be found in a wet and slightly mouldy condition, and may be thrown out as waste litter.
Some apiarians bore an inch hole near the tops of their hives, in order to allow the moisture to pass away. We never approved of this plan, as a vast deal of cold air must be constantly circulating up through the hives.
All hives left out upon their stands in winter, should either be raised up to allow a circulation of air beneath them, or once in three or four days the dead bees around the passage ways should be cleared away, as an accumulation of bees at the entrances in the winter will sometimes become saturated with the melting snow or rain, and close up the passages by freezing, which will smother the bees when they have no other means of ventilation. A long goose quill is an excellent thing to run into the passages to remove the dead bees.
We recommend the placing of short pieces of boards, a foot wide, up against the hives, so as to prevent the sun shining into the passageways, which always, in mild weather, causes the bees to leave their hives, and many become chilled, on alighting upon buildings, fences, \&c., and never return. But more especially is great loss caused, when the ground is covered with snow, and the warm rays of the sun draw forth the bees in large numbers, to become dazzled by the reflection of the sun upon the snow, and fall down and die.

Remedy for Bee-Stings.-Three years ago one of my little ones poked his spade into a bee-hive. You may suppose he was severely stung. I immediately mixed with water some ipecacuanha powder and applied it to the places stung, (of course extracting the stings where visible, and in ten minutes he was playing about and all irritation was gone. The nurse was stung, too, in several places, and the same remedy applied with equal success. The Indians use this remedy for the stings of scorpions, and a friend has called my attention to the fact that Dr. Livingstone states in his journal that the African tribes use ipecacuanha for snake bites. I think they mix the powder with oil. I have used it for gnat bites.Charles Hardy in London Field.

## THE HORTICULTURIST.

## Everbearing Raspberries.

We are frequently asked for a real monthly bearing or perpetual raspberry. There is now quite a long list claiming to answer this demand. We will mention but two at this time, both hardy in Wisconsin, and worthy of a place in every farmers garden.

The Ohio Everbearing.-A native of Ohio, like the black cap in all respects, except the habit of producing a second crop of fruit late in the season. It does best in strong loam or clayey soil which must be deep and rich. In dry and poor soil with neglected culture it nearly or quite looses its habit of fall bearing.

To grow any raspberry successfully, the soil must be deeply worked and heavily manured, and this is especially needful for the everbearing sorts.

The Cattavissa.-This fine everbearing raspberry was found in the grave-yard of the little Quaker meeting house in the village of Cattawissa, Pennsylvania.

An accidental seedling, one of natures own improving; probably from the native black raspberry growing very abundantly thereabout, and which it somewhat resembles in habit of growth.

Fruit in form resembles the common red, in size nearly as large as the Antwerp, color when ripe dark reddish purple, high flavored and excellent.

It bears successive crops upon the ends of the young shoots as they are produced, beginning in August and continuing to fruit abundantly through the whole season until frost.

We esteem this much the most valuable of the everbearing raspberries for this latitude. Of the many monthly sorts cultivated at our nurseries at Columbus the Cattawissa was certainly the most productive, and to our taste, the best.
An advantage this variety has over other rasperries is, that should the canes be injured by winter, it would only postpone the fruit crop; the latter will be increased thereby.

The accompanying specimen branches, loaded with blossoms, ripe fruit and berries in all the intermediate stages (on one branch numbering over one hundred berries), will illustrate their bearing capacity, and thus they will continue until frost.

The Cattawissa is rather difficult to propogate, hence the supply has scarcely equalled the demand and the price has hitherto been high.
A. G. Hanford.

Waukesha, Sept. 2tth, 1861.
The specimens mentioned above were referred to in Nov. No. of Farmer. Good strong plants are now sold at the Columbus Nursery for $\$ 250$ per doz., or $\$ 15$ per hundred. - [Ed.

## [For the Wisconsin Farmer.] Pear Culture in the Northwest.

No part of fruit growing has been more neglected perhaps in this country than that of the pear, and no good assignable reason. Notwithstanding we have a soil and climate that is well adapted to the production of most varieties of the best pears, yet a pear tree is seldom found among the farming community. That pear trees have been planted to a considerable extent, and have proved a failure, is no argument againt Pear Culture. They have generally come to us in bad order, of varieties frequently not adapted to our climate and are set out in bad order and little cared for when set, and a consequent failure must necessarily follow.
I will give my method and success, believing it may dispel the skepticism of some on this subject.

In 1856, I ordered from a reliable nursery in central New York, sixty pear trees of first quality, selecting the varieties mainly from those that had been tried here and found "hardy" and "half hardy;" also some that had been reported "tender," and others that had not been reported, as either including thirty varieties, about fifty standard and the remainder dwarf and quince stock.

These were planted on high, dry, open, unprotected prairie land that had been deeply trenched, and the stiff loam comprising the
sub-soil thoroughly mixed with the surface soil. An underdrain was made $3 \frac{1}{2}$ feet deep running lengthwise the plat of land occupied, also a slight surface drainage. I regarded the mixture of the stiff loam which composed the sub-soil with the surface as essential to the health and vigor of the pear tree. I planted them 12 feet apart each way and kept the land under cultivation with vegetable crops, pruning them lightly, cutting down the tops of the standard trees to prevent too high a growth, and thoroughly using the knife on the dwarfs, keeping a low pyramidal head. Last year three of the trees were loaded with pears, two of them being Bartletts; this year I found that twelve of the varieties produced specimens of the finest pears. Of the Bartletts, three were standard and two dwarfs. One of the standards produced nearly half bushel of fruit. The Queen's Orange proves a very hardy, vigorous tree, and fruited well.

The Oswego Beurre, Dearborn Seedling, Seckle, White Dogen, Flemish Beauty, Stevens' Genesee, Buffum, Beurre Bose, D.D.Angolueme, and Beurre d'Aremberg, all produced fruit this year, and are strong, healthy trees.

A few of my trees were injured with the frost blight in the winter of ' 59 and ' 60 , and last fall, 1860. Around part of them I put a mat covering, and the residue I covered with long rye straw, tying it with a straw band, and I have seen no new cases of blight this year. This I regard as a necessary protection.

Thus far, the dwarf trees, except the Seckle, show as much health and vigor as the same varieties on the standard. The varieties on both dwarf and standard are Flemish Beauty, Beurre D. Aremburgh, Beurre Diel, Seckle, and Bartlett.

Feeling a good degree of assurance of success in pear culture, I am now preparing to set an orchard of 200 trees. As I have a gravel formation four feet below the surface, I underdrain each tree. First, I dig a hole two feet in depth and five to six feet in diameter, and from the bottom of this hole I bore with a post auger to the gravel and fill the latter hole with small cobblestones and fill the large one with
the mixture of the sub-soil and surface. This makes a substantial soil, adapted not only to the pear, but also to the apple, plum and cherry.

Underdraining with tile or cobble stones three and a half feet deep will be sufficient for any soil, but if the soil is naturally wet, the ditches should be made not exceeding 24 feet apart. Dry soil, where water does not stand near the surface in the spring and when heavy rains have fallen, do not need underdraining. Pears are succeeding in this vicinity admirably in gravel soils, particularly the Flemish Beauty, which seems to flourish everywhere, regardless of soil or climate, and is doubtless one of the most profitable market varieties.

With the pear, as with all other fruit trees, no stinted tree is worth planting or retaining in the orchard when it becomes so. No tree produces fruit younger nor more abundantly when grown or lives longer. I know where stands a pear tree of more than a 100 years' bearing, which has never been known to be without annual crops. It stands on the grounds of Ebenezer Scofield, in Pound Ridge, Westchester county, N. Y. The pear tree described by Rev. H. W. Beecher, in this State, about ten miles from Vincennes, in Indiana, produced in 1840, one hundred and eighty bushels, and in 1844, oné hundred and forty bushels of pears !

I have also seen the tree of but two years from the bud, and no larger than a good riding whip, produce and ripen three pears. The tree was sustained by a stake.

For both profit and luxury, every man who has a garden should have several pear trees.
D. C. s.

Elgin, Illinois, October, 1861.

Fire Blight of the Pear.-Remedy.-J. J. Thomas says: "There are two remedies for the fire blight; both taken together will maintain any pear orchard undiminished. The first is the well known one of cutting away the diseased parts, doing it promptly and continually, and two or three feet below the blackened portions. This will save many trees. When the tree dies in spite of this treatment, adopt the other remedy, namely : Whenever one tree dies, plant out two more.

## The Public Gardens at Washington.

The most interesting of these are the Congressional and the Propagating Gardens-both situated just east of the Pennsylvania Ayenue and between Sixth St. and the Capitol. In view of the fact that they are so convenient to the principal public houses - especially the National and Brown's Hotel-and that they are always open to the public without charge, it is remarkable that so few strangers visit them.

The Congressional Garden embraces several acres, and is divided by a running stream. It is not an arboretum, however, and a considerable portion of the grounds is yet quite unimproved.

The Flower Garden, Hot-houses, Cold Planthabitations and other Plant-houses are well managed, however, and worthy a visit.

In addition to many of the more rare and beautiful plants and flowers which belong to America, they also contain numerous species of such as belong natively to the tropics of other countries.

There were the Bread Tree-a singular looking specimen, about twenty feet high, though bearing no bread, when we were there-several varieties of the Palm, some of them bearing immense leaves, two or three feet wide and four or five in length, and some with foliage not so immense in its proportion,-the Olive Tree, bearing beautiful, sweet scented flowers, prophetic of the fruit it intends to give-the India Rubber Tree, with its thick tough leaves and milky juice, and many others equally rare and interesting. Some of these plants were so large and appeared so unstinted that we found but little difficulty in imagining ourself in the faroff lands of their origin.

The Propagating Garden, though less extensive in area than the other, nevertheless has, for a practical mind like ours, more real interest; for here we see the beginning of what we trust will some day be of great economical value to the country.
It originated in a desire to have some place, convenient to the Agricultural Bureau, where
such new species of plants or new varieties of species hitherto cultivated, as have not been grown in this country, may be systematically and judiciously tested, with a view to their introduction.

The idea is certainly a good one; for although we are accustomed to think that we already cultivate everything of value that can be successfully grown in our climate, the history of the past cannot fail to have taught the more intelligent that we have, by no means, as yet exhausted the resources of the vegetable world.

The history of cotton, sugar; tobacco, the potato, maize, \&c., affords an instructive lesson on this subject.

In the hands of the right man this experimental garden may yield very valuable results. It must not be allowed to take any other than a practical direction, however.

At present, we believe it is under the general supervision of Isaac Newton, Esq., lately installed as Superintendent of the Agricultural Branch of the Patent Office. This gentleman has a long life's experience in practical agricultural affairs, and has for many years maintained a high position among the agriculturists of Pennsylvania and of the whole country. A personal acquaintance with him has only strengthened the conviction that in selecting him for his present responsible position the Department has made a fortunate choice.

But we were talking of plants, not of men. The Propagating Garden is neatly planned and tastefully kept. Among the objects of especial interest there undergoing trial, the most interesting to us were numerous pots of the Tea Plant-some quite young and tender, others larger and in blossom-and new varieties of the Grape, one hundred and sixty in number.

Of some of these numerous varieties of grapes our readers will be likely to hear again, as we have a promise of some of the cuttings for trial.

During our stay in Washington, we found this garden a delightful strolling place before breakfast, and we would recommend other persons who may be stopping at the Capital during summer and autum, to pay it their respects.

## Visit to the Columbus Nursery.

During a late visit to the good old home of our boyhood, near Columbus, Ohio, we took occasion to visit this extensive and widely known Nursery. Our friend A. G. Hanford, whose pen and noble example have done so good a work in Wisconsin, and who is now one of the proprietors, was not there to welcome us, but his co-partners, Mr. Bateham and Mr. Robert Hanford, were, and cordially devoted the half hour of our stay to showing us around.

Their entire Nursery possessions comprise one hundred and fifteen acres, but are divided into two parts. We had simply time to visit the smaller-a beautiful and fertile field full of almost everything in the line of our domestic fruits and plants, and enclosed with the handsomest osage orange hedge that we ever saw. Oh, if we could only grow and preserve such hedges in Wisconsin! What beauty would it add to our farms and gardens! What millions would it save to our farmers! But there's "no use talking," it can't be done.

We were pleased to learn that during a portion of the season, the Messrs. B., H. \& Co. have made great srles. They were just fairly beginning the fall trade, which promised well. The proprietors were hard at work with coats off, and appeared to highly enjoy the good work of carefully preparing and packing trees whose fruits would some day water the mouths and gladden the hearts of their thousands of customers in all parts of the country. Such men deserve to succeed, and wie hope they will flourish yet more and more despite of the war.

## Preservation of Fruits.

It is almost as much of an art to preserve as to grow fruits. And it is not difficult if attention is paid to a few simple principles. One of the most important of these, so far as apples and fruits of that class are concerned, is the keeping of them as free from dampness as may be. Moisture is calculated to facilitate the process of decay. Coolness is another requisite. Therefore in putting up or even temporarily storing such fruits, care should be taken to give them a dry, warm apartment.

## MECHANICAL \& COMMERCIAL.

## Honor to the Commissioner of Patents.

It is known to the Agricultural and Mechanical public that the question of the extension of McConmick's reaper patent has been pending for some time. It is also known to the readers of the Farmer that the Wisconsin State Agricultural Society and the Editor of this paper warmly espoused the cause of the farmers, and by petitions, remonstrances and published articles, have done all in their power to secure the defeat of Mr. McCormick in his attempts to perpetuate his splendid monopoly.

We may be expected, therefore, to rejoice in the recent decision of the Commissioner of Patents that there should be no extension.

The Reaper is too important an invention to warrant an unreasonable continuance of the heavy tax which it has been generously allowed to levy upon the farmers of the country since 1847 ; and as Mr. McCormick has realized an immense sum of money from his inventioncertainly over a million of dollars-he ought to have been generous enough to have voluntarily relieved the farmers of America of further taxation for his own exclusive advantage. He lacked the soul to do it, however, and we therefore rejoice that, in the person of Mr. Holloway, Commissioner of Patents, agriculture has found an appreciative, honest and unswerving friend.

This decision should make a reduction in the price of all machines hereafter sold and thus save to the farmers of the country an aggregate of hundreds of thousands of dollars per annum.

The Mechanics of Wisconsin.- What are they doing in the way of preparation for the World's Fair? Wisconsin has the honor of a number of important inventions. Will they not all be represented at London in 1862.Scarcely known as yet in the mechanical world, now is the time for the Badger State to gain a recognition at the great industrial gathering of the Nations.

the machine can be readily put up by any mechanic. The entire weight is 3200 pounds.

At the Obio State Fair of 1860 , it was subjected to thorough tests by two committees, and was awarded the first premium. It is adapted to the making of all the sizes required, and is said to have a capacity for manufacturing 100 rods of good two inch tile per hour. Two ordinary horses are sufficient to operate it. Price, $\$ 300$.

A hand power machine is also manufactured at the same works, which has a capacity equal to 400 two inch tile (thirteen inches long) per hour. Price, $\$ 175$.

We had the pleasure of seeing one of these machines operate at the Tile Yard of Dr. Weeks

## Excellent Tile Machine.

Our interest in the subject of drainage has prompted us to take some trouble to obtain all useful information within our reach in relation to the manufacture of tile.

- The annexed cut, which we publish for the gratification of parties interested, illustrates one of the best machines now in use for this purpose. It was patented in 1860 by Messrs. Smith \& Winegar, of Union Springs, N. Y., and is now manufactured largely by A. LAtourette, Esq., of Waterloo, N. Y.

It is made entirely of iron, and the rollers upon which the cams work to give the reciprocating motion to the plungers, as well as the face of the cams are all chilled. The shaft and roller gudgeons are of wrought iron, strong and durable. The construction is simple, and
last summer and were much interested in the manner in which it ground up the clay, screened it and squeezed out the tile, hard, smooth and perfect in shape almost as fast as an active man could handle them.

The time is not far distant, we hope, when a large number of these machines, or some new and still better patent, will be in operation in this State.

## Shall we have a Substitute for the Plow ?

Sanford Howard, Esq., editor of the Boston Cultivator, who has spent considerable time in England, and who is well qualified to give an opinion on the subject, discusses the question, "Can any implement be advantageously used, to any extent, as a substitute for the plow?" as follows:
We think the question may be answered in the affirmative. What is generally called a
cultivator in this country-often called a grubber in England and Scotland-might take the place of the plow in many instances with considerable saving of labor, and with equal, if not greater, advantage to the land and crops. It should be stated, however, in the outset, that but few of the so-called cultivators that are used in this country are capable of performing the work in a proper manner, except in very light soils. Still there are some-as the steel-tooth field cultivator, made in the State of New York-which have been used with great advantage. A common fault is that they do not penetrate the ground deep enough for general tillage. Those which are made of cast-iron soon become so dull from use that they will neither penetrate the soil or cut up weeds much, and their shape is so faulty that the earth adberes to them, sometimes to such an extent that a block of wood or a stone dragged over the soil would be about as effective as a cultivator.
An implement is required that will, if need be, penetrate the soil as deeply as the plow generally does, stirring it thoroughly, but at the same time requiring so little force to draw it that a much wider breadth can be gone over in the same time and with the same team, than could be done with a plow. We have seen land well prepared for a crop of spring grain by the steel-tooth cultivator before alluded to-the land having been in Indian corn, or some hoed crop the previons year. But even this implement is decidedly inferior to some of the English and Scotch grubbers, in regard to the stirring and cleaning of the soil, and in the relative amount of strength required to draw it. The teeth of the former are set too upright, stand too much at right-angles with the ground, and present too broad a front or breast to the line of draft; while those of the latter are set at a more oblique angle, present a comparatively thin edge to the unbroken surface, and draw into the soil in such a way that they raise to the surface all fibrous matter with which they come in contact.
In an article, attributed by an exchange to John C. Morton, it is said: "There is not, among the lessons of recent agricultural experience, one of more general utility, and hardly one of greater importance than the serviceableness of the cultivator or grubber as a tillage implement. If we had before us the accounts of all the agricultural implement makers in the country for the past few years, they would tell us that in nothing had there been more agricultural progress than in the extended use of the cultivator, scarifier and grubber, as a substitute partly for the plow, and partly for the heavy drag harrow. On all drained clay soils. it is becoming more and more the practice to plow only before winter, and to depend on the cultivator for obtaining the tilth in the spring."

This is one of the cases in which we think
the cultivator and grubber can be profitably used as a substitute for the plow. Clay land which has been made sufficiently dry, may be improved by plowing it late in the fall, leaving the furrows rough, or perhaps in ridges, that they may be more directly acted upon and pulverized by frost. The operations of a cultivator of proper construction on clay soil which has been thus exposed, readily produces a mellow and well pulverized seed-bed. We regard the conclusion of the writer above quoted as correct: "On clay land especially, as already said, a single plowing before winter is almost all that such land should receive throughout the year. Spring work should, if possible, be confined to the use of implements which stir the furrow-slice, and the seed-bed should be prepared upon the winter-weathered surface. No other surface, turned up by a spring plowing can be generally reduced so easily or perfeetly by the roller and the harrow."
But this substitute for the plow need not be limited to clay soils. There is much soil which is so light and thin that a cultivator will readily effect all the tilth that is required, except when the land is broken up from sward; and in all such cases a great labor saving can be made by the substitution of the cultivator for the plow. If it should be objected that the plow is needed to bury manure, we reply, that if the manure is in as fine a condition as it ought to be when applied, it will be so well mixed with the soil by the action of the cultivator and harrow, that the effect will be better than if it were plowed in.

SCIENCE, ART, STATISTICS.

## Return of the Aretic Expedition.

One evening in the early part of last week, while in conversation with a few scientific friends, the Aretic expedition under Dr. Hayes formed part of the discourse; and this led to inditing the brief paragraph which appeared on the subject in the last issue of the Scientific American. On the next day (the 10th), after going to press, the unexpected news came over the wires from Halifax, N. S., that Dr. Hayes and his companions had arrived at that place. Owing to great fields of dense ice south of the open Polar sea, which Dr. Kane had discovered, the party was unable to proceed further north. The expedition has, therefore, been inconclusive in its results, so far as it relates to extending our knowledge of the Polar sea. We have to loment the death of August Sontag, the distinguished artist, who was also one of Kane's companions in his Arctic explorations. We hope this will be the last expedition ever fitted out for the dangerous and uninhabitable frozen regions of the Arctic Circle.
There is still another American in the northern regions, respecting whose fate much anxiety
is felt. About the same time the Hayes expedition started, Mr. Hall went out in the whaling ship George Henry, of New Bedford, on an exploring tour, he having formed the notion that he could adapt himself to the habits of the Esquimaux, and thus spend years among that people in pursuing his investigations by land in the Aretic wilds.

Concluding that some of Sir John Franklin's party were still alive, he decided to make the attempt to discover their location and aid them, if possible, in their return. He was to leave the George Henry at Cumberland Inlet, intending after that to live entirely as the Esquimaux do, using the dog-sled and an ice-boat, which he took with him, in journeying over the ice and open water. He intended to winter near Cumberland Inlet, and pursue his journey in the early spring. He spoke with no certainty as to the period of his return, and stated that no alarm should be felt if he should not be back in five years.

No information has been received of the ship George Henry since October, 1860; she is expected back next December.-Scientific Amer.

Martial Statistics.-The New York Express publishes a table of the population of the loyal non-slaveholding States and Territories, the number of their fighting men, and their quota for an army of 500,000 . We copy the statement below :

| Maine State. Population. | Figliting Men. | Quota. |
| :---: | :---: | :---: |
| Maine,.................... 628,976 | 125,000 | 16,250 |
| New Hampshire,....... 326,072 Vermont,............. 315,116 | 65,000 | 8,450 |
| Massachusetts,...........1,231,065 | 63,000 246,000 | 8,160 |
| Connecticut, ............. 460,150 | 246,000 92,000 | 33,000 12,000 |
| Rhode Island,........... 174,021 | 92,000 35,000 | 12,000 4,000 |
| New York, ................ $3,887,542$ | 778,000 | 101,000 |
| Pennsylvania, ..........2,906,370 | 581,000 | 74,540 |
| New Jersey,.............. 627,031 | 134,000 | 17,420 |
| Delaware, ............... 112,218 | 22,000 | 2,860 |
| Ohio,...................... 2,339,600 | 468,000 | 61,000 |
| Indiana,................1, 350,480 | 270,000 | 35,100 |
| Illinois, .................1,711,753 | 342,000 | 44,400 |
| Michigan, ............... 749,112 Wisconsin | 150,000 | 19,500 |
| Wisconsin,............... 775,783 | 155,000 | 20,150 |
| Mowa, ..................... 674,748 | 135,000 | 17,550 |
| Minnesota, ............. 162,022 Kansas, | 32,000 | 4,160 |
| Kansas, .................. 107,110 | 21,000 | 2,730 |
| California, ............... 535,457 | 76,000 | 10,000 |
| Oregon, .................. 52,463 | 10,000 | 1,500 |
| Nebraska Territory,... 28,793 | 6,000 | 1,000 |
| Colorado Territory, ... 34,842 | 6,500 | 1,200 |
| New Mexico Ter'tory, 93,541 | 19,000 | 2,400 |
| District of Columbia,, 75,076 | 15,000 | 2,000 |
| Total, ................19,322,680 | 8,800,000 | 500,000 |

The Census of Canada. - The revised returns of the census of Canada, for 1860, give the following result: Canada West, 1,395,222; Canada East, 1,103,666; total, 2,498,888. The population of the principal cities is as follows : Montreal, 90,498; Quebec, 51,109; Toronto, 44,743; Hamilton, 19,096; Ottawa, 14,669; Kingston, 13,743 ; London, 11,555.

[^14]
## Harbors on the Southern Coast.

We subjoin a list of harbors between the mouth of the Chesapeake and Florida, and the distance between each:


This brings a vessel inside the Florida Keys.
From this point there is no difficulty in making a harbor every night, or even every few hours.

## Sulphite of Lime in Cider.

We copied last week from the Boston Journal a statement that sulphite of lime put into cider would check the fermentation. We had barely room on the page to say that the Journal's description of the reactions was incorreet, and as the subject is interesting we will now briefly state what reactions do actually oceur.

The sulphite of lime is a combination of sulphurous acid and lime, while sulphuric acid and lime combine to form the sulphate of lime. Sulphurous acid is a combination of one equivalent of sulphur with two of oxygen ( $\mathrm{SO}_{2}$ ), and it has an intense affinity for oxygen, readily combining with one more equivalent to form sulphuric acid $\left(\mathrm{S} \mathrm{O}_{3}\right)$. The fermentation of wine is the process of combination of the atoms of wine with oxygen; but as oxygenunlike some gentlemen of our acquaintanceprefers sulphurous acid to wine, when sulphurous acid is present in the cask the oxygen combines with it instead of with the wine, and thus the fermentation is arrested. Wine makers are in the practice of burning a little sulphur in the casks to check the fermentation.
Sulphite of lime put into cider has the same effect; and from the same property of sulphurous acid. This acid combines with the oxygen in the cask, becoming sulphuric acid and forming the sulphate of lime..

## The British and French Armies.

France has a standing army of 400,000 men and 85,000 horses. England and her colonies, 212,000 men. According to recent official statements the total land forces of France amount to 400,000 of all ranks, and 5,658 enfans de troupe, independently of troops in French colonies (besides Algeria), whose numbers are not given, but whose cost are charged to the navy and colonial budget, and of 2,894 men, 663 horses, in the Garde de Paris. Classing all ranks, according to arms, in France and Algeria, and comparing them with a similar classification of the English forces, there will be :-

| France and Algeria. | England and Colonies, | England, Colonies and India. |
| :---: | :---: | :---: |
| Staff,...................... 4, 4,607 | 1,222 | 1,222 |
| Infantry,...................259,841 | 101,230 | 150,128 |
| Cavalry, ................... 76,903 | 13,194 | 18,210 |
| Artillery, ................. 37,873 | 22,393 | 28,520 |
| Engineers, .............. 6,384 | 4,535 | 4,535 |
| Train,..................... 5,655 | 1,909 | 1,909 |
| Adm'strative services, $\quad 8,737$ | 1,561 | 1,561 |
| Indian depots in England,...................... | ...... | 6,688 |
| Total, ..................400,705 | 146,044 | 212,773 |
| Horses,.................... 85,705 | 8,262 | 21,904 |

The French army expenses are equal to $\$ 100,000,000$, while that of England is officially stated at $\$ 75,000,000$.-Scientific American.

Strange Prophecies.-In the year 1815, the late Elkanah Watson, as appears in "Men and Times of the Revolution" (page 522, second edition), made and published the following estimate of the probable population of the United States for a long series of years. The actual result, thus far, shows a singular approximation to the calculations. He calculated that the population would be:-
In 1820, 9,626,634-actual result, $9,638,151$ ' In $1830,12,883,645$-actual result, $12,886,020$ In 1840, 17,116,526-actual result, 17,050,566 In $1850,23,266,388$-actual result, $28,191,876$ In $1860,31,758,854$-actual result, $31,647,859$

His calculations for the future are as follows: In $1870,42,328,432 \quad$ In $1930,133,000,000$ In 1880, 56,450,241 In 1950, 177,000,000 In 1890, 78,055,989 In 1970, 236,000,000 In $1900,100,355,802$ In $2000,283,000,000$

Immigration.-The following table will show the arrivals of immigrants for the past ten years :-


## THE HOME.

## A Christmas Hymn.

It was the calm and silent night ! Seven hundred years and fifty-three
Had Rome been growing up to might, And now was queen of land and sea.
No sound was heard of clashing warsPeace brooded o'er the hushed domain;
Apollo, Pallas, Jove and Mars Held undisturbed their ancient reign, In the solemn midnight, Centuries ago.
'Twas in the calm and silent night! A senator of haughty Rome,
Impatient, urged his chariot's flight, From lordly revel rolling home;
Triumphal arches, gleaming, swell His breast with thoughts of boundless sway;
What recked the Roman what befell
A paltry province far away, In the solemn midnight, Centuries ago ?
Within that province far away
Went plodding home, a weary boor;
A streak of light before him lay, Fallen through a half-shut stable-door
Across his path. He passed-for naught
Told what was going on within;
How keen the stars, his only thought-
The air, how calm, and cold, and thin, In the solemn midnight, Centuries ago!

0 , strange indifference! low and high Drowsed over common joys and cares; The earth was still-but knew not why The world was listening, unawares.
How calm a moment may precede
One that shall thrill the world forever!
To that still moment none would heed
Man's hopes were linked no more to severIn the solemn midnight, Centuries ago!

It is the calm and solemn night ! A thousand bells ring out, and throw
Their joyous peals abroad, and smite
The darkness-charmed and holy now !
The night that erst no shame had worn, To it a happy name is given;
For in that stable lay, new born,
The peaceful prince of earth and heaven,
In the solemn midnight,
Centuries ago! [Alfred Domargtr.

## One for Every Day in the Year.

Just now a friend picked up the calendar that lay upon my table, and holding the small, neatly bordered card a moment in his hand, remarked, thoughtfully, "Who would think that on this there is a number for every day in the year?" It had never occurred to me before, perhaps to neither of us, that a year is such a very little thing. A date, plainly written, for each day of it lies here before me and yet the space occupied is but a few inches and might be much less. Is it any wonder that with the thought, thus directed, both my friend and myself should find a silence between the
pauses of conversation long enough to reflect somewhat sadly upon the brevity of everything with which we have to do on earth. A year so very short in its flight, so narrow in its compass, so unsatisfactory in the sum of its results and life made up of just a very few of these years. After all, thought I, or half thought, or was almost tempted to think, What is the use of struggling thus to reach the ever unattained of time enough and result sufficient to satisfy the demand of a high ambition? A moment of almost bitterness and a sudden questioning of, Why did our Heavenly Father so arrange things and so constitute us in this world that there must be this ever recurring incompleteness? I looked again at my calendar. This time there came a thought of the four fair seasons that had come, and almost gone, with those months, weeks and days of beautiful weather; of sunshine and sky; of earth and air and water in all forms of beauty and use; of the wealth of affection, of social and intellectual happiness that had come gliding to adorn and enrich my life since the day this little card had been laid upon my table to note the succession of those very days of which I now thought so complainingly.

One for every day in the year! Oh if these little calendars that are thrown aside so carelessly, or with such reflections as but now stirred the soul were laid by as memorials of days made golden as the sunshine of heaven by good and noble deeds; made useful to ourselves and to our fellows, as the opportunities they bring are ample and the incentives they present are worthy, with what emotions of gratitude and with what true pride might we gather up therefrom the record of a life of years well spent; the richer, perhaps, in its fruits because its season, though short, had been mellowed by somewhat of that same love that is the soul of this and of all the years.

The Token of Hope.- "Hast thou hope," they asked of John Knox, when he lay a-dying. He spake nothing, but raised his finger and pointed upward, and so died.-Cariyle.

## The Brave at Home.

The maid who binds her warrior's sash, With smile that well her pain dissembles, The while beneath her drooping lash, One starry tear-drop hangs and trembles,
Tho' heaven alone records the tear, And fame shall never know her storyHer heart has shed a drop as dear As ever dewed the field of glory.
The wife who girds her husband's sword, 'Mid little ones who weep or wonder, And bravely speaks the cheering word, What though her heart be rent asunder, Doomed nightly in her dreams to hear
The bolts of war around him rattle, Has shed as sacred blood as e'er
Was poured upon the plain of battle:
The mother who conceals her grief, While to her breast her son she presses, Then breathes a fow brave words and brief, Kissing the patriot-brow she blesses,
With none but her secret God
To know the pain that weighs upon her,
Sheds holy blood as e'er the sod
Received on Freedom's field of honor!

## Intercourse at the Table.

To meet at the breakfast-table, father, mother, children, all well, ought to be a happiness to any heart; it should be a source of humble gratitude, and should wake up the warmest feelings of our nature. Shame upon the contemptible and low-bred cur, whether parent or child, that can ever come to the breakfast-table, where the family have met in health, only to frown, and whine, and growl, and fret. It is prima facie evidence of a mean, and groveling, and selfish, and degraded nature, whencesoever the churl may have sprung. Nor is it less reprehensible to make such exhibitions at the tea-table; for before the morning comes some of the circle may be stricken with some deadly disease, to gather round that table not again forever.
Children in good health, if left to themselves at the table, become, after a few mouthfuls, garrulous and noisy, but if within at all reasonable or bearable bounds it is better to let them alone; they eat less, because they do not eat so rapidly as if compelled to keep silent, while the very exhilaration of spirits quickens the circulation of the vital fluids, and energizes digestion and assimilation. The extremes of society curiously meet in this regard. The tables of the rich and the nobles of England are models of mirth, wit and bonhommie; it takes hours to get through a repast, and they live long. If anybody will look in upon the negroes of a well-to-do-family in Kentucky while at their meals, they cannot but be impressed with the perfect abandon of jabber, cachination and mirth; it seems as if they could talk all day, and they live long. It follows, then, that at the family table all should meet, and do it habitually, to make a common interchange of high-bred courtesies, of warm affections, of cheering mirthfulness, and that generosity of nature which lifts us above the brutes which perish,-promotive as these things are of good digestion, high health and long life.

A Word to Farmers and their Families. -In rural districts during the present husking season, the best husks might be selected which, split fine on a hatchet or otherwise, and thoroughly dried, would be of use in our army hospitals, in the form of pillows of several sizes, (half size, quarter size and less) as supports to wounded limbs. They would not retain heat like feathers,-would therefore be better and less expensive. The selecting and preparing the husk would afford pleasant recreation to boys, and awaken their love of country ; mothers and daughters could assist by making ticks and cases for the pillows. Slippers for the sick may also be made of thick broadcloth, doeskin, satinet, or fine carpeting, lined and bound with worsted galloon, and soled with felt-hatting or sheep skin. The soles should be lined with cotton flannel, jean or silesia. The numbers most needed will be $7,8,9$ and 10 , and any shoemaker will cheerfully furnish the pattern. Let them be of good width. In every neighborhood meetings for this purpose should be organized immediately.

## HEALTH AND DISEASE.

## Remedies for Dyspepsia.

Hall's Journal of Health says: There are some general principles of cure applicable to all, and which will seldom fail of high advantage.

1. The entire body should be washed once a week with soap, hot water and a stiff brush.
2. Wear woolen next the skin the year round, during the daytime only.
3. By means of ripe fruit and berries, coarse bread and other coarse food, keep the bowels acting freely once in twenty-four hours.
4. Under all circumstances, keep the feet clean dry and warm.
5. It is most indispensible to have the fullest plenty of sound, regular, connected and refreshing sleep, in a clean, light well-aired chamber, with windows facing the sun.
6. Spend two or three hours of every forenoon, and one or two of every afternoon, rain or shine, in the open air, in some form of interesting, exhilarating and unwearying exercise. Walking with a cheerful and entertaining companion is the very best.
7. Eat at regular times, and always slowly.
8. That food is best for each which is most relished, and is followed by the least discomfort. What has benefitted or injured one is no rule for another. This eighth item is of universal application.
9. Take but a teacupful of any kind of drink at one meal, and let that not be hot.
10. Confine yourself to coarse bread of corn, rye or wheat-to ripe, fresh, perfect fruits and
berries in their natural state-and to fresh, lean meats, boiled or roasted, as meat is easier of digestion than vegetables. Milk, gravies, pastries, heavy hot bread, farinas, starches, and greasy food in general, aggravate dyspepsia by their constipating tendencies.
11. It is better to eat at regular times asp often as hungry, but so little as to occasion no discomfort whatever.
12. Constantly aim to divert the mind from the bodily condition, in pleasant ways; that is half the cure in many cases.

More Sleep.-We have read a statement, written by Dr. Windship, the "strong man," who recently lectured at the North, of rules, by the observance of which he obtained his remarkable strength and muscular power. To one of these rules in particular, as being that which men are most prone to violate, we wish to call special attention. The Doctor says he takes ten hours sleep out of twenty-four, and he advises everybody to take at least eight hours rest nightly. We are convinced that most of the ill health in the community is due to lack of sleep more to than any other cause. Rapidity of eating, lack of exercise, heated rooms, over anxiety of mind, and other causes, contribute to the ill health and abbreviated lives of our city population, but the going to bed too late and rising too early we believe to be productive of more sickness and premature deaths than any of these or all of them combined. Dr. Hall, in his Journal of Health, concurs fully with Dr. Windship as to the necessity of longer sleep than the majority of men allow themselves. Indeed we know of in respectable medical sanction for the shortening the term to six or seven hours. We know very many men who are rarely in bed before midnight, yet are always up by six o'clock in the morning. Such men are exhausting their vital force, prematurely. They never can reach the limit of three score years and ten, much less live far beyond it, as almost every man may by taking care of himself.

## DOMESTIC ECONOMY.

## Hog Killing--Hints to Housewives.

As the season of hog killing is approaching, we re-publish the excellent Hints from Hettie Hayfield to Housewives on this subject. To young or inexperienced wives, this article is worth much more than a year's subscription to this journal.

Before hog killing, you should have your meat house and store room in perfect order, and every implement and vessel requisite, ready for use. There should be on hand a sufficient supply of salt, saltpetre, ground cayenne pepper, sage, spices, \&c. To have them to hunt
up, clean, and prepare, is a great back-set to work. Being prepared in your department, I take it for granted that your paragon of a husband has had his pork bred and fed in the most approved style. That during the slaughter a hand has been detailed to look carefully over the heads and feet after the animal has passed off the platform, and after putting them in perfect order, has washed the outside carefully. That a second person, armed and equipped with an abundance of clean water and towels, has followed the opener and washed out the inside until a search warrant could find no trace of the murder.

## CUTTING UP PORK.

This work belongs to the male division of the house, and the master, or some well-trained old servant, will do it up without your ever thinking of it, probably. We will, however, give a few brief hints on this branch of the business. Have the hog laid on his back.Clean the carcass of the leaf fat. Take off the feet at the ankle joints. Cut the head off close to the shoulders; separate the jowl from the skull, and open the upper part lengthwise on the underside, so as to remove the brains fully. Remove the backbone in its whole length, and with a sharp knife cut off the skin, taking all but about a half inch of fat off the spinal column. The middling or sides is now cut from between the quarters, leaving the shoulder square shaped, and the ham pointed, or which may be rounded to suit you. The ribs are next removed partially or entirely from the sides. The fat trimmings from the hams and flabby parts of the sides, are rendered up with the backbone strip. The sausage meat is cut from between the leaf fat and the ribs; any other lean pieces are used for the same purpose. The thick part of the backbone being now cut from the tapering, bony end, you can proceed to

## salting.

When your meat is to be pickled, it should be heavily sprinkled with salt, and drained for 24 hours. When it is to be prepared with dry salt, mix one teaspoonful of pulverized saltpetre to one gallon of salt, and keep it warm beside you. Cut off a hog's ear, and with it rub every piece of meat with the salt on the skin side until it is moist, then lay it down and rub and cover the flesh part entirely with salt.Pack hams upon hams, sides upon sides, \&c., for convenience in getting them to hang up at different times, as they will not all be ready at once. It is likewise best to put the large and small pieces in different divisions. The weather has so much to do with the time that meat requires to take salt, that no time can be safely specified. After three weeks fry a piece from the thickest part of a medium sized ham-if salt enough, all pieces small and of the same size are ready for smoking, and the larger ones can wait a few day's. The jowl and chine are salted in the same way for smoking. The
heads after soaking a day and draining well, are salted less heavily and used fresh. The baekbones and spareribs are just sufficiently salted to keep-the last, if the weather is freezing, may be kept quite fresh. The feet may be packed away in salt, if not to be immediately used, and will prove almost as good at any period of the year as when first killedthey are kept thus much better than in pickle, though ribs (when the weather makes much salt necessary) keep sweeter in pickle. Many persons turn over and rub their pork once a week while it is in salt. We have never practiced it, nor ever lost a joint. And now, having trespassed thus far on the gentlemen's province, we may as well say, that when the pork is ready to hang, the raw side should be well sprinkled with cayenne-about the bones especially a good supply should be laid on.The hams should be hung highest, because there they are least liable to the attacks of insects. A fire-place on the outside, communicating with a smoke flue, is preferable for a meat house to any internal arrangement, because it does not heat the room-which, by the way, is best if lofty, cool, and dark.

We give a receipt for pickle for pork, and the English method of curing bacon, and then retrace our steps clear back to the slaughter house, as possibly you may have to direct some novice there.

## PICKLE.

One gallon of water, one and a half peunds of salt, one-half pound of sugar, or a half pint of molasses, one half oz . of saltpetre, and onehalf oz. of potash (often omitted). Boil, and skim thoroughly, and pour over the meat perfectly cold. It must remain a month, if for bacon; and if to keep pork all the year, should be boiled over two or three times in the warm months, with an additional cup of salt and sugar.
english bacon.
So soon as the meat comes from the butcher's hands, rub thoroughly and fill every crevice with fine salt. Next day scrape off the salt not absorbed, cleanse out the vessel, salt the pork as the day before; repeat this three days. The fourth day use pulverized saltpetre mixed with a handful of common salt ( $\frac{1}{4} \mathrm{tb}$. of saltpetre to 70 Hbs . of meat). Then mix 1 ib . of coarse brown sugar and 1 pint of common molasses, and pour over the saltpetre; repeat this four times a day, for three days, and afterwards twice a day for a month. Then smoke it with maple or hickory, or clean corn cobs.

And now to commence at the beginning of our own proper womanly labor. There should be ready an abundant supply of clean hot and cold water, tubs, buckets, cloths, and so on. A long, stout table for the ridders to stand by, and a tray in which to receive the entrails as they fall from the cavity of the animal's body. The opener should hang the livers, \&e., on a pole, to cool for purposes hereafter mentioned.

The ridders should proceed as quickly as possible to their business; it is easier done while the intestines are warm. The melts and sweet breads are cut off and thrown into some convenient vessel; then clear the maw of fat; next strip the intestines, being careful not to cut them, and so soil the grease. The thin, gauzy parts, called the veils, should be thrown together in one vessel of cold water. The capes into another, and the strippings into a third. The maws and large intestines should be opened, emptied, washed clean, and put to soak, to be afterwards used for chitterlings or soap grease. The small intestines are saved and cleansed for stuffing sausages. Close your day's labor by having your fat washed again and put in fresh water to soak; do the same office for your sausage skins and chitterlings.

Your first care after this is the lard. Render up the gut-fat first; having washed it clean, put it into your kettles, separated the day before, because, being of unequal bulk, it will render up unequally-or else cut up the thick parts very small. You may use a brisk fire until the water is out nearly. When the cracklins are brown and crumble easily, or when the lard will sputter when water is dropped in, it is done. Strain it off into a kettle, and when cool put it in what vessel you choose-hot lard will melt tin, or leak through the best wooden vessels. Leaf lard should be so handled as not to require washing, as water increases the chances of its spoiling. It should be rendered up slower than gut-fat, as it is easier scorched. Always put a ladle of melted lard in the bottom of your kettle instead of water. Cut up your leaf lard into thin pieces, and render it by itself. The strip which comes off the back bone, and other trimmings, should be skinned and eut up small; they make good lard, but render up slowly. The practice of putting ley in lard, which begins to prevail, bleaches, but impairs its quality. When you have finished your lard, throw all your skins, and the fat from around the kidneys, which is usually wormy, into a kettle, and render it up as dirty grease. Subject your cracknels to the strongest available pressure; a patent cider press answers well. Save your cracknels carefully They shorten a favorite corn bread, make the best of soap grease, and are a remunerating treat to your poultry.

## sAUSAGES.

Wash your sausage meat in tepid water, but do not soak it; see that it is free from bone; gristle, sinews, \&c. Cut it up in small pieces; to 3 lbs . of lean meat, allow 1 lb . of the leaf fat, chop or grind it very fine. Mix in this quantity, 3 ozs . of salt, $\frac{1}{2}$ an oz. of pepper, and two tablespoons of powdered sage. When well mixed, cook one and try it; it is easy to add too much seasoning, therefore be cautious in using it. Your sausage will become more salt as it dries. Add any spice you like.

Bologna Sausage is made by using one-third
of beef, seasoning more strongly, and boiling after stuffing, before drying.

FEET.
Under another head, we have said that we consider it best to salt down the feet, instead of pickling. Previous to salting, they should be carefully examined, the hoofs taken off, not a hair left ; be scalded, scraped, and soaked until perfectly white. If wanted for immediate use, they will be ready for boiling after laying a night in salt water. Many persons boil the feet and ears, and keep them in cold spiced vinegar, ready to use cold or to fry; this is termed souse. Others, boil the heads and feet until they can be freed from bones, and mash to a pulp; this is seasoned with salt, pepper, and spices, moulded, and kept in vinegar, and termed pork cheese.

## SAUSAGE SKINS

Are prepared by repeated soakings and washings. Then, being turned, they are scraped free from the slimy coating, until, when blown up, they are perfectly transparent. They are again soaked in salt water, several dayschanging it every day-and are then filled with sausage meat by some of the various implements devised for that purpose.

## BLACK PUDDINGS

Are made by stirring corn meal into the fresh blood of hogs. It is seasoned with salt, pepper, and spices; stuffed and used as sausages.

Chitterlings are made by cleaning the maw and large intestines of the hog. Quicklime will soon enable you to rid them of the slimy coat. Having soaked and washed them until white and inodorous, you may keep and use them as you would beef tripe. The livers, kidneys, \&c., may be all boiled well; with sufficient salt to keep, and a strong seasoning of pepper, and kept for your fowls all winter. The livers, however, melts, suet, heads, \&c., are esteemed table luxuries, and are kept by sprinkling slightly with salt.

The maws, and larger intestines, with any other fat parts, should be thrown into a kettle of weak lye, and boiled until the grease from them rises to the surface. This grease is useful for soap, wool, or farm implements.

Lastly, the hair of the hog should be saved for mortar, or, with proper preparation, makes a good mattress, or, with the bones, may be sent to the compost heap.-Valley Farmer.

Good Biscuit or Short Cake.-To one pint of sweet milk, take two teaspoonfuls of cream tartar, one teaspoonful of soda, and two tablespoonfuls of good butter; a trifle of salt. Mix in flour sufficient to make a soft dough, roll to an inch in thickness, cut with a sharp-edged cutter, crowd closely in the pan, and bake with a rather quick but gentle heat, fifteen minutes. When they are done, remove from the oven, cover with a thick cloth, and allow them to stand under the stove a few minutes.-Ohio Farmer.

## WIT AND WISDOM.

- Poetry is said to be the flower of literature; prose is the corn, potatoes and meat; satire is the aqua-fortis; wit the spice and pepper; love-letters are the honey and sugar; letters containing remittances are the apple-dumplings.

Beautiful Girls.-Dr. Beeswax, in his "Essay on Woman," remarks, with some truth, that "beauties generally die old maids." "They set such a value on themselves," he says, " that they find no purchaser until the market is closed. Out of a dozen beauties who have come out within the last eighteen years, eleven are still single. They spend their days in working green dogs on yellow wool, while their evenings are devoted to low spirits and French novels.'
Never look at the girls. They can't bear it; they regard it as an insult. They wear their feathers, furbelows and frills, merely to please their mammas-that's all.
-True greatness consists in doing what deserves to be written, in writing what deserves to be read, and in making mankind happier and better for your life.

- Knowledge is the parent of love; wisdom, love itself.
- Half the failures in life arise from pulling in one's horse as he is leaping.
- Poverty breeds wealth; and wealth, in its turn, breeds poverty. The earth to form the mound, is taken out of the ditch; and whatever may be the hight of one will be the depth of the other.

Dog-stealing in the Second Degree.Hooking town-made sausages!

- "How many deaths?" asked the hospital physician, while going his rounds. "Nine." "Why I ordered medicine for ten." "Yes, but one would n't take it."
- If you want to learn all your defects, quarrel with your best friend, and you will be surprised to find what a villain you are even in the estimation of a friend.

Grave Wit.-Since the battle, some of our boys were out looking at a grave of one of the Secesh. He had not been well buried, and one hand stuck out. "He's reaching for his land warrant," says one."

- A man had better be burnt out of house and home, than to have all the generosity and nobleness of his nature consumed by pride or envy. The one loss consists in money, stocks, goods. The other loss consists in high thoughts, angelic emotions, god-like deeds, and the everlasting peace of soul that flows therefrom, like the river of light from the throne of God. Horace Mann.


## YOUTH'S CORNER.

To-night by the Farmer's Fire.

What are the children thinking of To-night, by the farmer's fire ?
What are the children talking of By the beautiful, blazing fire?
There are little bits of boys and girls, And girls and boys not so very little, Some half undressed in cap and gown, sitting, standing, and tumbling down
Frizzle heads, smooth heads, and heads of curls, And some in boots who can whistle and whittle All together there in a heap, Big enough all to be asleep,
Little tall children, little short children, Rosy children, plump as a berry, Wide awake children, ever so merry,
What is the cause of the clatter they keep To-night, by the farmer's fire, By the beautiful, blazing fire ?

I know what the children are thinking of By the fireside's ruddy glow
And I know what the children are talking of As well as I want to know;
For I've been a little bit of a girl
At night, by a farm-house fire, With sisters and brothers, oh ever so many, As wide awake and as noisy as any-
Have helped, myself, to keep up the clatter By the beautiful, blazing fire, When counting the days to that golden date For the coming of Christmas we scarce could wait. Oh that Christmas day ! that blessed day ! How could we wait? Yet we did wait, And so must you, my little friend; But come it will, you may depend, And the fair, white snow of the world below, Why children, it will be a Christmas snow ! Such icicles hanging from all the eaves, Such frost-work trellised on all the leaves, Such drifts, such piles, so dazzling white, How could God make it in just one night !

Oh I know as well as if I were there How you will laugh, and how you will shout, When you wake in the morning and first look out; And how you will laugh, and how you will shout When you go down stairs and first find out How the gifts you have dreamed of have come to your share;
As you empty your stockings of goodies and toys,
And take down your dolls, books, pictures and slates,
Your caps, mittens, knives, whistles, trumpets and skates,
Just the happiest girls and the happiest boys As you think, and I think, that ever were born To live by the light of a farmer's fire; By the great, red blaze of the farm-house fire, By the beautiful fire of a Christmas morn.

## Daniel Webster's First Case.

Let the children all read the following story of the first plea of the great Webster, and treasure up the beautiful lesson it teaches-the lesson of love and mercy to all the creatures of God:

Ebenezer Webster, father of Daniel, was a farmer. The vegetables in his garden suffered considerably from the depredation of a woodchuck, whose hole and habitation was near the premises. Daniel, some ten or twelve years old, and his brother Ezekiel, had set a steel trap, and at last succeeded in capturing the transgressor. Ezekiel proposed to kill the animal, and end all further trouble with him; but Daniel looked with compassion upon the meek, dumb captive, and offered to let him go. The boys could not agree, and each appealed to their father to decide the case.
"Well, my boys," said the old gentleman, "I will be judge. There is the prisoner," pointing to the woodchuck; " and you shall be the counsel, and plead the case for and against his life and liberty."

Ezekiel opened the case with a strong argument, urging the mischievous nature of the animal, the great harm he had already donesaid that much time and labor had been spent in his capture, and now, if he was suffered to live and go at large, he would renew his depredations, and be cunning enough not to suffer himself to be caught again, and that he ought now to be put to death; that his skin was of some value, and that, make the most of him they could, it would not repay half the damage he had already done. His argument was ready, practical, and to the point, and of much greater length than our limits will allow us to occupy in relating the story.
The father looked with pride on his son, who became a distinguished jurist in his manhood.
"Now, Daniel, it's your turn ; I'll hear what you've got to say."

It was the first case. Daniel saw that the plea of his brother had sensibly affected his father, the judge; and as his large, brilliant black eyes looked upon the soft, timid expression of the animal, and as he saw it tremble with fear in his narrow prison-house, his heart swelled with pity, and he appealed with eloquent words that the captive might again go free. God, he said, had made the woodchuck; he made him to live, to enjoy the bright sunshine, the pure air, the free fields and woods. God has not made him or anything in vain; the woodchuck has as much right as any other living thing; he was not a destructive animal, as the fox or wolf was; he simply ate a few common vegetables, of which they had plenty, and could well spare a part; he destroyed nothing, except the little food he needed to sustain his humble life; and that little food was as sweet to him, and as necessary to his
existence, as was to them the food on their mother's table. God furnished their own food; he gave them all they possessed; and would they not spare a little for the dumb creature who really had as much right to his small share of God's bounty as they themselves had to their portion. Yea, more, the animal had never violated the laws of his nature or the laws of God, as man often did, but strictly followed the simple instincts he had received from the hands of the Creator of all things. Created by God's hand, he had a right from God to life, to food, to liberty; and they had no right to deprive him of either. He alluded to the mute but earnest pleadings of the animal for that life, as sweet, as dear to him as their own was to them; and the first judgment they might expect, if in selfish cruelty and cold heartlessness they took the life they could not
restore again.

During this appeal, tears had started to the old man's eyes, and were fast running down his sunburnt cheeks. Every feeling of a father's heart was stirred within him; he saw the future greatness of his son before his eyes, and he felt that God had blessed him and his children beyond the lot of common men. His pity and sympathy were awakened by the eloquent words of compassion, and the strong appeal for mercy; and forgetting the judge in the man, and the father, he sprang from his chair (while Daniel was in the midst of his argument, without thinking that he had already won the case,) and turning to his older son, dashing the tears from his eyes, he exclaimed:
"Zeke, Zeke, you let that woodehuck go!"

Children should early learn that happiness is more in the heart than in the world outside. If the sun of a happy spirit shines within, the crosses and disappointments, so apt to fret and anger the inexperienced child, will not be able to cloud your enjoyments. To this end, cultivate a feeling of love and good will toward your associates and of reverence for the superior wisdom of your parents. Strive to make everybody about you happy, and you will then always be happy yourselves.

The sword of a sword-fish was found sticking in the bottom of the steamship Golden Age, when she was hauled up recently in Pa nama for repairs. The sword or bone was thirteen inches long, and it was driven through the copper and both the outer and inner planking. That fish stabbed the wrong customer for once.

## EDUCATIONAL.

## Agricultural Colleges.

We are glad to see that the several institutions of this class which have sprung up in the United States within the last few years are still resolute and tenaceous of life. There is a principle in them which is vital, to-wit: their practical recognition of the need and the right of the industrial classes of the people to the means of education in the science and art of their several callings in life.

We have faith, therefore, that they will continue to live, in spite of the prejudices of the ignorant and, worse than all, of their own errors.

For years they will have a struggling existence, and, no doubt, have occasion to change some of the present features of their policy, but in process of time, they are sure to rise into recognized importance and to occupy a highly useful position among the educational institutions of this country.

The Agricultural College of Michigan, we see by a Catalogue just received, is going forward with renewed energy and gradually fitting itself for the career of more extended usefulness which it is destined to have in the future.

The whole number of pupils is 72 ; of which number 7 are in the Senior class,* 9 in the Junior, 27 in the Freshman, and 29 in the Preparatory class.

The farm is being improved as rapidly as possible. 250 acres are now under cultivation and will soon be made available for the legitimate uses of the institution.

True and able men have the interests of this pioneer college in charge, and we have an abiding faith in its future.

The State of New York is making vigorous preparations for the opening of an institution at Ovid. The farm of 670 acres is being put in proper condition for the use of the College and buildings are in process of erection.

[^15]The Agrieultural Schools organized in Maryland and Pennsylvania, are gradually becoming established, and both are affording instruction to very respectable classes.

The Iowa Agricultural College, as an institution of learning, is yet in abeyance; but, through the zealous and faithful efforts of its Secretary, Gen. W. Duane Wilson, it is doing a good work in the way of distributing valuable seeds and diffusing information throughout the State.

We trust that by these important services it will so far secure the good will of the people as to make its success certain when the time shall have come to erect buildings and begin the work of instruction.
Illinois is also astir on the subject of agricultural education, and is preparing to open an institution under auspices which will insure its ultimate, if not its immediate success.
There is good ground for the hope, therefore, that the great cause of the practical education of the people is still cherished in the hearts of the true men of the country. We are still strong in the faith of the "good time coming," when Wisconsin will be prepared to join hands with her sister States for the furtherance of this noble work.

## Process of Manufacture at the World's Fair.

We are glad to see that the Great Exhibition is to be a School as well as a Fair.

Besides making arrangements for showing machines in motion, and illustrating it by processes, her Majesty's Commissioners will reserve space for the exhibition of processes of manufacture in certain handicrafts, which can be carried on without danger in the building. They consider that it will be interesting to the general public to have an opportunity of seeing the following and similar processes, and will reserve sufficient space for showing one illustration of each of them: Steel pen making, pin making, needle making, button making, medal striking, gold chain making, engine turning for watches, \&c., type (asting, type printing by hand, lithographic printing, copper plate printing, earthenware printing, porcelain printing, a potter's wheel, brick and drain tile making, glass blowing on a small scale, turning in metal, wood, and ivory, glove making \&c., pillow lace making of various kinds.

## MISCELLANEOUS.

## The Agriculture of New Mexico.

lettre to the "parmer" from J. g. knapp,
judas of the e. s. court for n. m.
Ed. Wis. Farmer-From this distant point, I have determined to let the readers of the Farmer hear from me again. My journey hither has been through Illinois, to Quincy, across Missouri to Leavenworth in Kansas, thence by Fort Kearney and the Platte river to Denver, and along the east side of the Rocky Mountains, to the Huerferno, over the Sangre Christo Pass into the valley of the Rio Grande, at Fort Garland, then down the valley from where the elevation is 8100 feet, and in latitude $38^{\circ}$ north, to this place, at an elevation of about 2000 feet, in latitude $35^{\circ}$. I have passed then the richest prairies in the United States, filled with grain, and fruit, and grass, where the rains are so abundant that men struggle to rid themselves of it, to where nothing will grow except the wild wormwood, because there is no water; where instead of *irains to carry the waters into the streams, men reverse the order and carry the water from the rivers to the land. I have passed plains larger than states, over which the buffaloes roam, and where there is no timber for the construction of houses, or fences, or for fuel; climbed the sides of mountains covered with rocks, too steep for the passage of carriages, till I stood among the clouds, 14,000 feet above the level of the sea; trod upon acres of iron ore, and over quartz filled with gold, both equally valueless for the want of water; upon alluvial soil of unknown depth, out of whose bosom, soda, potash, and lime had oozed until the whole was covered with a white crust, forming the great source from which the winds of heaven have gathered salt-petre to enrich the fields of Wisconsin, and the world.
In quality and fertility of soil, supply of rain, and favorableness of climate, there is but little choice to be made in Illinois, Missouri, or eastern Kansas, when places can be
found equally good in each. The nearness of market makes all the differenoe that exists.All of them, however, lack the sweet clear water of Wisconsin, and the salubrious climate. West of these the country and climate point unerringly to but one present pursuit for man. If the states forming the valley of the Mississippi lying east of Fort Kearney can raise grain enough to bread the world, the plains and mountains can rear cattle and sheep enough when fed and fattened to supply the United States with meat and wool. The great business of whomsoever may inhabit the plains and the mountains west of the regions upon which the fall of rain is sufficient for agricultural purposes, must be stock growing. And even that must be confined to neat cattle and sheep. One man with his dogs can easily herd and keep 500 cows, or 2000 sheep all through the year, as they require no care but to be herded. He must, of course, live with, and upon his herd. From them he must get his meat and milk, and the river or mountain must be his drink. The ground must be his bed, and his blanket his cover from cold wind and rain by night or day, broken only by such brush wood as he can gather for fuel, or rocks behind which he may squat. Every additional man or boy can add another flock. The family of the shepherd, or pastor of a flock, will reside in an adode house, of one room, constructed on the bank of some stream, where by irrigation they can cultivate a few acres of grain. Near or adjoining he will build the correl for his flock, and then he may sleep at home one half his nights, unless the grass fails in its vicinity.
Whether the fine wooled sheep can be kept and grown here under the care of the shepherd is an undecided question. Those now reared here, and there are very large flocks, are long legged, and coarse wooled, many having a covering only of hair. The native sheep and cows are remarkably healthy and prolific; and such as they are, the business is exceedingly profitable for the owners, merely for the meat. Their wool will not bear transportation to the eastern states, and is but partly worked up
here into coarse blankets and beds. Beds nearly as good as if made of curled hair, can be bought all through this Territory for ten cents a pound, and are in universal use. They are cheaper and better than straw beds, for uuder beds. Pillars and all are formed of the same material. The wool would answer for carpets and blankets, and some of the coarse cloths, from which good garments for laboring men may be manufactured. A manufacturer could readily find here a full supply of material to manufacture 200 yards a day, (if he desired to use that quantity), at ten cents a pound all round. He could also find a domestic market for that amount. Large numbers of the sheep are black, so "sheep grey" cloth could be made without any cost for coloring materials. Those sheep, and neat cattle intended for market, would have to be driven east across the plains, when they might be fattened among the corn fields of the states.
The Mexicans and Indians who live in houses, cultivate corn, wheat, beans and peas for food for men, and a few oats, but the hotses generally are made to depend upon grass and corn. No hay is cut for the stock, nor is any grass cultivated as a crop. And the wild grass is too thin to be cut. The straw is generally destroyed, and nothing is preserved but the corn stalks, for fodder, nor one half of them. The corn grown is called Mexican, and is very short, the ears starting from the second and third joint, and so near the ground that in cutting up the ears would fall from the stalk. Therefore the corn is allowed to ripen, which it does before the frost strikes the leaves, and the ears are broken off and carried to the houses and husked, after which the stalks are cut up, unless eaten up in the meantime by the stock. The whole system of harvesting is wasteful in the extreme, and I have no doubt but the use of water in irrigation is equally so, during the making of the crop. The wheat is cut when some of it fully ripe and other is yet in the milk. It is immediately gathered up without binding and carried to places prepared on the ground for treading it out, and the sheep and goats are at once turned upon it.

None of the green heads will shell out, and they are lost in the straw, which is cleared from the wheat by the wind and water of the ditch near by.
I have not seen a plough, a yoke, a grain cradle, a flail, a harrow, of any kind, nor a cart having a body upon it, since I have been in the Territory; and it is said that the Mexieans would not use them if they had them. There is not more than enough grain grown to pay for attempting to run a threshing machine, even if one could get all there is to thresh, without drawing it from one pile to the other. No grain is stacked; there is no fear of rain to damage it after it is cut. I have therefore come to the conclusion, that one farmer with his tools, would do more work, raise and secure more grain in a summer, than five of the natives of this Territory, even upon the same land.

There are situated in the mountaing, and particularly those lying east of the Rio Grande and west of the Rio Pecos, many tracts of land which can be cultivated, and good crops raised without irrigation. These are filling up with men from the eastern country. They would make excellent locations on which to keep milk cows. The butter and cheese of which would find a ready market, at present, in the Territory. But let no man undertake to come here unless he brings his wife, a Yankee wife at that, and a farmer's daughter, and flatter himself that he can be a Yankee one year after his arrival. All single men become lost in the associates he will find here, and their nationality lost.
The waters of the Rio Grande, at this point, are as muddy as those of the Missouri. And when allowed to run over the ground as they do for irrigation, they deposit large quantities of mud and minerals upon the surface, thus keeping up the richness of the soil, as the delta of the Nile is kept up.
The vines of the watermelon, the ochra, tobaceo, and nearly every vegetable however tender, unless matured, is yet growing at this place. As a consequence, this is the country of grapes, peaches, apples, apricots, and
pears. Of the four last I cannot speak, having only seen the peaches and apples. Both of which are small and tough. The apples all appear to be of one variety, a small sweet one, tasting somewhat like the baldwin, but wanting the crisp, juicy, melting pulp of that variety. But the grapes; commend me to those grown on the banks of the Rio Grande. There are two varieties. Those above Santa Fe resemble the Clinton in size and color, but the clusters are more open, and they are far sweeter than any grape I ever saw in Wisconsin. In fact they appear to be filled with grape sugar and just water enough to dissolve it. Those at this place have clusters as large as the Catawba, with larger round berries, some of about the same color and some considerable darker, and as sweet as Malagas. A perfectly raisin flavor, without a particle of musk flavor. The foliage is that of the vines of Europe, small and deeply notched. Wine of the greatest strength is manufactured, or might be from the pure juice of these grapes. At present it is manufactured, as it was done on the hill sides of Judea of old; men tread out the wine in the wine presses with their naked feet.Could this vine be got to the States it would excel every thing now reared in the vineyards for the table. I buy them in the town at retail for eight cents a pound, and I do not hesitate to indulge in them. Enclosed you have a few of the seeds.
J. G. Knapp.

Albuquerque, New Mexico, Oct. 10th, 1861.

## California at the World's Fair.

A General Committee has been appointed by the various scientific and literary associations of California to make preparations for exhibitions at the World's Fair of 1862 from this great Pacific State. A circular has been issued in which we find the following:
"It is probable that owing to the distracted condition of affairs in the East, little or no preparation will be made by the Atlantic States to occupy a prominent position in the next great Exhibition. The people af the Pacific Coast should consider it their duty to supply this deficiency, as far as in their power; and their exertions should be further stimulated by the fact that their contributions to the Fair, which, otherwise and among the more numerous and varied specimens of the skill and in-
dustry of the older States might have been passed by to some extent unnoticed, will now receive their full and deserved share of attention."

This extract does great credit to the enterprise and sagacity of the people of California. The General Committee numbers no less than 114 persons. Each county is represented, and a report will be sent with each article, besides a general report on the mineralogy and geology of California. A room has been provided for articles in San Francisco, under the charge of Royal Fisk, Esq., and arrangements are being made to have all the articles sent to London free of charge. All classes are invited to cooperate in the efforts of the Committee to make that part of the great exhibition, representing California, worthy of general notice and ad-miration.-Scientific American.

Manufacturingat Pittsburgh.-The Chronicle published in the Iron City, says: Pittsburgh is herself again! As usual in the summer months, some large works closed, but the iron mills have been in operation for a week or two, the nail factories, with one or two exceptions, were at work yesterday, the glass-works are making headway, and there is a demand for hands which cannot be easily filled, so many having left peaceful avocations to use their muscles in the service of a cause as dear as our religion, and as precious as national liberty and unity. The government orders for shot and shell, for cannon and carriages, for saddles, bridles, knapsacks, and cartridge boxes, and other leather work, are sufficient to keep hundreds of toilers busy, and their families comfortable and happy for months to come. This is a world of compensation, and such are some of them, that we, Pittsburghers, have to make us forget the horrors of "grim visaged war."

Exhibition Clock.-Her Majesty's Commissioners have not forgotten to make provision for the accurate measurement of time, and Mr. Benson, of Ludgate Hill, London, is now at work upon a clock which will be one of the most striking objects of the Exhibition. It It will be erected in the centre of the raised platform, near the principal entrance in Cromwell Road. In size and power it will be second only to the great clock at Westminster. The works will be on a level with the sight of the spectator, and will be inclosed in an immense glass case, above which the bells will be suspended. The framework of the movement will be made of iron and gun-metal, and will be nearly ten feet in length. The wheels will be of gun-metal, with steel pinions. Four dials, surmounting the entire structure, will indicate the time to persons within the building, and a clock face, some fifteen feet in diameter, will appear on the exterior, above the principal entrance.

## NEWS SUMMARY.

## INDUSTRIAL AFFAIRS.

The World's Fair.-It is an occasion of deep regret that the Government of the United States should have been so tardy in making arrangements for this great Exhibition of the Industry of all Nations. But for the steps which have really been, at last, taken, it would almost seem that those who have been intrusted with the organization of the enterprise on the part of this country were disposed to let the whole matter go by default.

Articles intended for exhibition must be ready for shipment at New York, by the 1st of January, and yet the American Commissioners have but just sent out preliminary information regarding the means to be employed by interested parties in order to an exhibition of their articles. The war is, of course, a valid excuse for not doing all, as a country, that might be done, if the Arts of Industry were unembarrassed, and the public mind not engrossed by questions of greater magnitude. And yet if we are to do anything it is almost unpardonable that the movement should not have been made in time to have allowed the best possible representation of our American resources and industry at this great gathering of the Nations.

From the Lower Canada Agriculturist(which reports a vigorous movement on the part of the Canadian Provinces and the probabilities of a fine display at London of the products of their growing industry), we quote the following regulations and classification of articles, as adopted by Her Majesty's Royal Commissioners :

Every article produced or obtained by human industry, whether of Raw Materials, Machinery, Manufactures or Fine Arts, will be sdmitted to the Exhibition, with the exception of:

1. Living animals and plants.
2. Yresh vegetable and animal substances, liable to spoil by keeping.
3. Detonating or dangerous substances.

Bpirits or alcohols, oill, acids, corrosive salts, and substances of a highly inflammable nature, will not be admitted, unless sent in well secured glass vosaels.

The articles exhibited will be divided into the following classes:

Section 1.
CLuss 1. Mining, Quarrying, Metallurgy, and Mineral Products.
2. Chemical Substances and Products, and Pharmacentical Processes.
، 3. substancees used for Yoos, including Wines.
" 4. Animal and Yegetable Substances used in manufactures.

## Section 2.

CLuss 5. Railway plant, including Locomotive Engines and Carriages.

* 6. Carriages not conneted with Rail or Tram Roads.
4 7. Manufacturing Machines and Tools.
4 8. Machinery in general.

9. Agricultural and Horticultural Machines and Implements.
" 10. Civil Engineering, Architectural, and Building Contrivances.
a 11. Military Engineering, Armour and Accoutroments, Ordnance and Small Arms.
" 12. Naval Architecture, Ship's tackle.
" 13. Philosophical Instruments and processes depending upon their use.
" 14. Photographic Apparatus and Photography.
" 15. Horological Instruments.
" 16. Musical Instruments.
" 17. Surgical Instruments and Appliances.
Section 3.
Class 18. Cotton.
10. Flax and Hemp.
" 20. silk and Velvet.
" 21. Woollen and Worsted, including Mixed Fabrics generally.
" 22 Carpets.
" 23. Woven, Spun, Felted, and Laid Fabrics, when shown as specimens of Printing or Dyeing.
" 21. Tapestry, Lace, and Embroidery.
" ${ }^{25}$. Skins, Yur, Yeathers, and Hair.
" 26. Leather, including Saddlery and Harness.
". 27. Articles of clothing.

- 28. Paper, Stationery, Printing, and Bookbinding.
( 29. Educational Works and $A$ ppliances.
" 30. Furniture and Upholstery, including Paperhangings and Papier-Mache.
" 31. Iron, and General Hardware.
" 32. Steel and Cutlery.
" 33. Works in Precious Metals, and their imitations, and Jewelery.
" 34. Glass.
" 35. Pottery.
- ${ }^{36}$. Manufactures not included in provious classes.

Segtion 4.
CLass 37. Architecture.
${ }_{4}$ 38. Paintings in of and Water Colors, Drawings.
a 39. Sculpture, Models, Die-sinking, and Intaglios.
" 40. Etchings and Engravings.
Manufacturers wishing to exhibit machinery, or other objects, that will require foundations or special constructions, must make a declaration to that effect on their demands for space.
Any exhibitor whose goods can properly be placed together, will be at liberty to arrange such goods in his own way, provided his arrangement is compatible with the general scheme of the Exhibition, and the convenience of other exhibitors.

Where it is desired to exhibit processes of manufacture, a sufficient number of articles, however dissimilar, will be admitted for the purpose of illustrating the process; but they must not exceed the number actually required.
Exhibitors will be required to deliver their goods at the building, and to unpack and arrange them, at their own charge and risk; and
all articles must be delivered with the freight, carriage, porterage, and all charges and dues upon them paid.
Packing cases must be removed at the cost of the exhibitor or his agent, as soon as the goods are examined and deposited in charge of the Commissioners.
Exhibitors will be permitted, subject only to the necessary general regulations, to erect, according to their own taste, all the counters, stands, glass frames, brackets, awnings, hangings, or similar contrivances which they may consider best calculated for the display of their goods.

Exhibitors must be at the charge of insuring their own goods, should they desire this security. Every precaution will be taken to prevent fire, theft, or other losses, and her Majesty's Commissioners will give all the aid in their power for the legal prosecution of any person guilty of robbery or wilful injury in the Exhibition, but they will not be responsible for losses or damage of any kind which may be occasioned by fire or theft, or in any other manner.
Exhibitors may employ assistants to keep in order the articles they exhibit, or to explain them to visitors, after obtaining a written permission from her Majesty's Commissioners; but such assistants will be forbidden to invite visitors to purchase the goods of their employers.

Her Majesty's Commissioners will provide shafting, steam (not exceeding 30 tbs. per inch), end water, at high pressure, for machines in motion.

STATE MATTERS.
${ }^{0}$ Monetary.-The condition of Wisconsin currency after the 1st of December, is likely to be rather better than we feared sometime ago.
At a recent meeting of Wisconsin Bankers, held in Milwaukee, it was determined to raise a fund to redeem, at par, the notes of such banks as have failed to make arrangements for redemption, with the exceptions, which will be found in the resolutions below. The banks are thus redeemed will be wound up by the assogiation.

The following are the resolutions adopted by the Convention :

Whereas, A few of the Bankers of this State have failed to provide for the voluntary redemption of their notes, in accordance with the resolutions of the Bankers' Association in September last, and have given no indications of their intention to comply with the amended Banking Law, which takes effect on the first of December prox.
Resolved, That the Bankers' Committee shall proceed
to wind up such banks as fail to make arrangements for
redemption according to law, on the first of December next, so as to retire their circulation at par; and that the cost of making up any deficiency or expense that may so arise, be paid out of funds now in the hands of said committee, and out of funds to be provided by an assessment on the other current banks, and that an assessment of one per cent. on the capital of said banks be now required to be paid into the hands of said committee for the purpose aforesaid.

Resolved, That the notes of all banks now current, be received and paid out as currency, on an equal footing up to the 1st of December next, and that after that date, the notes of banks so failing to redeem, will be returned to the Bankers' Committee, to be retired as above provided -except the notes of Bank of Portage, Dodge County Bank and Waupun Bank.
Resolved, That if in the opinion of the Bankers' Committee it shall become necessary to make a temporary reduction in the volume of the currency, they are hereby authorized to make a requisition on the banks of the State, to retire such a per centage of their currency as may be required, and so furnish exchange for the present feverish demand.
People will naturally avoid the bills of the excepted banks. Still the security of these banks is all in specie, and when wound up they will be worth respectively as follows:
Dodge County Bank,................................... 69.3 per cent. Bank of Portage, .78 .6
Waupun Bank,... ... 80
Most of the other banks-indeed all except three whose security is largely in Wisconsin stocks, at par value-are reckoned by good judges as entirely safe. But whether they be so or not, it is perfectly safe not to have much of their currency on hand, about the 1st of December, when the term of suspension of specie payment expires. For such as have piles of it laid by, now is an excellent time for the payment of debts!

Political.-From the official canvass it appears beyond all further doubt that the following gentlemen have been elected to the several State offices-majorities not yet determined:
Louis P. Harvey, of Rock, Governor; Edward Salomon, of Milwaukee, Lt. Governor; James T. Lewis, of Columbia, Sec'y of State ; Sam'l D. Hastings, Trempeleau, Treasurer; Jas. H. Howe, of Brown, Att'y General; Wm. H. Ramsey, Ozaukee, Bank Comptroller; J. L. Puckard, of Grant, Supt. Public Instruction; Alex. P. Hodges, Winnebago, Prison Commissioner.

Most of the gentlemen are already known to the public, by their official acts. The others are unknown to us.
In the new Governor, we believe the farmers of Wisconsin have an Executive who is fitted, both by nature and occupation, to appreciate the importance of agriculture and the other industrial arts, and who, in his administration
of the public affairs, will protect and foster those great interests with a faithful and jealous care.

The Markets, \&c.-The prices of grain and produce have improved but slightly of late. Rates of transportation are enormously high, and there is, we are glad to see, but little disposition on the part of the farmers to sell.

The following are the prices of some of the principle products of the farm, up to the 20 th of Nov., in Madison, Milwaukee and Chicago:

| Wheat, No. 1,.......... $\begin{array}{r}\text { Madison. } \\ 61 \mathrm{c} .\end{array}$ | Mitwaukee. 74 c. | Chicago. <br> $711 / 2 \mathrm{c}$. |
| :---: | :---: | :---: |
| Rye, ...................30@35. | 31@32c. | 30@31.c. |
| Corn,...................20@25c. | $27($ a 28 c . | 22@23c. |
| Barley,. ................ 25 @ ${ }^{\text {a }}$ 50c. | $35 @ 50 \mathrm{c}$. | 20@22. |
| Potatoes, ..................18@20c. | ${ }_{20}^{21 @ 225 c .}$ | 15@16. |
| Pork,..............\$300@\$350 | (\$325@3350 |  |
| Beef,............... $\$ 300 @ \$ 400$ | \$200@\$275 on | foot. |
| Wool, | $35 @ 40 \mathrm{c}$. |  |

## NATIONAL AFFAIRS.

The War for the Union.-The past has been an eventful month-a month fraught with deepest interest to every friend of the Union.

In the Department of the West, Fremont, after a vigorous movement, recapturing Lexington and Springfield, and driving the rebel armies upon the very borders of Arkansas, has been deprived of his command and superseded by Gen. Halleck, recently of California.

Gen. Fremont behaved with great magnanimity on taking leave of his army; and, on returning to St. Louis, was received with flattering ovations. He has declared his intention to defend his character against the aspersions of his enemies, and is reported to have gone to Washington for that purpose.

Gen. Halleck has assumed command, and is expected to follow up the advantages gained by his predecessor.

At Fredericktown a battle between about 6,000 each, of the Union and rebel troops result in a prompt and decisive victory to the Union side. And at Belmont, on the Mississippi river, a drawn battle occurred-the Union forces, 4,000 strong, under Gen. McLernand, having first put the enemy to rout, destroying
his camp, and then being obliged to retreat to avoid being cut off by a force from Columbus.
In Kentucky the rebellion has also progressed backwards. We had scarcely done rejoicing over the gallant and destructive repulse of Zollicoffer and rebel horde at Camp Wild Cat, when Gen. Nelson engaged the enemy at Pikesville, in Pike county, and won a handsome victory.
East Tennessee is eager to redeem herself from the foul taint of treason, and the Union men along the line of the railroads are proving the genuineness of their loyalty by burning bridges to prevent the transportation of rebel troops.

The Departments of the West are therefore promising well. By a recent modification of what have been distinctively known as the Departments of the West, of the Cumberland and of the Ohio, they are made to embrace now the following States and Territories, under the titles named:
The department of New Mexico, to consist of the territory of New Mexico, to be commanded by Col. E. R. S. Canby, U. S. A.
The department of Kansas, to include the state of Kansas, Indian Territory, Texas, Nebraska, Colorado and Dacotah, to be commanded by Maj. Gen. Hunter, whose headquarters are to be at Leavenworth, Kansas.
The department of the Missouri, to
The department of the Missouri, to include Missouri, Iowa, Minnesota, Wisconsin, Illinois, Arkansas, and that portion of Kentucky west of the Cumberland river, to be commanded by Maj. Gen. H. W. Halleck, U. S. A.
The department of the Ohio, to comprise the states of Ohio, Michigan and Indiana, and that portion of Kentucky east of the Cumberland, with the state of Tennes-
see, to be commanded by Brigadier-Geral see, to be commanded by Brigadier-General, D.C. B iell, whose headquarters will be at Louisville.
In the East, likewise, things of great importance have transpired. A tełrible sad reverse at Edward's Ferry, on which occasion the gallant Col. Baker, U. S. Senator from Oregon, and some four hundred of his troops were slaughtered and drowned by the vietorious enemy-the capture and butchery of a small Union guard of about 250 men at Guyandott, by a worse than savage foe-are the chief calamities of battle; while the retirement of Gen. Scort from the command of the armies of the United States-made necessary by a serious decline of health-may also, in one view, be regarded as a sad misfortune. The greatest military chieftain of the age, and a patriot as true to the old Union under whose flag he has fought for half a century, as the
magnet is true to the pole, the people of this country cannot lose the active energy and practical wisdom of the old hero, in this time of our severest trial without sadness and tears.

## THE GREAT NAVAL EXPEDITION

was a brilliant success and the most marked event of the season. The fleet met with some mishaps in the gale which it encountered before its árrival at Port Royal, in which one vessel foundered and two went ashore. The loss of life consequent on the attack and capture of Forts Walker and Beauregard was inconsiderable. After a brisk action of four hours, the rebels were effectually shelled out, and beat a hasty retreat. The Federal Government is now in possession of an important southern port, which will doubtless be made the basis of $\mathrm{fu}^{-}$ ture operations. Both forts, which were but slightly damaged in the assault, are new and splendid earthworks, constructed in the highest style of military science, and pronounced by our engineers impregnable against any land attack. Large reinforcements are being sent south, looking to the speedy capture of Charleston and Savannah. "Dixie" may well begin to quake! Besides the capture of a large quantity of ammunition, stores and heavy ordnance, a considerable quantity of sea-island cotton fell into the hands of the victors. It is said that Government will make this a port of entry.

The great expedition which made this brilliant stroke is divided into two branches-the naval and military or land forces. For the convenience of future reference, we publish the following list of ships, forces and commanders:

## THE NAVAL BRANCH.

Of the former, Commodore S. F. Dupont is the head. His flagship is the Wabash, carrying fifty guns. Her armament is of the most formidable description. It consists of twentyeight 11 -inch Dahlgren guns; one 10 -inch Dahlgren; one 80 -pound rifled Dahlgren; one 30 -pound Parrott; fourteen 8 -inch shell guns and three boat howitzers. The crew include about 650 men and marines.

Commodore Dupont is a native of New Jersey, but was appointed from Delaware. He
entered the navy in 1815. The following is a complete list of the vessels:

## the gunboat fleet.

The gunboats are all well armed and manned. Vessels like the Unadilla, Seneca, Pembina and Ottawa, each carry one 11 -inch Dahlgren, one Parrott rifled gun, and two 24-pound howitzers. The names of the gunboats are:

Seminole, Commander J. P. Gillies; Mohican, Commander Godon; Florida, Commander Gildsborough ; Pocahontas, Commander Drayton; James Adger, Commander Marchand; Augusta, Commander Parrott ; Alabama, Commodore Lanier; Unodilla, Commander N. Collins; Ottawa, Commander Thomas H. Stevens ; Seneca, Commanner Daniel Ammen; Pawnee, Commander R. H. Wyman ; Pembina, Commander Bankhead; Isaac Smith, Commander Nicholson; R. B. Forbes, Commander Newcomb; Curlew, Commander Walmough; Penguin, Commander Budd.

In addition to these vessels, all of which are steamers, there are now on the station, and to join the squadron, the Sabine, $(50$, ) Captain Ringgold, at present blockading Charleston; the Susquehannah, ( 15, ) Capt. Lardner; the Flag, Commander Rodgers; the Savannah, (24,) Commander Missroam, off Savannah; the St. Lawrence, ( 50 , ) Capt. Purviance, off St. Simon's; the Dale, (16,) Commander Yard, off Fernandina; the Vandalia, ( 20, ) Commander Haggerty, recently off Bale's Bay, S. C., but just returned to Hampton Roads ; and the Governor, (transport,) Capt. C. L. Litchfield, with Major Reynolds' Battalion of Marines.The entire armament of the fleet is about 400 guns.
the transport fleet.

| Names. Tonnage. | Commander. |
| :---: | :---: |
| Baltic............................2,723.. | ....Comstock. |
| Ocean Queen.....................2,892.. | Seabury. |
| Vanderbilt......................3,360 | La Favre. |
| Illinois .........................2,123.. | Rathburn. |
| Star of the South | Kearnly. |
| Marion........................... 80 | Phillips. |
| Parkersburg .................... 715.. | Hoffma |
| Matansas ....................... 875 | esbur |
| Cahawba........................1,64 |  |
| Empire City....................1,751. | Baxter. |
| Ariel ...........................1,293 | Terry. |
| Daniel Webster............... 1,035 | Johnston. |
| Coatzacoalcos ..................1,063.. | Botocock. |
| Roanoke ........................1,071 | Conch. |
| Ericcson ........... ............1,902 | Cowles. |
| Oriental | Tuz |
| Potomac........................ 448 | Hillard. |
| Locust Point................... 462 |  |
| Philadelphia...................1,238 | Barton |
| Spalding |  |
| Winfield scott, |  |
| Atlantic.........................2,04 | Phillips. |
| Belvidere.. | Phimps. |
| Mayflower, (ferryboat.) |  |
| Mayflower, (ferryboat.) |  |
| Philadelphia, (ferryboat.) |  |
| Baltimore, (ferryboat.) |  |
| Eagle, (ferryboat.) |  |
| Star, (ferryboat.) |  |
| Pocahontas, (ferryboat.) |  |
| Commodore Perry, (ferryboat.) |  |

sailing vessels.


Tonnage. .... 3,356 $.1,697$
Benas Coffin $\qquad$ 1,697
Golden Eagle. $\qquad$
All these transport carry ordnance and Quartermasters' stores, two houses in frame work, bricks in large quantity, about 1,500 shovels, the same number of picks, sand bags, horses, boats for landing men and guns through the surf, and every other article likely to be required for a campaign.

## THE MILITARY BRANCH.

Brigadier General Thos. W. Sherman, (who must not be confounded with W. T. Sherman of Ohio, ) is the commander of the military division of the expedition. He is considered one of the best officers in the army. He gradnated at West Point, and was brevetted Major for his gallantry at Buena Vista, where he commanded and gave its name to Sherman's Battery. He is a native of Rhode Island.When the present war broke out he was on the frontier.

There were 15,000 men on board the ships when last heard from, and it is supposed that others will be added from the garrison of Fortress Monroe. The first brigade, Gen. F. L. Viele of N. Y., commanding, includes the Third New Hampshire regiment, numbering 1,150 men, the Forty-sixth New York, the Fortyseventh and Forty-eighth New York, and the Eighth Maine, $1,046 \mathrm{men}$. The second brigade, Gen. Stevens of Mass. commanding, includes the following regiments: Roundhead Pennsylvania regiment of volunteers, Fifteenth Pennsylvania regiment of volunteers, Eighth regiment of Michigan volunteers. The third brigade, Gen. Wright commanding, is composed of the Fourth New Hampshire, the Sixth and Seventh Connectieut, and the Ninth Maine.
All the above Brigadiers are graduates of West Point.

## contrabands.

Besides the above soldiers, 1,000 contrabands from the vicinity of Fortress Monroe accompanied the expedition on the steamers Oriental and Matanzas. They are principally for digging intrenchments, and for the first time constitute an important arm of offense in the hands of the Government.
The battery is Sherman's well-known one of six guns, and 140 men . Besides his, however, a number of heavy siege-guns are taken, a corps of sappers and engineers belonging to the regular army, large supplies of camp equipage, a body of masons and carpenters, quantities of brick, mortar and large stones, and in fact a complete fitting out for an expedition about to land on a hostile coast, in the face, perhaps, of powerful batteries, and to intrench itself on that coast with a view to making its lodgment the base of important and future operations.

## CORRESPONDENCE. <br> "Eminently Sound."-Editor Wis, Farmigr,-

 I have been a subscriber to several different papers and journals since I was fifteen years old, and now take five different ones. I have always paid in advance, and by God's help I never will ask credit of a Publisher or Printer for a single number of his paper. And I'll not have to, if I read attentively and try to profit by such journals as the "Wisconsin Farmer." Go on in your good work, and if you make the "Farmer" as instructio in the future as it has been in the past, and the people will only appreciate and try to profit by it, it will soon be an advance pay journal, altogether.Most sincerely your well wisher, L. R. Bingham. Tafton, Grant Co., Oct. 7.
[If every farmer in Wisconsin would talk and act as wisely as friend B., the agriculture of Wisconsin would surpass that of any other part of America; and this same Wisconsin Farmer would be the best paper and hence the largest circulated of any similar periodical in the world.]

## Winnebago Connty Ahead--WeRather

 Guess.-J. W. Hoyt, Esq., Sec'y W. S. Ag. Society,Dear Sir:-In your issue of November, I notice an article stating that the largest yield of wheat from a single acre was raised by Sam'l Charlesworth of this County, and asking if it had been beaten.In reply, I copy from our Society Book that the premium for the greatest yield of wheat per acre was awarded to Mr. C. Bushnell, Esq.-653/4 bushels Club wheat. Second premium to W. D. Strand, $601 / 2$ bushels. Best acre of corn E. S. Durfee, $1363 / 4$ bushels shelled corn. Best $1 / 4$ acre of carrots, Sam'l Charlesworth, 421 bushels.
Can any county in the State beat this?

$$
\begin{array}{ll}
\text { Yours respectfully, } & \text { B. S. Henning, }
\end{array}
$$

Sec'y Winnebago Co. Ag. Society.
Osheosh, Wis., Nov. 8. 1861.
[Echo says "Can anyf" What county will answer ?"

What Every Farmer ought to do.- ** Your valuable Farmer is a welcome guest to my home, and should be at every farmer's house; for every number contains something new and instructive in the way of farming. Therefore, brother farmers, subscribe one dollar for this valuable paper, and let us of the North-west encourage the circulation of an excellent home farmer's paper. Mr. Hoyt is doing all he can for our interests, and the subscription list ought to be raised to a point that would insure him a fair remuneration for his time and faithful, laborious efforts in behalf of the farming interests of the state. I shall try and get up clubs.

Joseph Curtis.

## Dekora, Wis., Nov., 1861.

[Modesty forbids comment! But we hope that friend Curtis will succeed, and that his exhortation will be heeded. "The Chinch Bug and Deep Ploving" will have a place in January No.]

## A Magnificent Wool Clip.-Ed. Wis. Farmer:-

In the Nov. number of the "Farmer" is a communication from Mr. A. Jones, of Leeds Center, Columbia county, giving a statement of his wool clip the past season, claiming to have beaten mine of last year, as also all the rest of this State, or "any other." The yield of his ewes might have answered very well for as long ago as last year; but will hardly do for this, as a statement of facts will show. I have 20 yearling ewes, sired by Herman Hemmingway's stock buck, "Robinson Rich," from which I sheared the past ssason an average of $73 / 8 \mathrm{Hs}$. per head of well cleansed wool; being $1 \mathrm{it}, 10 \mathrm{oz}$. more than Mr . Jones's-and he leaves us to infer that his might or might not have been washed. From 46 breeding ewes that reared 42 lambs, I sheared an average of 6 lbs .2 oz . of cleansed wool. Thess are all Wisconsin or home-bred Spanish Merinos, which thus prove themselves to be a much superior stock. If there are better sheep in the State than mine, their owner will confer a favor by corresponding with me, as $I$ wish to keep my flock equal with the best. If Mr. Jones desires an intermixture of my stock with his Vermonters, to bring them up to the home standard, I will oblige him upon reasonable terms. Try again friend Jones, and when you have excelled my this year's product, $I$, also, will try again.

Asaph Pratt.
Lika Center, Rock Co., Nov. 18, '61.
[That is the right talk and the right spirit. A determination to be a little ahead is what carries the world forward. Such men as our friends Pratt and Jones are worth millions to the future industry of Wisconsin.]

## About the Remedy for Bark Lice.-mp.

 Edrror:-I wish to inquire through the columns of the Farmer, of the author of the recipe for killing Bark Lice with the preparation of Tar and Linseed Oil, if it can be applied with good effect at any season of the year; and, if not, what season does it produce its best effect. In the hurry of the Spring it is difficult to find time to do this work as thoioughly as it should be done.Yours, \&ce.,
John Willcox.

A Query.-Dr. Horz:-Can you tell what causes the bark of the apple trees to turn black and dead near the roots? I cannot always find traces of the borer.Can you tell of a remedy ?
E. P. Hinkley.

Eagle, Waukesha Co., Oct. 15, 61.
[We have an opinion, but will modestly let some of the regular fruit-growers speak first.]

WAKELEY \& VILAS,
ATTORNEYS AT LAW, Office in the United States Block, MADISON, ...WISCONSIN.
4a-Payment of Interest on School Lands and other business at the State Offices attended to.
CHAs. т. WAEELEY. ( $13-9$ ) , WILLHM F. vilas.

## THE MUTUAL LIFE INS. COMPANY OF WISCONSIN,

PRESENTS ADVANTAGES equal to any other Company; its rates and basis of business are the same as those of the most successful Eastern Companies; its assets, in proportion to its liabilities, ave larger than any other new company in the United States. Its trustees are well-known as good business men in this city and elsewhere in the State. Its losses have been promptly adjusted and paid; and the whole business of the company has been, and will continue to be done with a view to economy and permanency. It is the direct interest of every man in the West, who wants life insurance, to make the same with the Wisconsin Mutual; for, being based upon the same fundamental principles, it is able to obtain higher rates of intergst for the money accumulated, and the business of the West can be conducted more economically here than with Eastern Companies, as figures prove. Consequently, the profits, which are divided among the insured will be greater here than elsewhere. In addition to all this, the true principle is to keep all the money for accumulation in the West, instead of sending it away. Office of the Company, No. 14 Wisconsin street. S. S. DAGGETT, Pres't.
A. W. Kellogg, Sec'y. $\begin{aligned} & \text { A. W. Kellogg, } \\ & \text { dec-1, '61.] }\end{aligned} \quad$ II. G. Wilson, Gen'l Ag't.

Baltimore and New York Bay
OYSTER DEPOT.
${ }^{r}$ WHE undersigned keeps at all times, during their season, the CHOICEST OF OYSTERS AND CLAMS, either in the shell, can or keg; also the best of fresh and salt water FISH. His arrangements with Eastern Dealers are such, that he obtains fresh quantities of each twice, daily, by Lightning Express, and is hence prepared to fill orders on the shortest notice and in any portion of the State. Especial attention given to country orders.
General Commission Agent for the purchase and sale. of Poultry, Butter and Fruits.
ADP All stock warranted to go fresh to any part of the country. Address, FRANK RAYMOND,
N.E.cor. West Water and Spring St., Milwaukee, Wis.

## WAUPUN PUMPS.

## Pump Eighty Feet with ease.

WTE ARE NOW MANUFACTURING at our establishments in Madison and Delavan, WAUPUN PUMPS. These Pumps are extensively used in this state, and are spoken of very satisfactorily by those having them. We fix them to Wells and warrant them. Being of simple construction, they are not liable to get out of order, and, in any event, they are easily repaired without much expense; and as their boxes work in hard maple, their effectiveness and durability cannot be excelled.

## FARMERSANDOTHERS

Wanting a good Pump, for well or cistern, either in the house or out of aoors, can be promptly and cheaply supplied on application to the undersigned, at the Madison or Delavan Post Offices, or at the manufactory in Madison, below Hill's Warehouse.
13:9
WOOD \& MOGREGOR.



[^0]:    "The Measure consists of a single strip of low spring tempered steel tape, coated to prevent exidation, of such length and with sucn graduations as may be desired, to the ends of which, when in use, are attached handles, with points, determining the extremities of - the measure. To one of these points is attached a scale, moved by a tangent screw, so as to exactly compensate for the expansion and contraction of the measure by change of temperature.
    "The Case which is represented by the lower figure, $s$ constructed of sheet brass, and is provided with a

[^1]:    HG Rarey, the celebrated Horse Tamer, is delivering lectures in Baltimore and other is delivering lect
    Southern Cities.

[^2]:    -To the man of strong will and giant energies, possibilities become probabilities, and probabilities certainties.

[^3]:    As Pat, an old joker, and a Yankee more sly, Onre riding tugether a gallows passed by, Said the Yankee to Pat: "If I don't make too free, Give that gallows its due, pray where would you be?"
    "Why honey," said Pat," faith that's aizily known, Id be ridiug to town by myself, all alope!"

[^4]:    [The Judges of Cattle are expressly required not to give encouragement to over-fed animals, in the breeding classes. The standard authority in all cases, for pedigrees, will be the English and American Herd Books. Exhibitors must come prepared to have their cattle led into the ring when directed to do so by the Superintendent precisely at the time specified, and animals not so brought forward will be ruled out of competition.]

    ## CLASS 10.-Shotrt Horng.

    Best Bull, 3 years old and over, ................................ $\$ 30$
    $2 d$ do do ........................................ 20

[^5]:    County, ss.-A. B. being duly sworn, says, he is a surveyor; that he surveyed with chain and compass, the land upon which C. D. raised a crop of the past season, and that the land was in one continuous piece, and the quanity is -acres, and no more.
    A. B. Surveyor.

    $$
    \begin{aligned}
    & \text { Sworn to before me, this } \\
    & \text { day of }, 1861 .
    \end{aligned}
    $$

    County, ss.-C. D. being duly sworn, says, that he raised a crop of - the past season upon the land surveyed by A. B., and that the quantity of raised thereon was - bushels, measured in a sealed half bushel; and that he was assisted in harvesting and measuring said crop by E. F., and that the statement annexed, subscribed by this deponent, as to the maniner of cultivation, expense, \&c., is in all respects

[^6]:    Senators and Deputies:-Almost entirely free and united, thanks to Providence, to the co-operation of all, and to the valor of our armies, Italy relies on your strength and wisdom. To you it belonge to give her uniform institutions and a determined organization. In establishing the greatest adminiatrative liberties among peoples aecustomed to different usages and a different organization, you will be careful not to weaken that political unity which has been the desire of so many centuries. The opinion of the most civilized nations is favorable to us. The principles of equity which prevail more than ever in the councils of Europe are not less favorable to us. (Loud cheers.) Italy will become herself again, a guarantee of order and peace, and will powerfully contribute to universal civilization. The Emperor of the French, while firmly maintaining the principle of non-intervention, which is se advantageous to us, has deemed it his duty to recall his ambassador. It this circumstance has been painful to us, it has not, however, diminished our feelings of gratitude, or our confideuce in his love for the Italian cause. (Cheers.)
    France and Italy, between whom there exists a community of race, tradition aud manners, have drawn closer, in the fields of Magenta and Solferino, an alliance whose bonds are indissoluble. (Applause.)
    The Government and people of England, that ancient cradle of liberty, have loudly proclaimed our right to dispose of ourselves; they have greatly aided us by their good officas; our gratitude will never forget it. (Applause.)
    An illustrions and upright Prince has ascended the throne of Prussia. I have sent an ambassador to him

[^7]:    * Published by Moore, Wilstach, Keyes \& Co., Cincinnati, 0 . Price \$1 25.

[^8]:    Mr. Eitior:-At a meeting of the Ozankee County Agricultural Society, held at C. HornERPER's, in the villinge of Cerinuburg on the 17th inst., Mr Yaxibuw Kuessow offered the following resolution, which was unanimously adopted:
    Werress, It is highly desirable that the farmers of Ozankee County adopt some meuns by which they will secure specie, or its equivalent, for their grain and other produce, and guard against all worthless currehcy, therefure.
    Resolved, That we recommend the holding of a convention of the farmers of this county, and of all other

[^9]:    The The teeting of a queen bee is produced by forcing air through the stigmata or breathing nores of the trachenl system ; and, not as Gund lach suppose.1, hy rubhing against each other the second und third dorsal segments of the abdomen.

    Two natural swarms, hived on the same day, should not be placed near together in the apiary; and the same rule should govern in the disposing of newly made artificial colonies.

[^10]:    BGF Trust in God, but keep your shoes easy! -Atlantic Monthly.

    Nine-tenths of the cases of summer complaint are owing to green fruits and exposure.

[^11]:    Lancaster, Pa., ................................. ................... 58.661
    Common English,.................................................................. 30.000
    Best Russia, 76.869

    Lake Superior
    89.582

[^12]:    *The combs containing foul brood, bee-bread and the few scattering cells of honey which are likely to be left, should be buried from the bees, as it would prove inju-
    rious.

[^13]:    When Mr. White looks black, does he change color?

[^14]:    Hes Queen Victoria now reigns over 174,000,000 of people. Of this number British India has 135,000,000.

[^15]:    *We understand since writing the above that a number of the Seniors have "gone to the war."

