# The Wisconsin farmer, and northwestern cultivator. Vol. 1 1849

Racine, Wisconsin: Mark Miller, 1849

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

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## To the Public.

In embarking in the new enterprize before us, it may be expected that we will follow a long established custom, and with a low bow and formal "Salutatory," introduce ourselves to our worthy patrons conformably "to ancient usage." As set forth in our Prospectus, this Journal will be mainly devoted to the Agricultural interest, and other kindred interests, and no effort will be withheld in promotion of them. We trust therefore, that it will meet with a cordial reception at the hands of the farmers in the North West; and that, through their liberal patronage and generous aid, its grand aim and object will be fully attained.

Of the importance of Agriculture—of its weighty bearing upon other pursuits—its close and inseparable connection with the greatest good of a state or nation—identified with all that can give glory to an age or people—we need not speak. The observation and experience of every intelligent mind will have demonstrated, that it is in very truth, the foundation of every species of business and trade, a living element in manufacturing and commercial prosperity, and that it underlies all the great secular interests of communities.

It has been well said, that, Agriculture as a profession, strengthens the mind, and contributes to the health and energy of the human constitution; and when attended to as a science, it is a boundless source of rational amusement, wealth and happiness. Not a word is needed in demonstration of this. And why should it be thought less honorable or reputable than other pursuits? How much suffering might be avoided—how would the amount of poverty, wretchedness, vice, and woe be lessened, were it not for that most pernicious idea, that labor is disgraceful, and that to till the ground is a low and mean employment! Because of it, thousands—miserable thousands, are kept from following the plow, or wielding the axe, the hoe, the spade, thus developing the hidden wealth of the soil, and securing the reward of health, competence and happiness.

A better sentiment, however, begins to prevail; and hundreds who had embarked in other pursuits, and in the various enterprizes of the day, are seeking to give it a practical application in the Far West. Already there has been realized all that the Poet "in vision once saw," when amid the solitude and silence of the boundless prairies, he heard afar

> The sound of the advancing multitude,
> Which soon shall fill these deserts From the ground
> Comes up the laugh of children, the soft voice
> Of maidens, and the sweet and solemn hymn
> Of sabbath worshippers. The low of herds,
> Blends with the rustling of the grain
> Over the dark brown furrows.

There is, too, a spirit of improvement abroad, with reference to Agriculture, and not a few who are engaged in it, have already learned to their great advantage, that improvements may be made in this art as well as in others; and that the discoveries of the Age, and the developments of science, are furnishing agencies and means for the promotion of the interests of Agriculture. But there is still room and need for other and greater improvements. After all, so far as the many are concerned only a part of a small portion of the science of Agriculture is known; and men are slow to apply new truths, and to make use of new and wisely adapted means, in the cultivation of the soil. They hold fast old modes and practices, and with all the light they now have, make little or no progress. The results of the improved practice of a few farmers show, that good lands may be made to produce double the amount produced by the usual mode of husbandry; and that sterile and barren soils may be reclaimed, and made to pay, as in some instances, an interest on one or two hundred dollars the acre.

We do not suppose that mere *book knowledge* will render men good farmers, but we contend that it is absolutely essential, for the successful prosecution of the business of agriculture, that the nature of the materials with which they have to do—the ca-

pabilities and deficiences of the soil, and how it may be improved—the proper rotation of crops—the right application, with reference to time, place, and quantity, of manures, etc., should all be studied and well understood by the "lords of the soil."—When this is the case, and whatever is learned is reduced to practice, and they are in the field not only to superintend, but to work with their own hands; they cannot fail of becoming efficient farmers, successful in the business they have chosen.

It will be our aim to furnish such information, and disseminate such intelligence, as will be useful and of general interest to the agricultural portion of community in the Great West. Attention will also be paid to the subject of gardening, and such facts given as have been, or may be, demonstrated to be of practical service and benefit in Horticultural pursuits. And in the prosecution of our work, we hope to receive the prompt assistance of the friends of Agriculture, especially of those in our own state, not only by way of extending the circulation of our paper, but by well directed efforts to awaken a spirit of of improvement in the minds of our agricultural brethren—that thus through our united labors, the profession of Agriculture may be elevated "to that rank which Heaven intended it should occupy, when He, who created man, selected the cultivation of the soil as the employment best adapted to his physical, intellectual, and moral nature."

☞ We are truly gratified for the extent of patronage already secured through the efforts of faithful agents—for the kindness of many friends who have assisted us in various ways—for the interest every where manifested on our behalf throughout the state, and for the cheering and encouraging prospect before us. If there have been any doubts whether at this early day such a paper as the "FARMER," would find sufficient patronage to sustain it, they are now dispelled. We know that papers of this description have multiplied of late, but we think not beyond the actual wants of the farming community. These papers are for the most part confined to the East—they are not, therefore, in all nor in most respects adapted to the wants of Agriculturalists in the Far West. The only paper of the kind published this side the Great Lakes, is the "Prairie Farmer." A co-laborer in the same broad field, cannot limit materially its circulation, nor lessen the amount of good it is effecting, while it is generally conceded that Wisconsin needs, and *will have* a paper devoted to the farming interest within its own borders, and that shall be adapted to meet the demands of that interest, and other interests connected therewith. Let it therefore, be understood, that, with the assistance of the friends of Agriculture, and the generous patronage we are receiving, the WISCONSIN FARMER shall be for the farmer of Wisconsin, and that no pains will be spared, no efforts withheld, to adapt it specially to the wants of the Great West.

## Hints to Farmers.

There is often need of the repetition of old truths, and facts plain and familiar to the commonest understanding; as from carelessness, inattention, or the want of a proper knowledge of them, they are forgotten, misapplied, and frequently neglected altogether. Very much we may say, from time to time in these columns, will perhaps have already suggested itself to the farmer's mind, or he may have had it presented him before, or his own observation may have demonstrated its utility and goodness. But he may have become careless with reference to it, and practically it may be disregarded. The hints, therefore, we may throw out, if they subserve no other good purpose, may stir up the minds of our agricultural brethren by way of remembrance, and cause them to be more attentive to the duties of their high and responsible calling.

Winter now "reigns o'er all the solemn scene." It should be the first care of the farmer—having made provision for the comfort of himself and family during this inclement season—that his stock are well provided for—that they are furnished with warm shelter, and a sufficiency of proper food.—He suffers loss by neglecting to do this. It is of the greatest importance that cattle, sheep, etc., be kept in good condition through the winter. By reason of exposure to the storms, and cold bleak winds, the best stock, the finest and choicest breeds, greatly deteriorate, and lose in excellence and quality, even though they be well fed. Besides, if sheltered a third less feed will be required; so that in many respects the farmer is a great gainer by his care and attention. His cattle in the spring will be strong, vigorous, and healthy, not having been weakened and rendered poor and sickly, by being left unsheltered and exposed to winter's cold; and his sheep will not die, or become diseased, and their wool fall off, because of their bad wintering. Not a domestic animal has he, that will not 'come out right' in the spring, as a consequence of the provision made for its protection and comfort.

In this country where there is no 'lack of straw,' warm, comfortable shelters are easily and cheaply furnished for all descriptions of farm stock. The ingenuity of every farmer will furnish him with a plan, though we submit one, which may be of service: "Build a pen of large poles, or rails, to the desired height, so that instead of being a single wall of rails on each side, there may be two walls, inclosing a space about a foot wide; fill this space with straw, treading it down compactly. Then lay

rails across the top, about one foot apart, and cover these thickly with straw for a roof, and the building is finished. It thus forms a warm and effectual shelter." Try it and see.

In shelters thus constructed, racks might be placed from which cattle, sheep, and colts might feed. If these be fed in the yard, racks should be provided, as they help save hay or other produce by preventing it being trodden under foot, and thus wasted. Feed not too much at a time—better feed often and in small quantities—what is then given will be eaten, if from some cause it be not rendered wholly unpalatable.

It is better to cut all kinds of fodder for feeding than to give it out in the ordinary way. It furnishes much more nutriment, and will be found a saving. Cut hay, straw, and meal make an excellent and economical feed—or when hay is scarce, cut straw and meal alone. The meal should be of corn ground in the ear, and of barley or oats.—There is more of nutriment in the cob than farmers are aware of. It contains no mean amount of farinaceous and saccharine matter, and is therefore useful for its nutritive ingredients. Let it be ground with the corn, and an excellent feed when used by itself, or in connection with cut hay or straw, will be furnished.

These hints are thrown out, believing that "a word to the wise is sufficient."

CLOVER.—Three varieties of clover are generally cultivated in the United States.—The most common is *Trifolium pratense*, or the broad leaf red. It is biennial. *Trifolium repens*, running like strawberry vines, is the white or Dutch clover. This plant is perennial, and valuable for pasture, especially for bees. *Trifolium medium* is smaller than the large red, and differs still farther from it in being perennial. Mixed with timothy, it is useful for permanent meadows and pastures. With proper culture, clover is a most valuable and profitable crop. A small amount of fertilizing elements, like gypsum, wood ashes, lime, and barn manure, produce a marked effect on this plant. It is admirably adapted to make muscle and bone in growing animals, from large supply of bone, earth, and organized nitrogen contained in clover. It has one third more of the elements peculiar to lean meat, membranes, cheese and wool, than herds grass or timothy. The latter grasses have one and a half per cent, and clover two per cent of nitrogen in its organization. It is also well known that pigs, sheep, horses and neat cattle, gain in fat faster on good clover than on timothy. In other words, clover yields to the blood of domestic animals more sugar, starch, and oil, from which fat is derived, than the grasses.

The quantity of incombustible earthy matter in dry clover varies from 5 to 11 per cent. The following analysis by Bousaingault, is entitled to confidence :

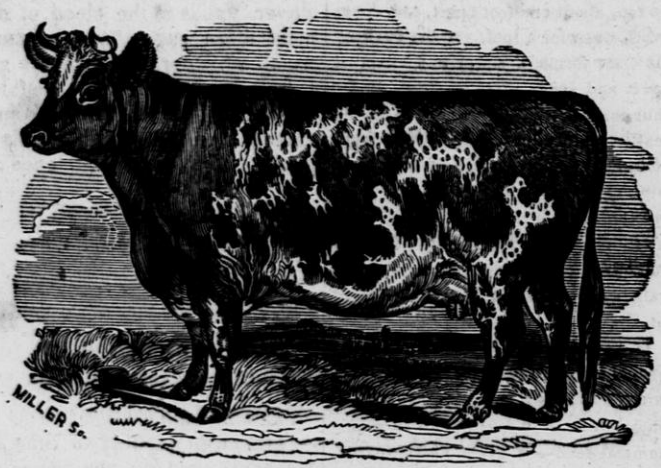
| | |
|---|---|
| Carbonic acid, | 25,00 |
| Sulphuric, " | 2,50 |
| Phosphoric, " | 6,30 |
| Chlorine, | 2,60 |
| Lime, | 24,60 |
| Magnesia, | 6,30 |
| Potash, | 26,60 |
| Soda, | 00,50 |
| Silica, | 5,30 |
| Oxide of Iron | 0,00 |

The large quantity of lime and phosphoric acid yield an abundence of *bone* earth to growing animals. For soiling, clover is very useful; but the land should be well manuren, if not naturally rich.

HOW TO MAKE TREES BEAR.—A lady of our acquaintance took us into her garden a few days ago, where we were shown an apple tree which she informed us had been planted for ten or more years, but had never before borne any fruit. In looking over an old volume, she accidently met with what purported to be a remedy for this unproductiveness, which was simply to cut, from each limb, close to where it diverges from the trunk a peice of bark about four inches round the limb, and one inch in width, and immediately replace it by tying it on with a rag until it adhered again. Early in the spring she tried the tree we speak of, leaving, however, two or three of the limbs untouched. The result is, that it is now filled with apples, which bid fair to ripen finely; but it is worthy of remark, that only on these limbs which had been cut is the fruit to be seen. The operation is very simple and as it proved successful in this instance, we have no hesitation in recommending its trial in similar cases.—*Reading Gaz.*

The prevailing fault of farmers in the United States, consists in trying to cultivate more land, than they can cultivate thoroughly. It cannot be too often repeated, that whatever is worth doing, should be *well done.*

POPULATION OF ST. LOUIS.—A census has just been taken of the city of St. Louis and it contains within the corporate limits, 55,950 sauls.




THE AYRSHIRE COW.

## The Ayrshire Cow.

Of the Ayrshire Cow, Mr. YOUATT says: "The *qualities* of a cow are of great importance. Tameness and docility of temper greatly enhance the value of a milch cow. Some degree of hardiness, a sound constitution, and a moderate degree of life and spirits, are qualities to be wished for in a dairy cow, and what those of the Ayrshire generally possess. The most valuable quality which a dairy cow can possess is, that she yields much milk, and that of a butyraceous or caseous nature, and that after she has yielded very large quantities of milk for several years, she shall be as valuable for beef as any other breed of cows known; her fat shall be much more mixed through the whole flesh, and she shall fatten faster than any other.

They are deep in the carcass, but not round and ample, and especially not so in the loins and haunches. Some however, have suspected, and not without reason, that an attention to the shape and beauty, and an attempt to produce fat and sleeky cattle, which may be admired at the show, has a tendency to improve what is only their second point—their quality as grazing cattle—and that at the hazard or the certainty of diminishing their value as milkers.

The quantity of milk yielded by the Ayrshire cow is, considering her size, very great. Five gallons daily, for two or three months after calving, may be considered as not more than an average quantity. Three gallons daily will be given for the next three months, and one gallon and a half during the succeeding four months. This would amount to more than 850 gallons; but, allowing for some unproductive cows, 600 gallons per year may be considered as the average quantity obtained annually from each cow.

The quality of the milk is estimated by the quantity of butter or cheese that it will yield. Three gallons and a half of this milk will yield about a pound of butter, country weight, or a pound and a half avoirdupois; and when one gallon of water is added to 4 of milk, the buttermilk is worth to the farmer, or will sell at 2d. per gallon. An Ayrshire cow, therefore, may be reckoned to yield 257 English pounds of butter per annum, or about five pound per week all the year round, besides the value of the buttermilk and her calf.

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 sweet milk cheese, or 514 lbs. avoirdupois per annum, besides the whey and the calf.

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."

The Ayrshire breed have with much success been introduced into this Country, as the following testimony from Mr. HAGGERSTON, superintendent of Gen. Cushing's farm, will show:

"I will with pleasure give you my experience of the Ayrshire stock. As milkers they are quite equal to the best native stock

I have ever seen, and for years we procured the best native cows that could be found, without regard to price; for some of which we paid as high as two hundred dollars, which was not for fancy, but was considered the actual worth of the animals for their milking qualities, but have found at all times of the year, when the cows are in full milk, the Ayrshires were the best, and whenever we have kept an account of milk given for a length of time from a native cow, and an Ayrshire, the Ayrshire invariably held out the best. This I consider one of their best qualities. Another good quality they have, the progeny are as good as the parents in all cases. Our heifers have proved as good for milk as their mothers, and this has also been the case with those which Mr. Cushing has given near home. I know at least twenty of them, that last season fully developed their milking qualities; and the owners all say that they are the best cows they have ever owned; many of them have milk farms, with large stocks of cows. We all know this is far from the case with the native stock, for usually the best milking cows produce very inferior milking daughters.

'After taking all these things into consideration,' continued Mr. H., 'I have come to this positive conclusion, that the Ayrshire stock, for milkers, are superior to natives:

1st. In all cases of fair trial between natives and Ayrshire stock, as to quantity and quality of milk for making butter, that has come under my observation, the Ayrshire has proved the best.

2d. The Ayrshires are more docile and much less apt to be unruly, in regard to fence breaking.

3d. The Ayrshires are equally hardy and healthy, and will give more milk on short feed than the natives.

4th. The Ayrshires are decidedly the handsomest, and more pleasing to the eye.

5th. In breeding from the Ayrshires you can depend upon the young stock. I have found them in all cases equal to their parents—I mean the heifers."

SAGO CREAM.—This article, so grateful to the sick, is prepared in the following manner:

Take a dessert spoonfull of good sago, and boil it in pure water till it is reduced to a jelly. Add a cup of sweet cream, and boil again. Beat up a fresh egg very light, and pour the sago on while hot. Sweeten and spice, with sugar and nutmeg, to your taste.

GOOD VERSUS POOR COWS.—As a general thing, farmers are not sufficiently circumspect in the selection of their dairy stock. There are many animals which scarcely pay their way, and others, we doubt not, which run their owners in debt. The expenses of keeping an "extra cow," that will afford daily, from nine to ten quarts of milk, is not greater than is required to keep one that will average only five or six, and the difference in the amount would, in the course of a year, be a handsome profit.

"If," says a late author, "we estimate the cost of keeping a cow at twenty-five dollars, we shall find that if a cow gives six quarts of milk a day, the *loss* in keeping her will be $4,75. If the yield per day be eight quarts, then the *profit* will be about $5. If the milk is ten quarts a day, the profit will be $11,75."

This is an important branch of husbandry, and one that demands the serious and candid attention of every one who has the management either of a dairy or a farm.—*Maine Cultivator.*

## Some of the requisites for fattening Cattle.

The first requisite for fattening animals, is as all very well know, a full supply of nourishing food. But this is not all. The condition and situation of the animal has much to do with it. These conditions may be summed up as follows:—warmth, quietness, and a chance for a certain amount of exercise.

In regard to food, it should combine the elements necessary to add to all parts of the body for it is an increase, a fullness of the several organs of the body, added to the accumulation of fatty matter, that constitutes what we understand by a really healthy fat animal. It is necessary, therefore, that the food should contain the elements which enter into the formation of flesh, meat, or muscles. It should also contain the elements or mineral matter necessary to form bones, by which an increase of this part of the system may be produced, or the waste supplied. It should, in addition to these, contain the ingredients usually found in fat or oils. If the animal to be fatted be one that chews the cud, we have found that, in addition to good hay or grass, an equal mixture of oat and Indian corn meal, or oat meal and oil cakes are as good as anything that can be given. All the parts or principles which make up the animals, are contained in the vegetables

or plants which it eats, and all that the animal does—suppose it be an ox, for instance, is to separate the materials from the food and place them in its own body in the form of beef, or, in other words, muscle, bones and fat.

We have, in several former numbers in this volume, treated somewhat respecting the properties of food for animals. We have stated that chemists make a general division of the parts of food, into flesh-forming and heat forming, and that different kinds of food have different proportions of these two ingredients. The first kind of food, containing the flesh-forming, or, as some consider them, real nutrition, may be named as follows: vegetable fibrine, albumen, casein or cheesy matter, animal flesh, and animal blood. The second kind, heat-forming or elements of respiration, as some call them, may be named as follows: fat, starch, gum, sugar, wine, and spirits.

Well, now for our reasons for requiring the conditions above named to make a healthy fat animal. That it must have plenty of food, is self evident, especially if the position just taken be true, viz: that the animal only separates these materials from its food, and stows or packs them away in different parts of its body, for its own use. The food for doing this, which we have mentioned, is hay or grass, and oat and Indian corn meal, or oil cake, contains, on an average, a good proportion of the above named elements. Barley contains a little more of the muscle forming principle than oats, but we think not enough to balance the extra expense of it, with us.

The other requisites to make a healthy fat animal, which we mentioned, were warmth and moderate exercise. And first in regard to warmth. Every one knows, or if he does not know, he may try the experiment next winter, that he will require more food if he remains exposed to the cold, than if he kept in a warm room—for this reason—the body must be kept at a given temperature, say ninety-eight degrees, in order that all its functions may go on naturally and systematically. If it be exposed to a cold that will reduce it below this, more heat forming material is required and expended in the vital action of the system to keep up the heat.—The Greenlander knows this, and will swallow quantities of heat-forming food, such as train oil and blubber, that would kill an East Indian. The food of an Esquimaux and Greenlander contains about seventy per cent of this heat making ingredient, while the rice and vegetable food of the Hindoo contains only about twelve per cent. The former, living in a cold climate, has to *fire up*, as the engineers say, within himself, while the latter, having the climate already fired up, all around him, requires as little heat as possible within him. The practical inference to be drawn from this, is to place your animals in a warm situation, and they will require less food to be expended in *firing up* within, and what they eat will be retained and accumulated. They receive more carbonaceous or heat forming food, than is required for keeping up the natural heat of the body, and is stored or packed away in the cellular system, for future use, constituting fat, which is well known to be principally carbon. Some experiments were made by lord Ducie, at Whitfield, in England, which have been recorded as illustrating this principle. One hundred sheep were placed in a shed and ate twenty pounds each, of Swedes (Ruta Baga,) turnips every day. Another hundred were placed in the open air, both parcels having been previously weighed, and ate twenty-five pounds of Swedes turnips every day. At the end of a certain period the sheep which were protected, and which ate a fifth less food than the others, averaged three pounds per head more gain than the unprotected sheep.

In regard to the other requisite, to wit: moderate exercise—we are well aware that we differ from most people in recommending it. We have said it was necessary to produce a *healthy* fat animal. An animal that is kept perfectly still and warm will fatten faster or lay on more *blubber*, but we do not consider that as a healthy condition of the system, because it (the fat) predominates over the muscular or fleshy parts, and moderate exercise is essential to restore more of an equilibrium. This, in a quiet, easy way, renders the flesh more full of fibrine, and of course, better adapted for our own food. If mere fat is wanted, perfect rest and that rest promoted by darkness, will increase it, but at the expense of a healthy condition of the muscular organs.—*Maine Farmer.*

An Illinois Monster.—On Monday last a large ox, fed by Jacob Strawn, of this county, passed through Jacksonville, on his way to New Orleans. His weight on the hoof is 3,200 pounds—he is seven years old. If any other county can beat this we should like to hear of it.—*Jacksonville (Ill.) Argus.*

Fig. 1.

Fig. 2. Fig. 3.

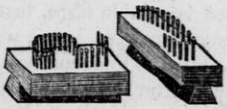


Fig. 4.

The above cut is designed to represent an instrument, much used in Germany for marking sheep—its construction, impression, etc. The process is styled tattooing.

The instrument resembles a shoemaker's punch, upon the lower jaw of which, as seen in Fig. 1, there are grooves *a*, *b*, *c*, *d*, for the insertion of the numbers: which numbers are formed of steel points, see Fig. 2 and 3. Fig. 4 represents two marked ears, one of which has tattooed upon it the No. 3465—the other, the No. 7, to indicate the year 1847. The process is described as follows:—

First, a kind of thick paint is made of vermillion, indigo, or gunpowder, and whiskey; when the paint is prepared, the sheep to be marked is bound and placed upon a table and held by one person, while another puts the paint upon the inside of the ear and presses the sign or numbers into the skin, without causing it to bleed; when the instrument has been withdrawn, the paint is rubbed into the marks. In about three weeks the marks become hardened and are indelible.

We believe this simple yet perfect method of marking sheep, a very important one to the farmers in the West, whose flocks—very large ones oft-times—have an extensive range of pasturage upon the prairies, and therefore liable to stray, or mingle one with another.

For the Wisconsin Farmer.

## Soils and their Analyses.—No. 1

BY P. R. HOY.

FRIEND MILLER:—I learn with pleasure your determination to publish a journal, devoted to agriculture; the first in Wisconsin, the youngest and fairest sister in the noble galaxy of thirty states. While every political party is abundantly supplied with "mouth pieces," agriculture has been left to grope its way in the dark, save a few bright rays reflected by publications in other states. Why is this? What can be of more vital importance to all classes, than the prosperity of the farming community, and who is better entitled to the name of public benefactor, than he who contributes to the dissemination of correct agricultural knowledge; and as there is nothing better calculated to secure this object, than a good agricultural paper, we should all, merchants, mechanics, professional men, as well as farmers, unite in sustaining such a publication, not only with our subscription, but so far as we are able with our pens.

I propose to contribute my "mite" in the shape of a few articles on the *nature* and *analyses* of soils, adapted to the understanding of those who have not had the advantage of a knowledge of chemistry. The prosperity of the farmer will be much assisted by a knowledge of the nature, habits and proper "food," for each crop he wishes to cultivate; as well as a knowledge of the composition of the soil, what crop it is best adapted to produce, and what manure it may require, to render the growing of other crops profitable.

It is now a well established principle, that different vegetables require different 'food,' as well as animals. It would be just as absurd, in view of the well established facts in agricultural chemistry, to "plaster" land in order to insure a good crop of wheat, as it would be to expect a lion to thrive on oats. While on the other hand, turnips, clover, and some other crops, would be materially benefited by it, (plaster) providing their soil did not already contain enough, which is impossible to know without analysis. Na-

ture's laws are invariable, and it is the interesting business of the scientific agriculturist, to become acquainted with her laws, so far at least, as it relates to his occupation. In this I propose to render him some assistance, and if he will not be discouraged by the bare words, *Chemistry, Analysis, &c.*, I will endeavor to prove that the analysis of soils, so far as to arrive at practical results, is simple and easy, requiring no array of costly aparatus, or great skill, and a very limited knowledge of the mysteries of chemistry. With a little patience and industry, the hand that guides the plow, may be able to analyze the soil it cultivates, and become familiar with its qualities and composition—that grand key to a rational and successful system of agriculture.

First, procure the following articles, necessary (or I might say indispensable) to analyze soils, they can be procured at any Drug establishment, and will cost about twelve shillings. A pair of scales and troy weights, sufficient to weigh one quarter of a pound, (you can make a few extra 10 and 20 grain weights,) a glass funnel, a small bottle (with a glass stopper,) full of muriatic acid, a few sheets of filtering paper, (newspaper will answer) two or three four ounce vial-bottles, a few cents worth of prussiate of potash. These, with what any farmer has about his house, will answer our purpose,—there are however, a number of other articles that would be highly convenient to have, such as a Wedgwood ware morter and pestle, and sett of Hessian crucibles, but our object is to get along with as little expense as possible, for economy must be the farmer's motto.

TAKING SAMPLES OF SOILS TO ANALYZE.

If you have an old musket barrel with the breech-pin out, grind the muzzle around to an edge, this will make a good 'borer' for our purpose—if you have not such an article, you can dig down with a spade, get your samples from the side of the hole, not from the pile of dirt thrown out, for the surface and subsoil will be mixed. Let us commence at home; thurst down your gun barrel about two feet here where the soil is in its primitive state, take a rod that will fill the bore, and push out the soil on a board; there it is, a long column—and on inspection its appearance is of a light redish color, and feels sharp and gritty, with but little adhesive properties; near the surface it is a little darker, containing a small quantity of vegetable mould, which diminishes as you descend; under and at the bottom of the bore it appears to be but little else than sand. Take a small parcel from near the surface, lay it on a plate, or bit of glass, and pour on a few drops of muriatic acid, if it *effervesces*, (bubble up) it is a proof of its containing *lime;* should the effervescence be slight, the soil contains a *small* quantity of lime, how much, we shall know when analyzed. This is what is called a '*Silicious* soil, (i. e. sandy.) Take about a quarter or half a pound from the top, if you dig with a spade, take your sample from about two inches of the surface—carefully wrap it up in paper, or what is better, put it in a clean bottle and cork tight, label it No. 1, *Surface soil from School Section, Racine; character, sandy.*

We will bore down for our next samples, in your low flat and rather moist piece of land, as yet left uncultivated; at the depth of two and a half feet, is a stratum, (bed or layer,) of clay, the soil is black, has a soft spongy feel, and when pressed between the thumb and finger, a redish colored liquid is forced out; this contains an abundance of undecomposed vegetable fibre, test need not be applied *(muriatic acid,)* as it will be seen at a glance, by the undecomposed state of the vegetable matter, that there is no lime present. This is evidently a *Peaty* soil.—Save a specimen as above, label it No. 2 &c. *Quality, Peaty.*

The next specimen, we will take from a cold, clayey field, so liable to 'bake,' and crack when it is worked in hot weather: the soil is of a yellowish color, owing no doubt, to the presence of a little oxide of iron, as we descend, it becomes lighter colored, and has a *clammy, adhesive* feel. This we readily perceive is a stiff *argillaceous* (clayey) soil, partaking a little of the *ferruginous* (irony) character.

Put up your sample as usual, and label it No. 3—*Clayey*

Next, and last, we will take a sample from that field, which produces about forty bushels of wheat to the acre, without any manuring. Extending a foot below the surface, we find a dark friable *loam*, it crumbles freely when handled, and upon pressing it between the fingers it feels 'fatty,' and sticks together, and smells like mouldering wood, or decomposed bark. Near 14 inches below the surface, the soil becomes lighter, and contains less *humus*, (decayed vegetable mould) it is soft to the touch, though not stiff and clammy, like the clay specimen. Here must be lime, but let us be sure. This is readily

ascertained by applying the test, which will cause it to smoke and foam. This is a fine *calcarious* soil, or loam. The amount of lime we shall ascertain by analyzing. Preserve a sample as above, and label No. 4—*Calcarious Loam.*

We have now four good specimens of the principal classification of soils, consisting of *Silicious, Argallaceous, Peaty, and Calcarious.* We make these classifications merely for convenience, as we may have an endless variety by the mixture of the above with each other, and with other varieties with which I have not thought best to trouble you. We have now all things in readiness for analyzing the soils, that is, separating the different substances, of which the soil is composed, from each other, and ascertaining their respective proportion, in order that we may be able to form a correct judgment of the fertility of the soil, and its adaptation to particular crops.

In the next No. we will proceed to the analysis.

## Potatoe Rot.

There has been much guessing and conjecturing, and many theories have been started, with reference to this disease, the remedy to be applied, etc; but it would seem that the true origin of the difficulty has not yet been ascertained, or that the proper remedies have been mistaken,—for the potato crop has almost universally failed the past season—at least it has suffered more than formerly. But little thorough investigation into the cause of the disease has been made—there has been no chemical analysis of the diseased potatoe—no close persevering examination, from the incipient development of the disease, through all its several stages by which the physical and chemical changes might be marked—the real cause of the difficulty is, therefore, very much in the dark.

By a thorough, accurate analysis, made by Mr. Salisbury under the inspection of Dr. Emmons of Albany, the sound, healthy potatoe was found to be composed of

| | |
|---|---|
| Starch, in 100 parts, | 9.710 |
| Fibre, | 5.779 |
| Gluten, | 0 205 |
| Fatty matter, | 0.084 |
| Albumen, | 0.249 |
| Casein, | 0.506 |
| Dextrine, | 0.774 |
| Sugar and extract, | 3.931 |
| Water. | 79.508 |
| | 100.046 |

Now, were a similar analysis made of the diseased potatoe, it appears to us that an insight might be obtained into the real cause of the disease, or a remedy be suggested, as it would show us what ingredients in the composition of the potatoe were changed, or wanting altogether.

The most widely prevailing theory in regard to rot, is, that this disease has its origin in an invisible parasitic plant called *fungus* which, attaching itself to the potatoe, extracts from it its juice to give life and growth to itself. This is the theory of Mr. Teschemacher of Boston. "He says"—we copy from the Maine Farmer—"that the microscopic observation made by him in the autumn of 1845, has been confirmed in 1846, and in 1847, by scientific commissioners and committees in Europe. The remedy which he then proposed, is salt.—Salt, he says, has always succeeded when tried as it should be.—The salt, must be in contact with the disease to effect any thing. Although many trials of salt have failed from improper use, yet the disease has been much checked even when partially applied. He observes that these fungi are propagated by exceedingly minute spors (seeds,) which settle by the wind in some places and not in others, and whenever they come in contact with salt when they settle down, they cannot vegetate.

This theory may be sound and true, but we think not. There are several reasons moving our mind to a rejection of it. One of which is, that the spors of the fungi do not ripen and get sufficiently dry to float in the atmosphere until the middle of summer, which fact would lead us to suppose that early-planted potatoes, would be free, from, or but little affected with the disease—but this is not the case, for in some instances, and in certain seasons, early-planted potatoes have fared the worst; those of a later planting being comparatively but little injured.

We do not deny the existence of fungi upon the diseased potatoe, but in no instance have they been found to present themselves, until after the disease has made considerable progress. From whence, then, do any derive the assurance that they are the cause of disease? Besides, it is a well ascertained fact that fungi never precede but follow disease in plants. They do not precede but are the attendents upon decay. "They perform the same office in the vegetable kingdom that the carrion-crow, the beetle etc., perform in the animal kingdom. Nature when left to herself, always provides for the removal of dead material, and her usual method is to convert death into life. To the fungi is left the duty of annihilating the exhalations of decaying vegetable matter. No sooner does a portion of a plant become diseased than the fungi grow thereupon, removing the decaying parts, and thus converting dead into living matter."

That the rot is not caused by fungi is further seen in the fact, that, where the top is affected, if cut off, the disease continues. And if when the disease reaches the tuber, that portion which is affected be cut off, it does not arrest the progress of the disease—it manifests itself in the remaining portions.—Again, whole crops of the potatoe have been harvested, and cargoes shipped, without the appearance of disease; and yet after a little the work of decay has commenced and nothing could arrest it.

Dr. Smee says, that, "The essence of the disease is a disturbance of the relation existing between the plant and the root, and consequently the sap and the cellular substance do not bear such proper relation as fits them for the performance of the vital functions; and this being the case, the vital functions neccesarially cease, and the plant dies." And he supposes that this disturbance is caused by a small insect (*alphis vastator*) which has infested the potatoe vines in great numbers for several succesive years.

We incline to the opinion, however, that the disease is only the result of the worn-out vitality of the potatoe plant, and that for this effect we are to look to the abnormal mode of propagating it. To test the correctness of this, we have only to plant the seed instead of the tuber—if then the disease makes its appearance (the seed being from healthy plants,) we will be forced to conclude that *this* theory is untrue. Will not some of our farmers make the trial.

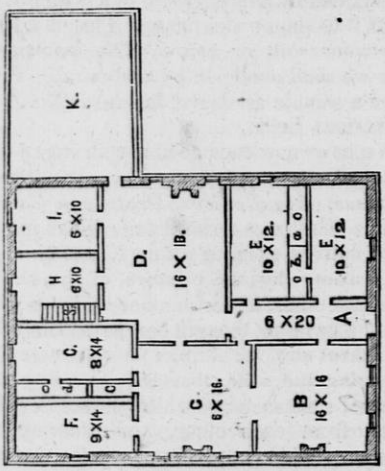
## Growing Hemp.

EDITOR WISCONSIN FARMER,—

Sir: I wish through the medium of your paper, to call the attention of the Farming community to the subject of growing hemp. The yield per acre for a common crop would be from 8 to 10 hundred — This is worth in market, from 120 to 150 dollars per ton. This would make the crop worth from forty eight to seventy-five dollars per acre. Allowing one half or two thirds for cultivation and preparing for market, and the profits would then greatly exceed the profits of growing wheat, and the expense of getting it to market would be much less; consequently the grower's crops would, a large, share, go into his own pocket instead of the pocket of the speculator.

I will, by permission, in a future number of the Farmer, give the process of preparing the ground, planting, rearing, and preparing for market this valuable and indispensable article of commerce, trusting that when in possession of the necessary information, some of our enterprising farmers may be induced to embark in the enterprise.

A FRIEND TO THE FARMING INTEREST




Plan of a Farm House.

MESSRS. EDITORS—I send you another ground plan of a cottage, in which I think three things, very desirable for farmers in ordinary circumstances, are attained, viz.; sufficient room, convenience, and cheapness. The size is 46 by 34 feet. *A.* represents the front hall, 6 by 20 feet; *B.* the parlor, 16 by 16; *C.* the family room, 16 by 16; *D.* the kitchen 16 by 18; *E. E.* two bed-rooms, 10 by 12 each including the clothes presses *o. o.*; *F.* the family bed-room, 14 by 9; *G.* the young children's bed-room, 14 by 8;—young children should always sleep near their parents, on account of sickness and sudden calls in the night;—*H.* store-room 10 by 6; *I.* pantry or milk-room, 10 by 6; *K.* wood house; *c.* china closet for the family room; *o. o.*, clothes presses; *S.* chamber stairs. In the above plan there are no unnecessary doors, and every room is convenient for the business to which it is appropriated. The two bed-rooms opening from the family room may be sufficiently warmed in winter by opening the doors a short time, and the good housewife can oversee the affairs of her family and kitchen without taking many unnecessary steps. The kitchen is near to the front door, the family room, the store room, pantry, and wood-house; and as to fire-places or stoves, these must be left to every one's wishes. I have designated a place for stairs, thinking it would be well to have at least a floor laid over the chamber, for such places are always applied to some use. Occasionally and for temporary purposes, if more room be wanted, a bed may be put into the parlor.—*Cult.*

## A Valuable Hint to Farmers.

The following "Valuable Hint," tells its own story with reference to improvements in the art of husbandry—the *How* and the *Why* of successful tillage and farmer's wealth. Let it be seriously thought of—and the spirit of it carried out; and the desert even shall blossom as the rose, and become fruitful as a garden.

FROM THE GARDNER'S CHRONICLE.

The celebrated Mr. Robert Bakewell, of Dishly, Leicestershire, and the founder of the New Leicestershire sheep, used to tell an anecdote with exceeding high glee of a farmer not only of the olden school, but of the golden times. This farmer, who owned and occupied one thousand acres of land, had three daughters. When his eldest daughter married, he gave her one-quarter of his land for her portion, but no money; and he found, by a little better management, the produce of his farm did not decrease. When his second daughter married, he gave her one third of the remaining land for her portion, but no money. He then set to work, and began to grub up his furz and fern, and ploughed up what he called his poor dry furze land; even when the furze covered in some cases nearly half the land. After giving half his land away to two of his daughters, to his great surprise he found that the produce increased—he made more money because his new broken up furze land bro't excessive crops, and at the same time he farmed the whole of his land better, for he employed three times more laborers upon it; he rose two hours sooner in the morning, had no more dead fallows once in three years; instead of which he got two green crops in one year, and ate them upon the land. A garden never required a dead fallow. But the great advantage was, that he had got the same money to manage five hundred acres as he had to manage one thousand acres—therefore he laid out double the money upon the land. When his third and last daughter married, he gave her two hundred and fifty acres, or half which remained, for her portion, and no money. He then found that he had the same money to farm one quarter of the land as he had at first to farm the whole. He began to ask himself a few questions, and set his wits to work how he was to make as much of two hundred and fifty acres as he had of one thousand acres. He then paid off his bailiff, who weighed twenty stone!—rose with the lark in the long days, and went to bed with the lamb—he got as much more work done for his money—he made his servants, laborers, and horses move faster—broke them from their snail's pace—and found that the eye of the master quickened the pace of the servant. He saw the beginning and ending of every thing: and to his servants and laborers, instead of saying, "Go and do it," he said to them. "Let us go my boys and do it." Between come and go he soon found out a great difference. He grubbed up the whole of his furz and ferns, and then ploughed the whole of his poor grass land up, and converted a great deal of corn into meal for sake of the manure, and he preserved his black water (the essence of manure;) cut his hedges down, which had not been plashed for forty years; straigtened his zig-fences; cut his water courses straight; and gained a deal of land by doing so; made dams and sluices, and irrigated all the land he could; he grubbed up many of his hedges and borders covered with bushes, in some places from ten to fourteen yards in width, some more in his small closes, some not wider than streets; and threw three, four, five, and six closes into one. He found out that, instead of growing white-thorn hedges and haws to feed foreign birds in the winter, he could grow food for man instead of migratory birds. After all this improvement he grew more, and made more of two hundred and fifty acres than he did from one thousand; at the same time he found out that half of England at that time was not cultivated from the want of means to cultivate it with. I let him rams and sold him long-horned bulls (said Mr. Bakewell,) and told him the real value of labor, both in-doors and out, and what ought to be done with a certain number of men, oxen, and horses, within a given time. I taught him to sow less and plough better—that there were limits and measures to all things—and that the husbandmen ought to be stronger than the farm. I told him how to make hot land colder, and cold hotter, light land stiffer, and stiff land lighter. I soon caused him to shake off all his old deep-rooted prejudices, and I grafted new ones in their places. I told him not to breed inferior cattle, sheep, or horses, but the best of each kind, for the best consumed no more than the worst. My friend became a new man in his old age, and died rich.

Eighty-one newspapers are published in Boston, of which fourteen are dailies, nine semi-weekly, and fifty-eight weekly.

SWINE.—No species of domestic animals exhibit a greater variety than exists in the *Sus* family. The difference extends alike to the form and weight of bone, the size of lungs, and abdominal organs, and the power to make flesh and fat from vegetable and animal food.

The writer is partial to a race of hogs that have a small carcass, like China and Berkshire breeds, which can be grown large enough for his eating, and fattened within twelve months from birth. But whoever makes pork not for home consumption, of course, must comply with the whims of the market whatever they may require. To meet the present market, especially that of Great Britain, perhaps no better variety can be kept than the Bedford or Woodburn hog, It is large, hardy and well formed, generally white, with various spots; has small limbs and head, and fattening rapidly."

A change of good clover pastures, with regular saltings, is of great service in growing swine. It generally takes from seven to ten lbs. of dry shelled corn to made one pound of pork. All grain and roots should be cooked before feeding. By cooking, insoluble starch is transformed into soluble gum, which is easily digested, and enters readily into the mouths of the vessels that convey nourishment from the intestines into the veins and heart, to be distributed to all parts of the system. To fatten well, pigs should be kept quite comfortable, and be regularly fed. Sows not intended for breeders, should be spayed. Three pounds of pig pork can be made on less food, in the aggregate, than is consumed to make two pounds in the carcass of animals eighteen months old. D. L.

LOSS OF APPETITE IN SWINE.—It is not unfrequently the case that swine suddenly sicken and refuse to eat. This may result from a variety of causes. Sows, after littering, are frequently adverse to all kinds of food, exhibit symptoms of great debility, and unless speedily relieved of the malady, will die.

We have known many valuable animals lost in this way, when a very slight knowledge on the part of the owners would have enabled them to obviate all unpleasent results. When an animal refuses to eat, becomes indolent and emaciated, and manifests the usual symptoms of disease peculiar to the swinish herd, bleed the animal freely, by drawing a sharp knife across two or three of the bars in the roof of the mouth. Should recovery immediately not succeed the operation, let it be repeated. Should the effusion of blood be thought too copious, rye meal, or soot from the stove funnel or back of the chimney, may be put into the mouth. These substances, when moistened by the blood and saliva, form a sort of viscid and tenacious paste, which gathers naturally over the lips of the wound, and consequently prevents all further efflux of blood. We seldom hear of this method of venesection being adopted by veterinarians in their treatment of the hog—the usual mode being to cut off the tail or ears.—*Olive Branch.*

Burrall's Patent Corn Sheller.

BURRALL'S PATENT CAST IRON CORN SHELLER.—The accompanying cut represents one of the best and most labor saving machines for shelling corn that probably has ever been invented. It separates the corn from the cobs after thrashing; the corn coming out of the bottom of the machine and the cob at the top. The machine is of the most durable kind, being made entirely of Iron. It is very compact occupying but about two feet square, and weighing about one hundred pounds.

This machine is capable of turning out a bushel of shelled corn in three minutes.

Two boys from 10 to 15 years of age can work it. Mr. J M. Cary of this city has one in his barn which can be seen in operation, by any one who may wish. They are for sale at the Farmer office.

Thrift follows industry and economy.

# FENCING LANDS.

☞ We shall pay all the attention to this subject which its great importance—so far as the North West is concerned—demands. Whether Wire fence, sheet-iron fence, Osage Orange, (Bodark) Buck Thorn, or Locust Hedge—each shall be candidly considered, and no pains will be spared in gathering facts deduced from actual experiments with reference to each. The article which follows is intended as an introduction to a series of articles, from the pen of Dr. P. R. Hoy, of this city, on the subject of Hedges; in which the comparative excellencies or adaptation of the Osage Orange, and different varieties of Thorns will be fully discussed. Other articles will follow, and the result of all properly conducted experiments will be carefully recorded.

## Bodark, or Osage Orange.

*"Maclura Aurantiacea."*

This is one of the most ornamental of our native small decidous trees. It is found growing in abundance on the rich alluvial bottoms in Texas and Southern Arkansas, where it is known only by the name of *Bodark*, and should have no other elsewhere. It attains the height of thirty-five or forty feet in favorable situations, and is at all times a pleasing object, with its beautiful glossy green leaves and fine spreading top; but when loaded with its "Apples," it claims our special admiration. The wood is the most inelastic, and heavest known, not even excepting Rose wood, Ebony, or Lignumvitae; in fact, it resembles bone in this respect. The unripe fruit and wood are abundantly supplied with a milky fluid, which is used by the clothers to dye yellow. The blossoms are not very conspicuous, of a greenish yellow color. *Staminate and pistilate*, (or male and female) grow on separate trees. The young fruit is covered with silk, similar to the silk of corn, one thread of which proceeds from each seed, giving it the singular appearance of being covered with hairs. When mature, the fruit varies in size from three to five inches in diameter, of an orange yellow color: rough and indented on the surface, not very unlike an ear of corn. The fruit is ripe the last of September, at which time it should be gathered for the seed, for it is worthless for anything else. This is the tree when treated as a hedge plant, that bids fair, in the southern and middle states at least, to supersede all others for hedges; the ease and rapidity of its propagation, either from root-cuttings, or from the seeds; its entire exemption from the destructive assaults of insects; long life, robust and vigorous habits—it bears pruning and mutilating perfectly well, accommodates itself to almost any soil, is amply provided with sharp and jagged thorns, and makes with a proper culture, in a few years, a strong and impassable fence.

☞ In our next number several cuts will be given descriptive of the Osage Orange—the foregoing article was received at so late an hour that we had not time to prepare them for the present number.

For the Wisconsin Farmer.

It is exceedingly difficult to break through old habits, and ancient prejudices; and more especially when in doing so, the interests of many are affected by the same act. But when any custom is found to be positively injurious to the great body of community, wisdom would dictate a change, nothwithstanding habits and prejudices. Such I regard the practice of fencing in crops of grain, which cannot run away, and turning out cattle which are constantly liable to be lost. Looking at the matter fairly, nothing can appear more foolish than expending money and labor in fencing fields of grain. If the object is to preserve the grain, fence in the pastures, and the grain is all secured.—If the object is to keep the cattle at home, fence in the pastures, and both cattle and grain are safe.

So extremely inconvenient is it to keep stock at large, that good farmers, after fencing in all their cultivated land, enclose their pastures also; whereas, it is perfectly obvious, that if all the pastures were fenced, *nothing else need be.* The entire expense of fencing crops, is a dead loss. It is the price of the present inconvenient custom. It is certain that in the country generally, and particularly in Wisconsin, there is much more ground in crops than in pasturage.—But the question concerning fencing is not whether we shall fence the pasturage, the less portion, or the crops the greater. It is *whether we shall fence the less* OR ALL. For all experience has shown, that if the crops are fenced, the pasture must also be; whereas nothing is clearer than that if all live stock are properly shut up, grain will be perfectly safe without fencing.

Within the range of my acquaintance, about one quarter of each farm is reserved for pasturage. In fencing a quarter section or 160 acres of land around the outside, two miles, or 640 rods of fence are requisite. If fortunately you can join fences with neighbors, on *two sides*, 480 rods of fence will be requisite. Then to make a 40 acre pasture, 160 rods more of fence is necessary, making 640 rods of fence in fencing a quarter

section of land into only two fields. To fence forty acres only in a square field, and joining neighbors on two sides, who shall make equal portions of fence, only 240 rods of fence is necessary. Putting the first cost of fence at the low price of one dollar per rod, the saving is $400. If several neighbors joined in fencing a common pasture without division fences, much of this fencing could be saved. And though there are some inconveniences in pasturing in the same field with neighbors, they bear no proportion to the inconveniences of allowing teams, cows, and other stock to run at large.

During the past season I have experienced the inconvenience of the present custom in the extreme. I occupied one farm of 200 acres which was enclosed in one field, with two and a half miles of fence, four hundred and eighty rods of which, belongs on the farm, and three hundred and sixty to the adjoining farms. On another farm of 235 acres I have a field of 175 acres fenced with two miles and a quarter of fence, two miles or 640 rods of which belongs on the farm and 80 rods on an adjoining farm. These two fields are designed solely for cultivation and meadow. Consequently if the rule was established that no stock should run at large, neither of them would need any fence. The latter had also some 30 or 40 acres of meadow which was lost for want of fence.

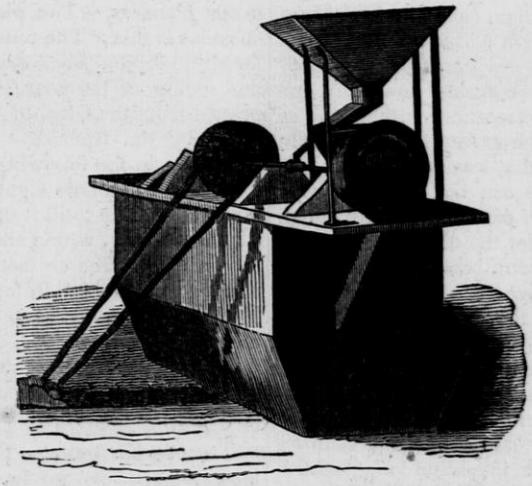
I also occupied another farm of 320 acres on which I had a field of 120 acres, fenced in with two miles, or 640 rods of fence.—Two hundred acres of pasturage here lay to common, which I was unable to fence; two and a half miles of fence will enclose that without joining fences with any one, and it is sufficient for all my teams and stock.—Near to this I have control of 150 more, of fine land for tillage, which has laid idle, because I was unable to fence it in season for a crop. I employed a boy the principal part of the season, heading cattle; have lost equal to the time of one good man, two months in looking for lost and stray cattle and horses; lost many days use of teams, because they could not be found; have some cattle gone which I probably shall never find. I have entirely lost the use of 180 acres of first quality grain and meadow land; yet I have nine hundred and sixty rods, or three miles of fence, more than I should have any occasion for if the "*cattle were fenced in, and the crops turned out on the common.*"

That part of my land now in use, is the most conveniently located for fencing. The balance is somewhat in detached parcels. If the present rule in reference to enclosing fields, and pasturing at common is continued, I must make between six and seven miles of fence in addition to what I now have. to simply enclose my land without dividing one field. On the other hand, if the rule should be so changed as to require every man to keep up his own stock, and make him liable for any damage they might do upon the lands of others, *whether enclosed or not*, I have three miles of fence to spare. Doubtless, nine-tenths of the farmers in Wisconsin are similarly situated. The cost of fencing varies greatly, in different parts of the state.—It will cost me full $1,00 per rod, making to me more than $3000 difference whether I am to fence my own cattle in, or to fence my neighbor's cattle out. And this on only about 1000 acres of land. I do not know the extent of the improved farms in Wisconsin, but it is safe to say they will amount to five million acres of land. Carrying out these proportions, on that extent of territory, and it will cost some fifteen or sixteen millions of dollars more to fence all the live stock out of the crops, than it will to fence it into the pastures. It should be considered too, that the rule which I am recommending will take away the necessity of any man's guarding against the vicious habits of his neighbors beasts. If any one took pains to get all his stock very orderly, a slight and cheap fence would keep them in. If he prefered those of vicious habits, he only would be to the expense of fencing against their vices.

*Burlington, Dec.* 1848. J. J. Strang.

## MISCELLANEOUS.

Wood Houses.—Wood-houses, provided the busines has not already been accomplised, should now be filled. It is a good plan to have a mixture of green and dry fuel for winter use; as, by burning that which is seasoned, a greater consumption is necessary than where a part is green, or partially dry. Recent experiments in heating rooms with fuel in different states of dryness, have established the fact that wood recently cut, when ignited by the assistance of a *quantum sufficit* of a thoroughly seasoned article, produces a more durable and steady, as well as a more intense heat. It is wrong to suppose that all the fluid matter contained in wood is lost by evaporation, in burning. The sap of the sugar maple, for instance, disproves this theory.



Fitzgerald's Portable Horse Power Flouring Mill.

*From the British American Cultivator.*

When at Auburn last autumn, we saw in operation one of Fitzgerald's portable mills, and were so much pleased with its performance that we resolved when opportunity presented, to introduce them to the notice of the Canadian farmers. They will grind and bolt in a perfect manner from four to five bushels of wheat per hour, and are not more liable than other machinery driven by horse power to get out of repair. These mills of which the accompanying drawing is a correct representation, cost about twenty pounds each, and may be driven by horse or water power. The stones are made of the best quality of French Burr are readily sharpened and adjusted, and the whole machine is extremely simple at the same time efficient. If any person desires a machine of this kind, we hold ourselves in readiness to execute all such orders upon the shortest notice.

A Big Business.—A correspondent of the Eastern Argus says the scythe manufacturing establishment of R. B. Dunn, Esq in North Wayne, Maine, is the largest of the kind in the world. One hundred men are employed in the works. Improvements are in progress by which it is expected that the proprietor will be enabled to manufacture annually 17,000 dozen scythes.—The present number turned out annually is 12,000 dozen—to produce which is required 450,000 lbs. of iron, 75,000 lbs. of steel, 1,200 tons of hard coal, 10,000 bushels of charcoal, 100 tons of grindstones, and half a ton of borax.

Boring Machine.—We have been interested in looking at one of these labor saving machines, (Buck's manufacture) at the store of D. G. Tibbits, in East Water street. Though it is not just invented, it is new in this country. This little machine costs but $10, and will save the work of two men under the old system of using the auger and morticing. Its machinery is so simple that it will not readily get out of repair. The principle of the machine is the application of a crank to a vertical wheel, which cogs in with a horizontal wheel attached to a cylinder, to which the auger or borer is appended.

To carpenters in the country, where frame buildings are to erected, it is invaluable. It is also so small that it can be placed in the carpenter's chest with his other tools. We understand that these have been in use for about two years, and now bid fair to supersede the old system of hand augers.

Patent Wagon.—A Mr. Stuart, of Smyrna, has made an improvement in manufacturing wagons, which will certainly be a great advantage to the farmer, inasmuch as it will effect a great saving in labor. The bed of the wagon is placed on small rollers, fixed in frame work on which it rests, and in front is a fixture for a lever by which a lad can run the wagon-bed back, and shoot the contents on the ground.—*Delaware (N. Y.) Gazette.*

Twenty thousand persons have died of the Cholera in St. Petersburgh since June last.

THE AMERICAN BRIDGE-BUILDER.—REMINGTON, the Virginian, (and the Old Commonwealth has reason to be proud of such a son,) has finally—after trials and hardships that would have broken down any one but an American—succeeded in England as the architect of the greatest improvement in bridge-building that was ever known. It is simply this; he can build bridges over great rivers, *without piers*, which are equally as strong as under the old system.

"A safe, permanent, beautiful, and steady bridge may be thrown across a river half a mile wide, out of the reach of floods, and without any thing touching the water, at a most inconsiderable expense."

This improvement is one of such gigantic importance, particularly in the construction of rail-ways that no one can estimate its value. It is an invention long needed, but which, after the efforts of a thousand years, has at last been discovered by an American, who goes now to teach the Old World. Such inventions shed more real glory on our name, than the laurels of even successful war.

MACHINE FOR SHAVING SHINGLES.—Mr. S. Brewer has obtained letters patent for a new and important machine for shaving shingles. The machine shaves both sides of the shingles at every stroke of the pittman, giving the proper slope and throwing the shingles clear of the machine. It is simple and cheap in its construction; not liable to get out of order; may be tended by a single hand; is a light draught for a horse or mule but may be worked by any power; and may be easily moved from place to place, and set up with little loss of time. Shingles made on the machine are of uniform thickness and of the very best quality, and may be made of any timbers of which shingles are usually made by hand.—*Scientific American.*

GRASS ROOTS PIERCING POTATOES.—We have in the office two potatoes dug by Mr. Alvah Ames, through which the roots of witch-grass had penetrated, the point of the grass root resembling a thorn. He found in the field a number of them pierced by these roots.

A PREVENTIVE OF THE HESSIAN FLY.—Jonah Oglesby, a respectable farmer of Dauphin county, publishes a statement in the Pennsylvania Cultivator, by which it appears that to burn the stubble of the previous crop is a certain preventive against the failure in a single instance.

HOW TO PLANT CHESTNUTS—*Good advice to our Farmers.*—The plan of raising the chestnut is this: The nuts must not be suffered to become stock dry. Plant them in the spring of the year. The first winter protect from the frost, or they are apt to be killed by the freezing. The next spring transplant in the following manner: Select a dry soil, dig a hole eighteen inches deep; three feet wide; fill it up with small loose stones and clay, within six inches of the surface, set your tree on that; take care of it, and it will grow, and in four years bear nuts. The chestnut should be more attended to than it is—it is valuable food, and very nourishing. In Italy the chestnuts grow to the size of small apples, and are used as food by the peasantry.—*Scientific American.*

TOMATO KETCHUP.—The following, from long experience, we know to be the best receipt extant, for making tomato ketchup.

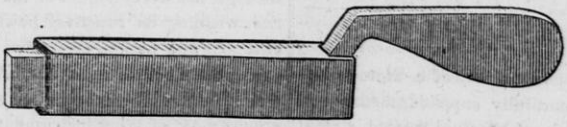
Take one bushel of tomatoes, and boil them till they are soft; squeeze them through a fine wire sieve, and add

Half a gallon of vinegar,
Three half-pints of salt,
Two ounces of cloves,
Quarter of pound of allspice,
Three table-spoonsful of black pepper,
Five heads garlic skinned and separated.

Mix together and boil about three hours, or until reduced to about one-half; then bottle without straining.

IMPROVEMENT IN BREAD MAKING.—Persons who are so unfortunate as to be poorly provided with those agents of mastication, good teeth, will be glad to know that there is a method of baking bread which obviates the necessity of a hard crust. The crust commonly attached to the loaf is not only troublesome to such persons, but is often the cause of much waste. The way to be rid of it is as follows: When the loaves are moulded, and before they are set down to "rise," take a small quantity of clean lard, warm it, and rub it lightly over the loaves. The result will be a crust beautifully soft and tender throughout. This is not guess work.—*Exchange paper.*

MAKE YOUR OWN CANDLES.—Take two pounds of alum for every ten pounds of tallow; dissolve it in water before the tallow is put in, and then melt the tallow in the alum water, with frequent stirring, and it clarifies and hardens the tallow so as to make a most beautiful article for winter use, almost as good as sperm.



Arnold's Patent Window Sash Lock.

This instrument is of the simplest construction, consisting of a brass bolt, or slide, playing in an iron box or tube, as seen in the above cut. The bolt is of such form, as by virtue of its peculiarity it instantly adjusts itself or by its own weight forces itself into the mortice prepared for its reception.

To insert it in the sash, and prepare the mortice in the frame is all that is required, it will do the rest and render all secure.

The above cut represents a full sized fastener. It requires but about three minutes to adjust it to the sash, and when once there, will remain as long as the sash will last, without any possibility of getting out of order, unless the sash be smashed to pieces. It may be seen at the Farmer office, fixed in a sash so as to illustrate its movements, where also they are for sale.

These fasteners are unequalled both for cheapness and durability; call and see it.—It is no humbug.

Of this invention the Rochester Daily Advertiser says:

Mr. W. E. Arnold of this city invented some time since a window Sash Lock, which has been recommended after a thorough trial by a number of of our Hardware Merchants and other business men in the strongest terms and from an examination of it ourselves we cheerfully add our testimony to that already given in its operation; it is perfectly simple, requires no springs and moves by its own weight. It seems to be admirably adapted to the purpose intended, occupies but a small space and is never out of repair.

The Tea Plant in the United States.—The planters and farmers of the Southern States will be gratified to learn that seven cases of black and green tea plants, Chinese stock, have just arrived from London in the ship American Eagle, shipped by Dr. Junius Smith, during his late visit to that city. There are 500 plants, of from five to seven years growth;—all designed by the Doctor for seed plants. A small quantity of tea seed was brought out by him in the steamship Britannia, which was received in London overland from the northwest provinces of India. We understand the Doctor designs to proceed soon to the South, with a view of forming a plantation. More plants and seeds are expected from India and China this season, and if we may judge from the progress already made, we have now the means in hand of extending tea plantations, throughout such sections of our country as may be adapted to their culture.—*Journal of Commerce.*

Rattle Snake Bites.—Mr. A Beach of Tyler, writes us that he once cured the bite of a snake on himself by first holding the part bitten in a spring of water during fifteen minutes, and afterwards applying saleratus, and then cutting open a chicken and applying that, and still afterwards some bruised snake root. It would puzzle us among such an array of remedies, to know which effected the cure. Mr. B. thinks the cold water was most potential, and mentions the case of an ox belonging to a neighbor, bitten on the leg, which swelled so that the animal could scarcely stand; but at night a thunder shower came on, which deluged the pasture and cured the animal at once.—*Prairie Farmer.*

Is the Bee the Pioneer of Civilization?—The author of *A Tour on the Prairies*, says the Indians, regard the bee as the harbinger of the white man, as the Buffalo is, of the red; and say, that in proportion as the bee advances, the Indian and Buffalo retire. The wild bee is said to be seldom met with at any great distance from the frontier. When the honey-bee first crossed the Mississippi, the Indians, with surprise, found the hollow-trees of their forests suddenly teeming with honey; and nothing can exceed the greedy relish, with which they banquet for the first time, upon this unbought luxury of the wilderness. At present, the honey-bee swarms in myriads, in the noble groves and forests that skirt and intersect the prairies, and extend along the alluvial bottoms of the rivers.

# EDUCATIONAL.

## Education.—No. 1.

It becomes the imperious duty of a State to furnish, so far as its bountifully supplied means and agencies may be rendered effectual thereto, a right education to all its members. It owes this to itself, to the Age, to the Race, and the World.

There is a day coming, the early morn of which has scarcely yet dawned. Very much of excellence and glory is connected with the past, but *now* we wish and wait for something more; something better. Our wants demand something beyond what has yet been received and enjoyed. What the Future shall reveal, we know not—it is not for us to know, save as we catch glimpses, forshadowings, of it in the Present. That the Race shall not retrograde, shall not degenerate, we believe. Does not reason show us that there is a tide of human progress which still moves on despite of every obstacle and apparent discouragement? By some overmastering force, by some dark, mighty wave of corruption or misrule, it may be borne back at various times from various shores; but still the roll of the great ocean is onward, and on its broad and crested bosom float the treasures of a thousand years of human intellect and wisdom. We are told of an age to come of intellectual and moral power and beauty, when living truths and divine principles, in words of fire, vivid and edged as the keen lightning, shall have penetrated men's souls, and bound all nations, kingdoms, and tongues, by the Law of Universal Brotherhood. That shall be an age of light and purity. Righteousness and Justice shall then be the foundation of every Thone. Wrong shall have ceased, the chains of oppression have fallen, the cry of the injured have been stilled, the degraded have been lifted up, and the rod of Tyranny broken forever. These are not the splendid dreamings of a visionary's brain, the vain and empty babblings of a disordered imagination, but the voice of the truest prophecy, coming from the past; and to those who by the aid of Earth's long history can look forward into the future, time shall tell its own story of the onward march of human advancement. In the revelations of the Present, too, this is read. From amid the din and confusion and warfare of the world, there comes up the cheering cry, *Peace and Universal Brotherhood!* The elements of a better order of things are at work, and clearly indicate that

"There's a good time coming,
Wait a little longer."

But what shall tend more than any human instrumentality, more than any earthly agency, beside, to bring around and produce this period and age of gold, is Education, developing, training, disciplining the immortal through its mortal mediums; and through this development of the souls divine faculties, wielding its resistless power upon human institutions and human errors and wrongs, and pouring out a flood of light that shall oversweep the world. After all our organized efforts, our vigorous employment of other instrumentalities, we shall be compelled to fall back upon right education as the only sufficient and prevailing means in the great work of Reform, All else shall fail, while this will prove itself the wisdom of God and the power of God in working out the political, social, and moral salvation of all lands beneath the sun.

No man can doubt, who gives the subject a moment's serious thought, that it is to education he is indebted for the very position, relatively, that he occupies in God's universe to day. Of all the immense diversities that exist in society, it is safe to say that generally they may be traced to education, the entire want of it, and an erroneous education. This may not be so true with reference to individual diversities of character to the extent we have asserted; but so far as classes are concerned, the remark will hold good, and will find its confirmation in the observation of every discerning person. God does not create and by an invisible decree render one class of men intelligent, and another class ignorant—constituting the one a superior, and the other a degraded class—the one an aristocracy distinguished by all that can exalt and dignify humanity, and the other mere hewers of wood and drawers of water, never to rise above the condition of serfs, and bondmen. This difference and diversity, to whatever extent it may exist, has its foundation in, and is perpetuated by, a wrong state of things; and comes up in conflict with every arrangement in the divine economy. It is not because all souls do not bear the impress of the same fashioning hand, and there is not the same distribution and apportionment of talent and gifts; but because of a departure from that Original Equality on which God placed the Race, marked in every age by the elevation of one class and the degradation of another—the one intelligent, the other ignorant. Here is that Pandora's box, at the opening of which out leaped those forms of evil and woe which have so cursed the fair earth and deluged it with tears.

We have men and women of intelligence, refinement, and moral worth—we have also those who are the contrary of this. We are by no means destitute of cultivated intellect, of developed vigorous minds—minds enriched by the treasures of human and divine knowledge; it is a sad thought that all around us, too, are vast multitudes of the ignorant and degraded, upon whose darkened souls scarcely a ray of light has shined, and who by the very condition in which they are placed, and the circum

stances with which they are surrounded, are debarred approach to the means furnished by a common Father for the common appropriation of all his children. There is a law as rigorous and binding as that of the Medes and Persians, which says: Thus far shalt thou come and no farther; and which in its exactions leaves to the latter only their degradation, and poverty, and woe. But why should not these become what the former are? Why should this unnatural diversity exist? What right has any one human being, or any number of human beings, "to prevent or hinder any other human being or any class from becoming as intelligent, as interesting, as lovely as his or their nature is capable of becoming? What so profitable, so advantageous, so conducive to the highest prosperity of a community, as a continually increasing number of such men and women, from whatever class they may spring?—and what so profitless, so destructive, as men and women of the opposite character? The necessity of labor creates no necessity for ignorance and degradation. The most industrious states of this Union are also by far, a hundred fold, the most intelligent, the most refined, the farthest advanced in everything which constitutes civilization."

## Importance of Labor.

It is a well demonstrated truth, that happiness can be found only in the natural, proper, healthy action of the powers and faculties which the Creator has given, or in obedience to the laws written by the finger of God on our physical, organic, and mental constitution. These powers and faculties were given that they should be exercised, prudently and judiciously. Divine Wisdom never designed the human being for a life of total inactivity and ease; and he who seeks for happiness here will most surely be disappointed. No man was ever born into the world with a constitution fitting him naturally for such a life; and he has sought in vain for the highest good, and the perfection of earthly happiness and enjoyment, save when, in accordance with the divine arrangement, he sought for it in vigorous action, in *labor*, in the exercise and development of every power and faculty of his being.

The importance of labor is too little thought of and regarded—labor with the hands, with every muscle and sinew in this curiously wrought human frame. The idea, too, has crept into some weak craniums that it is disgraceful to labor—that *to work*, is to stoop from superior diginity and excellence. But God has not so said in the arrangement he has made—it is an ordination of his, that he who will not work shall not eat well, nor sleep well, nor feel well—that his conditon shall be the reverse of that man, who, standing firmly upon the green earth, his hands hanging carelessly by his side, and his eyes wandering over space, is permitted to feel, thus circumstanced, such agreeable sensation arising in his mere bodily frame, that he can raise his mind to heaven, and thank God that he is a living man.

Not only do bodily health, and vigor, and consequent enjoyment depend upon labor; but also health and vigor of mind, and the pleasurable emotions resulting from this mental condition. It has been well asked, "What distinguished man in this country or age, any other, but took a great amount of exercise while young?" You can hardly point to great a man, to one eminent in any department of knowledge or letters, whose hands in his early years were not hardened, his frame knit and rendered sinewy, and his brow made dusky by manual toil. No man, perhaps, of the present day, stands higher as a scholar than Elihu Buritt, the learned blacksmith;—and the fact, that, while mastering language after language, he was compelled to labor at the anvil and forge eight hours every day, tells the whole story of his intellectual growth and the way he climbed up to eminence and distinguished honor. Henry Clay was once a poor boy, and knew what it was to work with his own hands for a living. And the immortal Shakespeare, whose fame is world wide, often laid aside his pen, folded the wings of his genius, hushed the voice of his lyre, and went out to labor in carring brick and mortar. "Webster was a backwoods man, born in a 'log cabin' on the borders of the unbroken forest," and was no stranger to hardship, exposure, and daily toil. "Franklin, the beacon star of his profession, was a practical printer." And Washington, whose "fame is eternity," when not in the service of his country, was engaged in agricultural persuits; and he received the news of his election as President of the United States while following the plow. And shall it now be said that labor is disgraceful?—that to work is undignified, and is not indispensable to health and vigor of body and of mind? No—it is manly to labor, and for six thousand years God has been uttering it in human ears, that he who will not work shall not enjoy.

To Mark Names or Figures on Pears and Apples.—Cut a name, date, or figure on a piece of fine and thin paper, and wrap it around an apple or a pear on the side of the tree which is most exposed to the sun, about three weeks before the ripening time, and a very neat impression will be produced. On red apples it is necessary to cut out the letters on dark paper, and paste every one singly.

How sweet a thing is love of home. It is not acquired—it is a feeling that has its origin elsewhere. It is born with us—brought from another world to carry us on with joy in this. It attaches to the humblest heart that ever throbbed.

## Have we not Just Cause of State Pride?

We clip the following from one of our state papers. Six years ago, on returning East from a visit to Wisconsin, we said of this new State,—We found it a beautiful country—we believed it would be a great country—greater than it now is, when its resources come to be developed. It has a healthful climate—a rich, productive soil—an enterprising industrious, and intelligent population—possesses exalted commercial advantages, and it must advance rapidly in wealth and prosperity. Is not our prediction more than verified in the short space of time that has elapsed? Truly, "have we not just cause of State Pride?" In all the essential elements of greatness, our State is 'inferior to no State in the Union.'

It has been remarked that nothing more clearly indicates the educational character of the people, than the post-office returns. An intelligent people correspond freely, take newspapers, magazines, &c.—thus showing by the most substantial evidence, that they must have food for their minds with the same regularity as for the physical wants. The Post-Office returns of receipts for the year ending June 1848, exhibits a state of things, which seems absolutely wonderful. Here is a table compiled from an official source, comparing the *receipts* in Wisconsin with every other State which it exceeds:

| | *Receipts for Postages.* | | *Paid for Tansportation.* |
|---|---|---|---|
| N. Hampshire | $40,679 69 | N. Hampshire | $25,560 |
| Vermont | 34,338 20 | Vermont | 26,563 |
| Rhode Island | 26,832 80 | Rhode Island | 9,187 |
| New Jersey | 39,586 50 | New Jersey | 58,930 |
| Delaware | 8,789 42 | Delaware | 7,862 |
| N. Carolina | 31,378 71 | N. Carolina | 172,520 |
| S. Carolina | 50,383 03 | S. Carolina | 118,157 |
| Georgia | 55,858 90 | Georgia | 153,001 |
| Florida | 10,883 06 | Florida | 45,193 |
| Michigan | 38,490 90 | Michigan | 38,211 |
| Indiana | 43,348 12 | Indiana | 52,439 |
| Illinois | 52,239 19 | Illinois | 102,485 |
| Missouri | 41,505 78 | Missouri | 49,720 |
| *Kentucky* | 53,632 42 | Kentucky | 89,581 |
| *Tennessee* | 37,987 06 | Tennessee | 55,298 |
| Alabama | 49,602 32 | Alabama | 136,499 |
| Mississippi | 33,773 35 | Mississippi | 58,451 |
| Arkansas | 9,568 62 | Arkansas | 39,996 |
| Texas | 8,245 58 | Texas | 24,102 |
| Iowa | 9.494 95 | Iowa | 9,722 |
| WISCONSIN | 56,703 08 | WISCONSIN | 15,043 |

*Wisconsin* has a population of only 300,000, and yet the receipts in this State exceed the revenues in States of over 1,000,000! of inhabitants. It will also be perceived that the *nett revenue* is still more in our favor.

It has been frequently remarked that the people of Wisconsin have a remarkable State pride.—We may ask, in view of these facts, if we have not cause for it. Few now doubt that Wisconsin is to be the Empire State of the Great West.—She resembles New York in no small degree, in her physical resources, and in the character of her population, she is inferior to no State in the Union.

## HORTICULTURE.

BY MRS. LYDIA H. SIGOURNEY.

If the admiration of the beautiful things of nature, has a tendency to soften and refine the character, the culture of them has a still more powerful and abiding influence. It takes the form of an affection; the seed which we have nursed, the tree of our planting, under whose shade we sit with delight, are to us as living, loving friends. In proportion to the care we have bestowed on them, is the warmth of our regard.—They are also gentle and persuasive teachers of His goodness, who causeth the sun to shine and the dew to distil; who forgets not the tender buried vine amid the snows and ice of winter, but bringeth forth the root long hidden from the eye of man, into vernal splendor or autumnal fruitage.

The lessons learned among the works of nature are of peculiar value in the present age. The restlessness and din of the rail road principles, which pervade its operations, and the spirit of accumulation which threatens to corrode every generous sensibility, are modified by the sweet friendship of the quiet plants. The toil, the hurry, the speculation, the sudden reverse which mark our own times, beyond any which have preceded them, render it particularly salutary for us to heed the admonition of our Saviour, and take instruction from the lilies of the field, those peaceful denizens of the bounty of Heaven.

Horticulture has been pronounced, by medical men, as salutary to health, and to cheerfulness of spirits: and it would seem that this theory might be sustained by the happy countenances of those who use it as a relaxation from the excitement of business, or the exhaustion of study. And if he who devotes his leisure to the culture of the works of nature, benefits himself—he who beautifies a garden for the eye of community, is surely a public benefactor. He instils into the bosom of the man of the world, panting with the gold fever, gentle thoughts, which do good like a medicine. He cheers

the desponding invalid, and makes the eye of a child brighten with more intense happiness. He furnishes pure aliment for that taste which refines character and multiplies simple pleasures. To those who earn their subsistence by laboring on his grounds, he stands in the light of a benefactor. The kind of industry which he promotes, is favorable to simplicity and virtue. With one of the sweetest poets of our native land, we may say,

"——Praise to the sturdy spade,
And patient plough, and Shepherd's simple crook,
And let the light mechanic's tool be hailed
With honor, which encasing by the power
Of long companionship, the labor's hand,
Cuts off that band, with all its world of nerves,
From a too busy commerce with the heart."

FACTS IN PRUNING.—The action of roots and that of leaves are reciprocal. If you diminish the quantity of foliage, you will proportionably lessen the increase of roots. If 100 represents the quantity of roots made by a tree with all its foliage, then 50, will represent the quantity of roots formed by a tree similar to the other, in every respect, except in having the production of foliage repressed, by whatever means, to the extent of one half. You will, therefore, perceive that by summer pruning, both roots and tops are equally reduced, and that what may be termed the balance of power between these, is still maintained. On the contrary, if you prune only in winter, the roots are in consequence but little affected, their increase for the season having been completed in the previous summer; and in the following season the whole amount of force exerted by the full complement of roots is brought to bear on a top limited by winter pruning, and this force is evinced by over luxuriance, which some remedy, by root pruning.

With regard to young spray springing from the ends of previously shortened shoots, it may be cut back to two eyes, in all cases. —*Linley.*

VALUABLE PURIFYING PROPERTY OF COFFEE.—Coffee is one of the most powerful means of not only rendering animal and vegetable effluvia innocuous, but of actually destroying them. A room in which meat in an advanced degree of decomposition had been kept for some time, was instantly deprived of all smell, on an open coffee roaster being carried through it, containing a pound of newly roasted coffee. In another room exposed to the effluvium occasioned by the cleaning out of a dung pit, so that sulphurated hydrogen and ammonia in great quantities could be chemically detected, the stench was completely removed within half a minute, on the employment of three ounces of fresh roasted coffee, while the other parts of the house were permanently cleared of the same smell by being simply traversed with the coffee roaster, although the cleansing of the dung pit continued for several hours after. Even the smell of musk or castorcum, which cannot be overpowered by any other substance is completely dispelled by the fumes of coffee; and the same applies to the odor of assafœtida.

It was remarked, however, that in general, animal effluvia are more readily affected by it than vegetable. That here an acidal neutralization, and not a mere evelopment of matter, takes place is shown from this; that the first fumes of the coffee are imperceptible, and continue so until a point of saturation so to speak, is reached, whereupon the obnoxious smell disappears, and that of the coffee predominates. The reverse happens with other aromatic vapors, and even with acetic acid and chlorine. Here both coexist until the one completely preponderates. The simplest form in which to use it against contagious matter is *in powder.*—The well-dried raw bean is to be pounded in a mortar, and to be strewed over a moderately heated iron plate until the powder assumes a dark brown tint. Coffeeic acid and the empyreumatic coffee oil, act more readily in a very minute quantity.—[*London Medical Gazette.*

THE LOWER CLASSES—WHO ARE THEY? The toiling millions, the laboring man and woman, the farmer, the mechanic, the artizan, the inventor, the producer? Far from it!—These are nature's nobility—God's favorites—the salt of the earth. No matter whether they are high or low in station, rich or poor in pelf, conspicuous or humble in position, they are surely the "upper circles" in the order of nature, whatever the fictitious distinctions of society, fashionable or unfashionable, decree. It is not law—it is the duty, privilege, and pleasure, for the great man and the whole souled woman, to earn what they possess, to work their own way through life, to be the architects of their own fortunes. Some may rank the classes we have alluded to, as only relatively low, and in fact, the middling classes. We insist they are absolutely the very highest. If there is a class of human beings on earth, who may

be properly denominated low, it is those who spend without earning, who consume without producing, who dissipate on the earnings of their fathers or relatives without doing anything in aid of themselves.

HENS.—As soon as the weather becomes cool, hens should be provided with some warm and comfortable place in which to roost. If they be incarcerated constantly, from the first cold snap till the opening of the ground the following spring, so much the better, provided that they have comfortable quarters, and a sufficiency of those alimentary matters which they require and obtain when at large. The better hens are kept, the more will they concentrate in the weight of the owner's purse, and if proper care be exercised in fitting up their quarters, supplying them with food, drink, &c., they will continue to lay during a good part of the winter, and be rarely assailed by disease of any kind.

If practicable, keep meat constantly by them; also lime, ashes, pounded bone and brick. Vegetables, uncooked—such as potatoes, cabbages, turnips, carrots and parsnips, are all much liked by the hen, especially when confined. By following this plan you will find your hens a source of profit, instead of an expense.—*Germantown Tel.*

A GREAT PRODUCT.—The Newark (New Jersey) Advertiser states that a farmer has raised this season on his farm at Clinton Place, in that vicinity, 603 bushels of white, or Belgium carrots to the acre—an amount of produce never exceeded in that climate.

VALUE OF ESTABLISHED PAPER.—John P. McJilton, former chief clerk, and Jos. Jones, assistant editor, have purchased one-half of the interest in the *Baltimore Patriot* for $30,000!

THE END OF A LONG SERVICE.—Henry Williams, postmaster at Fredonia, Tennessee has resigned his post, and the office has been discontinued. The late incumbent has held the same station for 57 years.

DAIRY COUNTIES.—In New York, some sections are known as dairy counties, and it is said that the farmers in those parts, *nett* more money for the year's labor, than in the best wheat-growing counties. Butter is always a cash article, and commands a more remunerating price than wheat or pork.

Provide properly for all domestic animals.

RICHES OF OTSEGO AND DELAWARE.—The Prattsville Advocate says:

"BUTTER–BUTTER.–One day last week no less than 208 butter wagons passed through our village; and one day this week as many more—making in two days 506. The average number of firkins was 20 for each wagon, making a total of 11,200 firkins of Butter. This multiplied by $12, the average value of a firkin of butter, amounts to the large sum of $134,000—and all from the dairies of Delaware and Otsego."

Shall we not have dairy farms in Wisconsin?—Under their influence, some of the so-called poorest counties in New York are becoming wealthy, and netting a profit to the farmer, when neither wheat nor pork raising will pay. It has been remarked that butter, during the revulsions of the last twelve years, changed less in price than any other article sold by the farmer.

## The Farmer's Song.

The plow! the plow! the ancient plow
Has torn the yielding sod,
Since first this world was given to man,
A heritage from God.

The plow! the plow! the dashing plow
That delves the heaving loam,
We follow free its breezy track
Beneath the sky's blue dome.

The plow! the plow! the glorious plow
Extends her smiling reign,
Upon the flinty mountain's brow.
And o'er the sunny plain.

The plow! the plow! the regal plow
Holds on its kingly sway,
Alike where royal turrets rise;
Or humble hamlets lay.

The plow! the plow! the conquering plow,
Unlike the conquering sword;
Has joyous life and beaming wealth,
On swarming millions poured.

Oh! ho! for help to drive the plow;
And break the flinty clod,
No longer starve in man's employ,
Come take your pay of God.

The Earth! the earth! the teeming earth,
God's store-house here for man,
We go to God's own bank and draw
Gifts from the generous land.

The Earth! the earth! the fair broad earth
Has locked within her breast,
Rich gifts for all the sons of men;
Awaiting their behest.

Labor, the key, God gives to man,
To bring these treasures forth,
We take God's key, and boldly come
To claim our charter's worth.

*Louisville, Ky.* S. W. D.

# EDITOR'S TABLE.

AN APOLOGY.—The first No. of the "Farmer" is not what we could wish and is issued under rather unfavorable circumstances. We are of course without the benefit of an Exchange List, and therefore have been obliged to select from whatever was within our reach. We trust however, that this *first issue* will not be found devoid of interest and instruction, and that it will be received as an *earnest* of better things to come.

WANTED.—Any number of Correspondents for the "Farmer." Will our Agricultural friends please give us in 'black and white' the results of their observations and experience, in any department of their profession, and accept our thanks? We are grateful to those who have remembered us in season for this No. and for promises of future favors. May many others be prompted to imitate so good an example.

AGRICULTURAL PAPERS.—The importance of well-conducted and liberally patronized Journals, devoted to the subject of Agriculture, cannot be too highly estimated. The Hon. E. NEWTON, of Ohio, in a recent Address thus sets forth their value:—

"Agricultural publications are the best and cheapest mode of obtaining information upon all subjects of husbandry.—They contain the experience and observations of the most scientific farmers in the country; the prospects of crops in all countries, and the conditions of markets; facts all important to be known and understood. I have been surprised to see how few are taken, and have often been told by farmers that they were not able to pay for them I can hardly appreciate the remark. Every one is able to pay for that which will immediately return to them a hundred fold. I believe that a single number of any of the publications, if thoroughly read, would be found to contain some fact, if adopted, that would more than pay for the year. By raising an extra bushel of wheat, it would pay for the year.

THE YELLOW FEVER.—We learn that this disease is rapidly spreading over the whole country—we know of a certainty, that it prevails to a considerable extent in our own State, and that many are down—no, not *down*, but *up* with it in this city. It seems to be mighty catching, and there are many—in the land many thousands—who would forsake all, leave home, wives, children, farms, workshops, and fly on the wings of the wind, and with telegraphic speed, to—the Lord knows where—and brave perils by sea and land, and all the hardships this side of death, to reach that "famous, fabled country," of which they have *golden* dreams: so completely does this fatal epidemic upset their brains and render them stark mad.

Now be it known, that a great way this side of California, even in Wisconsin, are vast mines of gold; and that the yellow ore, in coined eagles, may be had by *digging*. The busy plow and spade will turn them up; and they may glitter and jingle in every man's purse. And then we are to consider that there is that which is more than gold, more than 'gems from the mountain,'—CONTENTMENT; and that a moral life, temperate habits, industry and economy, the cultivation and exercise of the faculties of the mind, and a trustful heart, are the sources of real wealth, without which if a man had his house full of gold he would be poor indeed.

TOBACCO.—It is said that 100,000,000 lbs of this weed, are annually consumed in the United States; and that, too, at a cost to those who chew, or smoke or snuff, of $20,000,000.—What an amount of good might be effected by a judicious outlay of so vast a sum, which now is squirted from the mouth, blown from the nose, and converted into smoke and ashes; benefitting none, but positively injuring thousands. 'Why do ye spend money for that which is not bread?'

☞ A German Philosopher has made a most singular calculation in regard to the distances of the planets from the sun. He has constructed a table as follows:—

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0 | 3 | 6 | 12 | 24 | 48 | 96 | 192 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 4 | 7 | 10 | 16 | 28 | 52 | 100 | 196 |
| m | v | e | m | — | j | s | h |

The reader will observe that the upper line of figures begins with zero, and then goes on doubling each time, starting with the figure 3.

The constant quantity 4, is added to each of these numbers, and the results from addition show the representative distances of the planets, from the Sun, beginning with Mercury on the left. Observe the blank which occurs in the vacuity between Mars and Jupiter. It is between these orbits that it was thought a planet ought to exist, corresponding to the distance 28 and here the fragmentary bodies, (asteroids) or wrecks of a "shattered world," have been discovered. It will not fail to strike any one as most wonderful, the singular mathematical system, by which the Architect of the Universe has measured and ordained the position of the heavenly bodies.

TONNAGE OF AMERICAN SHIPS.—The tonnage in the United S. built during the year ending June 30, 1847 was as follows:

| | | | |
|---|---|---|---|
| Ships | 151 | Sloops and Canal boats | 302 |
| Brigs | 168 | Steamboats | 198 |
| Schooners | 689 | | |

Forming a total tonnage built that year of. . . 243,782,67 95

The returns which will be made for the fiscal year ending in June, 1848—

| | | | |
|---|---|---|---|
| Ships | 254 | Sloops and Canal boats | 547 |
| Brigs | 174 | Steamboats | 175 |
| Schooners | 701 | | |

Being a total tonnage built during the year of 315,075 5490, and an increase over the previous year of 54,342 82-95.

COMMERCE OF MILWAUKIE.—The Wisconsin gives the arrivals and clearances to and from that port for the navigable season of 1848, as 1087; of these, there was as follows:

| | |
|---|---|
| Steamboats | 410 |
| Propel ers | 147 |
| Barques and Brigs | 122 |
| Schooners | 408 |
| Merchandize landed at this port | 10,140 |
| Passengers do do do | 63,900 |
| Passengers' goods in barrel bulk | 65,400 |

This statement includes only such as have been inspected by Deputy Collectors, and consequently does not include a large number of lumber vessels running to that point, and several steamboats and propellers that landed and cleared in the night.

RAILROADING IN 1848.—The Railroad Journal, summing up the extraordinary influences of railroads upon the country, and upon the world, says, it may be safely estimated that the entire expenditure, within the last twenty-five years, in the projection and construction of railroads, will not fall short of one thousand millions of dollars, and that their influences in facilitating business, in reducing the expenses and time of travel, and in opening up new regions of country, has given an increased value to property of twice the amount, and yet their influences are only just beginning to be felt. We may add that within a month, two hundred and eighty-two miles of new railroad will be added to that already in use in this country. This addition is made up as follows: New York and Erie, 127 miles; New York and New Haven, 80 miles; Nashua and Worcester, 45 do.; Harlem, 30, do.; total 282 miles.

☞ Several meetings have been held in this County, for the purpose of discussing the propriety and utility of organizing, and of establishing, an Agricultural Society. We were prevented being present at the last meeting, and have not been informed of its transactions. That such a Society would be of great benefit, none can doubt.

WINTER.—To the admirer of nature, this season is one of interest. There is a kind of subduing energy in its reign, that fills the contemplative mind with holy thought, and carries it up to Him who holds the winds in his hands, and whose word the angry and sullen tempests obey. The loud roaring of its voice from the North—its coming in frosts and snows, binding the earth in "icy fetters," and scattering its frozen particles alike among the dwellings of man, and in the dreary and pathless forest, withering at its touch every leaf and herb, and holding in stern defiance the rebuke of the King of Day——in all this it speaks to him who hears, in a far deeper and more reverberating tone than that of the softer seasons of birds and flowers.

MESMERISM AND THE POTATO ROT.—A. Jackson Davis, the renowned Clairvoyant, and the author of "Nature's Divine Revelation," had recently revealed to him in vision, the cause and cure of the Potato Rot. His theory is by no means a new one, but like many of his 'Revelations,' very *old*, it being simply that the disease is induced by a superabundance of electricity, or a lost equilibrium in the surrounding elements. The remedy prescribed may be *new;* and for aught we know, infallible—let it be tried. It is this:—

"About the time the tops begin to be visible above the ground, put about a pint of iron filings, or cinders, or scales found about the Blacksmith's anvil, upon the place where the potato was planted, and is growing. This will absorb the superabundant electricity, and restore a balanced condition among the surrounding elements, which are engaged in decomposing the plant, and the decay will cease immediately."

COTTON CONSUMPTION IN THE U. STATES.—From an article in the New York Dry Goods Reporter, we learn that the cotton consumed in the United States during 1847-8 was not far from 480,000 bales, employing $80,357,130 capital; 101,250 operatives; 3,012,500 spindles, and distributing weekly in wages $363,214, or $18,887,128 per annum, and for all expenses, not including cotton, $491,785 weekly, or $25,527,820 annually. This interest produces 756,000,000 yards of goods, or 37½ yards to each individual.

WANT OF FRESH AIR.—The Hon. Horace Mann, in alluding to ill-ventilated school-houses, has these sensible remarks:

"To put children on a short allowance of fresh air, is as foolish as it would have been for Noah, during the deluge, to have put his family on a short allowance of water. Since God has poured out an atmosphere fifty miles deep, it is enough to make a miser weep, to see our children stinted in breath."

RESPECTABILITY OF EMPLOYMENTS.—A supposed difference in the respectability of employments of life, furnishes the occasion for divisions of Society, as ridiculous and odious as they are unjust. To sell tape and broadcloth, pills and pomatum, clams and crackers, or to retail law and divinity, is no more honorable than to hold the plow and delve in the earth for an honest livelihood.

THE FIRST PREACHER.—The *first* minister that preached the gospel in North America, was Robert Hunt, of the Church of England, an exemplary man, who came out in the same company with Capt. John Smith, in the year 1607. He was much esteemed as a man of peace, and was in many ways useful to the colony.

DUTY ON AMERICAN WHEAT.—After the 1st of February, 1849, the fixed duty on wheat in England is to be one shilling per quarter, or about three cents per bu; on flour it is to be four pence half penny ℔ cwt., or 9 pence ℔ bbl. of 200 lbs—equal to about eighteen pence ℔ bbl.

It has been eloquently remarked, that in the obscurity of the Cottage, far from seduction of rank and affluence, is nursed the virtue which counteracts the decay of human institutions, —the courage which defends the national independence—the industry which maintains all classes of the State.

WISCONSIN, according to Commissioner Young's Report, contains an area of 53,424 square miles, or 34,511,360 acres.—14,352,379 acres have been surveyed, and 1,344,000 acres, he estimates, will be surveyed this year. All the lands in the State have been surveyed, the plats of which were received in time, have been offered for sale, but there still remain unsold 28,863,763 acres.

All the reserved lead mineral lands, supposed to contain 'lead ore,' have been offered for sale at public auction, and but a small part sold as "mineral lands." The leasing system is abandoned, and the lands unsold are subject to private entry at $1 25 an acre.

Of 556 entries in the Mineral Point District in this State, of alleged fraud, 549 cases on examination have been confirmed, leaving only 16 cases to be adjusted, most of which will probably be rejected.

BRIDGING THE OHIO.—The Wheeling Times says that the work on the bridge across the Ohio at that place, is going forward steadily, and that by the first of May next it will be open to travel.

DURABILITY OF CEDAR.—At the head of one of the graves in the burial ground at "Old St. Mary's," Md., there stands a cedar slab, which, as the inscription indicates, was placed there in the year 1717. Notwithstanding it has been exposed to the weather for so long a period, it is still perfectly sound, and, if unmolested by desecrating hands, it will doubtless be standing when every man, woman and child that now moves upon the earth, shall have gone down to "darkness and the worm."

☞ We learn from the Prairie Farmer, that "by a census taken in August and the first of September, the population of the city, (Chicago,) was 20,023." The increase for the past year is supposed to be not less than 5,000! Hear that, ye men 'away down East!'

A MAMMOTH EAR OF CORN.—We have received an ear of corn, of the large yellow kind, raised on the farm of Mr. Josiah Smith, of Cape Giradeau county, which is fifteen inches long, has fourteen rows, averaging about seventy-four grains to the row, or 1,032 to the ear. The grains are generally well filled out.—*St. Louis Rep.*

☞ Common swearing argues in a man, a perpetual distrust of his own reputation.

# COMMERCIAL.

WISCONSIN FARMER OFFICE,
Racine, January 24, 1849.

The Sleighing continues fine, and our streets are crowded with teams. Wheat, Hay, Pork, Wood, and every other kind of produce pours in freely and makes business of every description brisk.

Prices continue firm; wheat 60@70 cents; 72 for some best sample winter.

Pork sells at $3,00@$3,25. Hay from $7@10. Wood $2,00.

Racine, January 31.

Receipts and prices about the same as last week's quotations. From 68 to 70 is paid for winter and 55 to 60 for spring. Pork continues in good demand at $3.00 to $3.50, according to quality.

Milwaukie, Jan. 31.

Receipts moderate yesterday, and prices without change.—Winter wheat 65@68, and occasionally 70 for extra samples; spring 55@60. Flour, steady, at $3.50 for best country brands. Land Warrants offering at $113, and in considerable request.

New York, Jan. 24.

Flour, a good business doing. Sales 2000 bbls at $5.50 for mixed, and $5,56@5.62½ for common and good; pure $5.87½ @6.00. Sales 2000 bushels wheat at $1.08@1.12½; Corn sales 8000 bushels at 57@59 for southern. Oats dull at 41@43c.

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

VOL. 1. RACINE, WIS., FEBRUARY 1, 1849. NO. 2.

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☞ The Farmer is subject to newspaper postage only.


## Agricultural Societies.

We believe that at this date Wisconsin has not a single Agricultural Society—no report at least, of the existence of one has reached us. Several meetings have been held in Racine county preliminary to the organization of such a Society, but as yet no organization has been effected. We trust, however, that the matter has not been abandoned, and that other and more efficient steps will be taken to further the contemplated object, and to complete what at one time was so well begun. We believe we speak the minds of the Farmers of Racine when we say, that this county needs and will have an Agricultural Society, and that right soon. Let a general movement be made to this end, and the work will be easily and immediately accomplished.

Of the great importance of Agricultural Societies—of their weighty bearing on farming interests and on all improvements in Agriculture, we scarcely need speak. Their utility has been more than demonstrated in other states; and their existence has been every where marked by an increase of thrift, enterprize and prosperity. In Wisconsin, whose agricultural resources have scarcely begun to be developed, and which has all the natural requisites in a superior degree to constitute it one of the first—if not the *first*—Agricultural States in the Union, there should not only be a State Agricultural Society, but also an auxiliary organization in every county so far as practicable. There is no good reason why, with the present amount of soil cultivated, and of labor expended, the amount of farming products in this state, should not be much greater than it now is. Let Agricultural Societies be formed, as suggested, stimulating to improvements, combining the experiences of hundreds in the several departments of their one pursuit, and furnishing mediums for mutual advice, counsel, instruction, and encouragement; and the profession of Agriculture would at once be elevated, and a blessed change would go abroad over our State, giving assurance of prosperity and wealth beyond what can now be conceived.

While men, engaged in other callings and pursuits, are combining their efforts, and associating themselves together in societies for mutual improvement and aid, and for the elevation and advancement of their own peculiar profession or occupation, let not our farmers remain behind, but catching something of the spirit of the age, let them too combine for their own advantage, and by mutual advice, counsel and effort, seek to promote the great art of Agriculture—"the most appropriate and important business of man—the basis of government and civilization." And while doing this, let them not forget or overlook the benefit and assistance to be derived from the Agricultural journals of the day, which communicate not merely the dry, dull outlines of Thoeretical Farming, but the practical details—the results of the observation and experience of farmers themselves, put down in their own right words, and *facts* gleaned by men on their own farms, and dug out of the earth by the hard hand of honest toil. This is what farmers want, and this want it is the design of these journals to supply. Having these, and forming themselves into Societies in every county, they are thoroughly furnished unto every work of the farmer.

TO CORRESPONDENTS AND READERS.—We thank our friends who have remembered us by their contributions in season for this No. May they continue in well doing. We are greatly in want of short original articles—will not our brethren try their hands at writing, and send us their thoughts and experiences?

Our readers will find much in this No., interesting and valuable. However, being issued so soon after the publication of the first No., we have had but little time to select, and therefore it is not what we would have been pleased to make it. We shall soon "catch up," and, having set our house in order, will have the time and the means to make such improvements as the wants of the FARMER demand.

For the Wisconsin Farmer.

## Growing Hemp.

Mr. Editor:—

In accordance with my promise in your first number, I proceed to give some information on the subject of raising Hemp.

To raise profitably, it should be sown on a deep rich soil, like the prairies of Wisconsin and Illinois, or the bottom land on our rivers. The land should be well ploughed and made fine. If to be sown for seed, only a small quantity of seed will be required, and sown in drills or hills; if the latter, it should be planted four feet apart, and 10 or 16 seed in a hill, covered one and a half inches.—The ground is thus to be kept free of weeds by plowing and hoeing. The plants are to be thined to five or six, when six inches high, and again, to three or four in a hill.—As soon as the plants are in full blossom, and the farina spread, the *males* or flowering plants are to be cut from each hill, that the female may come more direct to the sun. The seed ripens in September. The plants should then be cut with caution, and not jar them, as the seed will shell easy. When dry, take from the ground, set up in shocks like grain, and in one or two weeks, threshed, by whipping on a board on the ground, as it is too bulky to be removed for that purpose. The stems are of no use but to burn for ashes for manure. Seed should not be kept over, as it is seldom good the second year. The crop will be from 25 to 45 bushels per acre, and it is worth from $1,25 to $2,00 per bushel.

To raise for the lint, the ground should be well prepared, and the seed sown broad cast, and harrowed or plowed in, the latter part of April or first of May. About the middle of August, or as soon as the leaves begin to turn yellow, it should be mown with a short scythe. It should be evenly laid on the ground, and left from 6 to 9 days good weather, to dry. A shower does not injure it. When dryed, it should be tied up in sheaves, and put up in ricks like flax, to preserve it from moisture during the hot weather. The roof should be made of long hemp, after the leaves are taken off.

To dead rot, it should be spread in October and continue till snow falls. The hemp is sufficiently rotted when the stems lose their rigid appearance, and the fibres separate from the cellular tissue, and the lint to separate from the stalk. When sufficiently rotted it should be put into shocks of 150 to 200 pounds, and bound tight at the top to keep out rain. It should be broken and dressed out in frosty weather, being best, and completed before the warm spring weather. One hundred to one hundred and fifty pounds per day, is considered a fair day's work to a common break. In portions of our country where much is done at raising, improved machines are used for dressing, which greatly facilitates the preparing it for market. Seed sufficient to make the experiment can be had in town, and I hope some of our farmers may be induced to try it, as I have no doubt, by so doing they could double the value of their farm products. Much more can be said on the subject; particularly the method of water rotting, and preparing it for the use of the Navy. This method of preparing could, no doubt be made very profitable, as two hundred and eighty dollars per ton is offered for it, prepared in that manner, by our Government.

A Friend to the Farming Interest.

## Origin of the Prairies.

We find the following communication from a Wisconsin Correspondent in a recent number of the *Christian Advocate and Journal.* This theory presented, on the origin of our prairies, is undoubtedly a correct one—at least we adopted it a long time ago. If a more plausible and consistent one can be found, devised, originated, we would like it should be sent us. Will the writer, to whose article we call attention, please favor us with something from his pen, occasionally, for the Farmer. We will gladly give him room in our columns:

"My business, as a farmer in a comparatively new country, requires all my time and attention, and therefore I have none to spend in writing; but a piece in the late number of the Advocate, on the origin of our Prairies, has induced me to take up my pen to give my opinion.

"The commonly conceived opinion, that our vast prairies were once the bed of a lake, I conceive to be erroneous, for the following reasons. First, much of our Prairie-land is the highest and dryest land we have, and if there could be such a thing in nature as a dam sufficient to flow this elevated portion of land, the water would cover the universal world except the mountains. Second, if the prairies were once the bed of a lake, we would naturally expect to find the timber on the more elevated portions. On the contra-

ry, the timber is found generally on the lowest ground, and on the margin of the streams. Again, if such an extensive lake ever existed, on a corresponding level, we might find some marks of its original boundary. But as no such marks can be found, we must search for some other cause that has produced such a wonderful result. What then can be the cause of those fertile plains that often extend beyond our limited vision, and are only bounded by the horizon? From reasons that I have gathered from actual observation, I am led to conclude that the great West was once mostly covered with timber, and the timber destroyed by successive fires. It is evident that the prairies have been, for a long succession of years, making encroachments upon the timber. Evidence of this may be seen in the remains of timber far from the present growth. There are Basswood sprouts on my farm, where, no doubt, a tree once stood, at least five miles from where a tree of that description now stands. The timber bordering the prairie is mostly burr-oak, or that kind which can best survive the action of fire, which sweeps periodically over the Prairie country, and it is as much expected as the return of the seasons. The Prairie fires come oftenest from the west, and are driven along by a dry west wind; we, therefore, find most timber where such fires are arrested in their destructive course by streams running north or south. We therefore, find on the east side of the O. P. plain, the Fox, and other similar streams, extensive tracts of timber, while on the west side of such streams, the Prairie approaches the very margin. The process of the formation of a Prairie appears to be this: wherever an opening is made in the timber, by whatever cause, so as to admit the rays of the sun, a luxuriant growth of grass is the consequence; this grass furnishes fuel for the fire which kill the adjacent timber; and thus the prairies have been extended to their present limits.

There is another curious circumstance that may be interesting to some of the readers of your paper. I wish to confine my remarks to that district of country lying between the Fox and Rock rivers; especially on the head waters of those streams that empty into those rivers. Although we have no hills of any note, yet the county is divided into level and rolling ground, the rolling comprising much of the larger portion. On diging some eight or ten feet on the level ground, or Prairie, we come to loose sand and gravel, the water passing so freely through it, that a well cannot be sunk to any considerable depth. Much of this land, on cultivation, proves to be leaky, and will not bear cropping so well as that which have a more retentive subsoil. On digging in the rolling ground at various depths, say from ten to twenty-five feet deep, we come to a substance resembling blue clay, but upon being exposed te the action of the sun and rain, very much changes its properties and appearance; and I think it would make an excellent top-dressing manure, especially for grass. In this clayey substance, some thirty feet below the surface, is found cedar and pine timber, sometimes in a remarkable state of preservation. This timber, by some violent convulsion of nature, appears to have been split and rent into small pieces. Cedar and pine, in its natural state, is not found in this part of the country. I do not know of a pine within sixty miles of this place, and cedar is only to be found in a stinted growth on the banks of the large streams, similar to what is found on the banks of the Hudson. I cannot account for this singular fact, but by supposing this timber to be of antideluvian growth; that it was covered with earth by currents of water, that made excavations in some places, and deposits in others, at the time of the deluge.

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DIRECTION FOR COOKING VEGETABLES. Spinage should be nicely picked, and put into a stew-pan, with just sufficient water to keep it from scorching; when it has boiled for twenty minutes, pour it into a cullender, and strain the water off; put it into a stew-pan again with a piece of butter the size of a walnut, and a little pepper and salt; mince it up, and return it to a slow fire; take some pieces of light bread, toast them well on both sides, dip them in the water in which the spinage was boiled, lay the spinage on the toast and garnish with hard boiled eggs, and you will have one of the best spring dishes.

Asparagus should be tender; if not, the slower it is boiled the better. It should be put into boiling water, with a little salt, and boiled for a half an hour. It is better to boil it in a cotton bag, and, by the way, all house keepers should have cotton bags, for boiling vegetables in, as they are not only better, but save time in dishing. When done, have some toast ready, which dip in the water in which the asparagus was boiled. Then lay the asparagus on it, pour melted butter over it, and send to the table.

## Iceland Sheep.

The sheep of Iceland are of two kinds; the first, termed the native breed, is small, in color from dun to almost black; the second is larger, the fleece white, and supposed to have originated from more southern regions. The fleece of these breeds consists of hair externally, with a close thick layer of wool within, impervious to cold and wet; it is worthles for manufacturing, and is used for horse collars, and more or less is exported and appropriated to this purpose.

The principal peculiarity about the native sheep is the number of their horns, many individuals having four and five, and instances have been known of eight. These hardy animals propagate without the care of man, and seek refuge from storms among the caverns of the coast during the winter season.

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THE TOMATOE.—Thomas Jefferson Randolph, in an address before the Agricultural Society of Albemarl county, Virginia, lately delivered, stated that Mr. Jefferson could recollect when the tomato was cultivated as an ornament to the flower gardens, called love apple, and deemed poisonous. It was eaten by but one individual, a foreigner, whose peculiar constitution, or the formation of whose stomach, was supposed to resist its deleterious effect.

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Waste not particles of time.

SUCCESSFUL CULTURE OF TURNIPS.—It is a fact familiar to most farmers, that when the soil is heavy, newly cleared land is finely adapted to the raising of the common flat turnip; but that after a few years, this quality seems to disappear, owing chiefly, as is generally supposed, to the ravages of the turnip fly.

A farmer in the western part of the State, entirely obviates this difficulty, by a very simple expedient. His farm is a heavy fertile soil, and tho' well adapted to most farm crops, it appeared to be entirely unfitted to the turnip like all others of a similar character. The successful mode he has adopted is as follows:

After having ploughed his ground, and reduced it to a fine tilth, he spreads over the surface several inches of old straw, which is suffered to lie a few weeks. Just before sowing time, it is burned, the surface is harrowed, the seeds sown and brushed in. In this way he uniformly obtains the finest crops. He ascribes his success to the destruction of the insect by fire; but whatever may be the cause, the practice is well worthy of trial by all possessing land of a similar character.—*Albany Cultivator.*

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TOMATO WINE.—At the recent Fair of the American Institute, two excellent bottles of wine made from Tomatoes, were exhibited. It is said to be without a particle of alchohol in it.

For the Wisconsin Farmer.

## Agriculture in Wisconsin.

Mr. Editor:—In the October and November numbers of DeBow's Commercial Review, published at New Orleans, I noticed an article, purporting to be an analysis of some papers received by the Secretary of the Treasury, in 1845, from various portions of the Union, in compliance with a request contained in a circular issued by the Secretary, and directed to the Commercial, Manufacturing and Agricultural Interests of the country, to transmit Statistical information upon those important branches of Industry, to the Treasury Department. In the portion of that article relating to "Agriculture in Wisconsin," there is, I conceive, a gross and palpable error.

The editor says there were various answers received from Wisconsin at the Treasury Department, in which it was stated, that the nett profits of Agriculture, in this State, did not, in 1845, amount to more than *three per cent*, upon the capital invested upon the best lands; while in South Carolina they amounted to 8 per cent; in Georgia 12 per cent; Alabama 3 per cent; Ohio from 4 to 6 per cent; Illinois from 2 to 4 per cent; Missouri 5 per cent, and Louisiana from 7 to 10 per cent.

These statements, however, were made in 1845, to the Treasury Department, at Washington, and *may* be correct, but we may certainly arrive at a correct conclusion, in relation to this matter, by obtaining particular statements from practical Farmers.

I hope, therefore, that those interested in the Agriculture of Wisconsin, or, at least, some of them, in different portions of the State, will give the editor of the Commercial Review an opportunity to correct the error into which he has fallen, and the public the benefit of their experience, through the columns of your valuable paper.

I assume that the editor of the Review, or those who have reported to the Treasury Department, have fallen into an error; because I believe that the Agricultural Department of industry, in our State, is a source of equal profit with the same branch of industry in either of the States mentioned above.

I could mention many instances, in which the profits of particular farmers have, during the past year, far exceeded the highest rate of profits mentioned by the editor of the Review, for any of the States; but, as it might not be considered the proper manner to arrive at a correct conclusion, I would prefer to be governed by the opinions of others who are engaged in that branch of industry.

As a citizen of Wisconsin, I do not feel disposed to yield the palm, in point of agriculture, to any other state in the Union, without an effort to obtain it. I believe we need not yield it, if the age of our State, and the many disadvantages under which the inhabitants of a new country are obliged to labor, are taken into consideration, and, if our Farmers will exert themselves to increase the amount of their productions, by improving the means which are already in their hands for producing the result.

Our land cannot be excelled, in point of productiveness, by any State in the Union. Our population, in industry, economy and perseverance, find an equal only upon the rugged hills of New England, which, indeed, a large proportion of our agricultural population—the bone and sinew of every land—claim as their native soil. The health of our State, especially the Northern portions of it, has, thus far, been exceedingly encouraging, and our climate is favorable to the most profitable productions. Time alone can unfold our destiny as a State. A few years have already accomplished what requires ages to accomplish in the countries of the Old World.

Cherishing a hope of seeing, ere long, some statistics of Wisconsin Agriculture in the columns of the Farmer.

Very respectfully, Solomon Lombard.

Greenbush, Jan. 15, 1849.

For the Wisconsin Farmer.

## Farming.

Farming, like every thing else, has its advantages and its disadvantages. A farmer is the most *dependent*, and the most *independent* man in existence. This may seem paradoxical, but it is true nevertheless.

With farming, as with every thing else, judgment, prudence, and economy are requisite to ensure success. To a person who possesses these, an agricultural life brings the pleasure of independence with all the charms of variety. To such an one, the fluctuation of trade, the rise and fall of stock, or rumored bank suspensions have but little terror; he does not hate a lawyer, neither is he afraid to look a constable in the face; life has charms for him which it has

not for others. He does not dread the seasons but welcomes their approach. He is not afraid of being behind-hand with his crops; being overtaken by an early frost, or disconcerted by a premature spring. Nature to him is dressed in smiles—she does not seem to be always prowling on him; he welcomes every change of the seasons, being always well prepared for their coming.

But with some it is far different—they are never contented—every thing is adverse—this rain came at the wrong time—that frost came too early—there was too much heat this summer—too much cold this winter—and so it is, nothing is right. No matter whether the sun shines, nor whether the clouds drop rain, snow, or hail—whatever description of weather presents itself, it is always wrong. Again, the cattle of a neighbor are always breaking into their fields; their own cattle are helping themselves to corn at home, or mischievously plundering their neighbor; and in this way they are continually in trouble. Such farmers lead a wearisome, restless, unsatisfied life.—Whatever of change may come, they are never prepared to meet it—in the hurry of harvest they will be wholly dependent on the assistance of their neighbors—they will always be borrowing, never have any thing done in season—in fact they will never do any thing until obliged to, and then only imperfectly for the want of time.

It is true there may be changes of season, which no one can guard against, and because of which all may be losers; but it is not of such that I speak.

These evils are not irremediable. Those who are in such a situation may yet retrieve their affairs. To those who wish to do so, I would say, and in fact to all, that there is nothing more important in the management of a farm, than *order*. Never undertake to do but *one* thing at a time, and that do *well*. Lay down a plan of the work that needs doing the most, and finish it before you leave it. Never put off till to-morrow what can be done to-day; delays are proverbially dangerous, and to none more so than to farmers; never exceed you means by attempting to cultivate more than you well can, in due season—never contract a debt, unless you have an unfailing resource to apply to—and always do unto your neighbor as you would wish to be done unto.

There are few but have some leisure during the evenings; let them keep a memorandum of their work, their household expenses, cost of labor, &c., and balance with the income arising from sale of produce. This begets regularity in their business and keeps them always informed of the exact state of their affairs. I do not see why it is not as important for a farmer to know his profit and loss as it is for the merchant.

The farmers of this section of country have some advantages peculiar to this part alone. Cleared land is one advantage—that is, the prairie—the land is at once broke up, and put in cultivation—they are not under the necessity of waiting years for the land to be cleared at an expense of ten or fifteen dollars per acre.

There is another advantage, but which is rather prospective than otherwise, derived from the geographical situation of the country. When the successful navigation of the St. Lawrence is accomplished, freights will be transmitted from our wharves, directly to Europe. But even now there are advantages derived from the vicinity to the lakes which are possessed by but few other parts of the country.

Méntal improvement is as much a desideratum to the farmer as to any one. There is no knowledge but is useful and valuable, and there is no man at the present day but can afford to take a paper and *pay* for it.—There is often as much valuable information derived from one paper as will pay for a year's subscription; without taking into account the mental improvement, amusement and instruction combined, which its pages afforded.

Let men once apply their minds to investigation and thought, this very exertion will arouse dormant faculties, and make them rich indeed. JOHN D. COLE.

Yorkville, January, 1849.

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GREAT DAIRY FARM.—One of the greatest dairies in our country, is that of Colonel Meacham, of Pulaski, N. Y. His farm consists of 1000 acres, 300 which are devoted to grass; and he keeps 100 head of cattle, and 97 cows. In one year he made 30,000 pounds of cheese, 20,000 lbs, of which sold at one time, in New York, for from six and a half to 7 cents per pound. He feeds his cows mostly on hay and carrots; of the latter he raised 2000 bushels, and gives each cow half a bushel per day. And beside the benefits derived from his grass for his stock, he gathers no less than 300 bushels of grass seed.—*Patent Office Report.*

For the Wisconsin Farmer.

## Soils and their Analysis.—No. 2

BY P. R. HOY.

We will adopt the following rough, and very simple short analysis; which will enable you to form a correct judgment of the principal, and most important qualities of the soil. By this method *farmers*, and country gentlemen *as well as chemists*, may obtain results sufficiently accurate for practicle uses. Take your *calcarious* sample (No. 4.)—dry before the fire or in the sun, until it is as dry as soil on the surface, in Summer, where exposed to the sun—that is until it feels quite dry to the *touch*—rub between the fingers till evenly pulverized; weigh *precisely* 1000 grains, put it on an iron plate or clean shovel, and place in an oven or over a gentle fire—drop in some bits of white paper;—keep stirring constantly—let it remain until the paper begins to turn *brown*; it ought to take at least one half hour. You must not allow it to burn; your object being merely to expel all moisture without burning. When thus perfectly dry, empty on a clean sheet of paper, be careful, raise as little "dust" as possible. I may as well remark here, that in your stirring, weighing, and all other manlpulations, waste not a particle that can be avoided, be minute and precise. Weigh accurately—it only weighs 876 a loss 125 parts, which is the *moisture* this soil is capable of retaining after it *appears dry*. The great *absorbent* quality,—(a very important item,) of this soil is a considerable indication of its fertility—taken as a general rule, the greater the absorbent power, the better the land. A stiff clayey soil is an exception; it being frequently as retentive of moisture as fine *loam*—this must be remembered. Note down on a slip of paper—*waste of absorption* 125. Next, rub through a fine sieve, (such as are used for sifting meal will answer) what remains on the sieve is fine gravel and small stones. When there is vegetable matter, entirely undecomposed, it will be separated in sifting; in such cases, you must "pick" it out and weigh, or weigh all that remains on the seive, and burn out the "woody" fibres. What it loses in weight will be the *undecomposed vegetable matter*—in the "sample" under analysis we have *none*. You must not separate the "lose stones" and vegetable matter, before the *water of absorption* has been tested, for these substances are often highly retentive of moisture, and increase the fertility of the soil. We have 50 grains of small "pebbles"—let us examine these, to ascertain whether they be *silicious* or *calcarious*—if silicious they will appear "flinty," and cannot be scraped with a knife—if calcarious they will effervesce with acid,and if common slate stones they can be cut with a knife and will not effervesce. You perceive we have here about an equal quantity of 'lime' and 'flint' stones. Make your entry *silicious and calcarious gravel* 50. (If you wish to be more minute, in ascertaining the amount of lime, in the coarse sand and gravel, you must pound the whole to dust, and dissolve out the lime with diluted acid in the manner I shall direct, when we come to ascertain the amount of lime in the sifted soil.) Now replace the remaining 825 grains of fine sifted matter, on your shovel (previously heated *red hot*) and burn it thoroughly over a hot fire, until every thing combustible is *burnt out*—this will take from fifteen to thirty minutes. Again weigh—just 715.—We have burnt off 110 grains which is nearly all organic. Care must be taken in inspecting the soil to ascertain whether it is *peaty* or full of rooty fibres for in such cases the organic matter is not in a suitable condition to nourish vegetation; in this soil it is mostly decomposed—converted into what Libeg, and most chemists call *humus*, (Berzelius and Dr. Dana, call the same substance *geine*) and in a suitable condition for vegetable use—note down—*humus* 110. Next, put the remaining 715 parts in an earthen bowl or Wedgwood mortar, pour over it two or three ounces of *diluted* muriatic acid—equal parts rain water and acid—stir it well and let it stand twenty-four or forty-eight hours,—occasionally give it a stirring—by this all the lime will be dissolved; pour off the clear liquid—avoid riling it up in the least—add more water, stir and let stand till it again settles, pour off—repeat two or three times; by this process the lime will all be worked out. If upon applying the *acid** to the original specimen, as directed in the former number, if no effervescence occur, this last process may be omitted, for there is no *carbonate* of lime where there is no effervescence. You may be surprised to see so little effervescence, when the dilute

*Nitric, Sulphuric, or any of the strong acids will produce similar results, but not so certainly as the muriatic. Any acid that will unite with lime, and liberate the carbonic acid gas, (on the escape of which the effervescence depend) will of course produce this phenomenon.

acid was poured upon the soil in the above process; this is owing to your having expelled the most of the *carbonic acid*, by the *heat* necessarily employed to *burn* off the organic matter. All the *lime* however, still remains, but in the form of an oxide, (commonly called *quick lime*) instead of the carbonate. Throw the whole on blotting paper to drain, then dry on a hot shovel, and weigh. You perceive our 1000 grains have dwindled down to 565. We have washed out 140 grains which we will set down as "*salts of lime*;" this is not quite true, for there is probably a small quantity of "*iron*, *potash* and *magnesia*, but for most practical purposes this may be regarded as "salts of lime." Now if we get the proportion of sand and clay in what is left, we shall have pretty near the facts of the soil under analysis. The way we shall accomplish this is to throw the remainder in a pint of rain water, let it stand a few hours to soften, then stir well up and let the *sand settle*, the fine clay will be suspended in the water. Pour off this *muddy* water, taking good care to pour off *no sand*; throw more water in, stir well up and pour off as before. Repeat till the water no longer becomes muddy—the object being to get rid of every thing left but the sand—after thoroughly washed, throw it on a hot shovel to bake of the moisture. The dry sand weighs 465—we have washed out by the last process 100 grains of *clay*. Now we can finish our notes—*alumina* 100, *silicious sand* 465.

INCOMBUSTIBLE WASH.—Slack stone lime in a large tub or barrel, with boiling water, covering the tub or barrel, to keep in all the steam. When thus slacked, pass six quarts of it through a fine sieve. It will then be in a state of fine flour. Now, to six quarts of this lime add one quart of rock or Turk's Island salt, and one gallon of water; then boil the mixture and skim it clean. To every five gallons of this mixture, add one pound of allum, half a pound of copperas, by slow degrees, three-quarters of a pound of potash, and four quarts of fine sand or hard wood ashes, sifted. This mixture will now admit of any coloring matter you please, and may be applied with a brush. It looks better than paint, and will stop small leaks in the roof, prevent the moss from growing over and rotting the wood, and render it incombustible from sparks falling upon it. When laid upon brick work, it renders the brick impervious to rain or wet.—*Emigrant's Book.*

## Fruit Trees.---No. 1.

There is no part of Agriculture, so much neglected by the People of Wisconsin, as the growing of fruit trees. One may travel through the length and breadth of the State, and will seldom see places, where much attention has been paid to this branch of farming; even where settlements have been made for the space of ten years, and more.

There are causes why the raising of fruit trees have been so much neglected; one of which, is the great excitement which has, and does still prevail, to a great extent, in respect to the growing of wheat and other grains. This excitement has grown out of the necessities of the people. Most of the farmers having come to this country with barely sufficient means to purchase a piece of land; hence in order to make the necessary improvement of their farms, they were compelled to turn their attention to the growth of those products which would yield them the quickest returns.

But this time is nearly past, and farmers can now turn their attention to other branches of agriculture. And first, the culture of fruit trees should have their earliest notice. Every farmer should engage in the cultivation of fruit, at least so far as his own wants may demand, if no more. And that a nice little revenue may be derived from this branch of industry is quite certain.

In looking over the report of the Secretary of the New York Agricultural Society, to the Commissioner of Patents, it appears that from four towns in Oneida County, 15,000 barrels of apples were shipped, to various parts, in 1847, averaging from sixty-two and a half cents, to one dollar per barrel nett. And in 1845 one individual picked and sold over one thousand barrels, which brought him over one thousand dollars. This orchard contains about six acres, a large portion of the trees grafted. (See Patent Office Report, 1847, page 363.)

Now if such a revenue can be derived from the culture of the apple in the State of New York, why cannot the same revenue be obtained in Wisconsin, with the same care and attention, when the climate is the same? To what better purpose could the farmer put six acres of his land, than to the cultivation of the apple? Nor does the fact of there being fruit trees on the ground, prevent him from raising a crop of any of

the cereal grain, thus giving him a double revenue from the same number of acres.

In cultivating the apple, success will always attend the labors of the farmer, if he manage judiciously in the selection of the soil, position, and a proper attention paid to choice fruit. In my next number I will make some remarks on the soil, location, and treatment necessary to the growth of apple trees.

H. H. W.

Racine, January, 1849.

RIPE BREAD.—Bread made out of wheat flour, when taken out of the oven is unprepared for the stomach. It should go through a change, or ripen, before it is eaten.—Young persons, or persons in the enjoyment of vigorous health, may eat bread immediately after being baked, without any sensible injury from it; but weakly and aged persons cannot, and none can eat such without doing harm to the digestive organs.—Bread, after being baked, goes through a change similar to the change in newly brewed beer, or newly churned buttermilk, neither being healthy until after the change.—During the change in bread, it sends off a large portion of carbon, or unhealthy gas, and imbibes a large portion of *oxygen*, or healthy gas. Bread has according to the computation of physicians, one fifth more nutriment in it when ripe than it has when just out of the oven. It not only has more nutriment, but imparts a much greater degree of cheerfulness. He that eats old, ripe bread will have a much greater flow of animal spirits than he would were he to eat unripe bread. Bread, as before observed, discharges carbon and imbibes oxygen. One thing, in connection with this thought should be particularly noticed by all housewives.—It is to let the bread ripen where it can inhale the oxygen in a pure state. Bread will always taste of the air that surrounds it while ripening; hence it should ripen where the air is pure. It should never ripen in a cellar, nor in a close cupboard, nor in a bedroom. The noxious vapors of a cellar, or a cupboard never should enter into and form a part of the bread we eat. Bread should be *light, well baked and properly ripened*, before it should be eaten.

Bread that is several days old, may be renewed, so as to have all the freshness and lightness of new bread, by simply putting it into a common steamer over a fire, and steaming it half or three quarters of an hour.

## Potatoe Rot Again.

In the first number of this Journal, we had an article on the above disease, in which we noticed some of the theories that had been started with reference to it, but which on experiment had proved to be unsound. Since writing that article we have been presented with another solution of the difficulty by a friend—another theory as to the cause and cure. He says that the disease owes its existence to the absence of potash in the potatoe, which is lacking in all diseased grain and vegetables that contain starch, when healthy. An analysis gives some support to this theory. The ashes of a burnt potatoe, when analysed, have been found to contain the following ingredients:

| | | |
|---|---|---|
| Sicica, | 100 parts, | 4,400 |
| Lime, | | 0,180 |
| Magnesia, | | 0,800 |
| Potash, | | 13,263 |
| Soda, | | 24,925 |
| Chloride of Sodium, (salt) | | 11,606 |
| Sulphuric Acid, | | 6,254 |
| Carbonic Acid | | a trace |
| Organic matter, | | 2,536 |
| Phosphates, | | 38,300 |
| | | 102,464 |

From this analysis it will be discovered that the alkalies, potash and soda, enter largely into the healthy potatoe—the abscence of either, to any extent, especially the entire absence, would be very likely to induce disease. The theory of our friend may therefore be true—it undoubtedly is true, if, as he says, potash is wanting in all diseased grain and vegetables. An analysis of the diseased potatoe would decide this at once.

The remedy recommended is this:—Take one bushel of slacked lime, three bushels of ashes, mix thoroughly; when dry, put one quart into each hill; finish planting by the fifteenth of May; and if convenient, the first time they are wed throw one spoonful of Plaster on the top of each hill. A very simple remedy and worthy of trial.

We would recommend to our farmers—as actual experiment must be the test—that they select the coming spring different parcels of ground, and choosing some of the most reasonable of the proposed remedies for the rot, make an application of them; taking care to note every thing connected with the preparation of the ground, planting, &c., and to make an accurate record of the results of the different tests. In this way only can we arrive at any thing definite with reference to the disease and its cure. And so important a place does the potatoe fill, as an article of food. that we ought not to consider any labor as uselessly expended, or any time as thrown away, which is devoted to its preservation and culture.

From the New England Farmer.

## Carrots and Ruta Baga.

The product of these crops is not so large in this State as to require much expense or pains in their preservation. An an acre of Ruta Baga or Carrots is, upon the whole, a large quantity for any one farm. As yet, our farmers, in the cultivation of roots for stock, are slowly feeling their way. We hope they will come right at last; and that small experiments will encourage them to extend the cultivation.—They will presently learn that for keeping stock, there are many much more profitable crops than English hay at a ton or a ton and a half to an acre; and by turning their attention to other crops, by which they will have it in their power to keep much more stock, they will increase their manure heaps, and in this way quadruple, in some cases increase ten-fold, the productiveness of their farms.

An acre in carrots may be easily made to yield six hundred bushels. In the estimate of an experienced and excellent farmer in Berkshire county, half carrots and half oats are as good feed for a horse as all oats; or rather to use his own expression, he would prefer one hundred bushels of carrots and one hundred bushels of oats, to two hundred bushels of oats for his horses. The experience of a distinguished farmer in England, in the practice of keeping eighty horses on his farm, and in his colliery, entirely confirms this statement. Now a bushel of carrots a day with chopped straw or salt hay, would, we have no doubt, keep a work horse in high condition, though it would probably be much better in the case to give him in lieu of so many carrots, some grain or meal. Half a bushel of carrots per day, however, at twenty-five cents per bushel, cut off from the allowance made above, would pay for an allowance of a peck of oats per day to a horse. Upon the supposition then, of his being kept in a stable six months or one hundred and eighty-three days in a season, an acre of carrots yielding six hundred bushels to the acre, supposing one half to be sold at twenty-five cents per bushel, and the money expended in oats at thirty-seven and a half cents per bushel, to eat with the carrots, would considerably more than furnish three horses with half a bushel of carrots each per day, and two bushels of oats per week, or more than a peck of oats besides the half bushel of carrots. Under this feed a horse would require a very little long feed of any kind to keep him in a good condition.

Now, on the other hand, suppose the horse has English hay, and if he is worked he ought to have as many oats as in the former case, besides, one horse will consume in that time, at twenty-five pounds per day, not less than two tons and a quarter, or the three, six tons and three quarters; and this can hardly be obtained from less than seven acres of land of ordinary yield. The horses will not in the next place, be by any means in so good a condition; and the manure made from this feed not half the value as that made in the other case.

This is, many will say, a remarkable statement, but it is well founded and not at all exaggerated. In other respects it deserves particular consideration. There cannot be a doubt of the advantages, to our animals, in respect to health and comfort, which the use of succulent vegetables in some proportions, would have over the dry feed, which we are accustomed in our present mode of keeping to give them in the winter season.

We might go on to speak of the green vegetables for stock in winter; the sugar beet, the ruta baga, the parsnip, &c. &c., but it does not come within our design to treat this subject more fully at this time.

Our intention now, was merely to speak of the mode of preserving these vegetables through the winter. We say then distinctly and emphatically, that neither ruta baga, nor turnips, nor cabbages, should ever, under any circumstances, be put in any considerable quantities in the house cellar.—The least decay produces an offensive odor and poisons the air of the cellar and of the house. Carrots and beets are by no means so bad, but they if placed in large heaps, are liable to become heated, and to decay; or otherwise to sprout, when their nutritive powers are of course lessened.

We have kept them well in several cases, and often known them kept well by others, by putting them in a field, thus: Take a dry knoll near where they were raised, dig a trench about a foot deep, lengthwise north and south; and of such width as you choose, and then after the tops of your carrots and ruta bagas are cut off, put them into this trench, piling them up as high as they will lay, in the form of a house roof—do this when they are dry; then put in a light layer of straw and cover it lightly with

dirt, piercing some holes in the top of the heap with a crow bar, to let off the steam; and so let them remain until the severe frosts are about setting in; then put on another covering of straw and a thick covering of earth, fastening up the south end with several bundles of straw, which can be removed at pleasure. They may be put up in heaps of one, two or three hundred bushels, or more as may be desired. They will keep well in this way, and in pleasant days they may be got at without inconvenience at any time as you may want them for your live stock. You must be careful to see that there is an escape for the steam after they are first put up, otherwise they may disappear without your suspicion, and very much to your chagrin. H. C.

EARLY TURNIPS.—As soon as the ground is dry enough, select a deep loam, and make a compost of—well rotted manure, 4 parts; good rich mould, 3 parts, and 1 part ashes; mix it thoroughly, then divide it into equal parts, spread one-half on your bed, dig it in, and pulverize by thorough raking; then spread the remaining half, rake that in, and then sow the seed, raking it in lightly, and finish by pressing the ground with a board, or garden roller The seed before sown should be soaked in tanners' oil) for 12 hours, drained and dried in ashes or plaster; (this is to secure the young plants from the fly.) Your seed being in, sow over your bed a mixture of equal parts of lime and ashes.—

CARROTS, PARSNIPS, AND BEETS.—To secure an early supply of these roots, you must sow and plant as soon as the soil is fit. Manure either with well rotted manure, or a compost in which there is no long manure. They each thrive best in a loamy soil.—The ground should be carefully and deeply dug, and thoroughly pulverized by repeated rakings.—Make your drills 2 feet apart, and drop the seed about 6 inches apart; cover and press the earth around them. Before sowing the carrot seed, rub them well between your hands and mix them with dry sand, to make them separate easily.

DISEASE AMONG CALVES.—A peculiar disease prevails in some portions of this valley among last spring's calves. They are taken with a swelling under the jaw, accompanied with the discharge of offensive matter from the mouth, and usually live but six or eight hours. Large numbers have already died.—*Watertown Chronicle.*

CARE OF SHEEP.—A "Practical Farmer," writing to the Germantown Telegraph, gives the following practical direction for the care of sheep:

An opinion prevails in some sections that sheep require no water during the winter, and that they actually do better without than with it. This however, is a great mistake, and one that not unfrequently gives rise to serious losses. When permitted, sheep, tho' they are capable, from their peculiar structure and habits, of subsisting a longer time, probably, without water than any other domestic animals, will drink from four to eight times a day, and with evident advantage, particularly during winter, when they are necessarily restricted to dry and indigestible food, which naturally engenders thirst, and requires much drink to render the economy of digestion and assimilation sufficiently rapid and perfect, to insure a continuance of thrift and health.

When practicable, there should always be a watering trough in a shed or yard, to which the animals can at all times have free access, without mingling with cattle or larger stock, as they are liable to be injured by the latter, especially when with young. When there is a pump in the yard, as there always should be, trouble attending such an arrangement is comparative slight, even where the sheep and cattle yards are, as they ought to be, distinct. From twenty-five to thirty sheep are as many as can be well kept in one enclosure. When the number exceeds this, unless special care be had to secure the most perfect ventilation, the animals are liable to contract diseases, and never do so well, as when confined in smaller flocks. On taking sheep from the pasture in autumn, the sudden change from green to dry food often operates detrimentally, which is sufficiently evinced by the loss of appetite and consequent emaciation evinced, and which is often attributed, erroneously to disease. As soon as they are taken from the ranges, a couple of messes of potatoes should be given them daily for a week or so, gradually lessing the quantity as they become accustomed to, and acquire a relish for other food. By adopting this plan, and allowing them a liberal supply of salt and water, their vigor will remain unimpaired, and the change rendered unavoiable by circumstances, will be productive of no unpleasant results."

He is happy who hath a friend at need; but he is more truly happy who hath not need of his friend.

OSTRICH FOWL.

## Poultry.

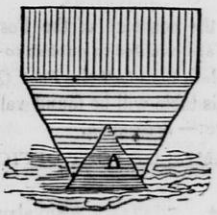
There are but few families—let alone the farmers—who might not profitably keep a *park* of hens at least, and thus be able at a trifling expense, comparatively, to furnish their own tables—and market too if there should be a demand—with fresh eggs, and fine, fat chickens. A park and all its appurtenances, or fixtures, could be furnished at a small cost, and scarcely any investment could be more profitably made. Farmers ought not to be without a park for their fowls—they are thus kept out of mischief and are a source of great profit; for if properly fed and cared for, they will yield more eggs, and be found generally in better condition than those that run at large. An enclosure constructed of long, narrow slats, containing a house of suitable dimensions, which shall answer the two-fold purpose of *nesting* and *lodging*, together with feeding apparatus such as every farmer can supply with his own hands, is all that is required. With this, if he do but manage aright, he may have his table supplied with that great luxury—fresh eggs of his own laying—the year round—aye, and have "a few left of the same sort" for his friends.

It is of the first importance to those who are engaged, or are about to engage, in the raising of poultry, that good breeds be selected. All varieties of hens have not the same *laying* qualities, nor the same qualities which would recommend them for the table. We have in this number of the farmer two specimens of the "Bucks County breed" more generally known as the "Ostrich Fowl." They are described as the largest of fowls, and it is said that from them the largest size eggs are obtained. The Editor of the "American Poulterer's Companion, thus speaks of them:—"The color of the cock is a dark blue-black, with the ends of his feathers tipped with white; wings tinged with a bright yellow or gold color; hackles dark glossy blue; rose or double comb, and wattles large; bold lively carriage and a stately walk. The hen does not differ much from the cock in color, and is very similar in form, being deep, short, plump, and thick set in body; legs short, of a medium size; she has a high, single, serrated comb, generally falling over on one side; wattles large.

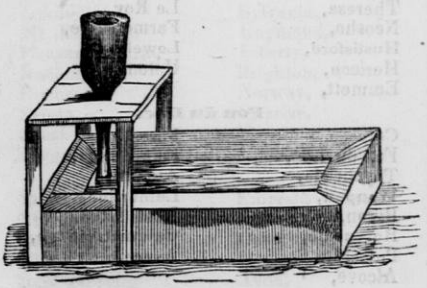
This breed has one peculiar quality which we have discovered. When first feathered they are very dark colored; the white tips of the feathers are very small, and on smoulting the white increases, and continues to increase with every successive moult until the white predominates. They are esteemed good layers, and for a large breed, good sitters and good mothers, the eggs large and nutritious; the flesh, unlike the Malay, white, firm, tender, and fine flavored. We consider them in all respects fully equal to the famous Dorking breed."

The above cut is a representation of a feeding apparatus, constructed by Mr. C. N. Bement, and for which he was honored with a diploma by the New York State Agricultural Society. He described it as being "four square, two feet each way --posts eighteen inches long and two inches square The upper section of the box is six inches deep, and the sides are morticed into or nailed to the posts. From the bottom of this square the slanting part or tunnel reaches to within half an inch of the floor, which should be six inches from the ground; the tunnel tapers from two to one foot; and in order to bring the grain within reach of the fowls, a cone (Fig. A is a section) is placed in the centre, as much smaller than the hopper as to leave half an inch space all around, which conducts the grain to the edge, where, as the fowls pick the grain away, more will fall, and keep a constant supply as long as any is left in the hopper. The slats on the sides prevont the fowls from getting in and crowding one another. This fountain will hold two bushels

or more of grain, and protects it from wet and in a measure from rats. It occupies but little room, and from sixten to twenty fowls can feed at the same time."



We have below, the cut of a simple contrivance for watering purposes, which every park should have, and especially every coop containing the hen and her brood. To construct it take "a piece of two inch plank, four inches wide and one foot long, scooping it out about one and a quarter inches deep forming a shallow trough like the figure; nail four strips of lath on the sides of one end of the trough, and on the top at a proper height nail the laths to a square board the same width as the trough; cut a round hole in the top sufficiently large to receive the neck of a champaigne bottle, allowing the nozzle to reach within one fourth of an inch of the bottom of the trough. When filled the neck of the bottle is set into the hole, and the water will run out until the trough is nearly full or above the nozzle of the bottle, when it will stop, and remain so, until the water is displaced in the trough, which will keep about the same height until the bottle is emptied."



Advice in Poultry Keeping.—The principles upon which I rely for success in keeping hens, are, first, to have two breeds—a few to hatch and rear the chickens, and twice the number of everlasting layers, as eggs are more profitable than chickens; second, to get a hatch as early as possible in spring, and to keep them well; these never cast their feathers like the old birds, and if they begin to lay in autumn, lay more or less all winter; third, never keep old fowls, (none but favorite fowls ought to be kept more than two years;) old birds lay larger eggs than pullets, but not near so many: fourth, to give them the best barley I could get, and as much as they could pick up, once a day in summer, and twice in winter; they are not only more profitable, well kept, but the eggs are better. The two breeds I like best are the spotted Dorkings for sitting, and the pheasant breed for laying.—*Agricultural Gazette.*

## Seasonable Hints.

It is of great importance now, as during the whole of winter, to be vigilant in keeping farm stook in good condition. Cattle should be kept as well fed, as comfortable, and as fat as in summer. Young cattle often lose as much in their growth by imperfect care in winter, as ten times the cost of good keeping over bad.

Cattle should be watered regularly—should have salt frequently—and if kept in stable, should be kept clean and well littered—if plenty of straw is used, it will make plenty of Manure.

When cattle are fed together, see that the strong do not oppress the weak—if any get into a bad condition, put them apart from the rest and give them extra food until they recover.

Hay, or straw, of inferior quality, used as cattle fodder, should be sprinkled with brine to make it palatable.

Calves, which at this season should be fatted for killing, should be kept very clean, and well and regularly fed.

Great pains should be taken to keep pigs in the best condition—otherwise their growth will be greatly impeded, and they will continue poor through half the summer, and their ultimate value much lessened. Proper keeping costs but little and saves much.

Care should be taken that cows are milked clean, the more so as the operation is more tedious in winter than at other times.—Want of attention in this respect will soon cause them to become dry, which in young cows is a lasting detriment to their value, as when dried too soon before calving, they rarely recover from the habit in subsequent years.

Apple trees may be pruned to advantage during the comparative leisure months of winter. By thinning the top—cutting out crooked and stinted limbs—the fruit is greatly improved in quality. The work is best done with a saw, and large wounds prevented from cracking and decaying, by applying a coat of a mixture of hot tar and brick dust. It is also a time for pruning hardy

grape vines, if not already done, observing to cut off the less thrifty branches and leaving a few of the most vigorous buds for growing. If done now, the wounds become dry before the bleeding season commences in spring, and all danger from that cause effectually prevented. There are many cultivators of hardy grapes, who lose much of the value of the crop, and obtain fruit of comparatively very inferior quality, by suffering their vines to become thick and stinted in their growth, thus greatly diminishing the size, quantity, and excellence of the crop.

There are many other things which should not be forgotten—such as repairing tools and farming implements—cleaning and oiling harnesses—drawing and cutting fuel to last through the summer—drawing materials for fences, &c. A day's work in winter will often save ten dollars in summer.

PREPARING MANURES FOR HOT BEDS.—Gardeners who intend to grow early vegetables by means of hot-beds, should commence making preparations for that purpose during the present month. The manure should be got together two or three weeks before it is intended to form the hot-bed, and thrown into a heap, mixing it up in such a manner, that it will ferment thoroughly. Fresh stable manure, containing a good proportion of litter or straw, is the proper kind for this purpose. The quantity required for a frame say 10 feet long and 4 feet wide, is about six good wagon loads, supposing the bed is made early in March. If the bed is not made so early, a less quantity will suffice.

NEW MODE OF GRAFTING.—Mr. Downing, of Newburg, N. Y., has recently introduced a new mode of grafting, the object of which is to test the quality of fruits raised from the seeds, in a much shorter period than is requisite in the ordinary way. His method is to put the top of a shoot from a seedling tree, when it is desirable to procure a specimen immediately, on the top, or shoots of a thrifty fruit bearing tree of middle age—the process being simply to take thrifty shoots of about one-fourth inch diameter, and cut them in a standing direction so as to detach about four inches of the top from the rest, making the line of an angle about one inch, the stock being cut in the same manner. The backs are then accurately united, and confined by yarn, or bass matting, and the whole covered with mud or grafting wax to exclude the air. It is confidently asserted that in this way fruit may be obtained in a short time, the operation being almost invariably successful.—*Olive Branch.*

# MISCELLANEOUS.

LIST *of all the Post Offices, &c., in the State of Wisconsin on the 15th January,* 1849.

Through the courtesy of the Postmaster, Mr. NOONAN, we are enabled to publish to-day, the following complete list of *all the Post Offices* in Wisconsin. This table will be found valuable for future reference:—*Wisconsin.*

NAMES OF POST OFFICES.

**Brown County.**

Bridgeport, Kankalan,
Depere, (ch) Menominee City,
Duck Creek, Cooperstown,
Green Bay.

**Calumet.**

Pequot, Stockbridge,

**Crawford.**

La Cross, Bad Axe,
Prairie du Chien, Springfield.

**Dane.**

Blue Mound, Cambridge,
Cotton Grove, Christiana,
Dane, Utica,
Pitchburgh, Stoughton,
Madison, Sun Prairie,
York, Verona,
Grand Spring, Dunkirk,
Rutland, Albion,
Deerfield, Prim Rose,
Middleton, Windsor,
Pine Bluff. Hanchettville,
Door Creek, Lake View,

**Dodge.**

Beaver Dam, Mayville,
Oak Grove, Chester,
Waushara, Burnett,
Theresa, Le Roy,
Neosho, Farmersville,
Hustisford, Lowell,
Horicon, Upton,
Emmett,

**Fon du Lac.**

Ceresco, Forest,
Fon du Lac, Fair Water,
Taycheeda, Auburn,
Waupun, Lamartine,
Byron, Rush Lake,
Rosendale, Calumet Village,
Pulaski, Avoca,
Alcove,

**Grant.**

Cassville, Patch Grove,
Fair Play, Platteville,
Hazel Green, Potosi,
Jamestown, Beetown,
Lancaster,

**Green.**

Decatur, Farmer's Grove,
Exeter, Judah,
Monroe, (ch) Albany,
Monticello, Magnolia.

**Iowa.**

Blue River, Willow Springs,
Dodgeville, Wiota,

Elk Grove,
Gratiot,
Mineral Point,
Ridgeway,
White Oak Springs,
Benton,
Linden,
Highland,
Mifflin.

**Jefferson.**

Aztalan,
Cold Spring,
Farmington,
Fort Atkinson,
Jefferson (ch)
Koskonong,
Lake Mills,
Palmyra,
Watertown,
Sullivan,
Bark River,
Oakland,
Ixonia,
Waterloo,
Oak Mills,
Concord,
Johnson's creek,

**La Fayette.**

Hamilton,
Shullsburgh,
Belmont,
New Diggings,
Argyle,

**Manitwoc.**

Meeme,
Manitowoc Rapids,
Manitowoc,
Twin Rivers,

**Marquette.**

Green Lake,
Tichora,
Rock Hill,
Bluffton,
Dartford,
Berlin,
Marquette,
Kingston,
Lake Maria,
Grand Prairie.

**Milwaukee.**

Greenfield,
Milwaukee,
Oak Creek,
Dallas,
Wauwatosa,
Granville,
Root Creek,
Franklin,
Butler,

**Portage.**

Grand Rapids,
Plover Portage,
Point Baussee.

**Racine.**

Bristol,
Burlington,
Ives Grove,
Lakeville,
Mt. Pleasant,
Pleasant Prairie,
Racine,
Rochester,
Salem,
Southport,
Tradwell's Grove,
Wheatland,
Yorkville,
Davis,
Sylvania,
Raymond,
Liberty,
Brighton,
Norway,
Quarles,
Fountain.
Caldwell's Prairie.

**Rock.**

Beloit,
Clinton,
Janesville,
Milton,
Summerville,
Union,
Warren's,
Rock Prairie,
Spring Valley,
Emerald Grove,
Fulton,
Osborn,
Rock Valley,
Avon,
Newark,
Teotsa,
Lima,
Bachelor's Grove.

**St. Croix.**

Falls of St. Croix,
Lake St. Croix,
Lapoint,
Still Water,
St. Paul,
Marine Mills,

**Sauk.**

Prairie du Lac,
Baraboo,

**Sheboygan.**

Sheboygan (ch)
Sheboygan Falls.
Green Bush,
Plymouth,
Gibbville.
Worth.

**Walworth.**

Darien,
Delavan,
East Troy,
Elk Horn (ch)
Fairfield,
Genoa,
Goodlett,
Heart Prairie,
La Grange,
Richmond,
Sharon,
Sugar Creek,
Troy,
Walworth,
White Water,
Spring Prairie,
South Grove.
Martinsville,
Bloomfield,
Troy Centre,
Lyons,
Little Prairie,

**Washington.**

Mequon River,
Meeker,
Washington,
Grafton,
Sackville,
Hamer,
Cedarburg,
Hartford,
Young Hickory
Toland's Prairie,
Polk,
Cedar Creek,
West Bend,

**Winnebago.**

Neenah,
Oshkosh,
Vinland,
Hawley's Corners,
Black Wolf,
Bloomingdale,
Waukau,
Groveland,
Taycoes Point,
Algonia.

**Columbia.**

Columbus,
Lowville,
Centreville,
Wyocena,
Fort Winnebago.
Marcellou,
Otsego,
Lodi,
Polk Prairie,

**Waukesha.**

Delafield,
Waterville,
Oconomowoc,
Hartland,
Brookfield,
Waukesha,
Genesee,
Marcy,
Monterey,
Merton,
Vernon,
Summit,
Monches,
Big Bend,
Howards,
Pewaukee,
Muskego Centre,
Ottawa,
White Creek,
Bullion,
Menominee Falls,
Mukwonago,
Muskego,
New Berlin,
Eagleville,
Lisbon,
Muskego Mills.

**Chippewa.**

Nelson's Landing.

A FARMER'S BAROMETER.—A writer in the Georgia Farmer gives directions for making a cheap Barometer to aid in foretelling the weather. He takes a stick three feet long, and attaches to the butt end of it a vial, full of air, of course, and corked tight. The stick is then suspended in a horizontal position, on a pivot, where it will readily turn,—say on a thread tied near its centre.

When a storm is coming on, the air outside, is lighter than that in the vial; of course the vial sinks and indicates a change in the atmosphere. Such a Barometer may be made in ten minutes, and some of our young philosophic farmers will incline to have Barometers of their own manufacture.

THE CRIB BITTER.—This small instrument is made entirely of iron and riveted firmly to the head-stall. It answers the threefold purpose, to prevent biting, crib biting, and wind-sucking. All of the foregoing are bad habits for horses, for which there is no effectual cure, but in adopting the use of the above implement.

THE DOLLAR.—Many a young mathematician would be puzzled to assign the reason why a dollar in sterling money is reckoned at 4s. and 6d., in New England, and Virginia at 6s., in New Jersy, Pennsylvania and Maryland at 7s. and 6d.; in New York, and North Carolina at 8s., and in South Carolina at 4s. and 8d.; but the explanation is this:—Under the Colonial Government, the several States issued bills of credit to supply the want of specie, and to answer a medium of trade. But as these bills were not received by the British merchants in payment for goods at their par value, holders of the bills had to pay more. Thus, in New York they had to pay in the bills of the States at the rate of 8s. for 4s. and 6d. sterling; and so in proportion for the depreciation of the bills in other States. The credit of South Carolina stood higher than of any other State, their bills being received at 4s. and 6d, a dollar. In this way was introduced a difference between the English sterling money and the currencies of the colonies, which remains still in the ordinary reckoning of the people.

The whole number of periodicals in the United States in 1775 was 38. They now exceed 3,000.

It is stated that about 350,000 hogs will be slaughtered at Cincinnati this season.—This is 100,000 less than last year.

## Report of the Board of Public Works.

We have only space for a glance at some of the leading statistics in this report, which was made to the Assembly on Friday last.

The first meeting of the Board was held in this place on the 19th of Sept. last. C. R. ALTON was employed as Engineer, and directed to procure the necessary assistance, and proceed at once to make the necessary surveys and estimates for the work.

Lands within the reserve, heretofore sold by the general government, in lieu of which other lands are to be located by the State, 98,370 acres of land.

The quantity of land within the Fox River reserve, surveyed and located thus far, is 123,988 acres.

Lands within the reserve, recently ceded by the Menomonees, and granted to the state, estimated from 75 to 80,000 acres.

Total number of acres, about 300,000.

Waste, of valueless, lands about 20,000 acres; leaving 280,000 acres of good land

Value at $1,25 per acre, $350,000.

To this available resource is to be added water-rents, which it is suppoed will be of some value when the work is completed.

The cost of the improvements of the Fox River, and the canal across the Portage, is estimated at $379.606.09. That is, suppose the canal lands to be worth all they are estimated at, it will require the whole, and some $50,000 in addition, to complete the improvements of this stream with the canal.

The Wisconsin river will be surveyed early next season, and it is beleived that the fund set apart for its improvements will be adequate to its accomplishment.

It is earnestly urged that the work on the line should commence and be vigorously prosecuted early in the spring. The lands, it is advised, should be immediately brought into market, and sold as fast as funds are required to advance the canal. When this is done, the opinion is expressed that in fifteen months' time, one hundred thousand dollars will be realized from such sales.

The principal and earliest improvements recommended to be made and the cost of each, are thus enumerated:

| | |
|---|---|
| Cost of Portage Canal, | $50,954 09 |
| Improvements of the Neenah above Lake Winebago, | 9,971 50 |
| Do. at the Rapids Croche, | 17,316 55 |
| Do. at Depere, | 16,443 29 |
| Total, | $94,685 43 |

It is estimated that the above works can be com-

pleted in one year from the commencement, and would at the end of that period open a water communication between the Mississippi and Green Bay, with the exception of about ten miles of land carriage from the foot af Lake Winebago to the rapids of the Grand Kakaulin, and some improvements on the Wisconsin.

The report presents a very favorable prospect for the completion in due time, of this important improvement. If the estimates made should prove correct, and the lands can be sold so as promptly to meet the expense, without calling for aid from the state, the legislature should at once authorize its commencement. We hope it may be done, and that the improvement may turn out to be a real bonafide canal, instead af a series of water-powers built at the public expense but retain and used exclusively for individual benefit.—*Madison Argus.*

National Convention.—There is to be a National Convention held in Baltimore on Tuesday the 6th of March, 1849—of capitalists, inventors, and amateurs of ingenuity and skill in the productive arts.

The objects of holding the Convention are:

1. To examine discoveries, and inventions, plans, and compositions of matters, &c.

2. To furnish true and original inventions, when required, with advice, the means of sustenance, materials, &c.

3. To purchase a library for the use of examiners and inventors, &c.

4. To establish a room for the exhibition of models, plans, drawings, &c.

5. To give counsel and advice (for a fee) to those who may desire information about machines, &c.

6. The establishment of a warehouse of machines, implements, manufactures, &c.

7. The establishment of workshops for the instruction of apprentices, &c.

8. The establishment of a school for the instruction of Mechanics, scholars, &c.

This brief summary will give an idea, though an imperfect one, of the objects proposed to be accomplished by the Convention, which are all laudable and will be attained, we hope.

Schools in Illinois.—Returns from sixty counties show that there are 2,002 schools districts; 2,317 schools, 1,565 of which are taught by males; total number of scholars 51,417; number of persons in the State under twenty years of age 200,639; amount of funds $1,404, 751 50; number of school houses 1,937. Wages of male teachers range from $20 to $12 per month; female teachers from $20 to $6,—*Chicago Journal.*

Triumphs of Labor.—And who can adequately describe the triumphs of labor, urged by the potent spell of money? It has extorted the secrets of the universe, and trained its powers into myriad forms of use and beauty. From the bosom of the old creation, it has developed anew, the creation of industry and art. It has been its task and its glory to overcome obstacles.—Mountains have been leveled and valleys exalted before it. It has broken the rocky soil into fertile globes, it has crowned the hill tops with fruit and verdure, and bound around the very feet of ocean ridges with golded morn. Up from the sunless and hoary deeps, up from the shapeless quarry, it drags its spotless marbles and rears its palaces of pomp. It tears the stubborn metals from the bowels of the earth, and makes them ductile to its will. It marches steadily on, over the swelling flood and thro' the winds of ocean, tramples its hoarse surges, and mingles them with flakes of fire. Civilization follows in its path. It acheives grander victories, it weaves more durable trophies, it holds wider sway than the conqueror. His name becomes tainted, and his monuments crumble; but labor converts his red battle fields into gardens, and erects monuments significant of better things. It writes with the lightning. It sits crowned as a queen in a thousand cities, and sends up its roar of triumph from a million wheels. It glistens in the fabric of the loom, it rings and sparkles from the steely hammer, it glows in shapes of beauty, it speaks in words of power, it makes the sinewy arm strong with liberty, the poor man's heart rich with content, and crowns the sweaty brow with honor, dignity and peace.—*Chapin.*

Wax for Grafting.—Many use wax composed of tallow, beeswax and rosin, mixed in different proportions. Much of this wax is so made as to be poisonous to the wood. Fat and grease of any kind are injurious to growing limbs, and it is believed that the less of these substances you make use of in your wax, the less will be the injury to the limb.

Clay mortar, with a mixture of manure, is better for the tree than any wax we have found. Try both and see if you find any difference.—*Massachusetts Plowman.*

The City of Portland.—The Portland Argus states that the population of that city has increased more than 20 per cent, since 1845, and that now exceeds 19,000.

# EDUCATIONAL.

## Education.—No. 2.

"What," says Michelet, "is the first part of Politics? Education. The second? *Education.* And the third? EDUCATION." Herein lies the sovereign remedy for social and national evils, the safe-guard of Republican Institutions, the glory of a people, and the hope of a world. It should be the prime business of a State to Educate; and it is a bad use—because not a legitimate use—which we make of Politics, when they are not promotive of, and have not a bearing on, this object, and are not conducive ultimately, to the attainment of this end. We would that there was a true and full perception of this in the minds of the American People. It is quite clear, we think, and the fact is forcing itself upon our attention, that it is too much sought by legislation, and by mere legal enactments to promote the interests of the country, and render permanent and secure its free institutions. There is pressing need that this great nation change its policy somewhat—in certain directions, at least—that it devote the millions of treasure, all along absolutely expended for nought, and to the detriment of great interests, in planting schools throughout the land, and furnishing the means of right Education to its entire population. There would then be fewer evils to entrench themselves across the path of its prosperity—evils which lie back of the outward form in which they manifest themselves—which have their origin primarily in the uneducated mind and heart, and against which our weapons of war, our many and severe laws, our stern and unpitying penalties, are powerless indeed.

We have spoken of *right* Education. Too much of that denominated Education would more appropriately rank under almost any other head. To *educate* signifies to *develop*—to *bring up.* But the process has by no means answered to the definition—not in every case, nor in a majority of cases.—There has not been a harmonious development of the whole being—a bringing up of the powers, and faculties, and energies toward the highest perfection of which they are capable. The whole *modus operandi* of Education, to a very great extent is sadly defective. It is not adapted to the Human Constitution. Man has a three-fold nature—a system of Education for man, therefore, should be three-fold—Physical, Intellectual, Moral. The whole being needs to be educated—to be trained, disciplined, improved.

There may be gathered from these remarks what we mean by right Education—that it is something more than "Rithmetic, Reading and Riting." And such an Education it becomes the imperious duty of a State to furnish, so far as its bountifully supplied means and agencies may be rendered effectual thereto, to all its members.

A nation or a State cannot more permanently advance its great and true interests, cannot more efficiently guard its institutions, and work out for itself an eternal weight of glory; than by the development of its intellectual and moral resources, through the agency of right education. "Wisdom is better than weapons of war." This nation may have its standing army and its powerful navy. It may have its strong fortifications scattered along the whole extent of its coast, and its walls of strength bristling with cannon at the mouth of every harbor. It may multiply its prisons, and dungeons, and scaffolds; and smite with its stern and vengeful penalties on the outward form of evil;—but these do not and cannot constitute its safe defences, nor can they guard securely its liberties.—There are foes against which these oppose no barrier whatever. They are those to which we have alluded, more to be dreaded than an invading army. They cannot be felled by cannon-shot, nor thrust through with the glittering bayonet. Chains cannot bind them, dungeons enclose them, nor scaffolds strangle them. They live, and thrive, and are most powerful amid these; and no mere physical force will ever be able to prevail against them.

We say, then, that upon right education depend the safety, prosperity and happiness of this vast Republic. In proportion as Ignorance and Spiritual Blindness prevail, every important institution is endangered, and the safety of a nation invaded. In the language of Horace Mann, "Remember, then, the child whose voice first lisps to-day, before that voice shall whisper sedition in secret, or thunder treason at the head of an armed band. Remember the child whose hand to-day first lifts its tiny bauble, before that hand shall scatter fire-brands, arrows and death. Remember those sportive groups of youth, in whose halcyon bosoms there sleeps an ocean, as yet scarcely ruffled by the passions which shall soon heave it as with the tempest's strength. Remember, that whatever station in life you may fill, these mortals—these immortals—are your care. Devote, expend, consecrate yourselves to the holy work of their improvement. Pour light and truth as God pours sunshine and rain. * * Learn only how the ignorant can learn—how the innocent may be preserved—the vicious reclaimed. Call down the astronomer from the skies—call up the geologist from his subterranean explorations—summon, if need be, the mightiest intellect from the council chamber of the nation—dissolve conclave and synod where subtle polemics are discussing their barren dogmas—collect whatever of talent, or erudition, or eloquence, or authority the broad

land can supply, and go forth and teach this people. For in the name of the living God it must be proclaimed, that licentiousness shall be the liberty —and violence and chicanery the law—and superstition and craft shall be the religion—and the self-destructive indulgence of all sensual and unhallowed passions, shall be the only happiness of that people who neglect the education of their children."

Common Schools have, with great propriety and truth, been denominated "nurseries of freemen." They are the mediums of General Education, "the attribute and glory of Republican America." In them men are qualified not only for a proper appreciation of their rights and privileges, and for the reception and transmission of the rich legacy bequeathed them by their patriot-sires, but also to sustain the weight of magistracy, to administer the affairs of Government, and to wield the destinies of the American Union. We are largely indebted to these Colleges of the People, for the success that has thus far attended the experiment of Republicanism, or of man's capacity for self-government; because they have not only trained men for the proper exercise of the right of universal suffrage, but have been instrumental in fostering genius in the first buddings of its promise, and aiding in the incipient development and growth of intellect, which through such aid. have towered aloft and become mighty, leaving behind them a track of glory which grows brighter with the lapse of years. Hundreds there have been, and are now, who have risen to the highest stations of honor and trust in this Republican land—whose familiar names we delight to mention, and whose well earned fame has gone abroad into all climes, attracting the attention of Thrones and Principalities—who were, and are, indebted to the Common Schools of the Country for the elements of their reputation and usefulness; and who, but for them, and our admirable system of Universal Education, might have lived in obscurity, and scarcely been known beyond the humble roof beneath which they were born.

## Teachers' Institute.

We find the following article in the WATERTOWN CHRONICLE. This is an important enterprize and should receive the attention of all friends of education, and especially those who wish to qualify themselves for useful teachers. Such an institution properly conducted is one in which teachers may not only receive instruction from the Principal, but from each other by an interchange of experience in teaching, manner of instruction, &c.

"It is proposed to open a Teachers' Institute at Lake Mills, on the 20th of next month. The project is a good one. We are soon to have an enormous school fund capable of giving every child in the state a thorough practical education. But how can this instruction be imparted without the aid of competent teachers? And how can teachers become better qualified for their station, than by going through a systematic course of drilling!

We call the attention of teachers to the proceedings of a meeting on this subject.

LAKE MILLS, Feb. 10, 1849.

"Whereas, the subject of education has received but little attention in our new state, compared with its vast importance; and whereas, we believe associated effort highly conductive to success in any enterprise:—

Therefore,

Resolved, That we recommend concerted action on the part of the friends and teachers of common schools in Jefferson county, as a means of elevating the standard of Common School education, and securing a more systematic and uniform method of teaching.

Resolved, That we have full confidence in the usefulness of Teachers' Institutes, and believe that their introduction into this county would have a direct tendency to elevate Common schools.

Resolved, That all teachers and those preparing to teach, are hereby invited to meet at Lake Mills Seminary on the 20th day of March next, for the purpose of attending a Teachers' Institute, to continue three days, and to organize a County Teachers' Association.

Resolved, That the exercises shall be—

First—Instruction in reading, geography, grammar and arithmetic:

Second—Discussion on the management of schools:

Third—A lecture each evening.

Resolved That the proceedings of this meeting be published in the Watertown Chronicle,

Rev. E. D. SEWARD, Ch'n.

The Hon. E. Root, State Superintendent of common schools, will be present during the session, and be one of the lecturers.

Persons attending the Institute will be accommodated by the citizens, free of charge.

☞The greatest difficulty in the education of children is the immorality of parents; for, unless they activley concur in this great work, every thing is vain and useless. The grand foundation of a good education is that parents teach their children none but virtuous principles and set them good examples.

A Western editor says that no man who has paid regularly for his newspaper, was ever known to be bitten by a mad dog.

## School Fund of Wisconsin.

Every child of Wisconsin, hereafter born will inherit a good and sufficient school education. The fund set apart for that purpose is most munificent. From a report on schools, recently made to the Senate by Col. PHILO WHITE, we gather the following statistics, showing its extent and probable value at the present time:

| | |
|---|---|
| No. of townships in the State | 2,200 |
| No. of school sections, the same | 2,200 |
| No. acres in these 2,200 sections | 1,408,000 |
| Add 500,000 acres ceded by Congress | 500,000 |
| Total acres | 1,908,000 |
| Estimated No. of acres in the surveyed portion of the State | 272,571 |
| Average value, at $3 per acre | $817,713 |
| Annual interest on the sum at 7 per cent | $57,239 |
| Add half that amount, to be raised by the people | 28,619 |
| Constituting an annual available fund of | $85,859 |
| Estimated number of children in the State between four and twenty years of age | 46,000 |
| Cost of giving instruction to the same during 7 months in the year | 80,002 |
| Leaving an unexpended balance of | $5,359 |

Here then is a school fund of nearly 2,000,000 acres of land! The present value in the surveyed portions of the State, at the moderate estimate of $3 per acre, is almost sufficient to educate every child. Many of these lands are now worth, and will bring, $15 per acre. With the rapid growth of population, the fund hourly increases, and we believe that an average of $5 per acre will in time be realized, for the whole fund, or $10,000,000.

In addition to the above, the Constitution sets apart

"The proceeds of all the lands that may hereafter be granted to the State by Congress for educational purposes—all moneys and the clear proceeds of all property that may accrue to the State by forfeiture of escheat—all moneys that may be paid as an equivalent for exemption from military duty—the clear proceeds of all fines collected in the several counties for any breach of the penal laws—five per cent of the nett proceeds of all sales of U. S. lands in our State—and all moneys arising from any grant to the State, where the purposes of such grant are not specified; to which the committee think might be added the 72 sections granted by Congress to the Territory of Wisconsin, required to be so located as to cover not more that twelve salt springs within her borders."

The university fund comprises 72 sections of the best land in the State, in addion to the above; thus, common schools, academies, normal schools, colleges, and a parent university, are all provided for. It now wants the selection of a man of expanded views and cultivated mind, as superintendent of public instruction, to put this great system in motion—a system of more consequence to Wisconsin than even her government.—The future must depend upon it for all it produces in our citizens valuable to the human race,—*Madison Argus.*

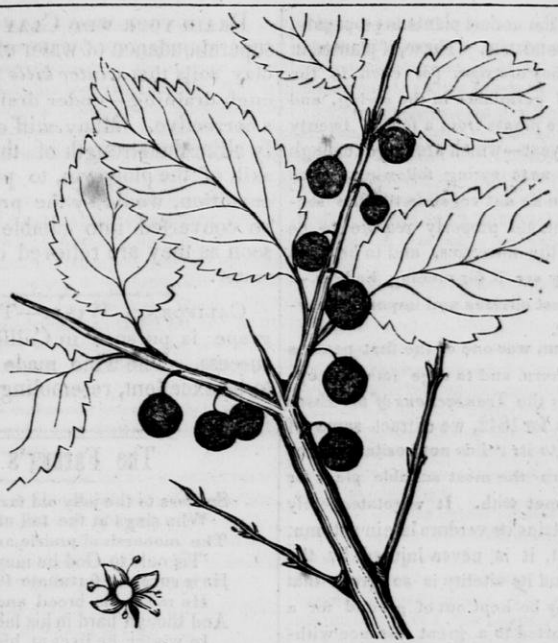
There are 118 Universities and Colleges in the U. States, of which 60 are in the Free and 56 in the Slave States. Of these, 13 are under direction of the Baptists, 13 of the Methodists, 13 of the Roman Catholics, and 9 of the Episcopalians, and we know not exactly how many under the Presbyterians, Congregationalists and other denominations, more probably under the two last named, in the proportion to Church members, than any other. In the Collegiate departments of the 60 Northern Institutions, there are 486 Instructors, 6,073 students,437,500 volumes in the Libraries, and in the 68 Southern, 402 Instructors 4,805 students, and 261,000 volumes.

In 15 states, were School Funds have been established, the aggregate amount is $20,338,246 of which $15,018,532 have been set apart by 10 Northern, and $5,316,714, by five Southern States.

There are in the United States, 43 Theological School, 26 Medical Schools, and 12 Law Schools.

FARMING IN WISCONSIN—Three brothers purchased three hundred acres of prairie land in Wisconsin 18 months since. It cost them $1 an acre, the fencing $1 an acre, and the breaking up 14s. an acre. Every item of expense after harvesting shows an aggregate of $2.56. The 300 acres produced 6.000 bushels of wheat, which sold for $3,240.—This tells a story for Wisconsin lands. To pay for land and all improvements the first year, and have a handsome surplus left, is not common hereabouts.—So says the N. Y. True Sun.

Agriculture is the nursery of patriotism.



THE BUCK THORN.—Fig. 1.

From the Horticulturist.

## The Best Hedge Plants.

### I. THE BUCKTHORN.

The Buckthorn is a deciduous shrub growing from 10 to 15 feet high, bushy, or with numerous branches. The bark is grayish brown; the leaves are about an inch or an inch and a half long, dark green, smooth, ovate, and notched or serrated on the edges, and are placed nearly opposite each other on the branches. There are no independent thorns, properly speaking, but the end of each years' shoot terminates in a sharp point or thorn. (See fig. 1.) The blossoms are small and yellowish green. They are succeeded by numerous round black berries, which ripen in autumn, and hang till frost, and give the plant something of an ornamental appearance. The roots are unusually *black* in color, and are very numerous.

The Buckthorn is a native of the north of Europe, Asia and North America. It is not a common shrub in the woods in this country, but we find it very frequently in this neighborhood, and in various parts of Dutchess county, N. Y., as well as on the borders of woods in Massachusetts.

The bark and the berries of the Buckthorn are powerful cathartics. The sap of the berries, mixed with alum, makes the color known to painters as sap-green, and the bark yields a fine yellow dye.

As a hedge plant, the Buckthorn possesses three or four points of great merit. In the first place, its bark and leaf are very offensive to insects, and the borer, the aphis, and others, which are so destructive to all hawthorns in many parts of our country, will not touch it.

In the second place, it is remarkable for its hardiness, its robustness, and its power of adapating itself to any soil. It will bear any climate, however cold, for it grows wild in Siberia; hence it will never suffer, as the English thorn has been known to do, with an occasional winter of unusual severity.—We have seen it growing under the shade of trees, and in dry and poor soil, as well as thriving in moist and springy soil; and in this respect, and in its natural rigid *thicket-like* habit, it seems more admirably fitted by nature for a Northern hedge plant than almost any other.

In the third place, it bears the earliest transplanting, has great longevity, and is very thrifty in its growth. We have already remarked that it is well supplied with roots. Indeed its fibres are unusually numerous even in seedlings of one year's growth. Hence it is transplanted with remarkable facility, and when treated with anything like proper care, not one in five thousand of the plants will fail to grow. It is scarcely at all liable to diseases, and no plant bears the shears better, or gives a denser and thicker hedge, or is longer lived in a hedge. Its growth is at least one-third more rapid than that of the Hawthorn, and the facility of raising it, at least half greater.

Lastly, it is one of the aesiest plants to propagate. It bears berries in abundance. These, if planted in autumn as soon as they are ripe, [or even in the ensuing spring] will germinate in the spring, and if the soil is good, give plants from a foot to twenty inches high the first year—which are large enough for transplanting the next spring following. The seeds of the hawthorn do not vegetate till the second year, and the plants properly require to be transplanted once in the nurseries, and to be three years old, before they are fit for making hedges.—Here is at once a most obvious and important saving of time and labor.

Mr. Derby of Salem, was one of the first persons to employ the Buckthorn. and to urge its value upon the public. From the *Transactions of the Essex Agricultural Society* for 1842, we extract some of his remarks relating to it: "I do not hesitate to pronounce the Buckthorn the most suitable plant for hedges I have ever met with. It vegetates early in the spring, and retains its verdure late in autumn. Being a native plant, it is never injured by the most intense cold, and its vitality is so great that the young plants may be kept out of ground for a long time, or transported to a great distance without injury. It never sends up any suckers, nor is disfigured by any dead wood. It can be clipped into any shape which the caprice or inginuity of the gardener may devise, and it needs no plashing or interlacing, the natural growth of the plants being sufficiently interwoven. It is never cankered by unskillful clipping, but will bear the knife to any degree."

MISSISSIPPI WOOL.—The Lowell, Mass. Courier of the 16th ult. says:

We were shown the other day, in the finishing room of Middlesex Manufacturing Company in this city, a most beautiful piece of black cassimere; the wool was raised on the prairies in Mississippi.—We were informed by Mr. Lawrence that the wool was among the finest specimens of American wool he had ever seen—certainly the cloth was the most elegant we have ever seen. There can, we think, be but little doubt that this country, before many years, will not only be able to supply our manufactures with wool, but that vast quantities will be exported to England. If such fine specimens of wool can be raised in Mississippi, a state in which sheep can remain without shelter all the year round, where land is cheap and pasturing always verdant, what is to hinder this country from becoming the greatest wool growing country in the world—the west and southwest in particular? We look forward to that day with the most perfect confidence.

There are 261 miles of rail-road now constructed in Cuba, while there are forty miles in all Spain! A fair sample of the influence of Jonathan's example upon his neighbors.

DRAIN YOUR WET CLAY SOILS.—It is the superabundance of water existing in the wet clay soils that *winter kills* the wheat. Thorough draining—under draining—will act as a corrective. Many stiff clays that now defy alike the strength of the team and the skill of the plowman, to put them in good condition, would by the process of draining, be converted into pliable clay moulds, so soon as they are relieved of their excess of water.

CALIFORNIA WINE.—The culture of the grape is pursued in California with much success. The wine made therefrom is said to be excellent, resembling the light German wines.

## The Farmer's Song.

Success to the jolly old farmer,
Who sings at the tail of his plow—
The monarch of prairie and forest,
'Tis only to God he may bow!
He is surely a fortunate fellow:
He raises his bread and his cheese;
And though hard in his labor in summer,
In winter he lives at his ease.

When the reign of winter is broken,
And spring comes to gladden and bless—
When the flocks to the meadow are sporting,
And the robin is building her nest—
The farmer walks forth to his labor,
And manly and firm his tread,
As he scatters the seed for the harvest
That yields to the nations their bread.

His banks are all chartered by nature—
Their credits are ample and sure;
His clerks never slope with deposits,
Pursued by the curse of the poor;
His stocks are the best in the market;
His shares are the shares of his plough;
They bring the bright gold to his coffers,
And pleasure and health to his brow.

When his fields with rich harvests are teeming,
And the reapers go forth to their toil,
None so happy and free as the farmer—
Possessor and lord of the soil;
He sings while he roams his broad acres,
As none but a farmer can sing,
And would not change his condition
For the splendor and pomp of a king.

When his crops are all gathered and sheltered,
And his cattle are snug in the fold,
He sits himself down by the fireside,
And laughs at the tempests and cold.
A stranger to pride and ambition,
His duties he strives to fulfill,
Determined whatever betides him
To let the world jog as it will.

His trust is in Him who has given
The seasons, the sunshine, and rain,
Who has promised him 'seed time and harvest,'
So long as the earth shall remain;
And if from his duties he wander,
Led on by his venturesome will,
Through life and his changing relations
God's providence follows him still.

The total debt of Rhode Island is about $40,000, besides the sums taken from the deposite fund, which amounts to $152,-000. The average annual deficiency in the revenue of the State for the last five years, has been about $10,000. The select committee, of the General Assembly on taxation, have reported a bill, proposing to raise $25,000 annually, to supply the deficiency in the present revenue, and have a surplus for unforseen demands.

ILLINOIS—HER DEBT AND RESOURCES.—Governor French in his Message, states the total amount of the State debt at $16,612,795 37, of which $8,004,622 09 is the Canal debt. To pay this, besides the ordinary revenue from taxation, the State has 145,000 acres of land, valued at $870,000; also the tolls receivable upon the Illinois and Michigan Canal, which amounted last year, being first season, to $88,000, and which must increase greatly each successive year; and also Canal land, lots, &c., from which will be realized not less than $3,-500,000.

LARGE PROFITS.—We understand that the cargo of the ship Garonne, of Baltimore, which cost $100,000, has been sold at San Francisco for $800,000.

☞The Boston Times, exulting in the fine quality of the ice gathered in Fresh Pond, says, "the ice is in prime condition, thick as the head of a fanatic, and cold as charity."

The Harlem railroad is now completed and in operation from New York to Dover Plains, 84 miles. The amount of stock is about $4,000,000, of which $1,500,000 is "preferred."

Ohio, it is said, has more colleges in it than any other State in the Union, though it is only about 60 years old.

J. Randolph predicted that the time would come in Virginia when the masters would run away from their negroes, and the negroes would advertise them in the Newspapers."

GOLD PENS.—Eight hundred pounds of pure gold are annually consumed in making gold pens. The worth of this amount of gold is two hundred thousand dollars.

The new Steamer Atlantic building by Capt. Ward on the St. Clair River to run in connection with the Michigan Central Rail Road, will be ready by the first of May. Capt. Clement, favorably known as the commander of the Sam Ward the last season is to sail her.

Dead letters to the number of 19,117 collected at Boston during the past year, have just been forwarded to Washington.

The New York State Agricultural Fair, in September next, is to be held at Syracuse, John A. King has been elected President of the Society.

There are but six States in the whole thirteen, which have not a county named Washington—the account standing like this: Washington 24; Franklin 19; Jefferson 17; Madison 15; Monroe 15; Jackson 12; Hancock 8; Harrison 7; Hamilton 6; Adams 4; Calhoun 3; Clay 3; Van Buren 2; Cass 3; Polk 3.

IRON WILL COMMAND GOLD.—A gentleman who sent out five dozen of shovels to California, some time ago, realized $4,000 in gold dust therefor.

RAIL ROADS.—The Cleveland papers say that there are a thousand workmen ready to begin to work on the Cleveland, Columbus and Cincinnati Rail Road, so soon as the Surveyors have completed the laying of the track, which will be in a few days. One year from next November, the whole line will be in readiness for the superstructure.

The Cleveland and Pittsburg Road is also progressing.—Some 15 or 20 sections of the grading is completed, and the ground is broken nearly the whole line.

The commerce of the western lakes probably amounted to $150,000,000 the past year. That of the 70 western rivers and bays, embracing a distance of 16,674 miles, is estimated at $190,000,000.

ADVANTAGE OF RAILROADS.—It is calculated in New England that for three miles on either side of a railroad, the agricultural lands have advanced ten dollars an acre since the iron avenues to market have been made.

☞The bill granting the Mobile and Ohio Railroad Company 1,500,000 acres of the public land in consideration of carrying the U. S. mails free, passed the Senate on the 24th ult.

☞Those engaged in the ice business in Boston, are doing a driving business in the way of procuring a supply for the coming summer; and it is expected the amount for export will be far greater than that of last year, which amounted to 750,-000 tons.

A new Post Office has been established at Tayco's point, in Winnebago county, and BURR S. CRAFT, Esq., appointed P. M,

The expenditure of the United States Government for arms, and other purposes connected with the Armory at Springfield, last year, were two hundred and twenty-seven thousand, five hundred and fifty-four dollars and twenty-two cents; at Harper's Ferry, two hundred and fifty-eight thousand, five hundred and thirty-four dollars and eighteen cents—total four hundred and eighty-six thousand, and seventy-eight dollars, and thirty-eight cents.

☞The shipping already sailed or advertised for California is said to amount to one tenth of the aggregate tonnage belonging to the port of New York.

☞Insurance has been refused in Boston on ships for China, touching at San Francisco. The insurance companies will not run the risk of a crew deserting at San Francisco.

IMPORTANT DISCOVERY.—The English Newspapers inform us that by recent investigations which have been carried on by the Royal Irish Fisheries Company, it has been ascertained that the Newfoundland fishing banks extend eastward across the Atlantic to within 100 miles of Ireland, and that fish enough can be procured on that coast to supply the world.

TERRITORY OF MINESOTA.—The bill organizing the new Territory of Minesota passed the Senate on the 19th ult. without even a division—so strong was the conviction that a government should be organized for some 10,000 people, who are now living without law. Senator Dodge, of Iowa, spoke with his usual clearness and force, presenting facts which disarmed all opposition, even from those who thought that the Northwest was not entitled to another State out of the limits prescribed by the Ordinance of '87.

☞John Bull believes Brother Jonathan's story about California, and admits that it is "a splendid acquisition"

The Young Emperor of Austria is said to possess his mother's cleverness. He speaks eleven languages with precision and elegance, and is fond of Military exercise. His mother will rule him, and he will rule Austria.

LAKE SUPERIOR LANDS.—The General Land Office report says the sale of land in the Copper District, on Lake Superior, has not met the expectation of the Government. The amount sold is 2,016 acres at $5, and and 6,494 under lease at $2 50 per acre; amounting to $26,215. The leasing system is injurious, and farther facilities for the sales of the lands are recommended. He is for putting them at $1 25 the acre—same as other lands. The agency has yielded $7000 above expenses, in two years.

WEALTH OF THE UNION.—It is estimated that the value of the crops in 1848, in the United States, will exceed $640,000,-000. The value of the live stock on farms, is estimated at over $557,000,000. The sums invested in manufacturers for the same time, amount to $343,300,000. The sume invested in merchandise amonnt to $422,000,000, exclusive of 149,-000,000 dollars employed in the commission business and foreign trade. The aggregate of the productions and business of our country, then, amounts to the anormous sum of over 2,000,000,000 dollars.

COMMERCE OF THE UNITED STATES.—The annexed statement gives a condensed view of the commerce of this country for the last 6 years—Imports and Exports, and Custom Duties:

| BR'DST'FS & PRV'NS. | TOTAL EXPORTS. | IMPORTS. | DUTIES. |
|---|---|---|---|
| 1843.... $11,204,123 | 84,346,480 | 64,753,799 | 7,045,844 |
| 1844.... 17,970,435 | 111,200,046 | 108,435,035 | 26,183,571 |
| 1845.... 16,743,421 | 114,646,606 | 117,254,264 | 27,528,112 |
| 1846.... 27,701,121 | 113,488,516 | 121,691,797 | 26,712,667 |
| 1847.... 68,701,921 | 158,684,622 | 146,545,638 | 23,747,864 |
| 1848.... 37,472,751 | 151,032,131 | 154,977,826 | 31,757,070 |

THE RICE CULTURE ABATED AS A NUISANCE.—Believing that the rice fields, in the vicinity of Savannah, were detrimental to the health of the city, the Mayor and Aldermen passed ordinances prohibiting the culture of rice within certain limits. From the decree in the court below, sustaining the ordinances, an appeal was taken by Thomas Green, the owner of a rice plantation, but the supreme court affirmed the original decision.

Linn, Massachusetts, has a population of less than 12,400, yet 3,000,000 pair of boots and shoes were made last year.—Nearly 8,000 of its inhabitants of both sexes are engaged in the business. The value of the boots and shoes manufactured in 1847, was $17,000,000.

The State debt of Michigan is $2,849,935 05, to meet which there is but $889,228 87.

BANKS IN THE UNITED STATES.—There are 778 banking institutions in the United States. Capital over $200,000,000.—Circulation about $125,000,000. Specie about $25,000,000.

A plan has been set on foot in N. York for the establishment in that city. of an extensive Odd Fellows Library. The order in New York, Brooklyn and Williamsburg number about 16,000. It is proposed that a tax of ONE CENT PER WEEK be levied on the membership as above, for which sum each Odd Fellow becomes a member of the library. By the weekly tax of one cent, the sum of $8,320 would be raised annually, which could be devoted to the purchase of books, &c., deducting, of course, the current expenses, for librarians, rents, &c.

HEAVY VERDICT.—A. M. Bennett of Albany has lately received a verdict of $10,000 against the Utica and Schenectady Railroad Company for the crushing of one of his legs by a collision of cars near Herkimer. Mr. B. offered to settle with the company for $6,000 previous to commencing a suit which the company refused to pay.

CANAL REPAIRS.—During the fiscal year ending September 30, 1848, the State of New York paid for the repair of all her canals $674,777 88.

GREAT SPEED.—The distance between Buffalo and Albany is to be run by the cars on the opening of Navigation in 13 hours. The morning cars from Buffalo will reach Albany the same evening in time to connect with the evening boats to New York, making less than 24 hours from Buffalo to New York.

Arrangements are making by the several Railroad and Steamboat Companies to carry passengers from Chicago to New York the coming season in 60 hours.

PRODUCE IN STORE AT CHICAGO.—The following is the amount of principal articles up to the 1st of February:

| | |
|---|---|
| Wheat | 435,000 bushs. |
| Flour | 13,534 bbls. |
| Pork | 17,142 " |
| Beef | 8,530 " |

At the first of February, 1848, the amount of wheat in store was but 200,000, showing a difference in favor of 1849, of 175,000 bushels,—[Dem.

☞ Kentucky has sent this season to Cincinnati, over 120,000 hogs, which realized to the owners $790,000.

# COMMERCIAL.

WISCONSIN FARMER OFFICE,
Racine, Feb. 27, 1849.

But little Wheat coming in, owing to the bad state of the roads. Prices ranging from 60 to 75 cts.; Flour $3,50 @ 3,-62½; Oats 22 @ 25 cts; Corn 35 @ 38 cts; Potatoes 50 cts. and upwards; Salt $1,25 @ 150.

Beef $450 @ 5,00; Pork $4,00; Mutton $3 to 3,50; Chickens 14 cts; Butter 12½ @ 14 cts; Eggs 16 cts; Wood $1,75.

SOUTHPORT, Feb. 24.

Wheat, winter, 66 @ 68c; spring, 56 @ 58. Flour, $3,25 to 4,00. Corn, 38c. Oats, 22c. Potatoes, 50c. Pork, for heavy 3 dollars.

MILWAUKEE, Feb. 24.—Receipts of produce since the thaw, show a falling off; prices for wheat are firm, winter selling at 67@76c with a cent or two more for best samples. Spring 54@62½; flour is hardly as firm, country brands are selling at 3 37@3 50 by the load, and 3 75@3 37 at retail; Oats 19@21; Corn 37½c; Barley 32@35; Potatoes 37@40; Pork 3 75@4 25; Salt 1 25@1 37.—*Wisconsin.*

WATERTOWN, Feb. 20.—Wheat 50@56c; Spring 40c; Corn 25c; Barley 25c; Oats 20c; Corn Meal per 100lb 62c; Hay ℔ ton 3 00; Flour 3 50; Pork ℔ 100lb 2 25@2 50; Beef 2 50; Butter 12c; Eggs 12c; Potatoes 25c.—*Pilot.*

CHICAGO, Feb. 22.—Yesterday's receipts of wheat amounted to 5,508 bushels. Prices remain at 50@60c for spring wheat. Pork is nominal at former quotations. In Beef there is a slight advance.—*Journal.*

UPPER MISSOURI.—Merchants and others from the upper counties in Missouri, tell us that money was never so abundant in that region, as at the present time.—a consequence no doubt, not only of industrious agriculture, but of the governmental commerce now going on in that direction.—*Brunswicker.*

NEW YORK, Feb. 23—Flour held at 6¼@12½c in advance on yesterday's prices, and straight brands western at 5 75@5 94; Meal, quick sales at 2 87; wheat held firmly; Pork is 10 00@11 50 for prime and mess.

DOMESTIC EXPORTS OF OUR COUNTRY.—The *Domestic* exports of the United States, during the year 1848, amounted to $150,627,464; of which sum—

| | |
|---|---|
| The fisheries yielded | $3,468,033 |
| Furs and ginseng | 811,611 |
| Products of wood | 5,906,053 |
| Agriculture | 11,202,543 |
| Vegetable food | 57,970,326 |
| Tobacco | 7,242,086 |
| Cotton | 53,415,848 |
| Hops, Sugar, &c. | 177,493 |
| Manufactures | 4,612,597 |
| Cotton piece goods | 4,082,523 |
| Flax and hemp goods | 4,692,403 |
| Miscellaneous articles | 4,943,464 |

Of flour the amount exported in 1848 was about twice as large as that exported in 1847; during the same time the exportation of Indian corn increased about four hundred per cent; the exportation of Cotton decreased nearly $8,000,000. The Exports of 1848 exceed those of 1847 by $17,733,343. The importations during the year ending June 1848 were $154,997,928 exceeding those of the previous year by $8,542,290.—*Wisconsin.*

PORK IN IOWA.—The Burlington Hawkeye is informed on good authority, it says, that the number of hogs, slaughtered (past and to come,) at that place the present season, will exceed thirty thousand. The lowest estimate of the number slaughtered in Keokub is forty thousand.

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

VOL. 1. RACINE, WIS., MARCH 1, 1849. NO. 3.

WISCONSIN FARMER & NORTHWESTERN CULTIVATOR

PUBLISHED ON THE FIRST OF EACH MONTH, BY

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**50 Cents a Year in Advance:**

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Post Masters and all others who feel an interest in the circulation of the FARMER, are invited to lend their aid in procuring subscribers and extending its circulation.

☞ The Farmer is subject to newspaper postage only.


## Butter Making.

All know, who have families to provide for and tables to supply, how exceedingly difficult it is to obtain an article of good butter in this western country—to account for the *why* is more difficult still. We certainly have all the materials that are possessed in the best butter-making portions of the East—why then have we not the same, fresh, sweet, finely-flavored article, which by all persons of taste is esteemed so great a luxury? We confess we know not why, unless it be by carelessness and inattention; perhaps, on the part of some because of ignorance. There are a few, we know, who manufacture good butter; but in all our journeyings over this State, and across to the Mississippi, we have rarely met with any thing than a poor article, either sour, or bitter, or rancid, or in some respect offensive. So in our purchases in the market—only now and then do we get butter that is fit for the table. Some of our farmers complain that the wild herbage on which the cows feed, imparts a strong taste to the butter. This may be, but aside from this the butter is not well made—we mean a great deal of it—good butter is made, and we have eaten of it in Wisconsin.

Great care should be taken in the manufacture of butter, from the setting of the milk, down to the working, and the fitting of it for the table, or for market. Herein lies the secret of butter-making. We have an excellent article, manufactured nearly a year ago by an old mother—a pains-taking old lady—which has now all the freshness, sweetness, and fine flavor of the best made butter just from some dairy in Ulster or Orange.

Very probable our butter will be improved when we come to get good old pastures, free from noxious plants and weeds, and yielding an abundance of the most fragrant grasses. But pains, care, an application of *know how*, will be as absolutely requisite then as now. The utmost attention must be paid to cleanliness. All the articles used in manufacture from the milking pail to the ladle, should be "washed, scalded and scrubbed,"—the milk-rooms should be dry and airy, cellars if properly constructed will do—and kept perfectly clear and free from must—the milk when strained should remain undisturbed until the cream has fully risen, which should then be taken off, or emptied along with the milk into the churn, and the churning immediately commenced. When the butter has come and gathered, it should be taken out with a ladle, and put into a wooden bowl, and the buttermilk or whey worked out of it—not with the *hands* but with the *ladle*. It has been truly said, that, in this manner not only is the best butter, but also the best buttermilk, obtained; which, besides affording an excellent beverage, makes, with the addition of a little sugar or molasses, and rusk or good bread broken in it, a dish to crown the farmer's dinner, more refreshing and more exquisitely relished than the strawberry-flavored ice creams of the luxurious rich.

☞It has been truly said, that the plow in the hands of an inconsiderate farmer may be justly considered an instrument of certain and speedy destruction, being capable of exciting the soil to its utmost efforts of fertility, which naturally debilitates and exhausts it, when nothing has returned to renovate its powers; yet this instrument, in the hands of a judicious cultivator, who returns back to the soil a due proportion of vegetation, which he can readily gather, becomes the most powerful and rapid enricher of the soil. Remember this, Brothers.

☞The food given cows will determine largely the quality and quantity of their milk, and consequently of the butter manufactured therefrom. Various roots, such as Sugar beet, Mangel Wurtzel, and carrots, also pumpkins, given out in suitable quantities, will add much to the quantity and flavor of milk and butter. To raise these vegetables is with us no difficult matter, and attention ought to be given them.

## Lime---its uses, &c.

How important is knowledge to the farmer! How very essential an aid is science in the business of agriculture !—Upon a knowledge of soils, their adaptation, the manures required in the growing of certain crops, success in farming mainly depends. Without such a knowledge, often, to a very great extent at least, the hard hand and the sweating brow are unrecompensed. To know the Why, the When, the How—this to the man of the plow is every thing, and he should be patient to learn that he may succeed alway in his high calling.

Every body has heard that Lime may be profitably employed for agricultural purposes. So it may, but it must be rightly used—it will not do to apply it indiscriminately on all soils, and as a help for all crops. It is a powerful stimulant, but cannot supply all that may be lacking in certain soils, or that may be requisite for the growing of certain crops. We do not consider it, strictly speaking, as a manure, certainly not as a fertilizing manure; and experiment has long since demonstrated—and sad experience confirmed—that though lime because of its stimulating power aided for a season in the production of good crops, yet, when other and requisite ingredients contained within the soil were exhausted, the fields were barren at once. And it is quite probable that the lime, because of the stimulus it supplied, helped the sooner to exhaust the natural fertility of the soil, and render it useless.

Of one thing we are quite certain, that though a proportion of lime is requisite in the growing of wheat, yet there is no advantage derived—but often an injury—from applying it in a pure, unmixed or uncompounded state. If it were exhausted in the soil, or were wanting from any cause, we would apply it in a compost. Lime alone will not give nor restore fertility to a soil. This, a stickler for the use of lime, and who makes it the all in all, has virtually conceded. He says, "I lately purchased some of this kind, (sandy soil) which was originally covered with Chestnut timber, and was called mountain land. It has been cleared seventy years; but lying a distance from the farm buildings, had never received any manure but a dressing of lime.—This land I have had repeatedly farmed since I owned it; and although to appearance it seemed to be almost a *caput mortuum*, with the aid of ten or twelve four-horse loads of the gleanings of a yard of a public house, it has produced as much, and as good wheat, rye, oats, timothy and clover to the acre, as any land in the township in which it lays. I consider the liming it had fifty years ago, as the principal cause of its fertility" And we say that but for the ten or twelve four-horse loads of gleanings, furnishing that which the lime could never supply, the land would scarcely have grown a bushel of any thing. Lime does not fertilize so much as it quickens and stimulates.

A recent writer, (Mr. Hyatt, Professor of Agricultural Chemistry,) lays down some excellent rules with reference to the application of lime—they are eminently worthy of consideration and adoption, because drawn from, or based upon well ascertained truth in science. We give the following:

"Lime exists in soils in the form of carbonate; and carbonic acid is not found there in any considerable quantity combined with any other base. It is easily set free by any stronger acid. When, therefore, an effervescence is produced by pouring vinegar on earth, it shows the presence of lime.

Lime may be applied advantageously to all soils not containing over five or six per cent of the carbonate.

It is most beneficial to peaty soils, and those abounding in vegetable remains, and to stiff clays. It increases the necessity for animal and vegetable manures. The farmer who increases his crops without increasing his manures will render his land barren.

On clayey and peaty soils one hundred to one thousand bushels may be applied per acre. On worn-out land from ten to fifty. When the soil contains every other requisite of fertility, two or three bushels will supply the amount required for an ordinary rotation. Frequent and small applications are best. Shallow, dry, and light sandy soils should be only moderately limed. In all cases it should be kept near the surface. On pastures it should be thinly sown. On fallows, and on peaty soils, where the large applications are intended, it may be spread before breaking up. On cultivated fertile fields, where small applications only are required, it is best applied before the last harrowing. When intended to affect a particular crop, it should be spread a year before.

Unslacked lime should not be applied Caustic lime should not be brought into contact with seed in the hill or drill; nor should it be used with yard manure, or any other containing nitrogen.

Lime can never supply the place of other manures. It cannot furnish sulphuric acid like gypsum; nor phosphoric acid like bones, guano, yard manure, &c. It may assist to set potash free from substances in the soil; but where there is no potash, it cannot furnish it like ashes.

Magnesia is unfavorable to vegetation; therefore lime should not be obtained from magnesian limestone.

It should not be used wet, nor applied to wet, undrained land.

And, finally, care must be taken to maintain a sufficient quantity of organic matter in the soil, for liberal liming and cropping would otherwise render it barren."

For the Wisconsin Farmer.

FRIEND MILLER:—I have received the first number of the Wisconsin Farmer, published by you and am much pleased with its appearance, and as you wish the friends of agriculture to communicate for the columns of the FARMER, the results of experience, I take the liberty to give you a little of mine.

I have had some experience in raising and preserving fruit trees in the State of New York previous to my removal to Wisconsin. It was the saying of our best farmers, that young trees needed manuring, and the ground kept loose, to have them thrive and bear good fruit. I have known many to complain year after year, that the east winds destroyed all their plums; though they blossomed, they bore no fruit, but one man replied that he observed the Scriptures, "to dig about the tree and dung it," and the east winds never blasted his fruit; even currants are much improved by the same treatment and of pruning and proping up.

Fruit is often destroyed by late frosts and often trees have been killed in a similar manner. After the sap has run up, the bark freezes and peels off. This may be prevented by keeping the trees back.

If the snow is stamped down so as to have the ground freeze, or freezes by having no snow, then covering the ground around the trees with long dung or straw; this keeping in the frost, saves the trees as well as the fruit from coming forward so early as to be destroyed by late frosts. In 1836 many lost the most of their orchards. The snow was very deep, which took the frost out of the ground, and the trees came forward early, after which, there was a hard freeze which destroyed many. There was one man in my neighborhood who had two orchards; under and around the trees of one he had the snow well tramped down to prevent the mice from eating the bark. This orchard was but little injured by the late frosts while the other was mostly destroyed. Peach trees, in particular, often need to be kept back, as it is the spring frosts, that in most instances kill the trees, instead of the winter winds, as is usually supposed, and I must believe that in some hard winters, when there is but little or no snow, peach trees may be injured by too hard freezing. This is easily remedied or prevented by covering the roots with straw or coarse manure.

The idea held by many, that all is done, when they have put their trees in the ground, necessary, or that can be done, to secure success in raising fruit, is a mistaken one,—on the other hand, fruit trees require more attention to insure success in raising fruit, than almost any other branch of agriculture.

J. P.

Janesville, Feb. 1849.

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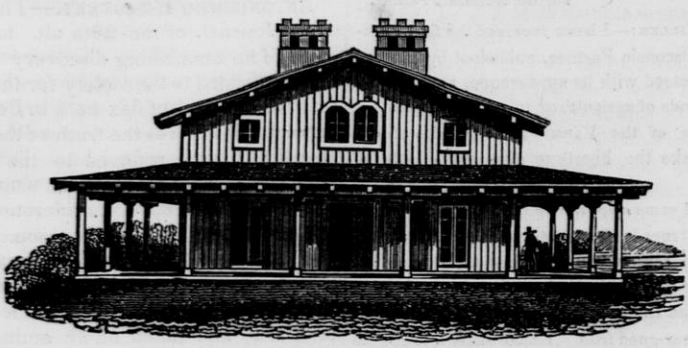
Thefts never enrich, alms never impoverish..

ASTONISHING DISCOVERY.—The Londonderry Journal, of the 28th ult. has a statement of an astonishing discovery which was communicated to the society for the improvement and growth of flax held in Belfast. The extract below gives the truth of the matter:

"Mr. Owen referred to the discovery which his friend Dr. Hodges would say was worthy of the deepest consideration of every one present. Having heard some time since that from peat there could be produced ammonia, naptha, soda-ash, oil, spermaceti and some other substances, he left London for Paris, and called on an eminent chemist there. He had previously been speaking on the subject with a Mr. Reece, also an eminent chemist, who told him that for the expense of £30 he could produce from 100 pounds of peat chemical results to the value of £148. It was Mr. Reece who referred him to the Paris chemist, and he (Mr. Owen) produced it to him and repeated the statement of Mr. Reece, as to what he could do with the peat, the former assured him (Mr. Owen) that he really could do all that he had stated in the document. He then rang a bell, and ordered the results of his own experiments to be brought up from his own laboratory, and he, (Mr. Owen) saw with his own eyes the sperm candles made; the ammonia, the oil, and the soda-ash produced from peat; and that chemist thought this was the greatest discovery of the age, and one which would eventually, convert the greatest curse of Ireland—the bogs, heretofore unprofitable and the greatest obstacle of improvement,—into the greatest blessings, and double the fertility of the soil, to an extent that none could estimate. Well, he (Mr. Owen) being a man of business, declined to take any or all these statements for granted, and, consequently, he got a number of experiments made by Dr. Hodges and his friend, Mr. Reece, which were entirely confirmatory of all the statements made by his friend, Mr. Reece. But still, not to deceive himself or others, he was determined to have an experiment made on a larger scale, and had employed the largest apparatus in use for that purpose; and he rejoiced to tell this meeting, that, on Tuesday last, his experiments had been commenced, and the results were beyond all expectation, for everything had succeeded to his utmost wishes." [Mr. Owen here handed to the Chairman a sample of the spermaceti so prepared by him, which was minutely examined by a great number of gentlemen in the room.].



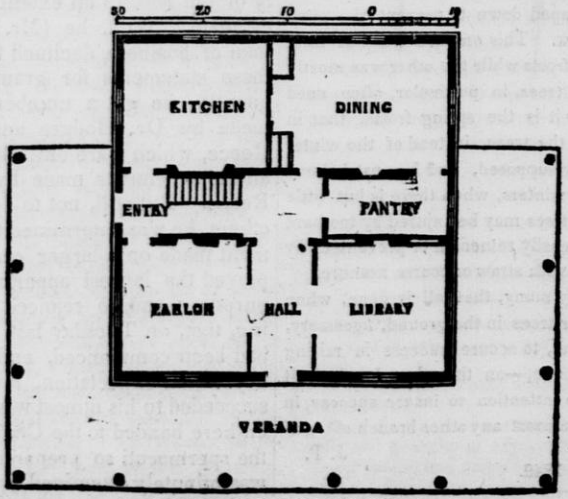
COUNTRY FARM HOUSE.

There is nothing in this elevation which could be objected to as out of keeping with rural life in most parts of our country. There are no useless ornaments, and there is no attempt at high or false architectural style.—Yet there is much beauty, we think, as the subject demands.

Our readers will notice, in the first place, that it has an ample veranda (or piazza, if our readers like this incorrect term better.) A veranda, as frequently built, with fluted columns, &c., is a costly affair. But this is not so. It is positively cheap. The supports are simple, light sticks of timber hewn octagonally or 8 sided, leaving a few inches at the top and bottom square, for base and capital. The roof of this veranda is made of jointed stuff, nailed upon the joist rafters, which are bedded and left exposed, so that no other ceiling is required. The top may be covered with shingles or tin. The 2d story gives 7 cool and pleasant bed rooms of full height. The parlor and library are on opposite sides of the entry or vestibule, opening into it with either double or sliding doors, so that the whole may, when agreeable, be thrown into one apartment. The arrangement of this floor may be changed by turning the parlor into a bed room, and using the library as a parlor.

A recess is indicated in the plan, where a sideboard is to stand in the dining room.—This sideboard is to contain, in one of its portions, a wicket, i. e. a closet opening through to the kitchen, by which all the dishes may be received, and returned again, without the labor of carrying them through the house.

The chimneys are all kept in the body of the house, and not allowed to expend their warmth in outside walls. The form of the house is square of 40 feet, and the arrangement of such a space is so simple that it may be varied at pleasure.—Horticulturalist




GROUND PLAN OF THE ABOVE.

## A Neglected Truth.

Man was created for happiness. He has not a power or faculty imparted to him, whether of body or of mind, that it is improper for him to exercise and employ. God designed that he should exercise and employ them; and to the right and legitimate use of them he has annexed enjoyment. Pleasure, pure and unalloyed, flows from their healthy and harmonious action; while pain, physical and mental suffering, come from their abuse and the wrong application we make of them. Herein is a great truth which too long has been overlooked and disregarded. Its strong and urgent appeals have fallen upon unlistening ears, and humanity has gone on sinning and suffering because of a total disregard of its counsels. The very pulpit has been closed against it. It has stood at the gates, at the entrance of the city, at the coming in at the door; but its warnings have been despised, and its outstretched arm no man has regarded. What then should be expected, when men, in an ignorance or an abandonment of this truth, seek for pleasure in bye and forbidden paths, and awaken to a sense of their error only when hope, and character, and manhood have been wrecked, than that it should laugh at the calamity, and mock when their fear cometh.—"Happy is the man who findeth wisdom, and the man who getteth understanding. Length of days is in her right hand, and in her left hand riches and honor. Her ways are ways of pleasantness, and all her paths are paths of peace."

☞We consider March the best month for sowing grass seed. It should be done as soon as the snow is off the ground, though we have known clover seed to be sown upon the snow while it was thawing. Twelve pounds of clover seed, and one peck of herds grass, should be sown upon an acre.

☞To preserve eggs immerse them in a solution of gum Arabic, taking them out immediately, and when dry pack them away in bran. Some apply oil to the shell, and others again dip the eggs in boiling water. We much prefer the first process, as by it the air is entirely prevented from passing through the shell.

☞Lime is good to prevent smut in wheat.—First put the grain in brine about blood warm, and let it remain three or four hours; then take it out in baskets to drain, when it should be spread out and the lime applied, and the whole stirred until the wheat is dry. Fresh slacked lime is the best for this purpose.

☞*Soft Soap* is an excellent remedy for the cake in a cows udder, so common with those that have just "come in." It rarely fails on a single application.

For the Wisconsin Farmer.

## Fruit Trees—No. 2.

### THE APPLE.

*Soil.*—The most appropriate soil for the growth of the apple here, is a light crumbly loam, partaking of the nature of lime. But of all the variety of soils between a hard clay, and a light sand, will answer the purpose for growing an orchard. It is necessary that the soil should be rich enough to raise any kind of produce, to insure success. And if the farmer can appropriate no other than a wet soil, (which is decidely bad,) it would be best for him in the first place, to cut a large ditch, and intersect the same with smaller ones, so that the ground may be drained to the depth of two and a half feet, (the ditches may be blind or not, as he may chose,) before planting his orchard.

*Location.*—This is another very important consideration. To select such a position as would effectually secure, and defend, the fruit tree from the north-east wind at the time of blossoming, should give the farmer's earliest attention, in order to prevent the blight which generally follows those winds. A warm sunny position, a little inclined toward the south is the most prefferable.

*Planting.*—The utmost care is necessary in planting trees; and the farmer should be governed in this part of fruit culture, by the nature of the soil, in which he intends to plant them. In taking trees from the nursery, as much of the earth should be taken with them, as will naturally adhere to the roots; that they may the more readily take root in the soil to which they are destined.

The ground for an orchard should be well cultivated, before the trees are put out. Let the trees then be set in rows each way, at the distance of about thirty feet apart. In diging the holes, care should be taken to have them from two and a half to three feet in diameter, according to the hardness or loosness of the soil; and from twelve to eighteen inches in depth. Trees, when transplanted, should be set a little deeper than when standing in the nursery; and when the ground is loose, some rich sufarce soil should be thrown into the hole on which to place the tree, or if it be hard, it would be well to take some fine rich manure and mix it with some of the top soil for the same purpose.

Should the roots become mutilated in removing the young tree from the nursery, the planter would facilitate its growth, by re-

moving the bruised parts with a sharp knife, before placing it again in the ground. Trees after planting should be properly staked, in order to support them until they become firmly rooted, and to keep them in an upright position while growing. In my next number I will make some remarks on the season for planting, cultivating, pruning, &c. H. H. W.

Racine, Feb. 1849.

From the Genesee Farmer.

## Making Hot-Beds.

The severity of winter is now mostly past, and spring is upon us. The sun begins to make his power felt, and will soon revive the vegetable world. The gardener will soon resume his labors and direct his attention to the production of an early supply of luxuries for the table. The first thing then to be done, is to construct a hot-bed. If it is desired to produce articles quite early, the bed should be made early in March, but for ordinary purposes the middle or latter part of the month will suffice. Every professed gardener knows how to make a hot bed, but for the benefit of the inexperienced portion of our readers, we will give brief directions:

Select a site for the bed, on dry ground, where it will be fully exposed to the sun, but sheltered from the north and west winds. Mark out the size of the bed, allowing 6 or 8 inches on all sides larger than the size of the frame. Then drive down a good strong stake at each corner, as high as you intend to build the bed; then take fresh stable manure in a good state of fermentation, and commence building the bed by mixing the manure thoroughly, and putting on successive layers, beating it down with a fork.—Observe to place it smoothly and firmly around the outside, so that it will not settle unevenly from the weight of the frame.—The height of manure requisite, will depend on the time at which the bed is formed, and the purpose for which it is intended. If made early in March, and intended for growing cucumbers, &c., a good deal of heat will be required for a month or two, and at least four feet high of manure will be necessary; but a bed made early in April, for the purpose of forwarding plants, for transplanting, will not require more than half that quantity.

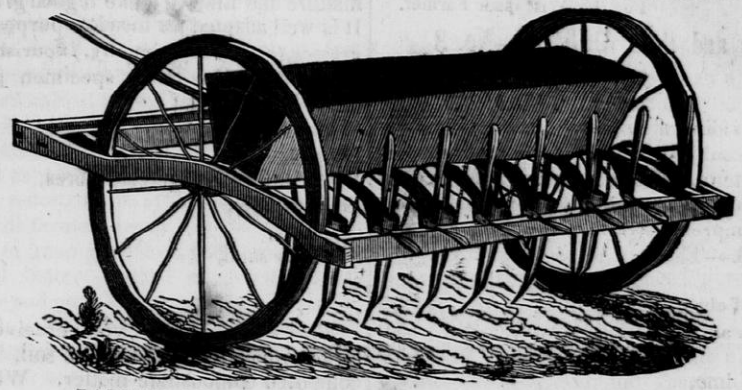
The usual size of the frames is either 4 feet by 8, or 4 by 12. The former size has two sashes and the latter three. The frame should be made of good sound boards, or plank, firmly nailed or bolted together on corner posts inside; the front should be one foot high and the back about two, so as to give a good slope towards the sun, and carry off the wet. The sash should be made without any cross-bars, and the glass set so as lightly to overlap each other, in order to allow the rain to pass off freely. The sash and frame should both have a good coat of paint, and they will last a number of years.

When the bed is made, put on the frame, and then put in about six inches of good fine earth; put on the sash and let it remain two or three days for the heat to rise, when it will be ready for sowing.

Make the earth smooth and fine before sowing; if cucumbers or melons are to be planted, raise slight hills for them under the middle of each sash. The articles usually sown in hot-beds are cucumber, raddish, lettuce and cress, for early use; and cauliflower, broccoli, cabbage, egg plant, tomato, pepper, celery, &c., to transplant.

Every farmer can make up a small hot-bed say four feet square, which may be covered with an old window sash. This would produce an abundant supply of early plants for the garden, by means of which many excellent vegetables may be obtained for the table, a month or two sooner than they could be otherwise.

After a hot bed is sown, it should be carefully watched in order to give the young plants plenty of air, and see that they do not get scorched by the sun or killed by the frost. It often happens that the heat in the bed will be too strong at first, and in that case the sash must be raised at the back, so as to let the heat and steam escape. A mat should be placed over the opening to keep out the cold wind. In sunny weather the sashes must be raised considerably, and if very warm, the plants should be shaded during the middle of the day. An hour of sunshine will often destroy a whole bed of plants, if the sashes are closed tight. They are much more frequently destroyed by heat than by cold. In frosty weather, mats or straw should be laid over the bed for protection, especially during nights. Keep the bed moist by gentle waterings. The water should stand several hours in one corner of the bed, so as to become a little warm, before being used. As the weather becomes warmer, and the plants increase in size, plenty of air must be admitted.



PALMER'S PREMIUM GRAIN DRILL, OR SEED SOWER.

We invite the attention of our readers, to the above engraving, of Palmer's Premium Grain Drill, a drawing of which, was furnished us by R. A. WYMAN, of this city, who has the right for their sale in Wisconsin and Illinois. The great advantages of the Drill culture, are thus given by Mr. W.:

The first and greatest advantage of which is, that in every instance where the drill has been used, it has prevented the wheat from *winter killing*.

2nd. The Drill is a great *Labor saving Machine* One hand and good team being capable of putting in from ten to twenty acres per day according to the size of the Machine.

3rd. It is also a *Seed saving Machine, all* the grain being covered at a uniform depth.

4th. It will give, as a result of the above advantages, a great increase of crop, which has in almost every case, been from 3 to 12½ bushels per acre.—The above Machine has been used principally in Western N. Y., where *nineteen* thousand acres of wheat were planted during the past year. It has also been used by a few farmers in Wisconsin, and a *few* in Illinois. The Drill is convenient, and adapted to sowing or planting almost all kinds of grain, as well as wheat.

It is also warranted to be made of first rate materials, in a good workmanlike manner, and to be capable with one hand and a good team, of sowing, or planting from 10 to 20 acres per day, and of doing the work well where the ground is well prepared.

The above Drill may be had of Mr. Wyman, on application, at Racine, Wis., on reasonable terms.

Mr. W. informs us that it is his intention to introduce the Drill into most of the counties in this State and Illinois, the coming season.

The following letters, from creditable sources, furnish better testimony than any we can personally give—testimony based upon actual experiment. We commend them to a careful perusal.

MR. PALMER—Dear Sir: I have harvested my wheat and have ascertained the comparative product of that planted with your drill, and that which was sown broad-cast in the same field, side by side, and at the same time. A strip of land on each side of the drilled wheat produced nineteen and one-fourth bushels per acre; while that drilled in produced *thirty-one bushels per acre*. It was all put in the last days of September. FREDERICK W. BRASTER.

*Brockport*, Oct. 9, 1848.

We, the Assessors of the town of Clarkson, Monroe co., N. Y., examined and compared at different times during the season, up to May 25th, 1848, the grain drilled in by Palmer's Drill, with that which was sowed broad-cast in the same field and at the same time. It is our opinion that the grain drilled in will produce one-third more per acre, than that which was sown broadcast. The drill we believe to be also a great labor and seed saving machine, and one which will also prove durable.

E. WATKINS, S. COOK, G. ESTES,
*Clarkson*, May 26, 1848. Assessors.

DELAVAN, Feb. 27, 1849.

R. A. WYMAN, Esq.—Dear Sir: In answer to yours of the 15th inst., I would say; Palmer's Grain Drill, I purchased of you last summer has not yet been used by myself, but a brother of mine had the use of it last fall, to put in a few acres of wheat with, and was well pleased with its work; he said it was easily managed—a small boy using it without any difficulty, whatever. A few weeks after the wheat was planted I saw it. It was more even on the ground than I had ever seen a field of grain before, and stood considerably thicker than I had ever seen from the same amount of seed per acre. I am not able to judge as to the effect the use of this drill may have in preventing wheat from winter-killing, for the field I speak of having been planted by it, was newly broken dry prairie and would not be subject to killing out if sown broad-coast and put in in the usual way. But this it will do without doubt. It will plant the seed a more even depth, and distribute it more evenly, making a much smaller quantity sufficient to seed the ground; and it can be used without difficulty at any time when the ground is in suitable condition to receive the seed, regardless of winds, which is nor a small advantage in this prairie country. Yours, &c.,

WM. HOLLINSHEAD.

For the Wisconsin Farmer.

## Soils and their Analysis.—No. 3

BY P. R. HOY.

By dividing the several amounts obtained (as the result of our analysis in the last number) by ten, we have the *per cent*—that is the proportion in 100 parts, which is rather more comprehensive than the greater number 1000.—Thus,

NO. 4.

| | |
|---|---|
| Water of absorption, | 12,5 |
| Silicious and calcarious gravel, | 5,0 |
| Humus, | 11,0 |
| Salt of Lime, | 15,0 |
| Alumina, | 10,0 |
| Silicious Sand, | 46,5 |
| | 100,0 |

From this analysis,—simple and rough—very rough thought it be, we have obtained the most satisfactory evidences of the fertility of the soil; any one acquainted with the principle ingredients in good soil, will pronounce this a most excellent combination of sand, clay and lime, with an abundance of organic matter—a soil well adapted to the successful cultivation of wheat, oats, corn, potatoes, and in fact, it is well adapted to the growing of almost every valuable crop;—it works free and light under the plough, and will abundantly repay the husbandman for all his toils—so says *science*, and *experience* proves it to be correct, for this is no *fancy* soil, but an actual analysis of a sample taken from a remarkably productive wheat field, in Ohio—a field that had produced many heavy crops, without any artificial manuring.

The following is the result obtained by subjecting the clayey specimen to like analysis:

NO. 3.

| | |
|---|---|
| Water of absorption, | 11,5 |
| Humus, | 5,0 |
| Salts of Lime, | 3,5 |
| Alumina, | 42,0 |
| Silicious Sand, | 38,0 |
| | 100,0 |

Here we have a cold heavy soil, that works stiff, and clammy under the plow—it "bakes" if worked when wet, and becomes so excessively hard in a protracted "dry time" that it cannot be plowed. It might produce a pretty fair crop of wheat and oats in a favorable season, but would require expensive *sanding* in addition to barn-yard manure and lime to make it good *grain* land. It is well adapted for meadow purposes, most grasses, (especially timothy,) flourish on such "ground." Our Peaty specimen gave the following, No. 1:

| | |
|---|---|
| Water of Absorption, | 3,5 |
| Humus, | 4,5 |
| Undecomposed vegetable fibres, | 75,0 |
| Salts of lime, | 0,0 |
| Alumina, | 7,0 |
| Silicious sand, | 10,0 |
| | 100,0 |

This is a good *peat*, you perceive what a large proportion of the entire soil, is undecomposed combustible matter. When thoroughly dry it would burn well, and might be used for fuel in the absence of wood and coal. This will require thorough draining, lime, time, and exposure to the air, before any crop of value can be raised on it, unless it be cranberries. A small portion of such land would be valuable as a manure, to enrich land deficient in organic matter.

The following is the result of our analysis of the sandy specimen, No. 2:

| | |
|---|---|
| Water of absorption, | 3,5 |
| Silicious gravel | 12,0 |
| Silicious sand, | 75,0 |
| Humus, | 3,0 |
| Alumina, | 4,0 |
| Salts of Lime, | 2,5 |
| | 100,0 |

This is our warm light sandy soil, near the lake; it works free and easy under the plow or spade, either in wet or dry weather. It would require but two or three crops without manuring to exhaust this 'thin land.' It makes a good *foundation* for gardens.—With an extensive application of *leached ashes*, (one of the best manures for sandy land,) stable-manure, and 'swamp muck,' it makes a fine soil for almost any crop.

I will add the analysis of a portion of soil, taken from the middle of a field, (belonging to Walter Cooley, three miles north of Racine,) which has produced *nine heavy crops of corn, and one of oats in succession, without either rest or manure.*

| | |
|---|---|
| Water of absorption, | 12,5 |
| Humus, | 12,0 |
| Salts of lime, | 6,3 |
| Calcarious gravel, | 4,0 |
| Alumina, | 20,2 |
| Silicious sand, | 45,0 |
| | 100,0 |

This fine surface soil extends from one foot to eighteen inches deep. And is underlaid at the depth of from four to eight feet by a spongy limestone. In appearance, and most essentials, it differs but little from our analysis No. 4. Here is sand, lime, clay, and organic matter finely blended; composing a soil capable of resisting for a considerable time, a destructive system of agriculture. When will farmers learn it to be for their interest, to keep good land good, and make poor land better; instead of making good land poor and poor land worthless—it is quite as absurd, and economical, to exhaust land by continual cropping, and withholding nourishment until the land can no longer produce a crop without it, before we resort to manuring, as it would be to *starve* a *fat* animal until it become *poor* before we supply it with proper food.

NOTE.—Owing to other engagements, these articles were written with more haste than I could wish. In my desire to be brief, I have perhaps, omitted many essentials. Any explanations or additional information on these subjects will be cheerfully given on application.

EARLY PEAS.—If you wish to raise early peas, start them under cover about three weeks earlier than it is possible to do out of doors. Take boards six or eight inches wide and nail end pieces to them so as to form a common trough as represented in the above engraving, which fill with good earth and sow it with a row of peas. The troughs may be made any length to suit convenience. Place the troughs in a green house, or any other place where they will receive the sun and not be exposed to the severe weather. A temporary hot bed may be made by stretching cotton cloth on frames, instead of glass for the lights. After the cloth is put on the frame, it should be made transparent, for which purpose, take three pints of boiled linseed oil, four ounces white rosin and one ounce of sugar of lead; heat the oil and rosin to make them mix, then add the sugar of lead, after grinding it in a little of the oil. Apply the composition to the cloth with a brush. When the weather becomes mild and warm, dig a trench large enough to take in the trough, fill the earth up to the side of the box, knock out the ends and then draw out the sides, pressing up the earth at the same time, to fill the space made by the removal of the boards.

## Eggs and Poultry.

Among all nations, and throughout all grades of society, eggs have been a favorite food. But in all our cities and particularly in winter, they are held at such prices that few families can aford to use them at all; and even those who are in easy circumstances, consider them too expensive for common food.

There is no need of this. Every family or nearly every family can with very little trouble, have eggs in plenty during the whole year; and of all animals domesticated for the use of man, the common dunghill fowl is capable of yielding the greatest possible profit to the owner.

In the month of November, I put apart 11 hens and a cock, gave them a small chamber in a wood-house, defended from storms, and with an opening to the south. Their food, water and lime were placed on shelves convenient for them, with warm nests and chalk nest-eggs in plenty. These hens continued to lay through the winter. From these eleven hens I received an average of six eggs daily during the winter; and whenever any of them was disposed to set, viz. as soon as she began to cluck, she was separated from the others by a grated partition, and her apartment darkened; these cluckers were well attended and well fed; they could see and partially associate through their grates with the other fowls, and soon as any one of these prisoners began to sing, she was liberated, and would very soon lay eggs.—It is a pleasant recreation to feed and tend a bevy of laying hens; they may be tamed so as to follow the children, and will lay in any box.

Egg shells contain lime, and in the winter, when the earth is bound with frost or covered with snow, if lime is not provided for them, they will not lay, or, if they do, the eggs must be of necessity without shells. Old rubbish lime, from old chimneys and old buildings, is proper, and only needs to be broken for them. They will often attempt to swallow pieces of lime plaster as large as walnuts.

I have often heard it said that wheat is the best grain for them, but I doubt it; they will sing over Indian corn with more animation than over any other grain, The singing hens will certainly lay eggs, if she finds all things agreeable to her; but the hen is much a prude, as watchful as a weasel, and as fastidious a hypocrite; she must, she will

have secrecy about her nest; all eyes but her own must be averted; follow her or watch her, and she will forsake her nest; and stop laying; she is best pleased with a box covered at the top, with a backside aperture for light, and a side door by which she can escape unseen.

A farmer may keep an hundred fowls in his barn, may suffer them to trample upon and destroy his mows of wheat and other grains, and still have fewer eggs than the cottager who keeps a single dozen, who provides secret nests, chalk eggs, pounded brick, plenty of Indian corn, lime, water and gravel, for them; and who takes care that his hens are not disturbed about their nests. Three chalk eggs in a nest are better than a single nest egg, and large eggs please them; I have often smiled to see them fondle round and lay in a nest of geese eggs. Pullets will commence laying earlier in life where nests and eggs are plenty, and where other hens are cackling around them.

A dozen dunghill fowls, shut up away from other means of obtaining food, will require something more than a quart of Indian corn a day; I think fifteen bushels a year a fair provision for them. But more or less, let them have enough by them; and after they have been habituated to find enough at all times a plenty in their little manger, they take but a few kernels at a time, except just before retiring to roost, when they will take nearly a spoonfull into their crops; but just so sure as provision comes to them scanted or irregularly, so surely they will raven up a whole crop full at a time, and will stop laying.

THE VALUE OF OUR MARSH LAND.—The editor of the Watertown Chronicle makes some sensible remarks on the value of the marsh, alias swale lands of this State. They are invaluable meadows, and therefore admirable resources for stock. He observes:

"As it is, we will venture the remark, that for the same number of acres of cultivated land, no grain-growing State in the Union can boast a larger number of cattle and horses than Wisconsin. According to the statistics of Fairfield, Dodge county, for 1847, the number of horses and cattle then in that town was 1,119, and of cultivated land 3,205 acres. This gives a fraction over one animal to every three acres of cultivated land. We have no data of the kind from any other town in the State, but are confident that if they could be had, they would sustain us in the remark we have hazarded."—[Wis.

## American Crops—Great Value of Fodder.

(Correspondence of the Baltimore Sun.)

WASHINGTON, Feb. 13, 1849.

The Patent Office Report, one of the most valuable reports submitted annually to Congress is now ready; The different crops in the United States during the last year, were as follows:

Wheat, 126,364,600 bushels; barley, 6,222,050 do; oats, 185,500,000 do; rye, 32,951,200 do; buckwheat, 12,583,000 do; Indian corn, 588,150,000 do; potatoes, 114,475,000 do; hay, 15,735,000 tons; hemp, 20,330 do; tobacco, 318,999,000 pounds, cotton, 1,066,000,000 do; rice, 119,199,500 do; sugar, 200,000,000 do.

You will observe that the sugar crop (of Louisiana alone) falls below its annual average. The amount of maple sugar produced in different States is not given, from the extreme difficulty of obtaining correct and reliable information.

An item which has created some controversy is that of *fodder*, the value of which, per annum, was stated by Mr. Burk to reach the sum of $80,000,000. This sum, it appears from the testimony of practical and scientific men, presidents of agricultural societies, falls rather below than exceeds the true amount. The estimate may be made as follows:

1 ton of corn fodder to 25 bushels of corn valued at from 2 to 3 and $5. The proportion of straw to grain (wheat, rye and oats) is 1 ton to 20, (some say to 15) bushels, valued also from 2 to $5 a ton. Now, 588,150,000 bushels of Indian corn (as above) would yield 23,126,000 tons of corn fodder, which at $2 per ton, would be worth $46,250,000. 363,576,150 bushels of other grain producing straw, yielding at the lowest estimate 18,178,807 tons of straw, which at $2 per ton, is worth $36,357,000—making a total of $82,607,000. Not counting the chaff of barley, peas, beans, and a variety of other matter, which is valuable as manure and in other respects, making the whole *residium* of crops, as Mr. Burke calls it, certainly worth, on an average, the sum of $100,000,000.

☞How many are practically, in the matter o farming, like Twigg's uncle,

"I rams 'em in,
Now thick, now thin,
For what cares I
If they grows or die."

From the Boston Cultivator.

## Third Agricultural Meeting at the State House, Jan. 30.

The President opened the discussion by remarking, that charcoal, which he spoke of the last evening, was not of itself a manure, but a fixer, or retainer of the ammonia generated in the composed heap; clay had a similar effect. Ammonia also falls in the rain and the snow; this is absorbed by the charcoal, and is kept for the use of the growing plants, as the charcoal will yield it up to the roots of the plants as needed. He gave some account of the successful application of charcoal to land sown with wheat, in Western New York; where fifty bushels of pulverised coal spread per acre, the yield was, on several large fields, 25 bushels of wheat per acre; where none was used on similar lands, the yield was only from 3 to 5 per acre.

The other evening, Mr. Buckminster, of the Ploughman, doubted the statement that he made, in which it was said, Mr. Pell raised eighty bushels of wheat per acre, as 26 was the average crop in England. Mr. Colman states, in his travels in England, that 66½ to 70 and even 80 bushels of wheat per acre have been raised, and in one instance, 91 bushels per acre.

Hon. B. V. French, of Braintree, remarked that he would give his views, and the result of his observations of farming. Thorough working and hoeing the ground, is a partial substitute for manure, as has been proved in the raising of carrots, by sowing one plot of ground manured, another without, the last, hoed every day, in which the crop was as good. But which cost the most, the manure, or the extra hoeing? that is a question that has not been answered. Plaster of Paris does no good on land so near the sea-shore, where cattle require no salt. I have an abundance of muck or peat; cut it up in the winter when frozen, and draw it on to upland; and after being acted on by the frost, &c., it becomes light, and makes a good absorbant for the drainings of my manure, the urine, &c. Of itself, or applied alone, it is worthless, except for raising sorrel, but put in the hog and barn-yards, barn, cellar, &c., and by being mixed and shovelled over, it makes a large quantity of first rate manure.

Mr. Teschemacher remarked, all vegetable matters in the compost heap become carbonized, or of the nature of charcoal, and serve to retain the ammonia. It has been ascertained in Liebig's Laboratory, that there are from six to eight thousand pounds of ammonia in an acre of soil 12 inches deep; this is brought to the earth in every rain and snow, and some of it rises again into the atmosphere.

Mr. Bartlett enquired if this was annually brought down by the rains? Mr. T. replied that it originally was; but it was fixed in the soil by clay, charcoal, decaying vegetable matter, &c.; that it descends in rainy weather, and rises in fair.

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MANURE FOR GARDENS.—We have tried a variety of kinds of manure for a garden, and these kinds in a variety of forms, and as far as our experience warrants an assertion in favor of any particular kind, we must give a decided preference to *swamp mud*, or muck. One argument in its favor is, that it seldom produces weeds. Another, that it contains so much vegetable matter in a decomposable state that it is easily brought to operate as the food of plants. It also, from the slowness of its decay, continues its effects *longer* than most other manures. Its cheapness also commends it, for all it costs is the mere getting it from the pond hole, which will be sure to fill its treasury before a new draft is necessary. In order to have it *prime*, it should be placed in a pile for a few days, and ashes or lime mixed with it; and subjected to workings until the lumps are all reduced, and the two simples thoroughly compounded. It may then be put, half a shovel full will answer, in the hill for melons, cucumbers and squash. For radishes and the like, we use it for top dressing.

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EMPLOYMENT.—Assure yourself that employment is one of the best remedies for the disappointments of life. Let even your calamities have the liberal effect of occupying you in some active virtue, so shall you in a manner remember others till you forget yourself.—Pratt.

It is a false and indolent humility, which makes people sit down and do nothing, because they will not believe that they are capable of doing much, for everybody can do something. Every body can set a good example, be it to many or to few; everybody can in some degree, encourage virtue and religion, and discountenance vice and folly; everybody has some one whom they can advise and instruct, or in some way help to guide through life.—Miss Talbot.


Paular Merino Buck, "*Wisconsin Hero,*" owned by C. M. Goodsell, Geneva, Wis.

This Buck was bred by Erastus Robinson, Esq., of Shoreham, Vt., he was sired by the "*Vermont Hero,*" which was own brother to Mr. Jewett's famous buck, *Fortune,* who was sired by *Consul,* a buck of great value, raised by the Hon. William Jervis. Mr. Robinson's ewes (one of the finest of which brought the Wisconsin Hero) were descended from the flock formerly imported by Andrew Cock and purchased from him by the late Hon. Charles Rich, Mr. Robinson having purchased one half the flock after the death of Judge Rich. Wisconsin Hero is a large bodied, short legged sheep, carrying a very heavy fleece, of good quality. Having yielded at his first shearing seven pounds nine ounces, at the second, nine pounds fourteen ounces, and at the third, eleven pounds and eight ounces, and, from present appearances, his fourth will yield to exceed twelve pounds.

Geneva, Wis., Feb. 28, 1849.

Mr. Miller—Dear Sir: In fulfilment of my promise, when last at Racine, that I would furnish some matter for the forthcoming No, of the "Wisconsin Farmer," on the subject of wool growing, I commence by calling the attention of your readers to the importance of pursuing a more general, or mixed system of husbandry, than is generally done in Wisconsin. There are many reasons why the present system should be modified, and instead of raising, almost exclusively wheat, year after year, our land should be seeded to grass, and our farms stocked with sheep or cattle, to a limited extent, at least. It is an admitted fact, that continual cropping will in a few years impoverish the best of soils; while grazing continually enriches them; and there is but little doubt that a given quantity of ground will, in the course of ten or fifteen years, yield more bushels of wheat, if it be down to grass one half the time, with a flock of sheep to feed it, than it would year after year, through the whole period, to wheat. Beside the land would be twice as valuable at the end of the term, in the former, than in the latter case. Another reason why we should not depend so entirely on our wheat crop, is, that if a general failure of the crop ensues, it causes very great pecuniary distress; whereas, if a few hundred pounds of wool, butter or cheese were produced on every farm, we should not be left entirely without resources. The miseries of poor Ireland in consequence of the loss of her one crop, (the potato) should teach us never to depend, exclusively, upon any one crop, either for sale or consumption. I have found it quite convenient to have for sale a few hundred pounds of wool just before harvest; having thus been enabled to meet the expenses of harvesting and fall seeding, without being obliged to suspend my fall work to thrash and

market wheat for that purpose. It is objected by some, that they cannot afford to raise wool at the present low prices, which I admit may be the case with the flocks of sheep generally kept in Wisconsin, but I have proof in my own experience, that these flocks can be so improved, in the course of two or three years, as to pay well.

Since I commenced the use of a *full blood paular merino buck* my flock have increased their yield of wool from three and one-fourth to four and one-fourth pounds per fleece, with an advance of from twenty to twenty-five per cent. in quality, and I have good reason to believe, the increase in quantity, by judicious breeding, can be brought up to over five pounds per fleece from the whole flock, within the next three years. I have already, the past season, cut over five pounds each from thirty ewes, ten only of which were of the full blood paular, and the balance, half blood. As further proof of the quantity of wool that may be produced from well-bred flocks of *merino* sheep, I send you a few facts given by the editor of the Albany *Cultivator*, as having fallen under his own observation, while on a tour through the State of Vermont, in the month of May, A. D. 1845, and published in the July No. of his paper for that year. He says—

"Every one who passes through this section, and observes the various flocks he chances to meet, will see that their average size is considerably greater than that of merinos commonly met with in other sections. The fleece, especially of the larger class of sheep, and those which, having been bred here for some time have become fully acclimated, has lost some of its original fineness; but the capacity to bear a larger quantity has been evidently increased, accompanied by improved hardiness and vigor of constitution, a thicker skin, and an adaptedness to the climate which leaves nothing in this respect to be desired. The increase in the weight of fleece has been in some cases in a greater ratio than the increase in the weight of the carcass, the wool being both longer in staple and more thickly set upon the body. Numerous cases were made known to us by honorable and veracious men, of breeding ewes (Merinos) rearing lambs every year, having for several successive seasons yielded from five and a half, to six pounds of well washed wool per fleece; and of bucks yielding from ten to twelve, and in one or two instances, thirteen pounds. In most cases we examined ths identical animals to which we allude, and took from them samples of wool, which we can show."

Here the editor proceeds to notice several flocks which came under his special notice, two or three of which I will transcribe for the benefit of your readers:

"Mr. John T. Rich's flock consists mostly of the merino stock, purchased by his father, the late Hon. Charles Rich, of Andrew Cock, late of Flushing, Long-Island. They have short legs, compact bodies, and heavy fleeces, though not as fine in staple as some merinos. Of a lot of one hundred and forty-seven ewes which Mr. Rich sheared last year, one hundred and five gave a fraction over five pounds per head, on the average. Mr. Rich has for the last two seasons been breeding from a buck, bred by the Hon. Wm. Jervis. This buck called *Consul*, now owned by Mr. Rich, is the sire of Mr. Jewett's famous buck *Fortune* and the *Vermont Hero*. Consul is a buck of great value—is ten years old, yet sheared last year ten pounds of washed wool of excellent quality for merino. Old as he is, his fleece is well set, and we presume will not this year fall much, if any, short of its former weight."

"Mr. S. W. Jewett's flock consists of descendants from the imported Merinos of Messrs. Humphry, Jervis, D'Wolf, Cuff and Cock, with some purchased of William Davies, Esq., of Poughkeepsie. The buck, Fortune, was the produce of the Cock stock, by the buck of Mr. Jervis' breeding before mentioned. He is a large bodied, short legged sheep, carrying an enormous fleece of about medium quality. His average fleece has been eleven and an half pounds. The lambs of his get, are large and well formed."

"We happened to call at Mr. A. L. Bingham's farm in his absence, and consequently had not the opportunity of seeing his buck, called Vermont Hero, which is own brother to Fortune. He is represented as being a remarkable animal and we regretted not being able to find him."

I now close this communication, wishing you a long and *profitable* acquaintance with our agricultural brethren of the State, through the columns of the "Wisconsin Farmer."

Yours, respectfully,

C. M. GOODSELL.

To please all, mind your own business.

PORK AS FOOD.—The flesh of swine is a very questionable article of diet. It has been a very general opinion of medical men, that their flesh is apt to produce scrofula. There is, generally, some foundation for old maxims, and it is well known, that scrofula takes its name from the Latin word which means a swine. Many diseases have, unquestionably, been produced by what is called "measled pork." Somebody has to eat this pork. Rarely is the carcass of a measled hog destroyed. In a warm climate the grease of the hog cannot be tolerated as an article of diet.

In a former number of the Boston Medical and Surgical Journal, we find the following remarks which are well worthy of consideration:

"The food of hogs is of the most loathsome description. Their nourishment is drawn sometimes from wholesome materials, but frequently from offal, poultices, and filth of every kind. Those who advocate the necessity of hogs acting as scavengers of the city, do not consider that they may be recommending the rehashings of garbage for their own stomachs."

It is said that "one great object of the Puritans coming to New England, was to establish a religious commonwealth as nearly upon the model of that of the Jews, as the difference of circumstances would admit." To say nothing of other inovations among the descendants of the settlers, forbidden food is presented at almost every meal. Pork with beans, pork in gravy, pork with chickens, and, it is said, though I do not believe it, pork with molasses.—*Journal of Health.*

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*Mr. Horsey's (the Prize) Ham was cured by the following receipe.*—For twelve hams of common size, take 8 lbs. brown sugar, half a pound of crystalized saltpetre, and 5 pounds fine Liverpool salt; rub well with the mixture, and let them be a week in the cask with the skins down, then make a brine strong enough to bear an egg, and add two or three qurats of lye from hickory ashes, refined by boiling and skimming, cover the hams with a brine and keep them down with a weight, and let them remain in it three or four weeks; then hand them up in a smoke-house, and after 24 hours, smoke with hickory wood until cured, say six weeks. This ham was wrapped thickly with timothy hay before being boiled.

*Thomas Duckett's Mode of curing the Hams offered at the Show, which took the Second Premium.*—To 1000 weight of ham apply the following *mixture*, well rubbed on. Five-eights of a bushel of fine salt, four pounds of salpetre, two tea-cupsful of red pepper, half a gallon of molasses, one gallon hickory ashes. Let the hams be packed away for five weeks with the rinds down. Then smoke for three or four weeks with green hickory wood and tobacco stalks, (in which there is a certain quantity of saltpetre,) and as soon as sufficiently smoked, cover them with pepper and ashes, (well mixed,) and sew them up in bags to protect them from the flies.

After all, much depends on the *age* of the hog, his *rearing* and *education!* For this, the genuine democratic school of the "larggest liberty" is admitted to be the best; roaming where he listeth, and not put under inconvenient restraint, until he arrives at years of sufficient discretion and experience to hear a falling apple or smell a chestnut or an acorn, a quarter of a mile off. He should weigh from 140 to 160 pounds. The ham that took the *second premium* (and there need be none better this side of Westphalia, unless it be the pea-fed ham of North Carolina,) weighed, we should guess, about 13 pounds; and the hog, therefore, probably, about 200. The hams of a hog, when cut up for the tup, weigh about one-third of the whole, and they loose about one-third in curing. Thus a hog weighing 200 will give two hams of 20 pounds each, which will cure down to about 13 pounds.

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CROPS FOR 1848.—The Patent Office Report for the year 1848 gives the following estimate of the crops raised in the United States, during the last season:

| | | |
|---|---|---|
| Wheat, | bushels, | 126,364,600 |
| Barley, | " | 6,222,850 |
| Oats, | " | 195,500,000 |
| Rye, | " | 32,951,200 |
| Buckwheat, | " | 12,583,000 |
| Indian Corn, | " | 588,150,000 |
| Potatoes, | " | 114,475,000 |
| Hay, | tons, | 15,745,000 |
| Hemp, | " | 20,330 |
| Tobacco, | pounds, | 318,909,000 |
| Cotton, | " | 1,066,000,000 |
| Rice, | " | 119,199,500 |
| Sugar, | " | 200,000,000 |

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☞To preserve fruit trees from the ravages of the fly, &c., oil well the bodies of the trees, and hang about them large necked vials filled with sweetened water. This should be done as soon as the Spring opens.

## White and Brown Bread.

Several years ago, we threw out the surmise that the separation of the white from the brown parts of wheat grain was likely to be baneful to health. We proceeded upon theoretical grounds, believing Providence must have contemplated our using the entire grain, and not a portion only, selected by means of a nicely arranged machinery. It struck us forcibly, that to go on, for a long course of years thus using a kind of food different from what nature designed, could not fail to be attended with bad consequences. We have since learned that our views have some recognized support in science.—The following paragraph from a recent pamphlet will at once serve to keep the subject alive in the minds of our readers, and explain the actual grounds on which the separation of flour is detrimental:

"The general belief," says the writer, "is, that bread made with the finest flour is the best, and that whiteness is the proof of its quality; but both these opinions are popular errors. The whiteness may be, and generally is, communicated by alum, to the injury of the consumer; and it is known by men of science that the bread of unrefined flour will sustain life, while that made with the refined will not. Keep a man on brown bread and water, and he will live and enjoy good health; give him white bread and water only, and he will gradually sicken and die. The meal of which the first is made contains all the ingredients necessary to the composition of nourishment of the various structure composing our bodies. Some of these ingredients are removed by the miller in his efforts to please the public; so that fine flour, instead of being better than the meal is the least nourishing; and to make the case worse, it is also the most difficult of digestion. The loss is, therefore, in all respects a waste; and it seems desirable that the admirers of white bread (but especially the poor) should be made acquainted with these truths, and brought to inquire whether they do not purchase at too dear a rate the privilege of indulging in the use of it. The unwise preference given so universally to white bread, led to the pernicious practice of mixing alum with the flour, and this again to all sorts of adulterations and impositions; for it enabled bakers, who were so disposed, by adding more and more alum, to make bread made from flour of an inferior grain, look like the best and most costly, and to dispose of it accordingly; at once defrauding the purchaser, and tampering with his health. Among the matters removed by the miller are the large saline substances, which are indispensable to the growth of the bones and teeth, and are required, although in a degree, for daily repair. Brown bread should, therefore, be given to nurses, and to the young or the growing, and should be preferred by all, of whatever age, whose bones show a tendency to bend, or who have weak teeth. It is believed that brown bread will generally be found the best by all persons having sluggish bowels and stomachs equal to the digestion of the bran. But with some it will disagree; for it is too exciting to irritable bowels, and is dissolved with difficulty in some stomachs. When this happens, the bran should be removed, either wholly or in part; and by such means the bread may be adapted with the greatest ease, to all habits and all constitutions."

Mr. Smith, in his late remarkable work on Fruits and Farinacea as the food of man, gives some illustrations of this doctrine.—"Bulk," he says, "is nearly as necessary to the articles of diet as the nutricient principle. They should be so managed that one will be in proportion to the other. Too highly nutritive diet is probably as fatal to the prolongation of life and health, as that which contains an insufficient quantity of nourishment. It is a matter of common remark among old whalemen, that, during their long voyages, the coarser their bread the better their health. 'I have followed the seas for thirty-five years,' said an intelligent sea captain to Mr. Graham, 'and I have been in almost every part of the globe; and have always found that the coarsest pilot-bread, which contains a considerable portion of bran, is decidedly the healthiest for my men.' 'I am convinced, from my experience,' says another captain, 'that bread made of the unbolted wheat meal is far more wholesome than that made of the best superfine flour—the latter always tending to produce constipation.' Captain Dexter, of the ship Isis, belonging to Providence, arrived from China in December, 1844. He has been about one hundred and ninety days on the passage. The sea-bread, which constituted the principle article of food for his men, was made of the best superfine flour. He had not been long at sea before his men began to complain of languor, loss of appetite and debility. The difficulties continued to increase during the whole voyage; and several

of the hands died on the passage of debility and inanition. The ship was obliged to come to an anchor about thirty miles below Providence; and such was the debility of the men on board, that they were not able to get the ship under weigh again, and the owners were under the necessity of sending men down from Providence to work her up.—When she arrived, the owners asked Capt. Dexter what was the cause of the sickness of his men. He replied, 'the bread was too good.' "

# EDUCATIONAL.

## Education.—No. 3.

You have all learned that there was once a man called Benjamin Franklin—his name is familiar to you all—as a Statesman and Philosopher, he fills no mean space in the annals of our country and of the Race. This man was once a printer's boy, humble and unknown; and had he not lived in a land where knowledge is as free as the sunlight from heaven, or as the air we breathe, the aspirations of his great soul had been quenched, and he never been known save as honest Ben Franklin the printer. There, too, was David Rittenhouse, the successor of Franklin as President of the American Philosophical Society, once the son of a plain farmer, and afterward one of the first practical astronomers of his time. There again was Roger Sherman, who at the age of twenty three, with his awl and bristle, was seated on a shoemaker's bench; and who rose from this occupation to an enviable eminence in legal and political attainments, and came to occupy a prominent position in the Councils of our country, at the trying period of the Revolution. These men were indebted to Common Schools for the beginnings of their fame, for the first developements of their great souls, for the enkindling of the divine spark of genius within them, through which they rose up out of obscurity, and wrought out for themselves a name that shall live when the marble at their graves shall have crumbled to dust.

"In the free Government of the United States, every man is, to a great extent, the artificer of his own fortune and fame. Common Schools are the means by which native genius is to be, in the first instance, taught to put forth its strength, and by which it is to be raised from its obscurity."

How important, therefore, that Legislative aid be extended, and the most liberal provisions be made, for the establishment and maintainance of common schools. In many of the States this has been done. Especially is this true with regard to the new States in the West. They equal, if not surpass the old in their large appropriations for school and educational purposes. And it is a proud thought that our own rapidly advancing State, is not a whit behind the rest in the liberality of its provision, and the generosity of its aid, for the advancement of the cause of education. With a wise and prudent foresight, it has thus laid the foundation for its future prosperity and glory. What species of improvement can compare with this first great work which has been so earnestly taken in hand? Canals and railroads, and other similar works, are indeed of great importance, but these things have a principal reference to the physical wants of men. But physical wants are of minor importance, compared with the intellectual and moral elevation of the human mind. Republican States, in a particular manner, must depend upon this intellectual and moral elevation for their highest prosperity.

And yet, after the most abundant public provision has been made for the support of Schools, and the State has been enriched by the most liberal endowment in aid of this object, there are pressing duties to be discharged beyond, and further legislative aid to be sought, whereby the full benefit and service of such provision and endowment may be obtained. It is not always that the cause of education advances in a State in proportion to the abundance of its resources; and only does it, when in proportion to the munificence of a public provision, the system of education is improved and perfected, and its standard raised. While, therefore, it is important that adequate funds should be provided for the support of schools, it is still more important that due care should be taken that these funds be employed in a prudent, wise, and efficient manner.—Not only should competent teachers be raised up and employed, but all the preparations for instruction should be on an extended scale. Very much depends upon this, and it is to little purpose that money is appropriated, or any amount of means employed, if the system through which such agency and means are to be applied and rendered operative in the cause of education, is a weak, injudicious, and imperfect one. There is required a system as liberal as the provision is munificent, thro' which every appropriation of means may be rendered vital and efficient. Much on this subject remains to be done every where; and availing themselves of the Legislative aid, there is pressing need that the most gifted minds of the country should combine their strength to bring the schools of the nation, of every grade, and particularly the common schools, to answer the high purpose of their institution.

We have said that competent teachers should be raised up and employed. We too often are con-

tent with "skulls that cannot teach and will not learn." We forget that there is scarcely a more responsible office than that of the teacher, and that we greatly err, when we call men to fill it who are incompetent to the discharge of its high duties.

"What is the Teacher's task? It is to plant
The seeds of virtue in young hearts;
To smooth the path that childhood's feet must tread,
When toiling up the hill where Science dwells.
O, it is not enough to lead the child,
Day after day the same dull routine thro',
That makes each glad young heart dislike the school,
And the wild boy desire to be a man,
That he may throw the hated volume by.
The Teacher's hand should strew the steep with flowers,
His quiet voice should cheer the rugged way,
His pleasant smile should make the task seem light,
His daily walk a bright example be."

How important and necessary, then, that suitable provision be made for raising up a supply of competent teachers of common schools. The establishment of Normal schools, designed expressly for preparing teachers, should by no means be omitted. "Such institutions, established on a broad foundation, and sustained by a liberal endowment, would be of incalculable importance to Common Schools." The instruction given in them, being specially directed to this object, would be more appropriate and more effectual; and thus through their instrumentality we should be blessed with teachers into whose hands we might safely entrust the work of educating our children, and training the mortal for immortality.

The present is emphatically an Age of light.—Intelligence in its invincible power is abroad. Thro' its general diffusion "a revolution, mighty, irreversible, irretrievable has commenced—it cannot go back—it will go on to its consumation." Mind has been aroused, quickened, and a new impulse given it. It is struggling upward toward that equality which is the birthright of all. "The many will no longer be in subjection to the few, the masses feel their power and will exercise it; the people swear with their millions of tongues, and with their millions of eyes and Millions of hands, that they are the sovereigns, and that as such they will be reverenced and obeyed." This mighty revolution is oversweeping the Old world—it has made its way to France, to Germany, to Itally, even England has felt its power, and it is destined to beat thrones into chaff, and write LIBERTY, EQUALITY, FRATERNITY, on the institutions of all lands. To increase the intelligence of the Age, and thus aid onward the triumph of freedom and equality, is what is demanded of us.—Our own Wisconsin, just admitted to the sisterhood of States, will not be found, I am confident, one whit behind the eldest of them all. It will keep pace with them in the march of all improvements while earnest effort shall avail, and will be found contributing largely to the mental and moral illumination of the world. Then shall she wear as bright a crown, and bear as prominent a part in the rejoicings of "the good time coming."

# FENCING LANDS.

☞The following letter from Dr. HASKELL, of Rockford, Ill., has been kindly furnished us for publication. The subject treated of, is one of importance to farmers in all this western country; and in a few years, at the farthest, they will be obliged generally to resort to the cultivation of living fences. It would be better to begin early—to begin *now*—that when the present fences have decayed, permanent, ever-enduring ones shall take their places. Dr. H. is a practical agriculturist, and speaking from his own experience, his testimony should be deemed conclusive in favor of the Buckthorn. It is greatly to be doubted whether the *Bodark* (we know not that we authograph it correctly, though we got our spelling from Texas direct,) or Osage Orange can be successfully cultivated in this latitude. But here is the letter:

ROCKFORD, Feb. 28, 1849.

Dear Sir:—Your letter of Feb. 21, is received, and in reply to your inquiries, I would say, that my Buck thorn hedge is now 10 years old, was set in the hedge at two years old, and has had no attention since, but to take care of itself. But from the growth of it and what I have seen of it, I am confident it is one of the best, if not *the* best hedge plant we have. It is perfectly hardy, never injured by the cold; no insect will live on it; no animal will browse it; its roots are of such a peculiar construction, that the plow can run close to the hedge without injury—and when cut off they will not sprout again. My plants were not set out with care, and have never been cropped. They should be set out in two rows about a foot apart, and cut down to within two or three inches of the ground; then the next year, cut down again about 5 or 6 inches higher; and thus the hedge may be made so close that no animal can get through it, and in 4 or 5 years it will make a fence that will turn anything that goes on legs. I have a small quantity of the plants two years old, that I shall set in a hedge this spring and see what I can make of it, and I think I can show, in four years, a fence.

I do not know of any other Buckthorn in the country. I procured my seed from the neighbor-

hood of Boston. My bushes have produced berries for three years—last year a good crop. I sowed nearly half a bushel, which are in preparation for planting in the spring. I want to fence all my grounds. I have three pounds of the seed, in the berry, left with me for sale at $3.00 per lb., which you can probably have should you wish. They do not require freezing as some other seeds, but will grow better by being kept moist and swelled before planting. I have procured some of the Osage Orange seed to plant this spring for a trial, but have very little confidence that it will stand our climate. The white, or Washington thorn, is no doubt a good hedge plant, and will make a good fence. I have some of the seed left with me for sale at $4.00 per lb. I think it very important that we should know what will make the best permanent fence in this country. On account of the want of timber, we must eventually depend upon the living fence for our protection against all sorts of *'varmints.'* I have often been inquired of in regard to my buckthorn hedge, but as I have neglected to make a good fence of it, have declined making any public communication in regard to it.

We have no doubt that species of Thorn, aside from the Buckthorn, may be found here indigenous to this climate, which would answer equally as good purpose. With regard to setting the thorn, we may say in explanation and illustration of the remark of Dr. H., that it should be set for the forming of a hedge in two parallel rows, after this wise:

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We shall have more to say in our next No.

WEALTH AND PROGRESS OF OHIO.—The official valuation of real and personal property in Ohio, for the last three years, compares as follows:

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| 1846, | $404,444,004 |
| 1847, | 410, 763, 160 |
| 1848, | 521,067,991 |

The valuation for 1848 gives an average of *two hundred* dollars to every living soul in the State, or *one thousand* to each family. The mass of the people of Ohio are farmers and free-holders, and property, in the main, very equally distributed, not by the force of law, but by the effect of active, intelligent and unfettered industry.

☞There is great truth in a saying of Crabbe.—A great lie, he says, is like a big fish on dry land—it may fret, and fling, and make a frightful bother, but it can't bite you. You have only to let it lie still, and it will die quietly of itself.

## Fruit Trees.

The following extracts from a foreign work will show the young people of our country how they keep up a succession of fruit trees in Germany, and perhaps it may stimulate some of them to imitate so laudable an example.

"In the duchy of Gotha, in Germany, there are many villages which obtain a rent of many hundred dollars a year for their fruit trees, which are planted on the roadside, and on the commons. Every *new married couple* is bound to plant two young fruit trees. The rent arising from the trees thus planted is applied to the uses of the parish or town.

In order to preserve the plantation from injury or depradation, the inhabitants of the parish are all made answerable; each of whom is thus on the watch over the other; and if any one is caught in the act of committing any injury, all the damages done in the same year, the authors of which cannot be discovered, is attributed to him, and he is compelled to atone for it according to its extent, either by fine or corporeal punishment."

"A gentleman at Cholchester, England, makes it a rule, whenever he builds a cottage, to plant a vine against its walls, and two or three apple trees near to it, or in the garden, and thus he confers a greater benefit on his tenant, by giving him an innocent source of gratification to his children, and an excitement to a little extra industry on his own part, than if he had let him a comfortless, mean looking hovel, at half the rent."

A few ornamental trees and shrubs, disposed with good taste about a farm house, add much to the beauty and pleasantness of the scene; and they never fail to make a favorable impression, on the mind of a visitor of the character of the inmates of the mansion. A season should never be suffered to pass by without some addition being made, by the young people, to the ornaments of the yard, garden, or lane leading to the house. Some families have displayed their industry, taste and good judgment, in this respect, so conspicuously as to command the admiration of their neighborhood, and excite the curiosity of travelers to inquire "who lives there."

Farmers' sons had better learn to hold the plow, and feed pigs than measure tape and count buttons.

CULTIVATION OF TREES.—Few persons have any correct idea of the rapidity of the growth of well cultivated trees, and many are deterred from planting them, by the consideration, selfish at the best, that they shall not live to reap the fruit of their labors.—Such persons may derive encouragement from the statement of a few facts. In the spring of 1846, I set out in front of my office at Chester, two elm trees. They were then so small that I could easily carry either of them, with a full top, upon my shoulder, and were perhaps two or three inches in diameter. I measured them carefully in the fall of 1847, and found them of equal size, and each measuring 40 in. in circumference. They stand about 18 ft. apart and some 12 feet from the building, for which they form a protection from the summer's sun, their branches being already interlaced. The elm in that neighborhood is of more rapid growth than the rock maple, or indeed than any other forest tree. An apple orchard may be brought to commence bearing in four years from transplanting from the nursery, which should be the second or third year from the time of budding. By the eighth or tenth year, your orchard well managed, will pay you annually for your trouble and expense in planting it, and will continue productive as long as you have a right to expect to live.—*Hill's Monthly Visitor.*

☞The annual meeting of the American Colonization Society was held at Washington on the 24th of January. The Secretary read the annual report, from which it appears that the number of emigrants to Liberia for the past year was 443, of which 324 were liberated slaves, and 119 free colored persons. The number of applications in 1840, for a passage out, was only 157.

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| Receipts of the Society for the year, | $50,114 37 |
| Expenditures, | 51,939 69 |
| Excess of expenditures, | $1,925 31 |

The Society have 600 application for passage out, this year, of liberated slaves, and expect 500 more. They want funds and help. The Society congratulate themselves that England and France have recently recognized the independence of the Republic. HENRY CLAY was re-elected President.

Ground once well plowed is better than thrice poorly.

# HORTICULTURE.

## Notes on Gardening.

MR. MILLER:—The following "Notes on Gardening," I clip from the Suffolk Democrat, published at Huntington, Long Island, and request you to publish it in your Agriculturl Journal, believing that it will be of much service to those of our citizens who are turning their attention to Horticulture—as well as to prompt those who have long neglected this useful and pleasant branch of industry, to enterprise in the matter. C.

Racine, Feb. 18, 1849.

Seed should be perfectly ripe before it is put into the ground, and for this reason: that when it is unripe it dose not possess the principles which are necessary to germination. Now, what is a ripe seed composed of, and what is an unripe one? The ripe seed contains starch—the unripe seed contains gum, or mucilage. Which is then the best? The ripe seed—and why? Because it is converted into sacharine matter by the heat, moisture, and oxygen gas—the unripe seed by the same agents is converted into acetic acid, or vinegar. Which makes the seed germinate? That which converts the seed into sacarine matter; or, in other words, sugary, or sweet matter—the unripe seed is converted into vinegar, altogether unfit to make a seed vegetate or commence to grow. A seed, then, to grow, should possess this principle: starch, and it should be converted into sacharine principles or sugar. Let us look into this a little further: Sacharine matter, or sugar matter to make it more plain, is necessary to the nourishment of the plant. I do not know why sugary matter is most necessary for a plant, or why vinegary matter is bad for the germination of plants, or in other words, to make the plants start—all I want to state is the facts, which any practical farmer desires to make himself acquainted with—and here I would refer to a general law of Nature—that the nourishment of animals in the first commencement of life is very different from that which sustains it in after life. Sacharine matter at first is absolutely necessary to set the plant growing.—No one would think after the plant is out of the ground of applying the same nourishment to it. All plants have a stem and roots—there may be exceptions, but I am now speaking of wheat, barley, peas, rice, &c. These seeds contain a great deal of starch, and when the plant begins to grow, the starch

is converted into sacharine matter which supports the stem and the root. By and bye, the seed becomes dependant upon the ground for its nourishment. At last the seed disappears, and a new kind of berry springs from it having new properties and new dependencies. Now if this seed be full and plump, and containing much starch, the plant will have a good start; but if it be shrivelled, it has lost its nutritive principle, and consequently the wheat or rye looks sickly, because the seed contains mucilage or gum, which will not be the thing to set the seed in a healthy action. You see now the reason that you should always get the heaviest wheat when you sow, and that you be certain that is perfectly ripe.

There is anothrr thing of great importance, i. e. that you do not keep the seed too long; for, although some seeds will keep a long time, many others are worthless when held over beyond a certain time. So when you go into a store to buy seeds, you must always inquire how long the seeds have been kept, for you will find rogues in all trades. I will, therefore, put down the time which may be accounted good :

*One year.*—Peas, Beans, Carrot, Rhubarb, &c.

*Two years*—Radish, Salsify, Onion, Tomato, Egg Plant, Pepper, &c.

*Three years*—Seakale, Artichoke, Lettuce, Rue, Rosemary, &c.

*Four years*—Cabbage, Spinach, Asparagus, Mustard, &c.

*Five and six years*—Sorrel, Parsely, Dill, Fennil, &c.

*Ten years*—Beet, Celery, Pumpkin, Cucumber and Melon.

There are some seeds which have existed for ages, and have been taken out of Mummies and have germinated. It is a rule then that the more starchy a plant is the greater the vitality. Take, for example, rice, which contains 85 per cent. of strach—its germinating power will exist for ages. On the other hand, where a seed is short lived, it is owing to the quantity of matters of an animal or vegetable kind into which nitrogen enters—which is the principle of putresence—and the more you have of this principle, the sooner the seed decays. There are some seeds that not only preserve well, but improve, as the Melon. When the melon seed becomes old, the starchy matter is converted into albumen, and as this substance is not so easily absorbed by the Radicle plumule, (or the root and stem,) less stem is produced and the fruit is ripened earlier.

What then is necessary to make a seed start? Heat, Moisture, and Air. Every seed differs in excitability, and therefore, these three important principles must be adapted to their different powers. Take, for example, two sorts of peas, sown in the same order, on the same day, and treated strickly alike with the same manure:

Prince Albert, Jan. 4, in bloom, April 1, ripe May 14
Warwick, " " " 13, " " 28

Vegetables, &c., which I shall now name, became excited and germinated in the following order:

Three days, Spinach, beans, and mustard.
Four " Lettuce, aniseed.
Five " Melon, cucumber and Cress.
Six " Radish and beet.
Ten " Cabbage.

This rule is according to experiment, but it is by no means invariable, for much depends upon deep or superficial sowing; for tobacco seeds have been known to vegetate after having been ten years in the ground, and so with the Peony and Hawthorn. The cause of excitement is unknown; but we can see the principle of unequal germination—it is to prevent the extinction of the species. One unpropitious season may destroy a whole sowing; but there are some seeds that are so easily excited and they are preserved for another year.

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The Late Vintage in France.—During the year 1848 there were 5,000,000 acres of land in France, planted with vines, which produced 919,580,575 gallons of wine and 27,220,050 gallons of brandy, estimated at the enormous sum of 478,088,302 francs (£19,120,000.) The average value of each acre of vines may be taken at 530 francs (£21). The annual consumption of each individual in France is calculated at 17 gallons wine and 3 gallons of brandy.

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Native Wine.—Cincinnati is in rapid progress of becoming the great market of American wines. The vintage of 1848 will reach fifty-thousand gallons, equal to eighteen hundred quarter casks. The finer qualities are sold in bottles, and the Catawba wine of our favorite brands are sold off as fast as sent into market. These wines are manufactured without the addition of spirit, and have a character and flavor peculiarly their own.—*Advertiser.*

CULTIVATION OF FLOWERS.—The cultivation of flowers is an employment adapted to every grade, the high and the low, the rich and the poor; but especially to those who have retired from the busy scenes of active life. Man was never made to rust out in idleness. A degree of exercise is as necessary for the preservation of health, both of body and mind, as food, And what exercise is more fit for him, who is in the deline of life, than that of superintending a well ordered garden? What more enlivens the sinking mind? The cultivation of flowers is an appropriate amusement for young ladies. It teaches neatness, cultivate a correct taste, and furnishes the mind with many pleasing ideas. The delicate form and features, the mildness and sympathy of disposition, render them fit subjects to raise those transcendent beauties of nature, which declare the "perfections of the Creator's power." The language of flowers is so elegant an amusement, that we select a few of the most interesting emblems for the gratification of our fair readers.

*Beauty—The Rose.*—This queen of flowers is considered the pride of Flora, and the emblem of beauty in every part of the globe.

*Calumny—Madder.*—This plant so essential to dyers and calico printers, is made the emblem of calumny, since it leaves so permanent a stain on the purest cloth.

*Coquetry—The Yellow Day Lilly.*—This fragile beauty is made to represent coquetry as its flowers seldom last a second day.

*Courage—The Black Poplar.*—The poplar was dedicated to Hercules, in consequence of his destroying Cacus, in a situation where these trees abounded.

*Declaration of Affection—Tulip.*—The tulip has, from time immemorial, been made an emblem by which a young Persian makes a declaration of his attachment.

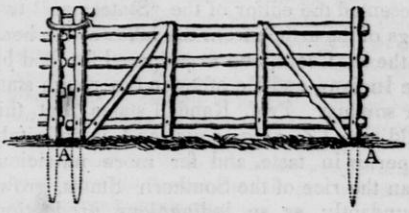
*Diffidence—Cyclamen.*—As modest diffidence adds attraction to beauty, so does this graceful flower engage our notice by its unassuming carriage; for the cyclamen, although it expands in an upright direction, never rears its head to the sun.

*Docility—The Rush.*—This plant so proverbial for its pliability, is the most applicable symbol of docility.

*Durability—Dogwood, or Cornel Tree.*—The firm and lasting nature of this wood has caused it to be made the type of duration.

*Fidelity—Wall Speedwell.*—This beautiful plant which attaches itself to old walls, is the symbol of fidelity.

*Forsaken—The Lilack.*—The Eastern nations, from whence this beautiful shrub was originally brought, use the lilack as the emblem of the forsaken, as it is the flower the lover offers to his mistress if he abandons her.




## Hurdle or Moveable Fence.

Hurdles or moveable fences for confining animals to particular portions of ground, are necessary in many cases, where soiling is extensively practised; and the operation of thus confining them, possesses in part the advantages derived from soiling, no portion of the field being touched but that on which they are feeding, which is not left till all the herbage is consumed. The manure, being also thus limited to one spot, may be plowed under before much loss is occasioned by evaporation.

The mode of erecting this kind of fence, lately witnessed by the writer at the residence of Charles Downing of Newburgh, is at once so neat, cheap and useful, that a figure and description may be of value to others. The fence consists of separate frames or 'lengths,' one of which is shown above, with a sharpened post at each end, A, A, driven into holes made in the ground by a crowbar, and secured at the top by withing together, though the latter is not indispensable. These pieces are made of round poles or sticks split in two, the flat sides being placed next to the cross bars, which are fastened to them by wrought nails at the points of intersection. The points of the posts are driven into the ground to a depth of about fourteen to sixteen inches.

These frames or lengths of fence, are four feet high and eight feet long; they cost, besides the material, two dollars and twenty-five cents per dozen in making, or thirty-seven cents a rod. The material would add about thirteen cents more, making half a dollar a rod for the whole.

Two men put up thirty rods of the fence, securing the tops by withes, in about three hours—Albany Cultivator.

WILD RICE FROM MINESOTA.—Professor Randall, who was attached to Mr. Owen's corps of Engineers sent out by the United States to explore this interesting and valuable region, has recently returned to Columbus, bringing with him some of the native rice as it grows in its wild state. He has presented the editor of the "Statesman" two bags of the article from the lakes at the head of the St. Croix, one as prepared for food by the Indians, and the other in the rough state for sowing. Prof. Randall states that this wild rice (*Zizania aquatica,*) is infinitely superior in taste, and far more nutricious than the rice of the Southern States, grows abundantly as an indigenious production, and can be cultivated to almost any extent in the rivers and lakes that abound in that territory. After the tops of the rice plants have been tied up in small sheafs as it stands growing in the water, an Indian squaw with her canoe, will gather from five to ten bushels per day.

It will grow in water from six inches to five feet deep, where it finds a muddy soil. The stalks of it, and the branches or ears, that have the seed, resemble oats, both in appearance and manner of growing—the stalks are full of joints, and rise from 1 and ½ to 4 feet above the water.

Mr. R. was taken prisoner by the Sioux Indians, who robbed him of all his apparatus, and then sent him of on a four hundred mile tour without gun or provisions. He retained—and that only by wresting it from an Indian by main force—a flag presented by the citizens of Desmoines.

Before letting him go, they cocked their guns at him, and drew their long knives under his throat, to show him their love of "law and order."—*Farmer and Mechanic.*

GREEN BAY.—The business of Green Bay has been excellent during the winter, and the prospect of the commencement of the improvement in the spring, is stimulating the whole country. We hear every day of transactions of real estate, at good prices to buyers who are making their location here. A day or two since, a store with a large warehouse and wharf passed into the hands of a gentleman from the east, who intends establishing a heavy wholesaleing and forwarding house—and another block has been bought for the purpose of opening new stores. Green Bay already, numbers 18 stores and groceries, most of which have heavy stocks, with a good business.—*Adv.*

PRESERVATION OF THE TOMATO.—Mr. R. B. Morrell gives us the following :—

"The tomato, which has come into universal use, and is deemed a luxury by almost every one, may be preserved for winter use in the following manner. When ripe, let them be prepared by stewing as for the table, and to the liking; put them in small jars (1 quart) with covers. Over the top put a piece of linen or cotton cloth, which well cover, and press the cover on; then pour into the cavity melted mutton tallow, and keep them in a cool and dry place in the cellar until required for use. They need only to be warmed to serve them for the table. I use small jars for the reason, that where exposed to the air they soon ferment."—*Albany Cultivator.*

SAVE THE CORN COBS—*Good Charcoal.* The editor of the Poughkeepsie Journal and Eagle, says he has used corn cobs in lieu of charcoal, for more than a year, and remarks: "From our experience in the use of cobs, we are convinced they are worth quite as much, bushel for bushel, as the best charcoal; the same quantity will kindle a fire in less time." If this is the case, it would be well for our farmers to bring them into the city for sale.

Set a value upon the smallest morsels of knowledge. These fragments are the dust of diamonds.

## The Farmer's Life.

I love the Farmer's quiet life,—
His peaceful home devoid of strife,
With gay contentment blessed.
I love the virtues of his heart,
Which peace and love and joy impart
Around his tranquil rest.

I love the bloomy hills and dales,
Their healthful winds, their odorous gales,
Untainted with disease;
I love the tales, the legends old,
By white-haired sires at twilight told,
'Mid scenes of shadowy ease.

I love the labor and the toil,
Which clothe with beauty Freedom's soil,
Where tyrant never trod!
And when each task from turmoil free,
Great God, is sanctified by thee,
And consecrates the sod.

I love whatever the seasons bring;
The flowers that blush—the birds that sing:
Eve's low Æolian breeze.
The vernal smiles—the summer's charms;
The autumn's fruits—the winter's storms,
All charm in their degrees.

# EDITOR'S TABLE.

HINTS ON THE CULTURE, ETC. OF MANGEL WURTZEL, SUGAR BEET, AND RUTA BAGA.—For the first of these roots a loam should be selected—that with a gravelly bottom being considered best. A heavy soil will not answer, though it may incline more to clay than sand. For the Ruta Baga a sandy loam is requisite for a good crop. In both cases the soil should be well prepared, well manured. Of well-rotted manure the ground for Mangel Wurtzel can scarcely receive too much, though when practicable it should be put on and plowed under in the fall. About the first of May the ground should be prepared for the seed. If it has been previously plowed in the fall, a single plowing in the spring will answer, harrowing it until it be mellow and free from lumps. This facilitates sowing and vegetation.

The Ruta Baga need not be sown till past the middle of June.

Having thoroughly prepared the ground, sow in ridges, two and a half or three feet apart—the ridges being formed with a light plow, and afterward made smooth and mellow on the top by using a hand-rake. Ridging, however, is not necessary for the Ruta Baga.

Of Mangel-Wurtzel and Sugar Beet, nearly three pounds of seed are required for an acre. They should be soaked in soft water three or four days previous to sowing, and then rolled in flour to be easily distinguished when sown in the drill.

If only a small piece of ground is to be occupied, the drill can be made by hand with a stick or hoe—but if an extensive growing of roots be gone into, the following machine would be convenient:—Take a piece of scantling, about 4 feet long, and 3 or 4 inches thick, in which place two shafts for the horse and two handles to hold by, like a small horse rake; but instead of a number of teeth, only place one peg, or tooth, about one foot long, on the underside, within about a foot of the right-hand end of the beam, so that when the horse walks in the furrows between the ridges, the tooth will come on the top of the right-hand ridge, by passing along which it will open a drill for the seed. The drill should be about two inches deep. Sow the seed two inches apart, immediately after the drills are opened, and cover as soon as sown, leaving the tops of the ridges smooth.

As soon as the seed has vegetated, and the plants are fairly visible, go over the ground, and when two or more plants have sprung from one seed, pull them out so that there shall be only one every two inches. In about two weeks go into the patch again with your hoe—pull out 'every other' plant and rid the ground of weeds. A cultivator or plow may be introduced between the ridges. If any plants should be destroyed, their places may be filled by transplanting.

The plants of the Mangel Wurtzel and Sugar Beet when they have attained some size, make excellent greens for the table, and may be thinned out for this use.

At the third hoeing, reserving for the table, the plants should be thinned out to the distance of one foot apart. Keep the ground well stirred up with the plow and hoe—thus the weeds are kept out, and the soil prevented from hardening and checking the growth of the vegetable.

WAUKEGAN.—The citizens of Little Fort, we notice, are contending for their "proper name"—and why shouldn't they? If it should be asked of them, What's in a name? they might answer, Very *little* in our present one. The fact is their town deserves a better name. Success, say we, to *Waukegan*.

☞ A project is on foot to lay down a line of telegraph across the Atlantic, and an appropriation of $50,000 for this purpose has been asked of Congress. We shall take no stock in that line.

REGENTS' REPORT.—We have received through the politeness of our friend and fellow citizen, Hon. M. M. STRONG, the Report of the Regents of the University to the present Legislature. It is a document of considerable interest and importance, and is an evidence that these servants of the people have been active, diligent, and faithful in the discharge of their duties. The report is drawn up in a straight-forward manner, and is a commendable thing because of this.

We learn from this Report that a fine site, known as "College Hill," near Madison, has been selected for the University by the Regents, which selection will undoubtedly be approved by the Legislature. They have also selected a Chancellor, JOHN H. LATHROP, President of Missouri University, who is to enter upon the discharge of his duties in September next; and recommend that his salary be fixed at $2000 per annum.

No plan for University Building is submitted.

A preparatory school has been already organized in the first department of the University, and charge of it given to JOHN W. STERLING, Professor elect.

Measures have also been taken for the formation of a Cabinet of Natural History, and many and very valuable specimens have already been collected through the agent, H. A. TENNY, Esq. The catalogue embraces 109 different specimens, contributed by different individuals in the State.

THE AMERICAN ODD FELLOW.—The fourth No. of this Magzine has reached us. It is as usual filled with a variety of well-written and readable articles, and commends itself to the confidence and patronage of the Order. Its Publisher is an enterprising, capital fellow, and its Editor a man with a great, big heart, and a ready pen. Terms of the Odd Fellow, $1.00 a year in advance.

UNITY OF HUMANITY.—That the Human Race is one living body, Christianity distinctly avows. And it conclusively reasons when it says, "For whether one member suffer, all the members suffer with it; or one member be honored, all the members rejoice with it." No real antagonism exists in truth, or as an ordination of the Infinite Father, between man and man, or between the interests of one member of the great body and those of another. It is a false and unnatural state of things that causes them to conflict. And from this very scene of disorder, and confusion, and violence around us, is proclaimed in thunder-tones that vitally important truth which Society is so slow to recognize, that Humanity is *one*, and its interests identical.

☞ We have received the "Periodical Catalogue of Fruit and Ornamental Trees, Shrubs and Plants, cultivated, and for sale at the Delavan Nursery, by F. K. PHŒNIX, Delavan, Walworth county, Wis." This Catalogue embraces a very extensive variety under each of the above heads, and we take pleasure in recommending Mr. P. as skilful in the occupation he has chosen, reliable always, and eminently worthy of patronage. Those wishing anything in his line would do well to give him a call.

THE BALL AXLE—This is a new invention, and is described as greatly important—*beautiful*, though, we believe it is called. And most wonderful it is said to be because of its extreme simplicity. The advantages of it are, that any lateral working of the wheel is impossible—that it will not be necessary to take off the wheel for any purpose whatever, unless the axle break or some damage be done to the rest of the carriage, all dust being effectually excluded from between the axle and the bush, the opening through which the ball is dropped being plugged.

SEWING MACHINE.—This is a new invention, and is said to be capable of sewing about one yard a minute. The ladies will not be greatly benefitted by it, but upholsters and bag makers, will find it vastly profitable—we guess.

THE FAR WEST.—Where is it? This is the *West*—this mighty valley of the Mississippi, compared with whose vastness New England dwindles to a point. The Far West hath its boundaries away thousands of miles beyond us, and its dominions embrace a *world* scarcely yet begun to be peopled.—California and Oregon beyond the mountains, on the Pacific shores,—these constitute the Far West. We are at the centre of the American Republic—we the dwellers in this great valley. A hundred and fifty days journey beyond us, lies that country which some are foolish enough to suppose borders on the Great Lakes. Is it not a great thing to have been born an American!

☞The following hints with reference to pruning, from Phœnix's Catalogue, are worthy of a practical observance:—

"Too much pruning is very injurious. Trim up your apple, pear, plum, and red cherry four or five feet, and then let them fork, with never less than three main branches, which you can trim up afterwards, if necessary. Quinces should not be trimmed up over a foot, peaches over two, nor English cherries over three. After trees of all kinds get a well formed top, they need but little pruning. The very best time to prune is the last of May. In cutting off a shoot, never cut close to the tree, but three-eights of an inch from the base; and if the wound be large, wax it over well."

QUITE A VILLAGE.—London occupies a space of about 20 square miles. There are 200,000 houses, that contains not less than 2,000,000 of souls. There are said to be 10,000 streets lanes, alleys, squares, places, terraces, &c. The rental is, at least, from $30,000,000 to $35,000,000 a year, and it pays for luxuries it imports some $60,000,000 a year. There are in London 537 Churches, 207 dissenting places of worship, and upwards of 5,000 public houses, and 16 theatres.

A SQUARE YEAR.—The present year is the square of 43, the first square year since 1764, and the last one for 87 years to come. If every thing should be squared up during this blessed year of grace 1849, what a glorious time we shall have.

ARRIVAL OF EMIGRANTS AT NEW YORK DURING THE YEAR, 1848.—The commissioners of Emigration reported to the Legislature—of those thus coming under the cognizance of the commissioners, at New York there were

| | | |
|---|---|---|
| Natives of Ireland | 98,061 | |
| " Germany | 51,973 | |
| " other countries | 80,142 | |
| | | 189,176 |

All these passengers, with the exception of not more than 2,000, arrived in 1,041 vessels, of which

| | | | |
|---|---|---|---|
| 531 were American, | bringing | | 116,000 |
| 341 " British, | " | | 60,022 |
| 125 " German, | " | | 14,873 |
| 44 " others, | " | | 4,605 |

The ratio of the sick, out of every one thousand was

30 on board the British vessels,
9 2-5 " American "
8 3-6 " German "

The number of deaths among these passengers was 1,002, of births 346. Of those applying and relieved at the office of the commissioners, being in all 16,820, not including those admitted at the Marine Hospital, or who became chargeable in other counties than New York.

12,264 were Irish,
4,157 " Germans,
399 " others.—[Wisconsin.

☞We enjoin it upon farmers to plant different varieties of potatoes on separate parcels of ground. Good varieties will thus be retained in their purity. Beside unmixed, they always sell better in market.

☞There are in England and Wales 5,000,000 of oxen, 32,000,000 of sheep, 1,825,000 horses.

MR. DEVEREUX, of North Carolina, is the largest corn-grower in the Union, his crop being upwards of 100,000 bushels.

ADVANCE OF RAILROAD STOCK.—At one time the Attica and Buffalo Railroad stock was sold at 78 cents on the dollar, it is now sold at $1,30. The number and increase of passengers for the last three years has been as follows:

| | |
|---|---|
| 1846 | 87,633 |
| 1847 | 130,790 |
| 1848 | 146,235 |

In a speech on the appropriation bill, Mr. Greeley stated that during our sixty years of existence under our present national Government,—the United States had expended

| | |
|---|---|
| For the Army and armed forces | $366,713,299 44 |
| For the Navy and naval operations | 309,994,428 94 |
| For Pensions—Revolutionary and others | 61,168,834 57 |
| For the Indian Department | 48,053,241 22 |
| Total for warlike purposes | $685,930,802 27 |

# COMMERCIAL.

WISCONSIN FARMER OFFICE,
Racine, March 1, 1849.

But little wheat coming in owing to the bad state of the roads. Prices from 60@75c. Flour 3.50@3.62½ Oats 22@25c. Corn 35@38. Potatoes 50 cents and upwards. Salt 1.25@1.50.

Beef 4.50@5.00; Pork 4.00; Mutton 3.00@3.50; Chickens 14c; Butter 12½@14c; Eggs 16c; Wood 1.75.

Milwaukee, Feb. 27.

The receipts yesterday, as for some days past, in consequence of the thaw, were light. Prices are firm with an upward tendency, The range for Spring 54@64, and for Winter 68@78, the latter only for extra samples. Flour, in steady request 3.50@3.62½ for good country brands. Oats 20@22; Corn 35@38; Potatoes 37½@44; Barley 30@35; Salt 1.25@1.37, —Mil. Sent.

Correspondence of the Buffalo Morning Express.

Milwaukee, Feb. 6,

The receipts of wheat at this place are not as large this week as last—about 7000 bushels per day coming in. Prices range at 50a58c for spring, 60@65c for winter. Flour 3.50@3.63 for country brands; City Mills 3,75a3,87½. But little pork arriving; sells at 2,75a3,50.

Green Bay, Feb. 22.

Wheat may be quoted at 75c. Flour 4,50. Corn 50c. Oats 28c; Butter 28c; Pork in the hog 4.00@5.00; Lumber, green 6,00 seasoned, none in the market.

Land Warrants are selling here at $115,—Advocate.

SOUTHPORT, Feb. 24.

Wheat, winter, 66 @ 68c; spring, 56 @ 58. Flour, $3,25 to 4,00. Corn, 38c. Oats, 22c. Potatoes, 50c. Pork, for heavy 3 dollars.

Geneva, Wis., Feb, 24.

Our snow is leaving us—already has mother earth commenced showing herself. There is nothing doing in the produce line, and the mills are doing *less*. Wheat is worth, winter, 60a64c; spring, 48a50; Flour, 3,00a3.25.—*Wis. Standard.*

New York, Feb. 24.

Flour is held firmly at 5.53a5.72 for common and good brands; for wheat there is good inquiry and market firm. Genesee 1.25; Corn, small sales 15000 bu. at 60; Oats 40a44; Pork quiet; sales 5000 bbls at private terms, 3000 bbls at 10.87a11.00.

THE INTEREST LAWS OF ILLINOIS.—The law passed during the recent session of the Legislature, allows ten per cent. on money loaned in that State, but the legal rate of interest on other debts and contracts remains at 6 per cent.

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

VOL. 1. RACINE, WIS., APRIL 1, 1849. NO. 4.

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Post Masters and all others who feel an interest in the circulation of the FARMER, are invited to lend their aid in procuring subscribers and extending its circulation.

☞ The Farmer is subject to newspaper postage only.


## Agricultural Schools—an Agricultural Department in the University.

We think this subject eminently worthy the attention of Farmers. Nothing, scarcely, is left untried, or undone, by which to elevate other professions, and thoroughly prepare men for a right and efficient discharge of the duties of their calling.—Means and agencies are multiplied, large amounts of money appropriated and expended, schools planted, Colleges and Universities founded and liberally endowed, the rich stores of science, literature, and art laid under contribution, and learning, eloquence and genius called to preside, to teach, to inspire,—and all this to fit, train, discipline and qualify men for the Bar, the Pulpit, or the Practice of Medicine; but the profession of Agriculture, which underlies all others, and which is the main support of them all, can scarcely boast of a school, or a Professor, with here and there an exception. These things ought not so to be—this ought ye to have done, and and not left the other undone.

Because of this neglect of the profession of Agriculture, and the little effort put forth to elevate its character, and to give it rank among the learned professions, so called; less attention has been given it, and less interest manifested in its avocation, and fewer men to assume its garb and to take into their hands the implements of its toil; while these learned professions have been swelling their numbers, until, by the large influx from the various portions of Society, they are absolutely surcharged, *crammed*, with unpaid and unfed men. And this state of things will continue to exist, and the evils attendant thereon to strike deeper their roots, to accumulate and flourish, until the men of the spade and the plow shall assume their true and rightful position, and assert their claim to that aid and Legislative provision and protection, to which their profession and high calling is justly entitled. Let that of Agriculture be one of the *learned* professions. It is a very great mistake, "that there is less talent requisite for a thorough knowledge of the science of agriculture than of other pursuits,—or that less time and attention are necessary; and the very erroneous opinion that every man may succeed in this pursuit without reflection or experience, has contributed essentially to our injury." It ought to be well understood, that no man can be a farmer by instinct, any more than he can be a lawyer or a physician by instinct. He needs to be educated—he requires all the help that can be furnished him; and with the assistance of these means and agencies which, with the requisite natural talent and gifts, would render him successful in the Law or Medical departments, he may render himself as eminent and be as gloriously elevated as a tiller of the ground. The business of Agriculture has been considered degrading, because those engaged in it have been content with a low, depressed standard; and farmers have greatly helped to bring it into disrepute, not only through a lack of improvement, but by devoting the genius, talent and energies of their sons to other, and as conceived, more reputable and honorable callings. A sad mistake, often, have they thus committed. They have thus virtually conceded that the pre-requisites for eminence in other pursuits were not essential in the profession of agriculture—that with no talent, genius or skill, a man might be a farmer, but he would not answer for any other trade or profession.

We assert, then, that it is with farmers themselves to say, whether the profession they have chosen shall be elevated, and take the rank demanded by its importance. Let them be faithful and persevering in all improvements—let them seek the aid that science has to impart—let them demand as high a grade of qualifications for an entrance upon the duties of their divine calling, as are demanded in other professions and pursuits—and let them claim the same protection, the same munificent provision, the same bountifully supplied facilities and means, the same legislative aid; that

thus Agriculture, though made the *last*, may not be the *least*, but rather the last, *first*, as was designed by the Creator.

There is no good reason why the science of Agriculture should not be taught in our schools—why there should not be an Agricultural Department in all our Academies, Colleges and Universities—but every reason why it should be taught, and room given it in all these institutions. It is for those most interested to say whether this shall be—they surely may rightfully claim it; and their united efforts will secure the accomplishment of what they so justly claim.

Some few States have gone nobly forward in the discharge of their duty, with reference to the long neglected profession of Agriculture. Maine took the lead in this great work, and established its schools principally devoted to scientific and practical instruction in farming. Connecticut, we believe, has an Agricultural School—so Massachusetts and New York, and, if we mistake not, professorship of Agriculture in several of their Colleges. And shall Wisconsin, though the last to be admitted to the sisterhood of States, be the *last*, intelligent and progressive as *she* is, to undertake so important, so noble a work? No—she will not be behind—she has the will and the means requisite, and will move forward to dispute, through the provisions she shall make, and the agencies she shall put in operation, the palm of agricultural interest, thrift, prosperity and wealth, with the eldest States in the Union.

We recommend to our agricultural brethren in this State, to petition the Legislature, at as early a period as practicable, for the establishment of an agricultural professorship in our University. The appropriation for the endowment and support of this Institution is most liberal; and now will contribute more largely to its fund, which are to accre from the sale of lands, than farmers themselves. Will they not, therefore, have a strong, a special claim upon it? To use the language of a learned *Virginian, addressed to the farmers of his state with reference to a similar object, "to what more legitimate object can a portion of the literary fund be applied? If we look to the source from whence it [will be] derived, to the all-important purpose to which it is to be directed, or to the number of our people to be benefitted, we are met in each view with a most decisive answer in its favor, The cultivators of the earth [will pay] 99-100 of every dollar of the fund. The improvement of agriculture is the end of the proposed *expenditure*, and the numbers to be benefited the almost entire population of the State, both rich and poor—there is no aristocracy in this. If any man sneer at this proposition, ask him how he gets his clothing or his bread. His answer will be an extorted admission of the importance of our calling. How long is agriculture to be abased? How long are we to be beasts of burden? How has it happened, where every other science has its endowments, that this alone should be neglected? An appeal to the representatives of the people in general assembly convened, could not be in vain. A large majority of themselves looking to the cultivation of the earth alone for their subsistence, and their constituents almost conclusively so, would seize with eagerness an opportunity to do something for this long neglected interest." We at least can petition them respecfully, and if we fail in securing that which we seek, we will have the satisfaction of knowing that we failed in a good and righteous cause. But we shall not fail, for when a sovereign people speak, their servants bow the head to listen.

Together with the professorship we have named, there should be a model farm, so located and of such extent, as that it should contain a variety of soils, for the successful prosecution of practical farming. Such a farm would be important, that the theory and practice of Agriculture might be combined.

But we are transceding our limits, and must defer further remarks until next month.

*Hon. James Barbour, formerly Secretary of War.

BRIEF HINTS FOR THE MONTH.—Sow Spring Wheat as early as possible, or as soon as the ground can be prepared to receive it. Barley, likewise, should be sown this month, the earlier the better, if the ground be warm and dry.—Plant peas and beans for family use, also early potatoes. Look to farming utensils and tools—and if they have not already been put in order, see that they are fit for use whenever it may be needful to employ them.—Keep teams in good condition, and add a little extra feed, that they may have heart and strength during the getting in of Spring crops. A few hours of care and attention now, may save days of trouble and labor, when you have the least time to spare away from your seasonable business.

THE FARMER.—He is a public benefactor, who, by the prudent and skilful outlay of his time and money shall make a single field yield permanently a double crop; and he that does this over a square mile, virtually adds a square mile to the national territory; nay, he does more; he doubles to his extent the territorial resources of the country, without giving the state any larger territory to defend. All hail, then, to the improvers of the soil! Health and long life to their fortune! May their hearts be light and their purses heavy; may their dreams be few and pleasant, and their sleep the sweet repose of the weary! May they see the fruits of their own labor and may their sons rear still heavier harvests!—*Ex. Paper.*

For the Wisconsin Farmer.

## Fruit Trees—No. 3.

THE APPLE.—CONTINUED.

*Season of Planting.*—The most proper time for transplanting the apple, and in fact all other seed fruits, is the autumn; this is admitted by all good fruit cultivators. In putting out trees at this season of the year, especially if it be done early, it gives a chance for the roots to form, and the ground to settle around them; thus, often causing new roots to start forth before winter sets in, so that when spring opens they at once start into rapid and vigorous growth; whereas, if spring planting was practiced it would very much retard their progress.

Stone fruits may be transplanted with very good success in the spring, if the soil is of a proper dryness, even until the trees begin to put forth their leaves, and even blossoms. But like seed fruits, I think an early fall planting is decidedly the safest and best.

*Cultivation.*—With the generality of farmers, the cultivation of fruit trees is almost entirely neglected. They think that digging a hole, and putting the tree into the ground, is all that is necessary to be done; at least, one would suppose so, from the appearance of orchards in many, very many places.—The orchard generally stands on meadow or pasture land, and year after year passes, without the soil ever being broken. Now the fruit tree, and in fact no other tree can grow under such circumstances.

It is necessary that the thick heavy sward, of meadow, or pasture land, should be occasionally broken up in order to facilitate the growth of the orchard. And if the farmer does not desire to crop his orchard ground, he may very much enhance the improvement of his trees, by loosening the earth to the distance of three or four feet around each tree; at the same time applying some good manure. This should be done, at least once in two years. Another very important point to be considered in the cultivation of fruit trees, and which should be strictly attended to, is the cleansing of the bodies and limbs from moss and insects if there should be any; this should be done every spring. And after they are thoroughly freed from these, the bodies should be well covered with a thick coat of whitewash.

*Pruning.*—If there is any thing that is necessary to be well done, it is this; and to do it well requires considerable skill and judgment. An orchard can be very soon destroyed by bad management in pruning.—I have seen trees choped to pieces as though men were choping cord-wood, and the result was that they soon had very few trees to prune in that manner.

In pruning great care should be taken not to lop off the main branches, unless absolutely needful; but where the top is very thick, the crooked and gnarled limbs should be selected out, and taken off with a sharp pruning hook or scissors; so that the place from whence the limb was taken, be left with a smooth surface.

To conclude this number, I will add a short list of the most valuable kinds of the apple:

| | |
|---|---|
| Acklam's Russet, | Fall Orange, |
| Newtown Pippin, 2 v. | Black Ap ple, |
| Northern Greening, | Fall Pippin, |
| Bellflower, | Gilliflower, 3 v. |
| Pine Apple Russet, | Early Harvest, |
| Rhoad Island Greening, | Spitzenburgh, 5 v. |
| Tallman Sweeting, | Swaar, |
| Seek-no-further 2 v. | Golden Russet. |

Racine, March 1849. H. H. W.

THE FARMER'S CREED.—We believe in small farms and thorough cultivation. The soil loves to eat as well as its owner, and should be nurtured.

We believe in large crops, which leave the land better then they found it—making both the farm and the farmer rich at once.

We believe in going to the bottom of—things, and therefore in deep plowing, and enough of it—all the better if with a subsoil.

We believe that the best fertility of the soil is the spirit of industry, enterpise, and intelligence; without this lime and gypsum, bones and green manure, marl, or plaster, will be of little use.

We believe in good fences, good barns, good farm houses, good stock and good orchards.

We believe in a clean kitchen, a neat wife in it, a spinning piano, a clean cup-board, dairy and conscience.

We firmly disbelieve in farmers that will not improve; in farms that grow poorer every year; in starved cattle; in farmer's boys becoming clerks and merchants; in farmer's daughters unwilling to work; and in all farmers who are ashamed of their vocation.—*N. E. Washingtonian.*

Dr. Franklin says, "He who rises late may trot all day, but never overtake his business."


## Buckwheat,

*Polygonum fagopyrum.*

Buckwheat is said to be a native of Persia, and is usually sown on poor land, although, like other cultivated plants, it does best on a good soil with good culture. Its blossoms yield considerable food for bees, although the honey thus obtained is inferior to that made from clover. Buckwheat meal or flour is much used in some sections of the United States for making griddle cakes.—The seeds of this plant contain 50 per cent of starch, and 1½ per cent of earthy matter. It is often sown and the crop plowed in, to fertilize poor land. From one to two bushels of seed are put on.

*Buckwheat without grit.*—Did any person, who eats buckwheat cakes, ever have the good fortune to get any containing not a particle of grit? A method not generally known, was lately stated to us by a practical farmer, who says that buckwheat raised in this way is entirely free from the difficulty.

The buckwheat is sown at the usual time, but before harrowing, a bushel of rye is sown with it to the acre; they both come up together, and the buckwheat, being much the most rapid in growth, soon obtains the ascendancy, the rye only forming a smooth green carpet beneath, which completely prevents the dashing of the grit of the soil by rain upon the buckwheat when it is cut, and otherwise keeps it clean. After the crop of buckwheat is removed, the rye obtains sufficient growth before winter, and the next season affords a good crop of itself. Thus the buckwheat is protected, and two crops obtained from a single seeding.

From the N. Y. Farmer and Mechanic.

## Soiling Cattle.

Soiling means "the practice of supporting animals in the summer season with green food, cut daily, and given to them in the houses, stalls or yards." The advantages of the practice are the following:

1. The saving of land.
2. The saving of fencing.
3. The economizing of food.
4. The better condition and greater comfort of the cattle.
6. The saving of manure.

In England, soiling is practiced considerably. The saving land by it, is considered amply sufficient to repay any extra labor, leaving the manure out of the question.—Three-quarters of an acre is found sufficient to supply one cow, on the soiling system, while in pasturing, one and a half acre is required.

In America, but little has been done to settle the question whether soiling is suitable to this country. Mr. Pell, of Pelham, N. Y., has pursued soiling, and his experience fully bears out the advantages above stated. He says eight acres will afford more and better food than forty pastured: and the manure saved is sufficient to pay the interest of a large farm.

In Massachusetts, soiling has been followed for many years. The Hon. Josiah Quincy says: "At the end of the soiling season—from June to November—I had $200 worth of manure, and had kept 20 head of cattle on 17 acres;—by pasturing, I had allowed 50 acres for 15 head. By soiling, had my stock in prime condition, a full supply of milk all the season, saved all expense on cross fences, not requiring one rod of interior fence on my whole farm, while previously I had 1600 rods of fencing, and paid $60 yearly for my repairs. The additional expense I had gone to in cutting the food, in soiling, and giving it to the animals amounted to $163. My manure alone paid for this. I have practiced soiling for six years, and no consideration would induce me to abandon it."

"On the farm of the McLean Asylum, (Charlestown,) thirteen cows and seven horses are kept, although the land under cultivation is only about 20 acres; and yet hay is sold. Mr. G. E. Adams, of Medford, soils his stock, being convinced of its great superiority over pasturing."

Mr. Newhall, of Dorchester, also keeps a

large stock on the soiling system. For a very excellent article on soiling, see Journal of Massachusetts Agricultural Society, vol. 3, page 318.

I think the introduction of soiling cannot but be attended with immense advantage.

I would draw the attention of farmers to the admirable soiling qualities of Lucerne.—This plant is pefectly adapted to this climate—cuts four or five times every season—stands the winter better than clover—is ready for cutting in the spring earlier than any other grass, and gives excellent milk. It has been cultivated in New York for some years, though its introduction is as yet rather limited. In support of this, and with regard to its other properties, so valuable to our farmers, I refer to Buel's Farmer's Companion, p. 211; Cultivator, January, 1844; Mass. Agricul. Society's Journal. vol. 9, pp. 24, 25; Memoirs of the Board of Agriculture of the State of New York, vol. 1, 254; New England Farmer, August, 1844.

THOMAS KERR.

POTASH A PROPER FOOD FOR GRAPE-VINES.—Having, last year, seen it stated in a paper, that the ashes of grape vines contained a large amount of potash, I caused three vines, of the same size, to be planted in boxes filled with equal quantities of earth, in which I noted the following results:—

No. 1 was supplied, when necessary, with pure water, and in a given time, increased six inches in length. No. 2 was watered with a solution of whale-oil soap, and in the same length of time acquired nine inches of growth. And No. 3 I watered with a solution of potash, and within the same period as above, it grew eighteen inches in length!

By the beginning of November, No. 1 and No. 2 dropped their leaves, and showed no signs of fruit; whereas, No. 3 retained its leaves three weeks later, and in the course of the season shot forth several bunches of fruit, which, of course, were not suffered to grow. This shows the importance of knowing what kinds of salts go to form wood and fruit, in order that we may apply such manures to the soil as the vine or fruit-tree requires.

I wish we could have full analysis made of our great staple, Indian corn, including the grain, cob, stalk, and blades.—*Correspondent of the American Agriculturist.*

From the New England Farmer.

## Ashes for Potatoes.

MR. EDITOR: I offer you a few remarks on the potatoe. For five years I have been trying experiments on raising potatoes. This year I planted early in May, dug holes, and put in my potatoes, and then a shovel-full of coal ashes, some hard and some soft, on the top. The potatoes came up early, looked well, continued perfectly healthy, and ripened well. I dug them in September, and found them perfectly sound, not finding a decayed potatoe. They have continued sound, and there is no appearance of rot.

I planted some of the same kind of seed, on the same kind of ground, (except mud had been spread on the furrow,) with good manure, and at the same time; and when I gathered them, they were sound, but soon began to decay. Probably I shall lose one quarter of them, and the rest are rather soggy, while the others are mealy and good.—Now, it appears to me the difference is owing to the kind of manure, and the preseving quality of the ashes. I hope others will try the experiment. I have no doubt of the good effects of ashes, as others in the vicinity lost more or less of their potatoe crop.

Yours truly, S. A. SHURTLEFF.

BROOKLIN, *Dec.* 1848.

Some years before the potatoe rot prevailed, a very skilful cultivator showed us his mode of raising smooth potatoes in an old garden. He put about a half a pint or a pint of coal ashes in each hill, and his potatoes were remarkably smooth and excellent.—Previous to his using ashes, his potatoes were much injured by worms.

He showed us a spot where he had thrown coal ashes to fill up a hollow, until they were too deep for roots of vegetables to penetrate below them. In these ashes, good potatoes and beans were growing, which showed clearly that the ashes contained food for plants.

CULTURE OF POTATOES.—We rank the potatoe crop in the United States before wheat, and second only to that of corn, as constituting the food of the people and their domestic stock. How important then that the crop be a good one. We are not going to write an article now upon the particular culture of potatoes, as every farmer understands that sufficiently well for general purposes; but shall merely content ourselves with a few hints on the subject by way of guarding against the rot.

Whatever may be the cause of the rot in potatoes, there is no doubt in our mind, that the application of barnyard manures and animal matter of any kind has a tendency to increase it; and we would therefore avoid the use of them on this crop for a few seasons, till the rot had in some measure disappeared, and apply the manure chiefly to grass and corn. For the potatoe crop, then, we would plow up a sod just after the grass had well started, and this, with the application of a little plaster, ashes, or guano on the hills near the stalks after the first time hoeing, will be sufficiently rich to produce a good crop. Potatoes raised on a sod are sweeter, more nutritious, and mealy, than those raised by the direct application of rank manures. Crops grown by the latter method are almost invariably watery, and tangy—are eaten with disgust, and have little nutriment in them. The best tasted potatoes we ever raised, and the largest crop obtained, were produced on a piece of sod where the grass had been permitted to grow up till the first week in June. It was then turned over flat, rolled, and harrowed lengthwise with the furrows, and the rows marked out three feet apart with a light one horse plow, running three inches deep, being careful not to disturb the sod. The seed was chosen of a medium size, dropped six inches apart in the row, and covered two inches deep with hoes. It was a field of about ten acres. No grass sprung up on it, and very few weeds were seen during the season. Just before the potatoe vines bloomed, a single horse plow was passed down and up each row, throwing the dirt to the vines, the men following with hoes and rapidly hilling them. In the fall they were dug with the plow, when the sod was found completely rotted, and pulverized beautifully. No doubt the unmolested growth of spring grass facilitated the decomposition of the sod, and added to the growth of the potatoes. The season was rather a wet one, which accelerates decomposition; had it been dry the sod would not have decomposed so well. The first week in June is sufficiently early to plant potatoes for winter and spring use.—We have planted as late as the 3d of July and got fair crops, when a warm autumn followed; but this is too late for this climate, and we cannot recommend the practice.—Early potatoes should be planted in April.—Some think planting unripe seeds prevents the rot.

Get in your crops early.

## Cleansing the Bark of Fruit Trees.

—This operation should be peformed in early spring, as well as in mid-summer.—The rough, loose parts of the bark should be scraped off, as well as moss and other parasites. The bark should then be covered with the following mixture, as high as the operator can reach, with an ordinary long handle whitewash brush:

5 pounds whale oil soap,
1 pound fine salt,
1 pound fine sand,
2 pounds potash,
2 ounces nitrate of soda,

dissolved or mixed with water to the consistency of cream, and thoroughly rubbed upon the bark.

Many kinds of insects are kept from trees by a solution of whale oil soap alone, and many such resident in the crevices of the bark, are destroyed by salt. The fine sand is intended during the rubbing to scratch the outer coating of the bark, and thus assist the other ingredients for more perfect action. The potash and nitrate of soda will decompose or soften the dead parts of the bark, so that during the summer they will be thrown off by the healthy action of the growing bark. If the above mixture be applied in dry weather, it will become so hard as to remain during several showers, and thus have time to perform its office. Trees with smooth bark, such as the plum, many of the cherries, &c. should be rubbed with a wet rough woollen cloth in a few hours after applying the mixture; this rubbing will cause the sand to clean the surface so perfectly as to give the bark an improved and more healthy surface. Trees so cleansed are not as likely to be revisited by insects as those left with their natural surfaces, nor are they as likely to become bark-bound. Indeed we have never known a tree to exhibit the disease called bark-bound, the surface of the trunk of which had been softened by a soap wash in early spring. The cherry, apricot, peach, and nectarine are subject, when left to their natural state, to this disease, and it has usually been attributed to too rich or too moist a soil, and under-draining and slitting the bark lengthwise with the knife, are the usual remedies. The one is expensive and often impossible where choice trees are planted, and the other is barbarous and unsightly, causing exhalation of gum and consequent canker. In any case, a few applications of soap to the surface of the part

hide-bound will remove the difficulty, and and the mixture before recommended may be applied, slightly warmed, when required to soften the bark of a hide-bound tree.

SPRING BUDDING OF FRUIT-TREES.—It may not be generally known that fruit-trees can be budded in the spring as soon as the bark will slip with ease, with equally as good success as those done in the usual season.

Spring budding possesses some advantages, inasmuch as one years growth of the bud is obtained in advance of those budded in summer or fall. Scions cut the previous fall or winter may be preserved in moss or saw-dust, so as to perform this operation as late in the season, with safety, as can be with the present year's growth of scions.—This is quite a convenience when scions are wanted from a distance, as there is not so much trouble in preserving them perfectly fresh as when cut in the leaf.

The only difference necessary to make betwixt spring and fall budding is, the stock of the former should be cut off at the time of budding, three or four inches above the insertion of the bud, and a coat of shellac or other cement applied to the stock to prevent decay, and for the health of the tree. I think this should be done in all cases.

D. TABOR.

VASSALBORO', VT., 1849.

VEGETABLE MARROW.—Since the partial failure of the potatoe crop, the English farmers are turning their attention to the cultivation of this species of squash as food for hogs. Those who have tried it, state that twenty tons may be raised per acre, and that when cooked it is found to be superior to most other vegetables as food for hogs. Its nutritive properties are equal to the ruta baga turnip. This vegetable is known by various names, such as the Boston Marrow Squash, Midsummer Squash, &c.

CAMPHOR TO DESTROY LICE ON CATTLE. Mr. John Macomber, of Wilton, informs us that for more than ten years past he has used gum camphor, dissolved in New England rum, to destroy lice on cattle. It does the work effectually, as we can testify; it may be applied at all times, even in the coldest weather, without injuring the cattle.—On the whole, Mr. M. finds it better, safer, more convenient, pleasanter, and cheaper, than any application he has ever used for the purpose.

For the Wisconsin Farmer.

## Analysis—No. 4.

BY P. R. HOY.

Before we proceed farther, I wish to impress on your mind the advantages, and usefulness of a knowledge of the analysis of soils. I hope your are not one of those skeptical men, who reject all "book knowledge," and regard Agriculture as a mere tissue of practical drudgery; containing nothing beautiful or valuable, to occupy and elevate the mind; if you are, I can tell you it is too late in the day, to indulge such crude, and exploded notions:—Agriculture is a science, and a noble one too;—worthy the best efforts of the greatest minds. No one is fully capable of profiting by his experience, unless he can tell the why, and wherefore, and this he cannot, in most cases do, without a knowledge of the operation of Nature's laws as relates to Agriculture. "No man can be an *efficient judge of land without he can analyze soils.* I am aware many people by long experience have gained a certain knowledge of land, by which from superficial inspection, they can in some measure judge of its productiveness generally, and its particular adaptation to the growth of certain crops. But such *judges* are exceedingly liable to be deceived; in fact no certain confidence can be placed in their opinion. They don't know the constituents of the soil—they never trouble themselves about the subsoil; its capacity for retaining moisture in dry weather; its organic and saline particles; its lime, magnesia, or iron—all these things which bear a most intimate relation to the fertility of the soil they never inquire into. The consequence is, that they do not know how that land will act in very dry or very wet weather—they do not know whether it will grow wheat, tobacco or turnips—what manure it will requre, or whether it does vegetably or geologically contain the means for producing that manure—in fact, their judgement is little better than mere *shrewd guessing*: it may possibly be right, but there is no demonstration, or proof accompanying their opinion; the why and the wherefore, the reason and the foundation of their opinions are wanting; neither can they supply them. The man who understands the analysis of soils, knows all they do in a more perfect manner—and he knows more; he can inform you what the soil is composed of, and how its composition will act under certain states of weather; how in dry weather; how in rainy;—he will in-

form you what crops that composition will best grow, and what manure to supply to it to make up any deficiency. Hence this knowledge becomes of immense value. See a farmer or emigrant setting out westward into unsettled regions, in search of a piece of land. Suppose him to be able to analyze the soil. When he reaches a favorable piece of ground, he commences an examination of its qualities. Boring into the earth, he endeavors to ascertain the depth of the surface soil, and the nature of the subsoil.—With his humble apparatus he examines the nature of the soil. He will soon known its fertility and what it will grow. In a few hours, he will know the humus or organic matter, the lime, the clay, and the sand it contains. He will have ascertained its power of retaining moisture; and will judge at once with an accuracy nearly approaching *certainty*, of the quality and capabilities of a piece of land he never saw before, and from which the hand of labor and art has never yet extracted support and wealth. Set such a man on a farm which he has visited with a view of purchasing it, if suitable—it may be a farm exhausted by repeated croppings until its soluble salts and humus are taken out of the soil. In damp weather and certain seasons, such a farm would be possibly arrayed in a verdure of deceptive vegetation; but in its crops would be considerably deficient.

The analyzer of soils knows this: a skin-deep survey will by no means satisfy him. He tests the soil; he finds its soluble extracts, its nourishments, its feeding principles *gone*, —nothing remaining but a skeleton soil—a beggarly account of sand and clay, not worth the labor of recovering to a state of fertility. In some future No. I will give the mode of performing a more minute analysis; in the mean time I hope you will become *practically* familiar with the one already given.—You must not expect great accuracy, without much practice, and patience. First operate on those soils you know to possess certain qualities in a marked degree—compare these results, and you will be delighted and instructed; many familiar effects you will be able to trace to their appropriate causes. Draw your own conclusions from analogy, and prove by experiments;—your thoughts and mind will be thus elevated and improved, and you will be able to bring the important aids of *science* to the practical pursuits of agriculture, and add alike to the source of your happiness, and temporal prosperity.

Next, "we" shall consider the *inorganic* properties of the soil—sand, clay and lime.

## Potatoe Rot.

We invite attention to the following communications on the cause and cure of the above disease. The facts set forth conflict with our theory, it is true; but we shall be quite willing to abandon it, if these facts, on careful experiment, shall be found to be generally sustained.

Mr. Miller—Sir:—I received recently a letter from a brother of mine in the State of New York, who is a practical farmer, in which he communicates some facts with reference to the Potatoe rot. He says that as the disease made its appearance in the tops, they were cut off, and thus the disease was arrested, and the potatoes dug were all healthy and sound. His neighbors adopted the same process with the like success.

Mr. Geo. Campbell, near Ives' Grove, Yorkville, had a parcel of potatoes along side a field of wheat. In harvesting the grain with a machine, the top of a portion of the rows were cut off. The rows, thus divested of tops produced sound potatoes—the balance of the crop was destroyed. This would seem to prove, that cutting off the tops will check the disease, and save the potatoe. Yours, &c.,

Peter Reynolds.

Caledonia, March 23, 1849.

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Dear Sir:—You will make such use of this as you please. For some years I have raised no other potatoes than the early meshanocks, (*neshanocks or mercers*, Ed.) I plant as soon as the frost gets out the ground—generally the first of April. For the last five years, those planted early have not been infected with the rot, neither before nor after digging; while the same kind planted in May, have rotted in the ground.

The last season I planted half an acre early, and another half acre later, with the same kind of potatoe, the soil also being the same. The half acre planted early, yielded eighty bushels; while the half acre planted later, only produced fourteen bushels sound potatoes. In early planting, no fears need be entertained of late frosts, they will not hurt the potatoe.

One thing I have observed which may be considered important, that is, that what appears to be cobwebs in our fields, during the warm season, is in reality *mildew*; and it perhaps will have been noticed, that leaves

of trees upon which this has gathered, have, after a little, shriveled and been filled with worms. This may, to some extent, account for the origin of the disease in potatoes.

Yours, &c.,

NICHOLAS LE PREVOST.

Mt. Pleasant, March, 1849.

REMARKS:—Cutting off the tops of potatoes has ever seemed to us an unnatural process—much like that of cutting out the lungs to cure a pulmonary disease—and though it may succeed in arresting the rot, it must we think effect the potatoe. We think other and better remedies may be applied.—We hope experiments will be made. If early planting is a preventative, as the experience of our friend, Mr. Prevost would seem to decide, then plant early. An ounce of prevention is better than a pound of cure. If we can prevent the disease, we have gained all we wish, and have no need, of course, of an after remedial process.

From the New England Farmer.

MR. EDITOR: There is no topic, moral, religious, or *political*, that has been so thoroughly discussed, without arriving at any satisfactory result, as the potatoe disease.—For years our agricultural journals have teemed with *discoveries* of *cause* and *cure* and all the remedies, like those of the patent nostrums of the day. "*Strike at the root of the disease —Remove all impure humors and restore health.*"

And yet a strict adherance to the rules laid down, (and which it is said were a sovereign remedy the last season,) are a *total failure this.* The "rot" continues. One writer avers it is atmospherical influence, caused by the extreme dry and warm weather. The next season is the reverse—extremely wet and cold: a new dicovery is made, that it is occasioned "by the extraordinary humidity, combined with a peculiar state of the atmosphere." Some theorists attribute the disease to flies, or other insects. Others aver that the real cause of the evil is "a fungus or mushroom of extreme tenuity that breeds *amazingly* and reproduces itself by thousands." Some have found a remedy in planting unripe tubers, or in renewing from the seed; others, in the use of plaster, salt, lime, and ashes, have *saved* or *destroyed* their crops. Mowing the tops when in blossom has stayed the *destroyer*, at the *expense* of the *crops*. But these visionary theories are exploded. Each succeeding year finds us as much in the dark as ever. In 1847, the early-planted and harvested potatoes escaped the rot; the long reds and late potatoes were nearly a total loss. In 1848, the case is reversed: the earliest planted and earliest harvested are the most affected, whilst the long reds and other late varieties have universally escaped—showing conclusively, that no general rule can be safely adopted in the cultivation of potatoes, to avoid the rot.

All this strengthens our belief in the position we adopted some two years ago—that the cause and grand panacea had not and *never would be discovered.* It is as inexplicable as the cause and spread of the Asiatic cholera, and must ever be equally problematical; yet we think the disease is on the decline, and will in a few years cease to exist. Under these impressions, our advice for the future is, plant just as many potatoes as you would if the disease had never appeared, manure them in the same manner, cultivate them in the same way, entirely regardless of the delusive speculative theories of the thousand and one writers who have discovered so many *sovereign remedies*, which are just about as valuable as a last year's almanac. C.

PEMBROKE, *Dec.* 1848.

CAUTION IN THE USE OF GUANO.—This manure, especially the Peruvian, is found to be so powerful, that it must be used with great caution. Any plant that it touches in a raw state it will *surely kill*; and it burns the leaves of everything which is watered by its solution. The safest mode of application is thus: Mix it in alternate layers, under cover where the rain cannot get at it, with ten or twenty times its quantity of any fine light, easily pulverized soil. Let it lie thus a week or ten days, or as much longer as one pleases. The soil with which it is mixed attracts and partially absorbs its most powerful salts. When it is wished to use this compost, toss it over carefully and mix it well. It may then be sown broadcast upon the grass and grain; put in the hill pith corn, potatoes, melons, &c., &c.,; or around any crop immediately after the first time hoeing, and again just before the crop fruits. For a solution of guano, put one ounce only to a gallon of water carefully *around* and not *on* the plants. For steeping seeds previous to planting, four ounces may be enough for a gallon of water; though some say they have used a pound to a gallon with impunity.—The African not being quite as stong as the Peruvian, 25 to 50 per cent. more of it may be used, according to the value of its analysis.

From the New England Farmer.

## Language of Barn-Yard Fowls.

Fowls use a great variety of language that becomes familiar to those that have the care of them, and the voice of the parent is well known to the young. When a hawk is approaching, the cautionary voice of the mother induces her young brood to hide instantly. When the danger is past, a different note of her voice calls them forth.

We put a hen and her brood of chickens into a garden of vegetables to devour the insects that had become numerous. They all ate freely under the approving voice of their mother. We gently drove them to a carrot-bed, where large, green worms were on the plants. As soon as the hen came near these worms, she gave a caution to her chickens, and her language was perfectly understood, and, with implicit obedience, they made their escape from the place of danger. These are but few among numerous cases. The following extract from the "Natural History and Antiquities of Shelborne" depicts, in beautiful style, the power of language possessed by barn-yard fowls:

"No inhabitants of a yard seem possessed of such a variety of expressions and so copious a language as common poultry. Take a chicken of four or five days old, and hold it up to a window where there are flies, and it will immediately seize its prey. with little twittering of complacency; but if you tender it a wasp or a bee, at once its note becomes harsh, and expressive of disapprobation and a sense of danger. When a pullet is ready to lay, she intimates the event by a joyous and easy, soft note. Of all the occurrences of their life, that of laying seems to be the most important; for no sooner has a hen disburdened herself, than she rushes forth with a clamorous kind of joy, which the cock and the rest of his mistresses immediately adopt. The tumult is not confined to the family concerned, but catches from yard to yard, and spreads to every homestead within hearing, till at last the whole village is in an uproar. As soon as the hen becomes a mother, her new relation demands a new langage; she then runs clucking and screaming about, and sems agitated as if possessed. The father of the flock has also a considerable vocabulary; if he finds food, he calls a favorite to partake; and if a bird of prey passes over, with a warning voice he bids his family beware. The gallant chanticleer has at command, his amorous phrases and his terms of defiance. But the sound by which he is best known is his crowing; by this he has been distinguished in all ages as the countryman's clock or 'larum, as the watchman that proclaims the divisions of the night. Thus the poet elegantly styles him

'——the crested cock, whose clarion sounds
The silent hours.' "

## Bots in Horses.


The principal insects injurious to the horse are the *horse-bee* and the *gad-fly.* The first deposits its eggs on such parts of the body as are liable to be licked by the tongue, and the animal thus conveys its enemy into its stomach; the young larvæ are there nourished, and become whitish maggots. [Fig. 1. *e.*] They attain their full size about the latter end of May, and are voided about the end of June. On dropping to the ground, they find out some convenient retreat, when they change into a chrysalis, and in six or seven weeks the fly appears. The female, [*b*] is distinguished from the male, [*a*] by the lengthened shape of her body. The inside of the knee is chiefly selected for depositing her eggs, which will frequently amount to 500 or more on one horse.

To Remove Dust or Motes from the Eye.—Farmers, as well as many other persons are often so exposed in their labors as to get dust or motes in their eyes, and frequently suffer considerably before they can find any means of relief. The following simple remedy is almost always near at hand, and in most cases will prove effectual:—Fill a cup or goblet with clear water, quite to the brim, and place the eye in distress in such a position as to be completely within the water in the cup; then rapidly open and shut the eye a few times, and the dust or mote will be immediately washed away.—If a cup or other vessel be not at hand, the eye may be placed in a spring or a bucket of water.—*Agriculturist.*

Truth is a hardy plant, and when once firmly rooted, it covers the ground so that error can scarce find root.

THE FARMER'S DAUGHTER.—There's a world of buxom beauty flourishing in the shades of the country. Farm-houses are dangerous places. As you are thinking only of sheep or of curds, you may be shot through by a pair of bright eyes, and melted away in a bewiching smile that you never dreamt of till the mischief was done. In towns and theatre, and thronged assemblies of the rich and titled fair, you are on your guard; you are exposed to, and put on your breastplate, and pass through the most deadly onslaught of beauty safe and sound. But in those sylvan retreats, dreaming of nightingales, and hearing only the lowing of oxen, you are taken be surprise.

Out steps a fair creature—crosses a glade—leaps a stile. You start—you stand lost in wonder and astonished admiration!—You take out your tablets to write a sonnet on the return of the Nymphs and Dryads to earth, when up comes John Tompkins and says, "Its only the farmer's daughter."—What! have farmers such daughters now-a-days? Yes, I tell you they have such daughters. Those farm-houses are dangerous places. Let no man with a poetical imagination, which is only another name for a very tender heart, flatter himself with fancies of the calm delights of the country; with the serene idea of sitting with the farmer in his old fashioned chimney corner, and hearing him talk of corn and mutton; of joining him in the pensive pleasure of a pipe and a jug of brown October; of listening to the gossip of the comfortable farmer's wife, or the parson and his family, of his sermons, and his pig; over a fragrant cup of young hyson, or wrapt in the delicious luxuries of custards or whipped creams. In walks a fairy vision of wondrous witchery, and with a curtesy and a smile of winning and mysterious magic, takes her seat just opposite.—It is the farmer's daughter, a living creature of eighteen; fair as the lily, fresh as May dew, rosy as the rose itself, graceful as the peacock perched on the pales there by the window, sweet as a posy of violets and clover gillivers, modest as early morn, and amiable as your own imagination of Desdemona or Gertrude of Wyoming. You are lost. Its all over with you. I wouldn't give an empty filbert, or a frost-bitten strawberry, for your peace of mind, if that glittering creature be not as pitiful as she is fair. And that comes of going into the country, out of the way of vanity and temptation, and fancying farm-houses nice old-fashioned places of old-established contentment.—*"The Hall and the Hamlet," by William Howitt.*

BOOK KNOWLEDGE OF FARMERS—DERIDED BY WHOM?—With a man of any reflection and honest care for progress in all the arts and employments of useful industry, there are few things more trying to his patience than to hear men, sometimes even gentlemen, who have some pretensions to education, and who therefore ought to know better, donouncing book knowledge, as affording any guide in practical husbandry.—Now, to all such, and especially to practical men who succeed well in their business, and who have always something useful to impart, as the result of their own personal experience, does it not suffice to say, "I am obliged to you for what you have told me; your integrity assures me that it is true, and your success convinces me that yours is the right rotation, and yours the proper process, since I see that while you gather heavy crops, your land is steadily improving; but now, my friend, let me ask you one question further. What you have imparted is calculated to benefit me personally, and unless communicated again by me to others, with me its benefits will rest. Now, suppose, instead of the slow and unsocial process of waiting to be interrogated, and making it known to one by one, as accident may present opportunities, you allow me to have recourse to the *magical power of types*, which will spread the knowledge of your profitable experience, gained by much tho't and labor, far and wide throughout the land, that thousands may enjoy the advantages which otherwise I only shall reap from your kind and useful communication. Will not that be more beneficial to society, and is it a benevolent and christian duty not to hide our lights under a bushel?"—Doubtless such a man, if not a misanthropic churl or fool, would say, Yes. Yet the moment, by means of types, such knowledge is *committed to paper*, it becomes (by fools only derided) *book knowledge.—Plow, Loom and Anvil.*

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"I say, neighbor Hodge, what are you fencing up that are pasture for? Forty acres of it would starve a cow!" "Right," replied Hodge, "I am fencing it up to keep the cows out."

The miser starves himself, that his heirs may feast.

Nothing circulates so rapidly as a secret.

## Bees.

*(Apis Mellifica.)*

These insects have been admired from the remotest period in human record for their industry, skill and economy.

There are three orders of bees in each hive:—the queen bee, (*a*), drone, (*b*), and working bee,(*c*). There is but 1 queen bee, which is distinguished by having a body larger than the others. She is the only bee that brings forth all the young in the hive. The workers are females whose ovaries are not developed. The drones are males and number from 300 to a 1000 in a hive The number of the laborers varies from 5,000 to 20,000. They only are armed with a sting, and toil with system and regularity. The bees that go abroad seek for three distinct kinds of matter, viz: honey farina or bee-meat, and a substance called propolis. The honey is the nectar of flowers, and from the same source bees obtain their wax. Farina is stored up in cells for young bees—is of a whitish color, and very different from honey. Propolis is a resinous exudiation from the trunks of trees, and is used to close up the crevices in the hive, and to close the cells in which the eggs of the insect are deposited by the queen. She lays first the workers at the rate of fifty a day, then the drones, and lastly the ova for queens. It is the old queen that leaves her home, and leads the emigrant swarm. The natural history of this insect is a curious, and most interesting study. Great improvements have been made in bee-hives within the last twenty years. The number of patents have been counted by hundred, of various utility. It is for the owners of these to point out the advantages of each hive.

Bee-pastures ought to be provided in all cases where natural ones does not exist. No other class of animals pay better for their keeping and good attention.

About August, the bees of the preceding year die, the drones are expelled, and the hive is completely under the control of the new generation. Dr. Darwin states that a swarm of bees may be kept through the winter without consuming any food by freezing them, and keeping them in an ice-house till May. It is also stated by other writers, that bees cease to lay up honey after the first year, when carried from a temperate climate where there is snow and frost, to the torrid zone.

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A SURE WAY TO PROTECT THE BEE FROM THE MILLER.—Messrs. Editors:—I was this summer witness, in a western state, to a contrivance for protecting the bee from the miller, which was novel to me, and indeed, to the contriver himself, until it struck his mind in the beginning of the season.

Thinking it may be a novelty to all your readers, I will give a description of it.

The contrivance I witnessed was this:—"A beehouse eight feet square and eight feet high, surmounted by a roof running up into a spire, with a weathercock. In the middle ef each of the four sides of the house was a close fitting door of sufficient width and height to allow persons to enter with ease standing erect. Within was a series of three shelves or platforms, one over the other, four feet square, supported by corner posts reaching from the ground to the top of the walls. These platforms would accommodate from twelve to sixteen common hives. In the daytime, all these doors were fastened open; but as soon as the bees were in at evening, they were closed. Early in the morning, they were again thrown open, and the little prisoner let forth to his toil. In the winter the doors are to be kept locked, except when access is wanted to the hive."

By the means above stated; the miller was kept completely from the hives. He would often be seen knocking in vain for admittance. One morning, indeed, I believe a few millers were found in the house, when the doors had been closed at too late an hour in the evening previous. But they had evidently found themselve entirely in the dark, and had done no mischief. It is obvious that the house, with its internal arrangement, could be of any size that common sense may dictate.—*N. Y. Farmer.*

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TO CUT OR DRILL GLASS.—Wet the implement in solution of camphor and spirits of turpentine.

To two gallons of whitewash, add one pound of blue vitriol dissolved in hot water, and one pound of flour, well mixed, makes a fine blue wash for walls.

# FENCING LANDS.

## Living Fences.

The attention of the farmers in this prairie country is being directed to the subject of living fences. Owing to the scarcity of timber, the almost entire lack in some localities, it has become already a serious question with many, how they shall protect their fields when their present fences shall fail.—They may grow the Chestnut, the Locust, &c., it is true; or they may throw up banks of earth, or construct board fences. But these modes are attended with large and continued expense. The live fence is much the best, and in the end, by far the cheapest. These may be constructed of various shrubs, of the locust, the crab-apple, the sweet briar, as well as of many varieties of thorn. In Europe the hawthorn (*Crataegus Oxyacantha*) is preferred, while here the Buckthorn seems most esteemed.

Mr. Prevost, an old farmer of this county, and a native of England, recommended the crab-apple for hedge purposes, and believes, on trial, that it will do well. But the thorn is undoubtedly to be preferred.

We know of no good reason why the hawthorn of this country, of which there are many varieties, should not equally answer the purpose, as shrubs introduced from abroad. It grows in the climate and on the soil where it is needed—it may be found in abundance here in the West, in our forests, groves, and woodlands; and its shape, hardiness, and other qualities, whould indicate that it is just what we want for live fences. The fruit or berries may be found in large quantities in the neighborhood of this city, and enough might be gathered in a day's time to plant a large nursery.

The seed are very long in vegetating unless prepared before being put into the ground. To hasten their vegetation, put them in a tub and cover them with boiling water, allowing them to remain until the water is perfectly cool.

The work of transplanting is done by plowing, in the first place, four or five furrows, where the fence is to be made, passing the plow backward and forward two or three times, if it be a light sandy soil, where the plants are to be set, and filling the trench with compost, muck, or barnyard earth.—The surface is then to be leveled down and made smooth, and two parallel lines, six inches apart, to be drawn; now cut down the plants to within three inches of the roots and set them in these lines about twelve inches apart, after the form laid down in our last No. "Thus," says a writer on this subject, "by successive planting, say 100 rods in each year, which will cost the labor of a man two weeks, and that of a team three or four days, he will, in five years, with very little expense, have a farm of one hundred acres completely surrounded by all the necessary materials for an *everlasting fence;* and in twelve years from the first planting of the seed, at the utmost extent, the persevering farmer will begin to reap the reward of his enterprize and exertion in the full maturity of his first efforts, and each successive year will add another, and another portion to that already perfected, until every lot be securely protected by a fence, as durable as the soil on which it stands."

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For the Wisconsin Farmer.

Mt. Pleasant, Racine Co., }
Oakland Farm, March, 1849. }

Mr. Miller:—In your first three numbers there are two sorts of trees recommended for living fences or for hedges, such as Bodark or Osage Orange, and Buckthorn.—I think sir that I can recommend as good, if not better, than either of the above for this climate, and quicker got and cheaper. I mean the Crab-Apple tree, the white thorn of this county and the wild Plum tree, all mixed, or either of them. Of these three sorts the woods or timber land in Pike Grove, Racine county, and the Burr Oak openings around, abound with them from seedlings to four inches or more in diameter. In the Spring of 1841, I planted one row of the above three sorts mixed—the row is three rods long; the trees that I planted were not more than 3-8 of an inch in diameter.—In the winter of 1842 the snow was two feet deep, and the mice girdled most of the trees in my fence, their tops died, and the stumps sprouted from the bottom. In 1845 the fence was full four feet high. I bent the trees down to about two feet from the ground, and tied the tops here and there with willows; my fence was then like a chain. I also lopped or clipped the sides to about four feet wide, since then they have grown up, and are now from eight to ten feet above ground. I intend to bend the tops down again to about four feet, so as to form a second chain, by so doing I am certain that no cattle will be able to go through. Besides, the two chains being formed by the tops being bent and entangled together, the three sorts of trees are all so rough and prickly that cattle will not be fond of even rubbing against them.—Those trees that were girdled by the mice are now from one to two inches in diameter, and those not injured are from two to three inches in diameter. Two years ago I planted two rows of the same sort of trees, the

rows about one foot apart. The rows are sixteen rods long and are likely to make a good fence in a few years.

Yours, &c.,
NICHOLAS LEPREVOST.

N. B. Persons wishing to judge for themselves by seeing the fences, will be welcome by calling on me.

For the Wisconsin Farmer.

MR. EDITOR:—In your March No. of the Wisconsin Farmer, is a letter from Dr. Haskell, on the subject of living fences, on which subject I feel deeply interested, as it is my intention—if it pleases God to spare me to perform the work—to fence the whole of my farm—100 acres—with either *English Hawthorn*—American Buckthorn, or Osage Orange. I have a bed of English Hawthorn, containing perhaps 10,000 plants, they are only one year old, yet strange to say most of them are stronger and better than I ever saw in England at two years old; their appearance tends to prejudice me in favor of them for this country. They were planted by an Englishman who bro't the berries from York State. This man was renting a cottage and six acres of land, part of my farm which I bought in July last, where, he informs me, they flourish luxuriantly. I purpose putting out a portion of the stronger plants this Spring for permanent growth, and think that by next autumn I may be able to tell you whether or not they answer my expectations, and *are worth cultivating*. Expecting that this may meet the eye of the Doctor, or some other parties, who, like myself, are interested in the matter, and in furtherance of my views, and *their views* of the subject, I propose to give by way of trade, or barter, 100 of my Hawthorn plants, for 100 buckthorn plants; and if the Doctor will oblige me in this way and will send the package to you, he can enclose one pound of the Buckthorn seed, for which I will pay you $3 on delivery and also make up the package of Hawthorn and deliver to you on receipt of Buckthorn plants.

By such means as these I fancy we can enliven our neighbors to a sense of their duty towards the next generation, and gain the blessings of our children hereafter. Excuse me for pressing you to get this into your April No., as time is on the wing.—I did not get your March No. until the 21st inst., or you should have had this sooner. I will endeavor to scribble something more pleasing than the present, when my experience may justify me in making the attempt. Meanwhile, I shall be glad to learn from your more experienced correspondents, any thing and every thing *respecting living hedges*, &c. &c. Yours, &c.,

YOUNG JOHN BULL.

Mt. Pleasant, March 26, 1849.

REMARKS:—We insert the communication of our Correspondent in this No. with pleasure. The contents of his note are appreciated, and we like him the better for his plain, honest speech. We shall consider his suggestion, and hope to hear from him again.

## Wire Fence, Mode of Making, Expense, &c.

MESSRS. EDITORS :—Having lately completed twenty-four rods of wire fence, and knowing that many farmers intending such fence, if it is found to answer the purpose, I am induced to give a detailed account of it, that others may profit by my experience.

In the first place I would premise that this fence extends from my house (which is situated on a considerable elevation) to the highway, and is, therefore, more expensive than ordinary fences upon the farm. At each end of the fence I set a large cedar post three feet in the ground, and brace it firmly in the direction of the fence. The brace is about eight feet long, and extends from the top of the post to a large stone placed firmly in the ground. Two other cedar posts are paced at unequal distances between the outside posts, on account of the irregular descent of the ground. All the other posts are of band iron 1½ inches wide, ¼ inch thick, and placed one rod apart. Intermediate posts are placed between these, extending only to the fifth wire, and made of half-inch iron. All of these posts are punched with holes for the wires to pass through. The long posts pass through large flat stones, and are firmly bedded in the ground. The posts should be fastened in these stones by pouring around them melted lead or brimstone.

The wires used are Nos. 10 and 12, and I am confident these are the best sizes where a strong fence is required. In building, I commence by running the upper wire thro' first, which is four feet from the ground.—The second wire is ten inches below the upper, both of which are of No. 10 wire.—The third wire is eight inches below the second, and of No. 12 wire. The fourth wire is six inches below the third, and of No. 10 wire, and so alternating the two sizes of wire to the bottom. The distances of the remain-

ing lower wires apart, are 5, 5, 4, 4, 4, inches. These wires, after passing through the lower post, are fastened firmly, which I did by passing them through a strap of iron, and coiling the ends.

I don't know that I can describe the manner of straining the wires intelligibly but I will try. At the upper end of the fence, after the wires have passed through the post, they also pass through the plank of the same width and height. Each wire is then passed through a roller 1½ inches in diameter, and 6 inches long, having one end tenanted for a crank. A board of the length and width of the plank is placed upon these rollers. After each wire is strained by turning the rollers, a pin is passed through the board and roller into the plank, which fastens them firmly.—The wires will contract some in cold weather, and should not be drawn too tight at first.

As to the expense, I cannot be as definite as I could wish, as some of the wire purchased was too small. I have used about one hundred and ten pounds of wire, costing $9 50. Twenty iron posts, at six cents each, $ 1 25; 20 short posts, at 3 cents each, sixty cents; four cedar posts, $1, making $4; painting, $1—making an amount of $16 35.

Since the fence was completed, I have had it broken through once by an ox racing with a horseman. I have found that the wires break only where the ends are looped together. I have since joined them by flattening the ends, laying them together and winding then for four inches with a small wire.—This is the manner of joining them at the Niagara Suspension Bridge. The wires of this bridge are boiled in linseed oil, which forms an impervious coating, and probably toughens the wire.

As to the strength of the fence, I think it sufficient to withstand any ordinary pressure. Wires of the same size at the Suspension Bridge are each strained to a tension of 1,500 lbs. The great objection to this fence, in the minds of many people, is its being invisible. This is why I like it, as it does not mar the beauty of the landscape.

In conclusion I would say that I like this fence because the wind makes no impression upon it—no snowbanks form behind it—it occupies no space—costs less than the building of a good board fence, and although invisible looks beautiful when the ground is covered with snow; and as to its durability, if wire bridges will endure, surely wire fences will last an age.

THE LONGEVITY OF TREES.—A writer in the Edinburg Philosophical Journal, alluding to the longevity and size of trees, states that in Britain there are still extant and growing oaks, and probably elms, which were planted before the Conquest; i. e. more than eight hundred years ago. And there are yew-trees, much older still. There are some at Fountain Abby, near Ripon, in Yorkshire, which are believed to be more than 1200 years old; two in the churchyard of Crowhurst, in Surrey, of 1450 years; one in Braybourn churchyard, in Kent, is said to have attained the age of 3000 years; and another at Hedsor, Bucks county, which is in full vigor, and measures 27 feet in diameter, appears to be 3200 years old.

TO PRODUCE THE EXACT LIKENESS OF ANY OBJECT INSTANTLY ON PAPER.—This may be readily effected by laying the paper on a table and holding a double convex lens (a common sun-glass) over it and then placing a mirror over the lens, in an oblique position, so as to face partly towards the object that is to be represented.—The rays of light, passing from the object to the mirror, will be reflected downward through the lens, and produce the likeness of the object in full colors on the paper. This experiment may be made in the evening, by reflecting the flame of the candle in this same manner, which will appear very brilliant on paper. But in order to render the reflection of an object distinctly visible by daylight, exclude nearly all the light from the paper, except what falls through the lens. The lens must be placed at a distance above the paper, accordiug to its focus, at which it would contract the rays of the sun to the smallest point.—*Ex.*

GRUBS IN THE HEAD OF SHEEP.—It was in the latter part of winter one of my flock was taken sick, and became so weak it could not rise without being lifted. I supposed its ailment to be the grub in the head; and knowing something of the virtue of flaxseed oil, I resolved to try the experiment. I laid the sheep on its back, with its nose a little backwards, and poured in a table-spoonful of the oil, part in each nostril. The next morning the sheep was able to get up and speedily recovered. After that, when I discovered any of them snotty-nosed and coughing, (an indication of the grub,) I put a little oil in their noses, as above, and they soon became clean and healthy.—*Selected.*

# MISCELLANEOUS.

## Importance of well Directed Labor.

A single stroke of an axe is of little consequence; yet by the continual application of that small power, properly directed, what amazing effects are produced! The sturdy oak and lofty pine do not simply own its power, but whole forests fall before it, and the wilderness becomes a garden.

Industry, well directed, will give a man a competency in a few years. The greatest industry misapplied is useless.

As an example, there is my neighbor, Seth Steady, the blacksmith, is not only an industrious man, but his industry is applied to one object. His hammer is heard at dawn of day, and the fire blazes in his shop, during the evenings, from the 20th of September to the 20th of March. Go to his shop at any time of the day for any kind of work, you are sure to be waited upon. The consequence is, his purse is filled with dollars, and his cellars well filled with provisions; and that's what I call quite comfortable.—Although suitably liberal, and enjoying the good things of life as he goes on, ten years of health will enable him to purchase a good farm.

As a contrast, there is my friend Nat Notional, the busiest and most industrious mortal in existence; as the old saying is, "he has too many irons in the fire," and with all his industry he goes behindhand.

He has a fine farm, but instead of pursuing the cultivation of it, he flies and seizes on every new project that occurs.

A few years ago he concluded to give up the dairy business, in consequence of the low price of butter and cheese; sold his cows at a low figure, and purchased sheep at a high rate, for wool then commanded a high price. By the time he got fairly into the raising of wool, down went the price of wool, and up went the price of butter and cheese. He then sold his sheep and purchased cows again, for cheese was up, and wool was down. Last year, after sowing a number of acres of grain, he resolved to rent his farm, sell the grain on the ground, buy a team, and go to hauling; for, by a nice calculation, he had proved that money might be made by it. A team was procured; but after one or two trips, he concluded to sell his team, build a saw-mill, and go largely in to lumbering. The dam was completed, the irons procured, and three-fourths of the expense incurred, when, by a nice calculation, (for no one makes *nicer* calculations,) he found that an oil-mill would afford the best profit; and to work he went with great industry, building an oil-mill.

I happened to go there a few weeks afterwards, and the whole organization of the mill was undergoing an alteration, to fit it up for a cotton and woollen manufactory.

A quizzical friend intends to propose to him to abandon that project and enter largely into the manufacture of flour, and I have no doubt that he will readily accede to the proposal.

So with all his industry and expense, he is neither benefiting himself nor the public. —*Albany Cultivator.*

Importance of Good Tools.—Those mechanics only who have excellent tools can duly estimate their importance. Many work year after year with poor tools, when a little time and expense would supply them with good tools, enabling them to do far more work and do it better.

Sometimes a mechanic will use a poor implement, when a good one could be obtained for one or two dollars that would last for years, and would annually make a saving of more than double the cost of the implement.

A blacksmith who had far better and more tools than was common with others in the same business, hired an Englishman to assist him. The first thing the stranger did was to make tools, and for more than a week he plied himself closely to making tools, before he would do any other work. His time was well spent, as was shown by the neatness and despatch with which he worked, after being properly prepared.

A poor saw often requires twenty-five per cent. more strength than a good one. If it be used one sixth of the time, the loss would be about one day a month, which in a year would be equal to a sum sufficient to buy a dozen good saws. Mechanics should make estimates occasionally. They will present results in a long run that are highly important, though they may seem trifling for a single day.

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The old and true saying, that "an ounce of prevention is worth a pound of cure," is worthy of far more consideration than it usually receives. Many persons do not truly value health while they possess it.—The poet justly observes,

"How blessings brighten as they take their flight."

From the New England Farmer.

## Blind-bridles for Horses.

Among the most absurd practices in the management of horses is the use of blind-bridles. They are not only very inconvenient and uncomfortable to the horse, but they aggravate the very evil which they are intended to obviate—that of preventing the horse from being affrighted by the carriage which he might see without blinders, or from any object approaching from behind him.

In training a young horse in a chaise, we took off the blind bridle, to give him some provender, and he started with affright at the sight of the carriage; and had he not been pent up in the corner, he would have cleared. We saw from this instance the folly of the practice, and afterwards used him without blinders, first leading him up to the chaise and around it that it might become familiar, before harnessing for a few times, and we had no more trouble with him.

When any thing is approaching a horse in the rear, it is far better for him to see it as it approaches, which he will if not blinded, than for it to come suddenly upon him, before he can see it. We had an instance of this in the same horse, while the blind bridle was used. In travelling with a gig, and walking up a hill, a friend in company came up to the horse's head, with his umbrella spread, which so frightened him that he ran away.

We name these cases, hoping that they will have some influence upon those who reason upon the subject, and induce them to abandon a practice that is attended with trouble and sometimes with danger. We copy the following judicious remarks from J. Maddock, Farrier:—

Blind Bridles.—"Yes, use your thinking powers, friends. They were given you to use, and not abuse. Blind bridles! Truly named, surely. Art never invented a more fatal thing to the eyes of horses than when she devised this plan of depriving the horse of what nature intended he should enjoy. But says one, how are blinders injurious to the horse? Because they gather dirt and heat around the eyes. Dirt irritates the eye, and heat produces inflamation. These bridles so entrammel the eyes of the horse that he is constantly straining them to see his way. The over exertion of the nerve brings on disease. Eyes were not made in vain. Had they been needless, the Creator would not have located them in the head.—They were placed on the corner of the head that he might have the advantage of looking in different directions. Men, in the abundance of their wisdom, concluded the horse had too much sight, and they wished to curtail it; hence the origin of blind bridles.—Think of this seriously, and you will abandon the use of so destructive an appendage. Remember, that blind-bridles and diseased eyes are inseparably connected. Custom hoodwinks the senses of men as much as blind-bridles do the vision of horses."

Management of Horses.—We have no domestic animal among us, that costs us so much that will do a greater variety of work, or that is so much abused, as the horse.—Like his master, the horse is complicated in his structure, and liable to a great many diseases; and he is capable of being made to exert all his powers of body in the efforts of speed or severe labor, nine-tenths of them are cut off in the prime of life. And yet by care and attention, by kind and humane treatment in working and feeding, he can be made to endure a great many years, active and strong. Mr. Pell, of New York, has given some excellent rules for the management of horses, which were published in the Transactions of the New York Agricultural Society. Among the good ideas which he there advanced, he observes, "Feed them in winter on a variety of food, such as oats, ground and whole, bran, strip stuff, beans, peas, turnips, carrots, potatoes, and parsnips, occasionally steamed separately and together. In summer, keep them always confined in airy stables, and feed them on clover, bruised grains, green cornstalks, cider pomace, oil cake, hay, &c. Be particular to give them three-fourths of a pound of salt per week; occasionally two ounces of sulphur, and frequently two ounces of wood ashes.

"By good keeping and judicious management a pair of horses, perfectly sound when young, will last, and labor constantly, 25 years, and to the end will retain their spirits. I have a pair of bay horses," he observes, "on my farm that are now twenty years old, during which time they have never been at pasture, and have worked daily; they have never been incapacitated for work by lameness, or disease of any kind, and have always been perfectly healthy." He also adds that he has "another pair of sorrels that are eighteen years old, which labor daily, and will do as much work as any pair of six years."

The above statements of Mr. Pell are worth listening to, and his advice should be followed. Much loss would be prevented, and much suffering to a faithful and useful animal be warded off, while the long-continued powers for labor would amply reward the extra care and kindness thus bestowed, even if the virtue of mercy to those brutes intrusted to our protection were not taken into account.—*Maine Farmer.*

THE STRAWBERRY.—The strawberry is the earliest of all fruits generally cultivated in this part of the country, and it is one of the most delicious and wholesome. It is cooling and refreshing, and highly acceptable, as it is in use in the hot season when there is a general scarcity of fruits. It is very juicy, rather acid, and remarkably tender, which admirably adapts it to general use in hot weather.

This fruit is easily raised. Any good tillage is adapted to its cultivation, but it pays well for high manuring and thorough cultivation. A deep sandy loam, rather moist, yet well drained, that the water may not stand on it in the winter, is the best soil for strawberries. Large crops are raised in this vicinity on light soils, but on such soils a severe drought may greatly reduce the crop.

The production of the strawberry is large. In some rare cases, the crop has amounted to four thousand quarts to the acre. An average crop is probably less than half this amount, or about fifteen hundred quarts to the acre, selling at twenty to twenty-five cents per box. In some cases the average price of large berries is thirty to thirty-seven cents. The production is so large as to render the crop profitable, whether raised for market or for family use.

The Early Virginia strawberry, is one of the best and most profitable varieties, and for an early kind, it takes the lead in New England. It is hardy, vigorous in growth, an abundant bearer, and the fruit is excellent.

Hovey's Seedling follows the Early Virginia, in quick succession, and it is distinguished for its large size and productiveness, and the quality is very good. It is a pistillate plant, and requires a staminate variety, or a perfect kind, like the Early Virginia, near it, in order to get a good crop and perfect berries.

These two are the principal varieties cultivated in this region. Many more are on trial, some of which are very promising—

The object of this article is to direct more attention to the cultivation of the strawberry, both for market and for home consumption, where the wild strawberry does not abound. One square rod in the garden will yield ten quarts. A friend informed me that he had a good supply for his family, of twenty quarts, from a bed twenty by twelve feet.—What a delicious luxury at a small expense!

SELECTING SEED CORN.—It is a general complaint among farmers, that their corn degenerates and grows later—the same kind of seed that once was forward, and would ripen early, having hardly time, in the best corn seasons, to ripen The reason, I think is obvious. It is an injudicious practice in selecting seed. Farmers in general select the *largest* ears, that grow on the *largest* stalks, and that have the most rows on the ear. Selecting seed in this way will make the *stalk grow larger*, and of course later.—

The object for which I have written this article is, to give directions how to select seed corn. The best evidence that I can give of my skill in selecting seed corn, is that I have planted the same kind of seed for *twenty-eight years*, and have *increased the size of the kernel one-half, without increasing the size of the cob*, and its growth has not been made any later. Selecting ears that are perfectly ripe and have a small cob, without a large butt-end, will keep the corn from growing later. When I select my seed corn I am careful to pick ears the kernel of which is large and bright having a small cob, and but eight rows—and as much as possible of a uniform bigness from butt-end to tip. I never pick ears from overgrown stalks, nor ears that have a large butt-end, nor ten or twelve-rowed ears.—Such will grow where there is an abundant growth, even if all planted are eight-rowed.

Yours, with much esteem,

JOHN BROWN, 2d.

Moultonborough, Feb. 10, 1845.

—*Farmers' Monthly Visitor.*

How beautiful are the smiles of innocence! how endearing the sympathies of love! how sweet the solace of friendship! how lovely the tears of affection! These, combined, are all characteristic of *Woman.* They are the true poetry of humanity—rich pearls clustering around the altar of domestic felicity.

The more business a man has to do, the more he can accomplish.

# EDUCATIONAL.

## Education.—No. 4.

That our country is not, comparatively, as enlightened and intellectually distinguished as it once was, is a fact we believe capable of being fully sustained. Not that there is not more general intelligence abroad in the land—that the discoveries of the age have shed no light upon the minds of our people—that the institutions of learning have not greatly multiplied, nor the facilities of learning greatly increased; but it is denied, and will be denied so long as the evidences of its truth exist, that intelligence, sound and useful learning, possess that relative and commanding influence to which they are entitled. They do not now, as they once did, take the lead, and hold in high and imperious control the interests and destiny of the nation. There has been a receding from the high ground once occupied, a descent from the eminence on which our fathers stood, witnessed in the dying away of intelligence in the Assemblies and Senates of a free nation—the lowering of its public standard for merit and trust—the departing of courtesy and decorum and of unsullied dignity from legislative halls—the acceptance of other securities than those of intelligence and moral worth, and other pledges for fidelity and success in the enactment and administration of law;—all these are but so many proofs, evidences palpable as the sun at noon-day, of wasting instead of advancing intelligence among the people. Horace Mann utters a great truth when he declares, that, "We have not only to propitiate to our aid a host of good spirits, but we have to exorcise a host of evil ones. Every aspect of our affairs, public and private, demonstrates that we need, for their successful management, a vast accession to the common stock of intelligence and virtue."

There is an ultra Radicalism abroad, which needs to be controlled by cultivated intellect and moral sentiment—we mean that Radicalism which would have no Sabbath, which would annihilate every existing institution, carry flame and bloodshed through the state and nation, blot out all law, and seek by one blow to destroy all evil, and by one great effort to purify society, and lift up humanity to the proud height of its destined glory. Now, we are no alarmist—we like any thing that comes to us in the shape of true Reform. But who does not see that this is reform with a *vengeance*. And who that has an eye open does not discover that it is fraught with evil, and that such a spirit needs to be under the guidance and control of Intelligence and Virtue. "Every one knows that men are continually subject to impulses and passions, exceedingly dangerous and mischievous if not controlled and suppressed. Control and suppression can be effected only by one of two methods, namely, either by the energy of external force or the power of inward principle. The former is the method by which the mass of men have usually been controlled—a method which has led to infinite abuse, and for ages the many have groaned under the irresponsible tyranny of the few." But it shall be so no longer. A spirit has been aroused which will match itself against Kings, and defy the power of Thrones. This spirit which spreads and prevails the world over, is struggling here for a higher Republicanism, for a purer Social System, for Equality and Universal Brotherhood. But it is now, in certain localities, an ultra Radical spirit, and is fast becoming such every where; and, as in the case of France, it is fraught in its increase and exercise of power with tremendous evils, when, uncontrolled and undirected by intelligence and virtue, it assumes the form of mere blind impulse and passion. The hold of external power, of outward force, is weakening day by day. And we say of certainty, that unless there be an increase of knowledge, connected with moral and religious principle, there is no security for the liberties of this people.

We know it is hard to believe that in this land of Schools and Bibles, where such munificent provision is made for the education of the sons and daughters of the nation, and where there are so rich and varied facilities for acquiring knowledge, there should at the same time be a lack of intelligence and virtue among the sovereign people, and so much of a lack as to peril the great interests of the country and of the cause of religion. But suffer us to present a single fact:—The last Census shows that there were at that time 700,000 free white persons in the United States, over the age of twenty years, who were unable to read and write. Suppose now that of this number one-half were females, and that of the male portion one-half were persons either not twenty-one, or unnaturalized foreigners; and we have as the balance, 175,000 voters who can neither read nor write; and by them is determined who shall be the rulers of a free people. Now take into the account those who are but a single remove from them, but a step above those who know nothing, and what a mighty host have we of the unenlightened and uneducated, by whom to a very considerable extent, the destinies of the American Union are wielded—wielded, too, amid the prevalence and increasing might of the wild and lawless spirit abroad. Is there not that in the very thought which is truly appaling?

"After all," said Buonaparte, "it is education that makes men." Pre-eminently is it true, that education is essential to fit man both to govern and to be governed. That improvement of mind, those

enlarged views which reading, study and reflection alone can give, are the best securities to contentedness and improvement in private life, and as they enable us to judge of the nature and value of civil rights and securities, they prepare us to intrust their keeping to those, and to those only, who, from their intelligence and worth, are entitled to confidence and trust. These, too, are essential to guide, to hold in check, to control that spirit which has been waked up in all lands, which burns in so many millions of human hearts, and which spurns all outward force, laughs at outward restraints, and is unawed by statutes, the cry of '*Treason*!' or the presence of dungeons and scaffolds.

There seems to be disposition at the present day to rely upon the attainments of others, and not upon actual researches—we mean generally—to be contented with the fields already explored, and make no advancement on the experiments and resources of those who have gone before. There is not only a false pride of our intellectual advantages, but a reliance upon facilities for education rather than on laborious efforts for its attainment. The great matter of education is, therefore, notwithstanding the multiplication of means and agencies, coming to be undervalued and neglected. We have an abundance of schools, and very many good ones, scattered over the face of the land, the treasure of state is poured out freely for their maintenance, and they are largely patronized; and still how few educated men and women have we,—we say *educated*, and there is almost infinite meaning in that word. Books, magazines, papers, are multiplied to an almost endless profusion, and yet sound useful knowledge is not greatly on the increase among the mass of the sovereign people. We wish, therefore, to speak more in detail of what education should be—what it must. Right education we believe to be the sovereign Panacea for all the evils which afflict society and the world.

AID CHILDREN IN THEIR STUDIES.—The good mother, or other discreet members of the family, can do much to encourage children in their studies. Even when the parent is not well skilled in the branches the child is attending to, she may exercise a powerful influence by showing to the child that she is interested in its success.

If children sit down to what they consider a task, and see no other member of the family attending to study, or taking any interest in their progress, it may be irksome, especially when all the rest of the family seem to be free from care or labor, and enjoying life in a cheerful manner, apparently without the labor of thought or reflection.

Many are qualified to aid children essentially in their studies, and all have the power of encouragement, which often operates like a charm upon the juvenile mind, and causes difficulties that loomed up to a discouragement in the distance, to diminish or vanish away, on near approach, or familiar acquaintance, through the aid of a kind friend.—*N. E. Farmer.*

## Public Domain.

The report of the Commissioner of the General Land Office, states that the public domain comprises 1,442,217,197 acres, after having sold and disposed of 142,026,003 acres.

A very large portion of this land lies west of the Mississippi River, east of the Rocky mountains, and in Oregon, New Mexico and California.

In the several States, there remains undisposed of the following quantities:

| | |
|---|---|
| Ohio, | 875,465 |
| Indiana, | 5,572,645 |
| Illinois, | 15,693,076 |
| Michigan, | 25,097,296 |
| Wisconsin, | 28,863,763 |
| Iowa, | 29,868,038 |
| Missouri, | 29,766,640 |
| Arkansas, | 27,669,007 |
| Louisiana, | 23,677,775 |
| Mississippi, | 11,815,040 |
| Alabama, | 17,515,346 |
| Florida, | 36,137,13y |

During the past year there has been bro't into market 9,459,741 acres; and it is estimated that during the present year, 9,113,400 will be proclaimed for sale.

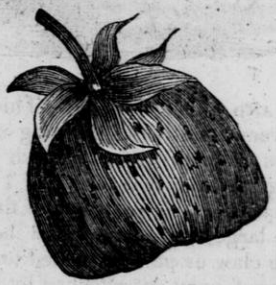
In 1847 there was sold 2,521,305 acres; the purchase money being $4,296,404 08. During the first three quarters of 1848, there was sold 1,448,240 acres, and the purchase money $2,030,660. The whole number of acres disposed of, during these periods, by sale and otherwise, was 5,887,550.

The number of Mexican war warrants issued, up to Nov. 30, 1848, was 43,174, calling for 6,505,950 acres of land. The whole number of regulars and volunteers, entitled to bounty lands, is about 90,000 men, which show that there are 46,826 warrants yet to be issued.—*Exchange.*

Somebody, who writes more truthfully than poetically, says, "An angel without money is not thought so much of now-a-days as a devil with a bag full of guineas."

# HORTICULTURE.

## Strawberries.



Ross Phœnix.—Its large size, fine flavor, perfect hardiness, and great productiveness, may perhaps entitle this variety to rank as high if not even higher, than any other strawberry of large size for the Northern States; though a further and more general trial may be needed. It was raised in 1837, by Alexander Ross, of Hudson, N. Y. Fruit very large; with common culture four of the berries weigh an ounce, and they are about an inch and a quarter in length, and not far from the same in width.

Prince Albert.—A fine growing, hardy variety, well adapted to our climate. It is a most profuse flowerer, a large plant sometimes containing from one hundred to one hundred and fifty blossoms, but many of them prove abortive. The fruit which is very large and beautiful, is generally of a long conical form, though occasionally of a cockscomb shape, of an agreeable flavor, but not equal to that of the British Queen.

Cultivation of the Raspberry.—The plants are frequently set out in light and poor soils, crowded together, left untrimmed, choked up with a profuse growth of weak stems; and what little fruit they produce is nearly dried up, from the arid situation in which they were placed. On the contrary, cool, deep and moist soils, in a sheltered and partially shaded place, the plants throw up suckers to the height of six or eight feet, and produce a profusion of large, handsome and well-flavored berries. So well assured are the most eminent English cultivators of the raspberry, of its love of a cool and moist soil, that some writers have strenuously recommended the use of bog earth and rotten leaves, in the place of richest loam. We are well assured that the many complaints which are made of the meagre produce of many raspberry plantations, may be attributed wholly to the light and droughty soils in which they are often planted.

A cool aspect is of material consequence; and to secure this, the north side of a fence or trellis, which will form a screen from the sun, is the most favorable; on the north side of the shrubbery or fruit trees, is also a suitable place. If neither of these situations is to be had, an open spot in the garden may be chosen, always being careful to avoid the south or east side of the fence. A temporary shade may be affected in the open garden by planting a row of running beans on the south side.—[Hovey's Magazine of Horticulture.

Experiments in Planting.—The advantages of free admission of light, and free admission of air, to the growth of plants, are in a good degree obvious to persons of any experience in agriculture. So important are these influences to Indian corn, that an advantage is known to result from giving the widest space to rows running north and south. It has been suggested that planting corn and potatoes in alternate rows, or in alternations of two rows each, would give a greater aggregate product for a given extent of land, than if each crop were planted entirely by itself. Experiments relative to this point have been made in Massachusetts for a few years past, under the direction of the Plymouth County Agricultural Society, and the results so far, indicate considerable advantage in favor of the alternate planting.

Mr. Nathan Whitman, who received for an experiment of this kind, made last season, a premium of $15, planted half an acre with corn alone; from this was harvested 42 43-75ths bushels; half an acre of potatoes; from this was harvested 136 7-56 bushels; and half an acre in alternate rows of corn and potatoes; from this was harvested 22 50-75 bushels of corn and 79 40-56 bushels of potatoes.

In this experiment, there appears to be a gain in mixed planting, of ten bushels of corn to the acre, and twenty-six bushels of

potatoes. Some experiments reported to this Society in former years, we believe showed about the same results.—*Alb. Cult.*

HINTS IN REGARD TO PLANTING PEAS.—Instead of forming rows of tall growing peas close together, it is recommended to have but one row, and then leave a bed ten to twelve feet wide, for onions, carrots, or any crops which do not grow too tall.

The advantages of this arrangement are, that the plant will not be drawn up so much; the vine will be stronger, will flower much nearer the ground, and the peas can be gathered in wet weather without wetting you so much as is done in picking between close rows.

But instead of sowing peas in straight rows, if you will form the ground into circles of three feet in diameter, with a space of two feet between eace circle, in a row thirty feet long you will have six circles of peas, each nine feet—in all, 54 feet of peas, instead of thirty on the same extent of ground.—For the very tall sorts, circles of four feet in diameter will be better. If more than one row of circles is wanted, leave a bed 10 or 12 feet wide between it and another.

FARMING IN GREAT BRITAIN.—A London paper states that at the present moment, with an area of 61,522,970 acres in the United Kingdom, there is only one proprietor of every 305 acres. The "stout yeoman" class is rapidly disappearing; the number of persons farming their own land, every day diminishes; a dozen proprietors are run together in the hand of one holder, or four small farms are combind into one large one; the small farmer is an animal almost as rare as the small landlord; and the children of those who constituted the former tenantry of the country have become the laborers on the very land their ancestors cultivated as holders. Farming, like all other trades, is becoming a wholesale business, and while a few are becoming extensive and wealthy agriculturalists, the mass are sinking into hopeless poverty.

A WISE PRIEST.—A German priest walking in procession at the head of his parishioners over cultivated fields in order to procure a blessing upon the crops, when he came to one of unpromising appearance, would pass on, saying:

"Here prayers and singing, will avail nothing; this must have manure."

ROOT AND BUSH PULLER.—This implement is very effective in tearning out stools or clumps of small bushes, which grow in wet boggy land. It is made of 1 inch, or 1¼ inch bar iron. The ground is first, if the roots are large, loosened around the bushes, when the claw or pull is fastened to one side and a pair of oxen are attached by means of a chain to the implement. At the word given, the bushes are torn out by the roots.—One man, with a smart and well broken pair of oxen, will thus do the work of ten men.

AGRICULTURE feeds us; to a great extent it cloths us; without it we should not have manufactures, and we should not have commerce. These all stand together, but they stand together like pillars in a cluster, and the largest is agriculture.—*Webster.*

To prevent the attack of the goosberry caterpillar, sprinkle soot over the plants when they are beginning to open their leaf-buds. This is said to be always successful.

THE PLOW.—Its one share in the bank of earth is worth ten in the bank of paper.

## Away to the West.

BY W. K. COLE.

Away in the West, where the primeval wood
Yet throws its dark fringe on the Michigan flood;
Where pale in their beauty, the forest flowers bloom,
And the earth is yet mantled in forest and gloom;
With the bounds of an empire, the dark virgin soil,
Full of treasures, awaiteth the husbandman's toil.

Away in the West on the Huron's dark shore,
Where nature still reigneth supreme as of yore;
Where, murmuring soft in the flickering gleam,
Of its leaf-curtained hail, goes the canopied stream,
There spreads a broad realm, where the toil of the poor,
May keep the grim demon of Want from the door.

Away in the West, 'neath the brightest of skies,
And horizon bounded, the prairie land lies—
The prairie land over whose surface is rolled
A garment much fairer than diamonds or gold;
There the hard hand of Labor but waiveth his wand,
And a harvest all golden springs up from the land.

Away to the West! ye who grovel and pine
In the haunts of the many, in tunnel, and mine;
Banish pick-axe and shovel; then, ho! for the plough:
For a tithe of the labor that dampens your brow
Will place you in plenty—a tithe of your toil
Make yon chief of the manor, the lord of the soil.

Ye famishing legions from Europe just fled,
Ye exiles of hunger, ye seekers of bread,
Away with the moment, and linger no more
By the waves that have borne you across to our shores,
For the millions and millions as yet there is room,
Where the prairie lands smile and the forest trees bloom.

# EDITOR'S TABLE.

STATE AGRICULTURAL SOCIETY.—We learn by letter that a State Agricultural Society was formed recently in Madison. A Constitution was adopted, which provides for auxilliary Societies in each county in the State, the Presidents of which shall be chosen from among the Vice Presidents of the State society. We cannot say that we like this—but more hereafter. The officers elect are as follows:

President—ERASTUS DRURY, of Fon du Lac.

Vice Presidents—J. F. Willard, of Rock county; Hiram Barbar, of Dodge; Geo. Esterly, of Walworth; Geo. Anderson, of Dane; Theodore Lecoy, of Racine, Hiram Champlin, of Manitewoc; Jonathan Daugherty, of Fon du Lac; Jacob D. Merrit, of Grant; Patrick Toland, of Washington; Timothy Burns, of Iowa; Wm. F. Dow, of Green; Enoch Woodword, of Milwaukee, Benj. L. Gibbs, of Sheboygan, Elish Edgerton, of Waukesha; J. T. Haight of Jefferson; Jno. W. Blackstone, of La Fayette; Beny F. Hollenbeck. of Marquette; Jno. P. Arndt, of Brown Moody; Mann, of Calumet; T. Hagev, of Crawford; Col. J. Drake, of Columbia; John Bush, of Portage; Jacob Weed, of Winebago; B. L. Purdy, of Sauk; Joseph Bowron, of St. Croix; John McKenney, of Richland.

Secretary—Royal Buck, of Madison.

Treasurer—Abram Ogden, of Madison.

Corresponding Secretary—R. W. Lansing.

Executive Committee—Hiram Barber, of Dodge, J. Goodrich, of Rock; John M. Wells, of Waukesha; Robert Wasson, of Milwaukee and Timothy Burns, of Iowa.

PROFITABLE FARMING.—The following statement shows what may be done in the way of farming—what may be accomplished through right tillage on comparatively a small farm—and how the plow may be made to turn up the yellow gold, and turn it glittering and jingling into the farmer's pocket. It is given by James C. Corning, of Newtown, Buck county, Penn., and comprises the amount of products sold from his farm of 125 acres in the year 1848:

| | |
|---|---|
| Wheat, 376 bushels, | $620.00 |
| Rye, 50 bushels, | 40.00 |
| Oats, 1000 bushels, | 375.00 |
| Indian Corn, 17 acres, 1,037 bushels, | 621.00 |
| Timothy seed, 4 bushels, | 16.00 |
| Potatoes, 100 bushels, | 60.00 |
| Apples 500 bushels, | 125.00 |
| Hay, 70 tons, | 400.00 |
| Sheep and Lambs, | 25.00 |
| Calves, 14 in number, | 95.50 |
| Swine, 20 in number, | 240.00 |
| Poultry and eggs, | 125.00 |
| Butter, from February to October, 2 708 lbs. | 973,08 |
| Total, | $4,136.38 |

The stock remaining on the farm, on the 12th of December, consisted of 3 horses, 2 colts, 20 milch cows, 1 bull, 2 heifers, 10 sheep. and one breeding sow. Mr. Corning, we warrant you, takes two or three agricultural journals, and makes a practical application of the knowledge he gains from them. Such a farmer will thrive and get rich.

☞Spare minutes are the gold dust of time; and Young was writing a true, as well as a striking line, when he affirmed that "Sands made the mountain, and moments made the year." Of all the portions of our life, the spare minutes are the most faithful in good or evil. They are gaps through which temptations find the easiest access to the garden.

☞It is very strange no one will be content to take experience at second hand. Every one must buy it for himself, and sometimes pay pretty dearly for it, before he can profit by its lessons.

CHEAP LITERATURE.—And *cheap* enough, too, it is, in every sense of the word. It is not only valueless, generally speaking, but absolutely pernicious. It is a sufficient condemnation of it, that it destroys the taste for sober history, rigid science, elevated poetry, and substantial literature, which in years past have been regarded as essential to the foundation and superstructure of education. Now, we have no objection to the reading of fiction, for purpose of amusement or as a relief from study, if it be of a right kind, and indulged in rationally. But this light, trashy, sickly, viciating sentimentalism which is afloat in the community, and which as plenty and as pestiferous as the lice in Egypt—away with it, do kick it out. It has nothing addressed to mind in the dignity and majesty of cultivated expansion, nor is it diluted moonshine the proper aliment of an immortal soul bearing the image of the Infinite God.

AN EXAMPLE.—At a recent session of the National Assembly of France the principal part of the day was devoted to the bill relative to the agricultural schools. It was resolved that one of these institutions should be founded and maintained in each department at the public expense; and further, that the country should be divided into agricultural districts, not exceeding twenty, in each of which a government school is to be established.

EFFECT OF ETHER ON PLANTS.—At a meeting of the New York Farmers' Club, July 18, the following was read: The *Mimosa pudica* being placed under a glass vase with cotton wet with the ether, in twenty minutes the plant lost all its sensibility, and could not be made to move by touching it with a pin. At its most susceptible parts, some change in its color was perceptible. The plant was ten minutes insensibly, and then gradually recovered. This experiment was often repeated, and always with the same results. The experiment was tried on the *Oxalis sensitiva*, which is less irritable than the first named, and it did not loose its susceptibility in less than twenty-five minutes, and recovered slowly. The plant *Dionœa muscipula*, after twenty minutes, begun to close up its young leaves gradually, and then lost *all* its sensibility.

☞ Draining lands will contribute to promote health and profit. Generally speaking, our wet and marshy lands are the richest in organic matters, and become the most profitable to the owner, when thoroughly drained.

THE NORTHWESTERN EDUCATOR.—The second No. of this valuable Magazine for the present year, has reached us, and bears about it evidences of success and prosperity. The contributions to it are nearly all of the first class, and from those who know whereof they affirm. Mr. ENOS with this Journal, and the talent he has enlisted, is doing a noble work for the cause of Education. The Educator is published monthly in Chicago, at $1.00 per year. Address James L. Enos, Apollo Hall, Chicago, Ill.

SCIENTIFIC AGRICULTURE, or the Elements of Chemistry, Geology, Botany, and Meteorology, applied to Practical Agriculture; by M. M. Rodgers, M. D., author of Agricultural Chemistry, &c., &c. 12 mo., pp. 280. Published by Erastus Darrow, Rochester, N. Y.

Such is the title of a work received by us a few days since, through the Post Office, and which on a slight perusal we believe to be a good one, and of good use to the farmer. It will undoubtedly obtain a wide circulation. We thank the Publisher for the copy he sent us, and when we have read more we will say more.

THE WORKING FARMER.—The first No. of this new Journal has been received. We have only time now to say that it is a monthly magazine, published in the City of New York by KINGMAN & CROSS, edited by Prof. J. J. MAPES. Terms, fifty cents a year, or six cents single No. It is filled with matter valuable to the agriculturist every where.

NEW ENGLAND FARMER.—Such is the title of a new Agricultural Journal, of 24 pages, including advertising Department, published in Boston by J. NOURSE, and under the Editorial management of the popular Agricultural author and Editor, S. W. COLE. The Farmer made its *debut* in December last—is well filled with a most excellent variety, and its engravings are alone worth the subscription price. We extend to its Publisher and Editor the warm hand of fellowship and brotherly greeting, and wish them abundant success in the field they have chosen.

The farmer is issued semi-monthly—terms $1,00 per year, or five copies for $4,00 payable in advance.

☞Wisconsin Farmer, a monthly Agricultural paper, of 24 pages, published at Racine, Wisconsin, price 50 cents a year, by Mark Miller. We have received the first No. of the above paper. It is filled with interesting matter, and if it were not for the shadow of the Prairie Farmer, we should expect it to come to something. Perhaps it may as it it.—Michigan Farmer.

We beg of our neighbor that he will give himself no great deal of uneasiness on our account. We think the shadow of the Prairie Farmer, must rest quite as darkly Michigan-ward, as in this direction; and though that excellent Journal occupies a broad field, we are so little envious of its prosperity, that in the language of the Persian benediction, we say, "May its shadow never be less.

MICHIGAN FAMER.—We are in the receipt of the March No. of this Journal. It is very well filled with original and selected matter, and we should judge was conducted with considerable ability. It is published at Detroit, semi-monthly by WARREN ISHAM, at $1,00 per year in advance. We wish it abundant success.

☞The California fever still rages in all parts of our country—even Europe has caght the infection, and the Islands of the sea. Many a poor cranium has but one thought—to dig gold, wash gold, coin gold—and on the back of the nightmare (a great traveller,) thousands are nightly transported to the Gold Regions, like as Mahomet, by the beast Alborak, to the gate of Paradise. Ah, these are wicked times upon which we have fallen.

☞Warm, genial, laughing Spring is again coming, the season of birds and flowers. How very welcome after a long, severe winter! Mother Earth, after a prolonged rest, again proffers her renewed energies, and invites the husbandman to toil. Hers are the only banks that never fail, and she discounts largely to the honest, diligent disciple of "the shovel and the hoe."

REST.—Rest is not total inaction, a folding of the hands in idleness, a little more sleep and a little more slumber. On the contrary it is merely a change of action. When one portion of the muscles have been long exerted, they may be relieved by exerting another portion. Or, when wearied with one employment, we may find relief in a change of employment. So, too, when one portion or faculty of the brain or of the mind has been taxed and made weary, it is only required that other faculties and powers be called to the labor of tho't and exercise. This change of exertion is called *rest*. It is a change of employment, a change of exercise in one direction, to exercise in another, a change of bodily or mental action.

☞The young man, or woman, who, forgetting all else, seeks happiness in a continual round of amusements, and expects enjoyment in a crowd—will find in the end that a most mighty error has been committed, and that the object and effects of relaxation have been sadly mistaken. "Too much honey is gall," says the old proverb; and "the full soul loatheth the honeycomb," is the language of the Bible. And all human experience will testify, that too much pleasure—so called—is a weariness greater than toil, and that long continued recreation is the severest drudgery.

The Divine Fatherhood is revealed in all the arrangement, and order, and adaptation, and beauty of the outward Universe—in the visions of peace, and the hallowed and blissful emotions, which have come to the human soul in its communion with the Infinite—and in that Holy Word which teaches us to look up from amid human debasement, guilt and sin, and say, "Our Father who art in Heaven."

☞Be happy, not sad, dejected and sorrowful—not gloomy, ascetic and unsmiling; rejoice and be glad, and thus be in harmony with universal nature around you, with the stars that sing as they shine, with the floods that rejoice, and the floods that clap their hands.

U. S. MINT.—During the year 1848 the whole number of pieces coined was $12,649,790 the value of which was $5,879,728 of this amount the value in gold was $3,773,512 50—Silver $2,040,050—Copper 64,157 90. Since 1824 North Carolina has sent to the Mint nearly one half of all the American Gold it has received.

The total coinage of the United States Mint since 1793 has been, gold 76,341,440 00; silver 73,446,514 90; copper 1,209,759 20. Total, $151,017,714 10. Consisting of 343,28,750 pieces of coin.

☞Worthy to be written in letters of gold. The motto of Cotton Mather over his door was, "Be short." "Whatsoever thy hand findeth to do, do it with thy might."

# COMMERCIAL.

WISCONSIN FARMER OFFICE,
Racine, April 1, 1849.

Market still dull, on account of the bad state of the traveling, Spring Wheat sells in the streets at 60 cts. and Winter at 70 cts.

Potatoes 70cts; Salt $1,50; Beef $4,50@$5,00; Pork $4,00; Mutton $3,00@3,50; Butter 14cts.; Eggs 20cts.

Milwaukee, March, 14, 1849.

The market yesterday, owing to the bad state of the roads was dull. Wheat 69@79; Spring do 56@66; Flour from wagons, scarce, at retail 3,50@3,70; Beef on foot, $4,@4,50; Oats 20@22; Barley 32@36; Potatoes 37@42; Butter 12½; Cheese 7@8; Lard 6@7; Eggs 12½; Hay $10 per ton; Native hay $6.; Wood $1,75; Poultry 6@8cts per pound; Salt $1,25.

Land warrants $112,—*Mil. Sent.*

THE PORK TRADE.—The following statistics of the Pork trade are taken from Cit's Advertiser:

"I have now ascertained the gross results for 1849, and give it too my readers with the same confidence now, that I did my Pork Statistics for 1847-8, which have encountered and sustained all the scrutiny that pecuniary interest brought to the test. The hogs cut and packed in the West for

| | | 1847-8. | 1848-9. |
|---|---|---|---|
| Valley of the Missouri, | | 43,000 | 55,000 |
| do | Mississippi, | 212,500 | 190,000 |
| do | Illinois, including Chicago, | 117,681 | 122,500 |
| do | Wabash and White rivers, | 191,641 | 135,000 |
| do | Lower Ohio, | 227,200 | 225,168 |
| do | Middle Ohio including Miami Valley, | 590,186 | 490,700 |
| no | Upper Ohio including Wheeling Va., and Sciota Valley | 85,000 | 120,000 |
| | Tenessee State, | 100,000 | 60,000 |
| | Total | 1,598,207 | 1,437,308 |

"This is a falling off of 10 P cent in the number of hogs, while there is a still greater deficiency in their weight. The hogs of Ohio and Kentucky in this repect fall off 19 P cent.—Those of the more distant west fall off on an average 15 P cent. The loss extends to both meat and fat, but principally the latter."

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

VOL. 1. RACINE, WIS., MAY 1, 1849. NO. 5.

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☞ The Farmer is subject to newspaper postage only.


## The Profession of Agriculture—Benefits Accruing from its Elevation.

In our last No. we had an article on Agricultural Schools, and recommended the establishment of an Agricultural department in our State University.—We claimed that the Profession of Agriculture should have a place given it among the learned Professions, and that to this end the same bountifully supplied means and facilities ought to be provided for it as for them. Until this be done the farming avocation will continue to be degraded, and a most honorable calling held by the great mass of men as low and servile. It is for farmers themselves to say how long it shall be that they and their profession shall be abused, and the coarse garb and the hard, calloused hand of toil, be regarded as evidences of a menial and serf-like condition.—Their business is not disreputable—they know it is not; God has made it noble, this business of tilling the soil; and labor, with its hard hand and dusky, sweating brow, he has consecrated as dignified and honorable. By the world it should be respected as such, and men should pass before it with uncovered heads. The profession of Agriculture should be elevated from its low and prostrate condition, and made to take that high rank which the Creator designed it should occupy, when he appointed man to till the ground.

It must, then, have its Schools, its Professors and its Model Farms. Opportunities must be given it, legislative aid imparted, many and varied agencies employed, and time, money and effort freely expended, whereby it may be rescued from its low estate, and made one with the learned and honored professions of the land. But our farmers must move in this matter—they must first manifest an interest in behalf of their calling—they must first see and feel the importance and necessity of the elevation of their profession to rank and dignity, and put forth effort and earnest appeal, or none will be found with ready assistance to further their cause. Can they not see what is required of them? and the direction in which their duty lies? They have only to do, to succeed. And then, what a blessed change would be wrought. "Agriculture is suddenly raised from its abasement, and placed on equal ground with any other pursuit, by becoming a part of a liberal education. It too has at last its students.—The professor, equal to his task, extracts light from every kindred science. His theories may be tested by experiment on the adjacent farm. Thus too, every invention and every improvement of this fruitful age, connected with rural economy, may pass the crucible of actual experiment; every quackery exposed, and real utility ascertained; every seed and every plant gathered from distant nations, cultivated; every animal in every variety, bred; and the youth of Wisconsin, our future hope, eye-witnesses of all, to adopt or reject as the result recommends, and thus rapidly to diffuse the advantages through every part of the state. Without some advantages of this kind, the most valuable improvements are confined for years to particular neighborhoods. It is too hazardous for individuals, warned by frequent imposition or frequent failures, to encounter the cost and consequent risk of making experiments." These considerations plead loudly for Agricultural Schools, they knock at the door of the Capitol, and with earnest petition address those who have in charge the interests of the state. They call upon the tillers of the soil to be up and doing, and that they be no longer content with their present position.

But there are considerations beyond these more important still, and which should move every true man to earnest, unyielding effort on the behalf of the long neglected and long abused interest of Agriculture. Place it on a level with other and kindred interests, let the same munificent provision be made for its advancement and elevation, let the same legislative aid be extended to it, and let it have its bountifully supplied and wisely adapted means and facilities, and the results in a moral point

of view, could hardly be computed because of their magnitude. The Profession of Agriculture, restored to its original position and rank, "ennobled by the fostering hand of the government," is at once shorn of all that now renders it repulsive, and made attractive. Dignified with Learning, adorned with Science and Philosophy, vigorous and healthful, because of improvements, it attracts and wins, and an influence goes out from it to water and make green the parched and desert places of the world. Other professions now crowded because considered more honorable, would be relieved of their burthening excess of members; and there would be much less of hungering and thirsting for office, less of scrambling on the part of lean, starving applicants for 'the spoils of the enemy.' The bar-room and the corners of the streets would send forth their myriads to walk forth regenerated upon the face of God's green earth, and with the hands God has given them, to earn an honest living in the sweat of their brows.

May we not hope that one step at least has been taken toward "a consummation so devoutly to be wished," in the organization of a State Agricultural Society. Let other and auxilliary societies follow. And through the agency of all these combined, seconded by individual effort, we will succeed in the grand object toward which we aim, and make the Profession of Agriculture a glory in the land.

## State Agricultural Society.

The following is the Constitution of the Wisconsin Agricultural Society, as finally adopted, together with a correct list of the first officers elected under it, and the accompanying resolutions:

### Constitution of the State Agricultural Society.

Whereas, it appears to be expedient to form a State Agricultural Society, for the promotion of all the objects and advantages connected with scientific and practical Agriculture; and whereas, we deem the formation of such a society, a measure that would be highly beneficial alike to the farmer, the manufacturer, the mechanic, and every class of our citizens; and as the soil of Wisconsin is second to none in the north-west for all agricultural pursuits; and believing that the institution of such a society would tend to a respectful rivalry in every branch of industry, we do, therefore, establish such Society, and adopt for its government, the following:

### CONSTITUTION.

Article 1. This Society shall be known as "*The Wisconsin State Agricultural Society*," having for its object the dissemination of all useful knowledge, scientifically and practically applied to the art of agriculture, and the best mode and means of promoting farming and all industrial pursuits.

Art. II. The officers of this Society shall consist of a President, Vice President, a Treasurer, and an executive committee of five—which number may be increased by a vote of the members at any time hereafter. All the officers named in this article shall be elected for one year, or until the first annual meeting of the Society.

Art. III. It shall be the duty of the President, or in case of his absence, of one of the Vice Presidents, to preside with and assist the President in all the business transactions of the Society.

Art. IV. The Treasurer shall safely keep all moneys and effects of the Society entrusted to him, and shall account for the same to the executive committee, at all times, and if desired by said committee, he shall execute a bond, to be approved by them, for the faithful performance of his duty, and to refund all moneys, property, and effects in his hands. He shall keep a regular and correct account current with the Society and shall render an abstract thereof, to said committee, on demand. He shall also attend all regular meetings of the Society, and its annual fairs.

Art. V. The Secretary shall keep a faithful record of all the proceedings of the Society, in a book to be furnished for that purpose, and shall receive and answer all communications to, and from the Society, and maintain a correspondence with the auxiliary Societies; and shall also attend with his records and papers, all regular meetings of the Society, and annual fairs.

Art. VI. The executive committee, shall have power to make all necessary prudential rules and regulations for the government of the Society, in all its practical and beneficial operations; to designate premiums to be awarded at the fairs; to appoint county committees and other committees necessary to carry out the objects of the Society: to make by-laws for its regulation; and shall perform such other duties as usually belongs to such a committee.

Art. VII. A State Fair shall be held annual-

ly, at such time and place as the President and the executive committee shall determine, and they shall publish a notice thereof, accompanied by a list of premiums to be awarded at, and the manner in which the fair will be conducted.

ART. VIII. The annual meeting of the Society shall be held at the capitol in Madison, on the third Monday of January in each year, and every officer shall attend such meeting, and the officers of the Society shall be elected at such meeting, for the term of one year.

ART. IX. Any person may become a member of this Society by subscribing his name to the constitution or authorizing the Secretary to do so, and paying into the treasury the sum of fifty cents, which shall entitle him to a certificate of membership signed by the Treasurer and countersigned by the Secretary. And in order to continue such membership, shall pay the sum required by the constitution at each annual meeting of the Society. The funds thus raised, shall be appropriated for the promotion of the general objects of the Society.

ART. X. This Constitution and by-laws of the Society, may be amended or altered at any regular meeting thereof.

ART. XI. County Societies may become auxiliary to the State Society under such rules and regulations as shall be prescribed by the President and Executive Committee of the State Society.

The following is a correct list of the officers elected:

*President.*

ERASTUS DRURY, of Fon du Lac.

*Vice Presidents.*

J. F. Willard, of Rock county, Hiram Barber, of Dodge, Geo. Anderson, of Dane, Geo. Easterly, of Walworth, Theodore Secor, of Racine, Hiram Champlin, of Manitowoc, Jonathan Daugherty, of Fon du lac, Jacob D. Merrit, of Grant, Patrick Tolland, of Washington, T. Burns, of Iowa, Wm. McDowell, of Green, Enoch Underwood, of Milwaukie, B. L. Gibbs, of Sheboygan, Elisha Edgerton, of Waukesha, J. T. Haight, of Jefferson, Jno. W. Blackstone, of La Fayette, Benj. L. Hollenbeck, of Marquette, Jno. P. Arndt, of Brown, Moody Mann, of Calumet, Tompson Hagey, of Crawford, Col. Jeremiah Drake, of Columbia, John Bush, of Portage, Jacob Weed, of Winnebago, B. L. Purdy, of Sauk, Joseph Bowron, of St Croix, and John McKenney, of Richland.

*Secretary,*

Royal Buck, of Madison.

*Treasurer,*

Abraham Ogden, of Madison.

*Executive Committee,*

Hiram Barber, of Dodge, Joseph Goodrich, of Rock, John M. Wells, of Waukesha, Robert Wasson, of Milwaukie, and Timothy Burns, of Iowa.

RESOLUTIONS:

*Resolved*, That when any auxiliary society shall have been duly organized, the Secretary thereof, shall, as soon as practicable, forward to the Secretary of the State Society, a list of its officers, together with the organization, and all other important items which in any way pertains to the organization of such Society.

*Resolved*, That the Secretary of the State Society be, and he is hereby requested to furnish the recording Secretary of the State Historical Society, with a copy of the constitution of this Society, accompanied by such other statistics as he may possess, pertaining to this Society and its auxiliaries, together with a copy of each and all publications that may be made by the State Agricultural Society, in order that the same may be deposited in the State Historical Society.

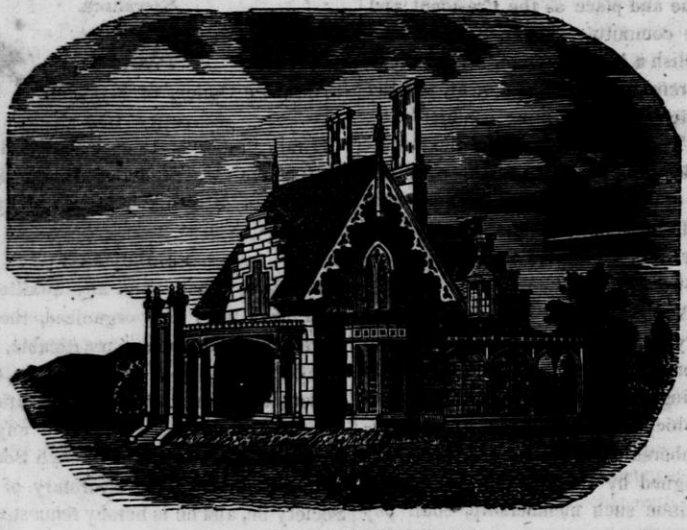
*Resolved*, That the Wisconsin Farmer, published at Racine by MARK MILLER Esq., be and is hereby declared to be the Organ of the State Agricultural Society of Wisconsin, and that the same is recommended to the farmers of the state as worthy of their patronage.

*Resolved*, That the Madison papers be requested to publish the constitution, together with the officers of the Society, and the accompanying resolutions.

*Resolved*, That the papers throughout the state, be, and they are hereby requested to copy the same.

TO PRESERVE SPECIMENS IN NATURAL HISTORY. To preserve the skins of animals for exhibition, arsenical soap has been found to be the most perfect guard against vermin, and is prepared in the following manner, viz: camphor, five ounces; arsenic in powder, two pounds; white soap, two lbs.; salt of tartar, twelve ounces; chalk in powder, four ounces. Rub this thoroughly over the inner surface, and afterward stuff the animal for the case.

A year of pleasure passes like a fleeting breeze, but a moment of misfortune seems an age of pain.



COTTAGE FARM HOUSE.

For the last eight or ten years a decided taste has been manifested in rural architecture. The newly built cottages that meet our eye in almost every direction, tell us in plain language that our countrymen have given some thought on the construction of their dwellings; and instead of consulting the nearest carpenter for a plan, architects of known tastes and skill have been employed, and the consequence is, a taste for beauty and style has been engendered of a most happy character.

For the Wisconsin Farmer.

## Sheep and Wool in Mississippi.

Mr. Editor:—In the 2d No. of your paper I noticed a short article upon the subject of wool growing in the State of Mississippi. Having resided for several years in that State, I have been favored with an opportunity of obtaining information upon that subject, which, perhaps many of your readers do not possess. While in that State and in charge of a public journal devoted in part, to the agricultural interest, the subject of sheep raising and wool growing was brought particularly under my notice; and, in addition to the information derived from observation, I frequently enjoyed the benefit of discussions upon the comparative advantages of the different modes of treatment practiced by different men.

Until within a few years, Mississippi has raised but few sheep. Tennesee has supplied her wants, in that respect. In the latter State they can be purchased for about one dollar per head, while in the former, and especially in the southern portion, bordering upon the Valey of Mexico, they are usually from one and a half to two dollars, while choice mutton is often still much higher.

It is highly probable, however that Mississippi will erelong be enabled so supply her markets with mutton, and become an extensive wool growing state.

A very important advatage, which wool growers of that state enjoy over the same class in the north, is that the former is enabled to obtain twice the amount of wool or rather, twice the number of fleeces, which the latter is enabled to obtain. The Mississippi wool grower shears his sheep in March, and in August or September. After the first shearing the weather generally continues intenselv warm until the second shearing, wherefore, the sheep are more comfortable, and less liable to contract disease. After the second shearing, the weather continues for a while warm and pleasant, then becomes gradually cold, until winter sets in, which is usually most severe in January and February; and, generally resembling the October and November winter of New England.

During the cold weather, and while the pastures fail to supply a sufficient quantity of food for sustenance of sheep, without an increased effort upon the part of the animal, a

small quantity of corn should be daily fed to them, that they may not only be enabled to withstand the frosts of winter, but, be kept in a suitable condition for breeding in the spring, which is a very imporant point with sheep raising in any country. If sheep in a southern climate, can have access during the winter, to the extensive swamps, in which the bamboo cane and other evergreens usually flourish, they will require but a small quantity of corn or grain. But to say that they require no feeding during the winter, even under the most favorable circumstances is saying what is not true, when we speak of the proper management of that animal, for the production of stock and wool.

It is very true, that they may, and do live through the winter without corn or grain; yet, this is very far from proving, that that treatment is productive of the best stock, or the largest quantity and the best quality of wool. In fact, I know the contrary to be true. Sheep in that climate, should not only be fed in winter; but, they should be provided with proper shelter from the cold rains, which are so common in that climate during the months of winter; and which I have known to continue for near two months without ceasing.

By the double clipping process, smaller fleeces are obtained, than would be obtained from northern sheep sheared but once a year; but the annual shearing in Mississippi is generally productive of much larger fleeces, than the northern annual shearing. This I attribute mainly to the difference in the breeds of the sheep from which they are taken. In Mississippi is generally found the tall, long, lank sheep, with long, coarse open wool, much of which is suitable for crewel; while in the north we find the low, short, fine wooled merino, and other similar breeds, whose wool commands a higher price in the market. The cold climate is undoubtedly better adapted to the latter, while it is equally certain, that the warm climate is better calculated to the raising of the former.

In Mississippi a fair quality of native wool is usually worth from ten to fifteen cents. The average of fleeces is about two and a half pounds, if not more; making five a year, which at fifteen cents, would amount to seventy five cents.

Another advantage, which the southern wool grower enjoys, is that rapid multiplication of his stock; as it is not uncommon for an ewe in a warm climate to bring forth two lambs during the year, both of which, if ewes, stand a fair chance to become breeders in their turn, as the life of the lamb, if due care is taken of the flock, is not endangered by exposure to the cold weather. I believe it to be a fair calculation, in that climate, that a flock fairly proportioned between males and females will double every year, excluding as a matter of course, those which have not arrived to maturity. To do this, proper care must be taken, which includes proper food and shelter during the winter, and proper pastures and attention in summer. Estimating each lamb at one dollar per head, and adding seventy five cents for wool, from which deduct fifty cents for trouble and expense, preparing proper food and shelter for winter, shearing, &c., would leave a net profit of one dollar per head.

Small losses are often experienced upon the southern prairies and openings and from the depredations of wolves and other carnivorous animals, which often render it necessary to yard sheep at night during the whole year. But these losses can easily be avoided by a careful attention to the flock. Losses from disease are not frequent. This perhaps, is mainly attributable to natural causes.

As to the statement of the Lowell Courier, I would say, that I have no doubt that fine wool may be raised in Mississippi; but to say that a warm climate is as well adapted to the growing of fine wool, as a cold climate, I think is saying more than can be sustained by experiment. The quality may be as good; but, will the quantity be the same? I think not. Nature, herself, has proved that point beyond a question, to those who have rendered themselves familiar wth such matters. It is true, that repeated shearing will increase the growth of wool, in any climate; and, a general introduction of the fine wooled breeds of the north into the south, might be productive of beneficial results. I think, however, distempers would be more prevalent among them, and greater losses might be incurred, than by raising those breeds which now seem to bid defiance to the sudden changes of a southern climate.

Respectfully Yours.

SOLOMON LOMBARD

Greenbush, March 24th 1849.

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Such is the richness of soil in California, steel pens, put in the ground over night, are found to be gold ones on the following morning.

Be not too wise in your conceit.

For the Wisconsin Farmer.

Mr. Editor:—I am one of the many who derive pleasure and profit from the perusal of your magazine, and desire to contribute my mite to its pages. And what shall I write?—a review of some of the articles of your last?—be it so.

Brief Hints for the Month.—(p. 74.) "Sow spring wheat as early as possible." Error. Many farmers have a similar idea, but I opine it is not well founded. I saw two fields of spring wheat, growing side by side last summer; the one sown the first of April, on ground plowed the fall previous; the other was sown the *tenth of May*. They were ready for the cradle at the same time, and though I do not know the relative product of each, I was assured by the proprietor of them that the last sown yielded much the best, an assertion which the appearance of the fields at harvest substantiated. It cannot be denied that the late frosts, occurring in April, very often in this latitude, have a tendency greatly to retard the growth of spring wheat which is already above the surface of the earth. Indeed I have known these late frosts to be so severe as to kill wheat which was growing in low ground. But in the other case, where the ground is plowed and rendered friable immediately before sowing, and the earth becomes warm and vegetation active, the grain grows more luxuriantly and matures as early as that which has been dwarfed by adverse circumstances during the first month of its existence. I have a field of twelve acres, just plowed and ready for seed, which I shall from choice defer sowing until about the first day of May. Take these things coolly—there is time enough yet.

The Apple, No. 3. H. H. W.—(p. 75.) "The best season for transplanting the apple is the autumn; this is admitted by all good cultivators." Doubtful; who are they? Downing says, "In northern portions of the Union, where the winters commence early and are severe, spring planting is greatly preferred." I don't know as this is applicable to the latitude of Racine, but it suits our case exactly. My experience in the planting of fruit trees, which has been considerable, has clearly proved to me that the *spring* is the safest season for the business in the north-west. "W." says, when these trees are planted in the autumn, "especially if it be done early," the ground settles about them and "new roots start before winter sets in." How is this? If the apple tree be taken from the nursery in the ordinary manner, before there has been sufficient frost to retard vegetation and to destroy its foliage, if it be so removed when in full vigor, the inevitable result is its death. "This must be admitted by all good cultivators." If the tree has lost its foliage and become dormant, by what means is it to acquire new roots before winter? "W." names "the most valuable kinds of the apple"—(not some of them.) Why not mention the Baldwin, the Wine Apple, the Spy, Porter and Rambo, and a dozen other varieties far superior to Tahman's Sweet, which in the east, where I have known the fruit, is not considered *second* rate, and is used chiefly for feeding to stock?

Spring Budding of Fruit Trees.—(p. 79.)—"Spring budding possesses some advantages, inasmuch as one year's growth of the bud is obtained in advance of those budded in the autumn." Why so? Seedlings which are of sufficient size to be budded now, were of such size, in nine cases out of ten, last autumn, at the usual season of budding. Certainly no difference in growth will accrue to the favor of the stock budded now which might have received the operation last autum; and in the same proportion as above, stocks suitable for working next autum are unfit now. The peach stock, which will be then worked are as yet, in most instances concealed in the shell—merely in the pit. That stocks can be *most readily* worked toward the close of summer, I think no one will dispute, and labor is certainly worth less at that season than in the spring. Whence then the advantage?

(Page 85.)—The crab-apple is recommended for hedges as being as good, if not better" than other enumerated hedge row plants. The writer of the article, however, states that his hedge row was a few winters ago destroyed being girdled by mice. This, I conceive, would be a great obstacle; in growing such a fence, no farmer would feel safe that his hedge would not be so destroyed whenever there was a deep snow. The caterpillar also preys upon this tree; it has already made its apperance here, and before many years will be as great a pest as it now is in the old settled states. The crab-apple is also subject to the attack of the borer, and the result of such a girdling in summer would be more serious in its effects, than if done by mice, when the strength of the tree was in its roots. Again, cattle will browse the crab-apple, and its thorns which are some-

what stubborn in winter, become pliable and bear leaves in summer at the season when strength in the hedge is most requisite. How much better the buck-thorn—equally as hardy, subject to the attack of no insect, and its thorns will repel the intruder at all seasons.

(Page 94.)—"THE PLOW.—Its one share in the bank of earth is worth ten in the bank of paper."

Methinks no one will question but the plowshare in a bank of earth, would be of ten times greater *utility* than in a bank of paper.—Enough for the present No.

ANDREA.

Delafield, Wis., April 14, 1849.

REMARKS:—We like much the humor of our correspondent, and the way he has of saying things, even though we may not in all respects agree with him. With reference to the early sowing of spring wheat—though in our brevity we did not exactly say it—we meant to be understood only as saying, that it should be sown as early as circumstances would admit—the weather, preparation, and condition of the soil being taken into the account. As the weather now is, has been, and is likely to be for some little time to come, we incline to the opinion that the first and perhaps the *middle* of May will be quite early enough.

We have not space for a notice of other points in the article of "Andrea," but may be allowed to say, now, on the behalf of our correspondents alluded to, that no subject scarcely can be introduced, concerning which there will not be differences of opinion.—*Ed.*

For the Wisconsin Farmer.

THE POTATOE ROT.—In 1844, the potatoe crop was attcked with this disease in the State of New York, and having something of a crop planted that year, I felt a good deal solicitude to ascertain the cause and to find a remedy. Most people with whom I conversed on the subject, claimed that the disease commenced at the root, but by careful examination I was convinced that it was not so, and that it first showed itself upon the most tender leaves. I first observed it on the outer edge of the young leaves, and gradually extending towards the stem and finally passing to the stock, and down the stock to the root, before I could see the root effected at all. When I found the signs of the disease upon my own crop I directed that fresh ashes should be sown over the field broad-cast as you would sow plaster, while the dew was on, and also directed that quick lime should be mixed with the ashes. My hand did not attend to the matter as soon as he ought, and the disease had made considerable progress, before this remedy was applied. The man then took a quantity of ashes and lime and mixed them and sowed over about one half of the field not having sufficint to sow over the whole. The result was, when we harvested the potatoes I had about half a crop on that part of the field thus sown over, and on the part not sown it was a complete failure. M. B. B.

For the Wisconsin Farmer.

## Work in the Orchard and Flowes Garden for May.

The most important operation to be performed in the Nursery or Orchard during this month is that of pruning, which many have doubtless already done. But this month, and more particularly the last half, is the best time for pruning, as then the sap circulates briskly and the wound heals over rapidly; whereas, if done earlier before the new growth commences, the sun and wind penetrate deeply into the wound made, and there is hence more danger of a dead or cankered spot in the tree. Too much pruning is very injurious, as it always tends to a stinted or else a rank, late, immature growth. In pruning, never cut close to the base of a shoot, but three-eighths of an inch, or so, from the main body or limb, and if the wound be large it will be advisable to wax it over well. As to the height, I prefer to have the bodies trimmed up; I may be peculiar, but I think low tops best in this country and particularly so for the tender sorts. Apples, pears, plums, common red and May Duke cherries, say 4 or 5 feet; English or sweet cherries 3 or 4 feet; peaches, not over 2, nor quinces over 1. They should fork with never less than three main branches, which, if necessary, can be trimmed higher up afterwards. Trees thus managed I think decidedly hardier in this climate than those trimmed higher up; because, 1st, tall stems are often made so by severe pruning, which often tends, as above stated, to produce a late unripe growth, particularly subject to injury from cold in severe winters,—2d, the trunk being naked for several feet is far more exposed to the sun's rays in the winter, which being very powerful in the West often injure the more tender sorts whilst the bodies are

filled with frost,—3d, High tops are much more exposed to severe winds.

Apple trees may still be grafted provided the scions are in good order and care be taken not to start the bark from the stock, which peels very easily at this season. A sharp, thin-bladed knife is necessary to do it well.

The best time to transplant Evergreens, in my opinion, is the first half of this month though the latter half will answer, and even the fore part of June. In removing them it conduces greatly to success to trim off a part of the lower limbs, and if it *should happen* to be dry to water thoroughly and cover the ground over the roots with moss or litter a few inches deep.

Now is the time to make your trees grow —*cultivate them as you would corn*—stir the ground often and keep the weeds away—put them through early in the season and then after about the first of August stop cultivating so that the growth may ripen for the winter. Peach trees, and English cherries on much of our soil are, however, inclined to an overgrowth which subjects them to injury from our winters. However, they should not be forced, for the great want of success with them here is to have a moderate well-ripened growth.

The bodies of apple trees should be thoroughly scrubbed with soap suds.

It is necessary to keep a sharp look out for worms which prey on the foliage of the trees—remembering that one killed now may save you and your trees the attack of a hundred next spring. The latter part of May the canker worm appears in the shape of a minute brownish or striped *surveyor or measurer worm*, and begins to eat the leaves. They work on the trees some 3 or 4 weeks and when abundant completely destroy the foliage. It is one of the greatest pests of the orchard, and should be carefully exterminated on its first appearance as its multiplication is very rapid. While the trees are small it is, comparatively, an easy matter to look them over and kill the worms, but when they get large it is a very difficult task. The latter part of this month and the fore part of June there is another enemy of young trees at work, which causes a good deal of trouble, particularly to trees just put out. I refer to a rigid, dark brown, oval shaped beetle, perhaps half an inch long, which eats into and through the young shoots in the night, frequently almost stripping small trees if left undisturbed. These should be hunted up and destroyed, which is best done very early in the morning when they will be found either in the trees or under the lumps of dirt near their base.


THE SHEEP FLY, OR WORM IN THE HEAD.

—Fig. 1. The grub or larva, half grown.

" 2. The same fully grown.

" 3. The insect in its chrysalis state, or immediately preceeding its perfect form.

Fig. 4. The perfect state or fly.

These representations are copied from the Michigan Farmer, with the following remarks by Youatt:

The deposition of the eggs continues from May to August, but takes place chiefly in July. Whenever the fly appears, the sheep seem to be aware of the presence of an enemy, and take precautions against his attack. They huddle together upon some spot of bare dusty ground, and will there endure the scorching heat of the sun for hours. The group stand with their heads towards the centre, with their noses close to the earth. If a fly of this kind appears near, they strike violently with their fore feet, and at the same time plunge their noses in the thickest dust, which usually prevents the fly from reaching them. Sometimes the fly, darting out suddenly, will attack the sheep while quietly feeding, and succeed in leaving its egg in the nostril. In such case, the animal exibits the greatest uneasiness—shakes its head, stamps, and runs off furiously to some dusty spot or protected corner. Tar is used as a preventative, by smirching the sheep's noses with it during the time the fly operates.

PEAR TREE BORER.—The buds of the pear tree are subject to a borer but little known; it deposits its egg in the young flower-bud, and retires to the earth in the fall; it is, however, so seldom multiplied to a great extent, that its effects are more beneficial than otherwise, by hindering too much fruit from being formed, and thus improving what remains.

## Fruit Trees—The Manures Required.

We select from the Ohio Cultivator, an article from the pen of Prof. KIRTLAND, *On the use of "Special Manures" for Fruit Trees.* To say that it is valuable is needless, as from the reputation of the writer, every one would be assured that only facts of practical utility and importance would be given—facts to be relied upon, based on scientific research, on long experience and careful observation:

*To the President of the Fruit Growers' Convention:*

SIR:—It is with regret, I find myself compelled to forego the pleasure of participating in the doings of your meeting. There are several subjects on which I am anxious to exchange ideas with my horticultural friends. To one of them I will allude by letter.

The 2d vol. of the Horticulturist, contains an article on "Special Manuring" of fruit trees, written by Mr. Downing, which embraces the analysis of the wood of various species by Prof. Emmons. Several periodicals and scientific publications both in Europe and this country, have of late contained much that is important, in relation to this subject.

Community at large have always known that each species of animals requires peculiar kinds of food to insure health, growth and full development of its powers, and that the kinds adapted to one species may not answer for another. The cow will starve on that which would fatten the dog.

That each species of the vegetable kingdom, is equally select in its requirements of food, has not been generally understood. An indefinite idea has prevailed, that all vegetables will flourish in soil, that in common language, *is rich.*

Both science and experience have, however, shown us that vegetables, as well as animals, must be fed with their appropriate elements of nutrition, in order to flourish. For the last six years I have devoted some time and thought to discover the best and most economical method of supplying fruit trees, and wheat with their appropriate food.

The writings to which I have alluded, have relieved the subject of much obscurity, and enabled me to progress with my researches and experiments with more precision.

My farm originally contained very limited quantities of several important inorganic principles of wheat, and those had been so entirely exhausted, by bad management, that wheat would literally produce neither straw nor berry.

The pear tree would send forth not more than from *two* to *six* inches growth in a season; fruit buds would form in excess, the fruit would be blighted, knotty and deficient in flavor, and in the course of four years the tree would exhibit the evidences of old age and disease. In the same soil the apple tree would succeed somewhat better, while the peach and cherry would flourish both in regard to the production of wood and fruit to the extent of my wishes.

Under these circumstances, I set myself to work, to discover the cause of such results, and soon became convinced that it was a deficiency of some kind of nutrition. The analyses of Prof. E. indicated the kind.

Plaster of Paris, clover, leached ashes and a small addition of barn-yard manure, brought some of my barren fields, at the end of two years, into a condition in which they produced large crops of wheat straw, but yielded only eleven bushels of wheat to the acre.

By supplying one of those lots with a second dressing of plaster, turning a large crop of clover and adding subsequently a supply of barn-yard and slaughter-house manure, and *phosphate of Lime,* I obtained nineteen bushels of superior wheat to the acre, besides that which was wasted by long continued rains. The straw was not heavier than in the former year.

A dressing of Phosphate of Lime, ashes and barn-yard manure, with a limited supply of salt has effected an equally favorable change with the growth and fruits of my pear trees.

The limits of this communication will not allow of my detailing all my numerous experiments. I will, however, say, in general terms, that they have been in the highest degree satisfactory, and have amply repaid all expense and trouble.

A fruit tree or a grain field can be fed with as much success and precision as a cow or horse, and an half starved fruit tree is no more sightly nor profitable than an impoverished animal.

The late Mr. Marvin of Beaver co., Pa., once observed to me, that he "had no sick sheep in his numerous flocks, owing to the circumstance that he visited them daily and saw that they were well fed."

The horticulturist, who pursues a similar course with his fruit trees, will suffer very little from their unhealthiness or unproductiveness.

Since I commenced the plan of high feeding, and have banished from my grounds every tree propagated on a sucker, not a solitary pear tree has been affected with *Fire Blight*. These circumstances may have been coincident but at the same time accidental. The subject is, however, worthy of further attention.

The analyses of Prof. Emmons have been the basis upon which I have founded my experiments during the last year.

At the first view of the subject the culturist may be discouraged with the apprehension that the means of supplying his trees with inorganic elements cannot be commanded. In this section of the State the greatest difficulty will occur, in procuring Potash and Phosphate of Lime, yet the materials usually wasted about the dwelling of a farmer would furnish the required number of fruit trees with these elements. Leached ashes from soap-making and pot-asheries will supply the former in abundance, and the latter is derived principally from animal bones. Every fragment of bone and the remains of every animal, large and small, should be carefully preserved and applied to roots of fruit trees.

It may, however, be obtained in limited quantities from urine excrement of fowls, peat and decaying vegetable fibre, and in some soils and waters it naturally occurs.

According to Raspail, it abounds in such quantities, in the leaf of the Poke-berry (Phytolacca) that under certain management, the foot stalks will be coated with acicular crystals of this salt.

It may, however, abound in a soil in an insoluble state, in which it cannot be converted to nutrition by the growing tree. The addition of ammonia or common salt, will at once enable it to pass into a state of solution in water, when it may be taken up by the spongioles of the roots.

Common salt affords of itself little or nothing that is nutritious to a fruit tree; but it acts indirectly upon the phosphates. In no other sense is it either a stimulant or nutrient to vegetation.

The more abundantly a tree is furnished with enriching compounds, containing Phosphate of Lime, the greater the quantity of salt that may be safely applied as a dressing.

Very respectfully yours,

Cleveland, Ohio. J. P. KIRTLAND.

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To a hungry man, a good sized *potato* is worth all the California 'carets.'

## Honor to Massachusetts.

The following facts show how greatly entitled to honor is old Massachusetts. So far as the measure of her benefactions is concerned, and her liberal provision and bountifully supplied means and facilities for the education of her entire population, she is undoubtedly far in advance of any other State in the Union. It is a proud and an enviable position she occupies, and because of her blessed deeds great shall be the measure of her reward:

Last year the people of Massachusetts voluntarily taxed themselves about a million of dollars for the support of Common Schools. There is not a native born child in the State, old enough to learn, who is not able to read and write. In the city of Boston, during the three months preceeding the 10th of April last, $200,000 were spent in building public school-houses. The high school, just finished in Cambridge, with two other school-houses, cost $25,000. Another, of splendid and costly character, was lately finished in Charlestown. Another at Newburyport cost $25,000. Within the last year individuals have given $200,000 to Harvard College.

The State is building a reform school for vagrant and exposed children, which will cost more than $100,000. An unknown individual has given $22,000 towards it.

The State educates all the deaf, dumb and blind.

Last winter the Legislature made an appropriation to establish a school for idiots.

These are the *new* charities and works of philanthropy in which Massachusetts is engaged. She has already finished such institutions as other States are now engaged in establishing. She is from thirty to fifty years ahead of the age. Follow her example, let all endeavor to *progress*.—[Trenton Gazette.

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LARGE PRODUCTION.—Mr. Allen Dyer, residing in Bybery this county, gathered and threshed this season, from five bushels sowed, *ninety-three and a half bushels of wheat*, exclusive of the gleanings. The wheat was of the variety known as the Genesee white wheat, recently introduced into the neighborhood by George M. Ivins, and weighed sixty-six pounds to the bushel ! With such a result as is here recorded, this must be a most valuable variety of wheat, and ought to be generally known and used by our farmers.—*Germantown Telegraph.*

## Experiments on Three Acres of Ground.

The New York State Agricultural Society, in 1846, offered premiums for the best experiments to be continued through three crops, to ascertain the bushels of grain and weight of stalks or straw, the actual value of the manure to the farmer. The experiments were to be conducted as follows:

1st. Three contiguous acres of ground to be selected.

2d. One acre of which to be manured with not more than ten cords of common barn yard manure the first year, and plowed under.

The second acre to be manured with fermented or compost manure, to be applied in any manner the experimenter chooses; but a full account of the mode of making the compost, and the manner of its application, accompanied with a statement of the cost of making and application will be required.

3d. The three acres to be planted with corn the first year; the second to be sowed with barley or oats; the third crop to be winter grain; an accurate account of the yield of each crop to be kept.

4th. A full account of the whole management and all the details respecting the culture and the circumstances affecting the crops.

5th. The several kinds of soil to be particularly described, and specimens transmitted to the state Society for analysis, before commencing the experiments, discriminating carefully between each acre."

There was, it appears, only one person who made experiments, the late J. F. Osborn, Port Byron, Cayuga co. N. Y., who is represented in the transactions of the Society as a most systematic, and careful farmer; and he only lived to make one year's experiments, the account of which is thus given:

"Mr. Osborn commenced his experiments on three acres of land, the soil of which was a gravelly loam, with a clay subsoil from eight to sixteen inches below the soil.

On the first acre he put 10 cords of barn yard manure; hauled it on while wet, and spread it as he was ready to plow it under.

On the second acre there was no manure.

On the third he put 8 cords of barn-yard manure, half or two-thirds rotted, and four loads of muck, cleaned out of a ditch, spread on as drawn.

The three acres were plowed as nearly alike as practicable, from 6 to 8 inches deep and all rolled and dragged before planting. The corn was planted 3½ feet apart with a drill, and the piece cultivated alike. The hills designed to be from 1½ to 2 feet distant in the row, with three stalks in a hill.

The yield of corn was as follows:

On the first acre, 113½ bushels of shelled corn weighed 51½ lbs. to the bushel. Stalks when dry, weighed 3,652 pounds.

The second acre had 58½ bushels of shelled corn, 58½ lbs. to the bushel, and 2,200 lbs. of stalks, and 17 bushels of turnips.

The third acre, 91½ bushels of shelled corn 59 lbs. the bush, and 3,300 lbs. of stalks.

Mr. Osborn's son continued the experiments of his father, in 1847, with the following results:

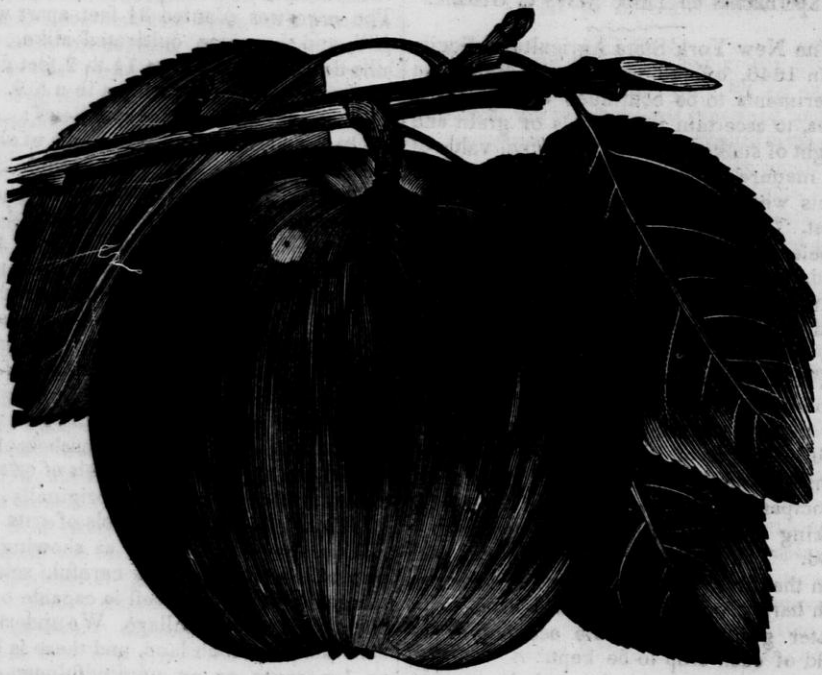
The first acre, which had 18 cords unfermented manure, yielded 112 bushels of oats.

The second acre 88½ bushels of oats, (the unmanured acre, best land originally.)

The third acre 90½ bushels of oats.

The above is valuable as showing what may be accomplished by careful, scientific tillage, and what the soil is capable of producing under such a tillage. We undertake to cultivate too much land, and there is beside an ignorance or an unmindfulness of the right cultivation with reference to the different crops to be raised, so far at least as selection of soil and manuring are concerned.—How important is knowledge to the farmer.—[*Ed.*

POULTRY.—*Hen and Chickens.*—A writer on this subject (and let no one say it is not an important one) in the *Providence American*, give us the results of his experience in economizing the time with hens, and we think them worthy of being communicated to our readers. All who are familliar with rearing chickens, know there are very few hens that will allow newly hatched chickens to be committed to their care, when their own are a few days old. This the writer attributes to the fact that the hen has become acquainted with her own chickens, from color, marks, &c., and considers the new-comers in the light of intruders, which she too frequently punishes with death. To obviate this, he puts the first hen that hatches into a coop, and keeps her there with her chickens till another hen hatches, when he substitutes the second hen for the first, leaving the charge of the former; and when another hatches she is put in the place of the second, with all three broods—if the aggregate number do not exceed thirty, which he says she will take care of affectionalely and efficiently.



HUBBARDSTON NONSUCH APPLE.

Fruit, from large to very large; roundish, tapering moderately and roundly to the top; skin, smooth, fair, rich, yellow ground, mostly covered with bright red, dark and unbroken in the sun, striped in the shade, generally russet around the stem, and sometimes a very few large prominent russet specks on other parts; stem, medial length, rather slender, in a rather broad, deep, regular cavity; eye, large, open, in a shallow basin; flesh, yellowish-white, tolerably fine, crisp, juicy, of a mild, pleasant, aromatic flavor, inclining to saccharine. In use from the latter part of October into December. It should be used as soon as it is in its prime, as it grows dry and spiritless very soon. It is hardy; we have had it growing several years in Maine, without injury in the winters. The growth is good, but not great, about the same as that of the Porter or Jewett's Red. The new wood is long and slim, and covered with a whitish, woolly or furzy substance, which distinguishes it from a spurious and worthless kind, that has a stout, naked scion, resembling that of the Baldwin. It is a good bearer, and bears about two-thirds of its produce in alternate years, and generally in even years, as, '46, 48, &c.

The Hubbardston Nonsuch is one of our best late fall apples, particularly for the market, where it is very popular, bringing the highest price. Some say that this fruit has been overrated, but those who give it good culture, get large, fair crops, and sell the fruit from three to four dollars a barrel, make no such complaint. Yet as the fruit is rather transient, it is not adapted to extensive culture.—*N. E. Farmer.*

EARLY POTATOES.—We feel it a duty to impress upon our readers the necessity of pursuing the plan of early planting for potatoes. The foreign journals for February, are full of testimony on this subject, and the experience of ourselves and others in the vicinity of New York, corroborates that of experimenters abroad. Early plantings, and particularly of the earlier kinds of potatoes, have not suffered as yet from disease,

"It was Burke who said that 'good order is the foundation of all good things;' and as farmers we may be assured, that want of *order* in our farming operations, and a want of *system* in our course of cultivation, shows a confused mind, without a steady object, relying on chance, and dependant on accident.

## Fruit in different Localities—Insects.

From the address of Thos. Allen, Esq., before the St. Louis Horticultural Society, 6th Jan., 1849.

When we shall be able to describe the constitution and habits of a particular fruit tree, or shrub, or flower, or vegetable, we may then be able to judge what soil and climate is best adapted to it.

But until our science has attained that degree of perfection, we can only rely on actual experience for ascertaining what are the sorts adapted to a particular locality.—We know very well that grapes which succeed in our latitude in Europe, do not succeed at all here; and the best of our American grapes are put down as *bad*, in the London Horticultural Society's catalogue.—Therefore, if we knew, perfectly, the constitution, and habits, and requirements of a European grape, yet we should be obliged to acquaint our selves also with the character of own soil, climate, and vicissitudes of the weather, as compared also with the place of its success in Europe, before we could dedecide beforehand what is wanting here to secure its growth. The fact that winter fruits imported from the north and east, become fall fruits here, is probably owing to the greater length and heat of our summers. The reason why the cherry and the peach are short lived here, is, perhaps, because the trees grow too fast. And trees of rapid growth do not bear well; they make wood buds instead of fruit buds. So the Irish potatoe crop is generally a failure, perhaps for the reason, partly, that there is too luxuriant a growth of the vine. It is, therefore, quite obvious that no eastern or European standard can be taken as an infallible guide for us. Accurate knowledge of soils, climates, and productions, collected together from all parts of the country, will be beneficial, and any attempt of the late conventions to accomplish this by means of district committees, is deserving of encouragement.

In regard to apple orchards, the old habit which our trees had of bearing only every alternate year, is now exploded by giving the orchard suitable food and attention, and the same means which are employed to increase fructification, will also greatly protect the trees from the ravages of insects. I allude to the practice of applying lime and ashes to the well cleaned body of the tree, and also to the soil at the root. There are no trees in my orchard having the habit of bearing only every other year. The same practice applied to the peach, together with an anual top pruning, will be found highly beneficial, not only in protecting the healthy growth and longevity of the tree, but in keeping off the grub. To destroy the worm whose presence you will discern by the exudation of gum, pouring boiling hot lye around the place infested, will be found a very good exterminator, and will do the tree no injury. What we can do to prevent the mildew on the goseberry, we have yet to ascertain.

As to the curculio, that terible enemy which destroys all our apricots, nectarines and plums, my venerable friend, David Thomas, of N. Y., informed me that his remedy was, to spread sheets under the trees every morning, as soon as the trees began to go out of blossom, and giving them a hard tap with the mallet, the insect would fall, and could easily be destroyed. This practice continued for a few weeks, he said, was effectual. A gentleman upon Long Island (Mr. Manus) informed me of a plan he had adopted with perfect success. He planted his plum trees in dwarf, six feet apart, fenced them in with a close board fence, and paved the ground within the enclosure. The curculio never attacked the fruit within the enclosure, while that upon the outside was invariably destroyed. In this manner 75 trees can be planted on the sixteenth of an acre, or 1,210 trees upon an acre.

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How to Pop Corn as it should be.—Not one in a hundred of those who are so fond of pop corn, know how to pop it. It is a simple process, attended with very little labor, and a rich, tender, luscious dish is prepared, that Queen Vic. or Pope Gregory probably, with all their splendor, know nothing about.

*Lard* is to be heated in the same manner as for frying 'dough-nuts," and half a pint, or such a matter, of the 'eight row 'tucket corn' is to be thrown in, and covered immediately to prevent the kernels from flying out on to the floor. In an instant a pop, pop, popping will commence—such as you never heard before. A minute after the popping ceases take off the cover, and dip out with a skimmer, draining off the grease, and turn into a seive, put upon a pan, to drain. The pan should be kept upon the stove, so that the corn will retain its heat long enough for the lard to run off, otherwise it will be too greasy. While cooling, salt to your taste.

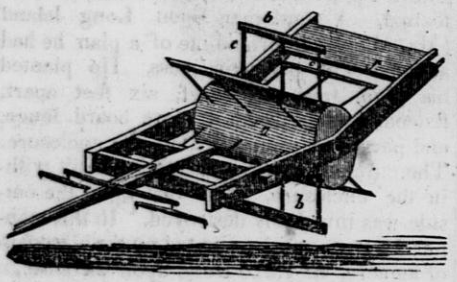
Try it, all ye who have a mind to, and if

you don't say it is 'neck and shoulders, ahead of any other method, why, we cave in, that's all —[Sanduskian.

## Corn Stalk Roller and Cutter.

The machine, a cut and description of which follow, cannot fail, we think, of being generally introduced and employed among farmers, in all corn-growing sections. It would work admirably on our prairies, and be vastly convenient beside. During a recent trip into the interior of this State, we everywhere saw large fields in which the stalks were still standing. These must either be burned or otherwise disposed of, before the ground can conveniently, or without great inconvenience and trouble, be plowed. Whereas, with the roller and cutter, the stalks would be cut in pieces, and then easily plowed under. and instead of being wasted, help to enrich the soil.

The description is taken from the *Ohio Cultivator*, for which paper it was originally furnished.




Take a log of heavy and tough wood, (apple tree is good) from which turn a roller (*a*) 16 inches in diameter and 35 inches long; put a pivot or gudgeon in each end, of 1¼ inch iron; then make six knives (*bb*) 24 inches long, 3 inches wide and ¼ inch thick at back, laid with steel and ground sharp—with 3 holes 1 inch from the back to take ½ inch bolts, one near each end and one at the middle, where the arms are attached. The arms (*c c c*) are made of iron 1 inch square, say 12 inches long, one end split 2 inches to receive the back of the knife, and a bolt hole made to match that in the knife, through which a small bolt is put and fastened with a nut and screw; the other end is sharpened and inserted firmly in the roller so deep as to bring the back of the knife within 6 inches of the roller. Drive three arms for each knife, and attach 6 knives at equal distances around the roller.

Next make a frame for the roller to work in; the side pieces (*d*) 5 by 2 inch stuff, 8 feet long, with a crook in the middle, of about 8 degrees, and a hole in the centre for the pivot of the roller. In front, mortice two pieces across (*e e*) 3 by 3 inches—one near the end, and the other 28 inches from the centre or pivot. At the other end mortice a cross piece (*f*) 12 or 16 inches wide and 1½ thick; all the tenons to be pinned outside to strengthen the frame and facilitate taking apart.

From the New England Farmer.

## On the Cultivation of the Currant.

Mr. Editor: The currant, it must be admitted, is one of our best summer fruits, and deserves more attention in its cultivation, than it generally receives from most of our farmers. Many still retain the old kinds, often leaving them to take care of themselves year after year, apparently satisfied with their producing a small, sour, poor fruit. All cultivators should at once discard the old varieties of the currant, and substitute for them, the new and better kinds.—These should be planted in a rich soil, and kept clear from grass and weeds, and subjected to a regular system of pruning.—Some cultivators prune the shrub to a single stem, but we could never see much advantage to be derived from this mode; for when grown in this form, and the stem weakened by the attacks of the borer, as is frequently the case, it is very liable to be broken off; and being deprived, before planting, of the power to send up suckers, the whole plant is lost. And we think also, in a given space, they will produce less fruit than those cultivated with several stems, in the form of a bush. But when permitted thus to grow, it should be kept clear from superfluous branches and old wood, endeavoring always to keep a succession of young and vigorous wood, of two or three years' growth; for it is on such branches that we always find the best fruit. Currants are much better to remain some time on the bushes, after they are well colored, and supposed to be ripe. They improve in their flavor, and lose much of their acidity. Knight's Early Red and Sweet Red, the White Duch, together with all other early or comparatively sweet varieties, of the currant, should be placed on the south side of a wall or fence, fully exposed to the sun. This exposure will hasten the ripening of the fruit, and lessen its acidity. On the contrary, the late varieties, such as Lovett's Red and the Victoria, should be placed on the north side of a wall or fence. By adopting this mode of planting the currant,

they can be brought forward much earlier in the season, or retarded to late in autumn.—We also prefer these close quarters for our bushes, to more open ones in the garden, because we can the more effectually secure the fruit from the depredations of birds. In regard to the different kinds of currants now under cultivation, we would name the Red and White Duch, two very good varieties. The latter, when fully ripe, is much less acid than the red. The Champagne, a pink-colored variety, is veery handsome and is more acid than the red. Mr. Knigt's Sweet Red is only comparatively so, being less acid than the White Duch. Knight's Early Red, being about ten days earlier than any other currant; Knight's Large Red, larger than the Duch; Lovett's Large Red, a good late currant; Victoria, an uncommonly large, fine currant; and the Cherry currant, lately introduced, said to be one of the largest currants, but not thought, by some, to be very good or productive. The black currants are medicinal, and not relished, by many persons, until they have acquired a fondness for them by frequent use, as we do for the tomato. It is then, as we ourselves do know, most dilectable to the taste. The Black Grape and Black Naples are some of the best varieties of this currant. There will probably be many new varieties of the currant added to the above list, from our newly-acquired territories on the shorers of the Pacific; some having already been discovered, with fruit as sweet and as pleasant as the strawberry. And when the adventurers, now pressing forward to those shores, shall have, in some measure, exhausted its mineral wealth, we hope their attention will be directed to its vegetable productions, and that we, who dwell on the shores of the Atlantic, shall receive from them many valuable trees, shrubs, and plants.

S. P. Fowler.

Danvers, New-Mills.

## Wire Fence

A correspondent of the Louisville Journal, writing from Ghent, Carroll Co., Ky., says:—

There has just been completed on the farm of Mr. William Hawkins of this vicinity some hundred and fifty or two hndred panels of this fence, which, for durability, neatness, and cheapness, far surpasses anything that I have seen in the *fence* way.

This fence answers the purpose of the strongest post and rail fence that can possibly be built, with not more than half the expense of the former. Mr. H.'s fence is constructed in the following manner: His posts (black locust) are first placed in the ground, say eight feet apart, the first one being much larger and set deeper in the ground than the succeeding ones, because of the great resistance it has to make in stretchins the wire. After the posts are properly arranged, grooves are sawed into the side of each post for the wires to lay in. The wires are placed one above the other from six to seven inches apart. The fulcrum and lever is then placed at the extremity of the wires to draw and tighten them. When they are sufficiently thight, they are secured firmly into the post by small staples made of wire. This fence sufficiently resists the encroachments of all kinds of stock, and costs only twenty-five cents to the panel.

P. S. Tthe fence is capped with plank, which gives it additional strength and firmness.

## Growing Millet for Fodder.

It is worthy the notice of Western farmers, that in the absence of meadows—and very few have turned their attention to, or have been successful in, the cultivation of grasses, so far at least as our State is concerned—millet may be profitably cultivated as an article of fodder. When sown on good ground, such as would grow a good crop of corn, it yields most abundantly—say from two to four tons the acre. One bushel sown upon four acres of good rich soil, has produced three hundred bushels of seed and six tons of fodder. It is said to succeed the best on light land, if it be in good condition. "It requires in all cases fine tilth, and as much strength of soil as is necessary to produce heavy oats." The time for sowing it is from the 1st of May to the 20th of June, usually, though when cultivated solely for fodder a little later in the season can make no difference.

There are various opinions as to the quantity of seed to be sown to the acre—from four to thirty-six quarts are sown—we would sow at the rate of five bushels on four acres. Cut it when in the milk, or early in July. If for seed, from the first to the middle of September.

Of its value for feed, a farmer thus testifies:—"Whilst my oxen consumed millet in its green state they performed their work with more spirit and vigor than they had done before, or have shown since, except when fed with grain. My cattle, of all ages, prefer it to both red and the best white clover, meadow, or timothy hay." It cannot be

doubted that it would be vastly to the interest of our farmers to grow the millet for fodder, even though plentifully supplied with marsh hay. Stock consume vast quantites of the latter, and still do not thrive—without very much additional feed they are not 'well kept,' while with far less of the former, and with little else besides, comparatively they will pass through the winter in good condition, and spring will find them—not mere fleshless skeletons, lean, gaunt, staggering, starved—ghosts to haunt and torment the farmer—but hale, hearty, plump and sleek.—Try it and see.

## The Spring Time.

For, lo, the winter is past,
The rain is over and gone;
The flowers appear on the earth;
The time of the singing of birds is come,
And the voice of the turtle is heard in our land.
*Song of Solomon.*

Only a few weeks have gone by, since Winter reigned amid ice and snow. The forests were leafless and bare—the melody of the groves was hushed—and naught was heard in Nature's vast temple, save the low, solemn dirge of the sweeping winds, or the wild music of the rushing storm. To many there is an attractive beauty in frowning, desolate Winter; but it is of the sterner cast, like that which robes the dark, muttering, flashing thundercloud, or plays upon the awful front of the roaring Cataract.

But Winter with its icy desolation, as well as laughing Spring, or Summer with its genial rays, or Autumn with its ripened fruits, was ordained of God. It not only spreads over the earth a pall of gloom—it is a solemn teacher to teach us solemn lessons. It forcibly brings to mind the termination of our mortal pilgrimage, when we shall lay down ths cares and business of the world, and each shall take his chamber in the silent halls of death. Its blight and desolateness, its clouds, and darkness, and storms—all image to the mind the close of this frail being—the crumbling of this material house—the night of death—the sleep of the grave. But how few lay it to heart!

As from the wing no scar the sky retains,
The parted wave no furrow from the keel,
So dies in human hearts the thought of death.

Winter with its solemn ministries has passed away, and its voice like that of many waters is lifted up no more. The time of the singing of birds is come. How great the change! The herbage springs forth again under our feet. The flowers blossom in our woodland path. The forests are vocal with melody. And from the rude fanes and altars of earth, by the gushing fountain and the murmuring stream, go up the hymn and incense of joy and gratitude to the Eternal Throne.

Spring has beauty, and she teaches us beautiful lessons. I never could step forth amid her fragrance and song, and listen to the tones of her harp-like music, or to the gushing melodies which come stealing "far o'er hill and dell," or to the many sweet voices which speak by the tinkling rivulet and the dashing waterfall, without receiving strong, deep impressions of the goodness of God. How true, that,

Sounds among the vales and hills—
In the woods and by the rills—
Of the zephyr and the bird,
On the waving branches heard—
All these sounds, beneath, above,
Have one burden—*God is love.*

When we reflect that every flower which blossoms in our path—every plant which springs up from the bosom of the earth—every strain of music from the feathered choir—every breath of fragrance we inhale—that all these are but the gifts and bestowments of the Infinite Father, designed to cheer and bless his earthly child; we cannot fail of being impressed with an overwhelming sense of his great goodness. And the more we contemplate the beauties and blessings of Spring, the more we shall feel that hers is a holy ministry to the children of men—that to her it is given through music and flowers, to impart new spirit and loftier aspirations to the living human soul.

## The Plough-Boy's Song.

'Tis sunrise now
On the mountain's brow,
And the air is cool and clear;
And who would dream
In the morning's beam,
When beautiful spring is here!
I'll hasten with speed
To the glittering mead,
Where the mists are gathered now;
They will pass away,
As opens the day,
As speeds the glittering plough.

The lark is high
In the clear blue sky,
And his carols wild and free!
He has left his nest,
On the meadow's breast,
In the sunlight of heaven to be.
I cannot fly
To the clear blue sky,
Or carol so wild and free;
But I'll whistle so clear,
That the skies shall hear,
As my plough glides o'er the lea.

And when the day
Shall have passed away,
And the sun hath sunk in the sea,
I'll take my team
From the strong plough beam,
And hasten away o'er the lea.
And then at night,
When my heart is light,
And sleep steeleth over my brow,
I'll lie and dream
Of my field and team,
And of guiding the farmer's plough.

CATERPILLARS' NESTS, ONCE MORE.—Now is the time to look after and destroy the caterpillars' nests on fruit trees, and we again entreat our readers to attend to this business in time, so as not to have their trees injured and disfigured by these pests.

The nests can easily be discovered by a practiced eye. They appear like a bandage or swelling around the young twigs, as represented above. Cut them off and burn them.

We have heard of a good many ways to destroy these depredators; such as shooting the nests from the branches on which they appear, with powder, smoking or burning them off, &c., the first of which is of but little use except to afford a pastime for boys, while the latter usually injure the tree. We believe the only safe and effectual method of destruction is, to sever the branch on which they appear from the tree and commit it to the flames.

SHEEP VS. GOLD—*Worth Considering.*—The Philadelphia Ledger, in an article on wool growing, justly remarks that a State well stocked with sheep has a better chance of prosperity, than one abounding in mines of the precious metals, for every day adds to their value, and care and industry, instead of exhausting the wealth it operates on, renders the supply inexhaustible. Gold and silver, once gathered, are never reproduced; but a good sheep country yields more and more to the cultivating hand of industry, and as care is bestowed in the choice and improvement of the breed, 'a golden fleece' rewards the laborer. No matter who mines the gold, the people who raise wool will be sure to reap the gold.

Discoveries made in the cultivation of the earth are not merely for the time and country in which they are developed, but must be considered as extending to future ages, and as ultimately tending to benefit the human race; as affording subsistance for generations yet to come; as multiplying life, but likewise providing for its enjoyment.

# EDUCATIONAL.

## Education.—No. 5.

We have said, and perhaps repeated, that education for man should be three-fold, to be adapted to his three-fold nature, viz: Physical, Intellectual, Moral. To develop, train, discipline the intellect, is not to educate the *man*, and that process, or whatever application you choose to give it, which concerns itself alone with the intellectual part of our being, is not education. It is an abuse of the term to call it such. And yet we have planted schools, and builded academies, established colleges, and universities, and endowed them; and all for the purpose of educating *one-third of the man*, often to the serious detriment and absolute injury of the remaining *two-thirds*—we might perhaps truthfully so far as a majority of cases are concerned, add the other third. It is an unrealized fact, with reference to the three-fold nature of man, in nearly all our schools, and these the best, that whether one portion of this nature suffer, the other portions suffer with it. And hence our children and youth are sent out from them with weak, puny, sickly bodies, and in addition bearing about them the evidences of neglected moral culture, and the want of true spiritual discipline; and with a smattering of knowledge, which very likely is of no practical advantage, and a bit of parchment in their pockets, with which they could not buy a penny roll if they were hungry, they are said to have completed their education; but before God they are so many embodied souls, tortured out of their original shape and comeliness.

It is a remark of Dr. Combe, that To direct education properly, it is necessary to know the physical and mental constitution of the being to be educated, and also the world in which he is to be an actor. But how many, we ask, know these? how many are impressed with respect to such knowledge?—Clearly, only few. And while parents, and those called by them to instruct, have in charge the education of their children, how little, generally speaking, do they seem to care to know in what education really consists. We will not say they are deserving of censure. We are content to say with another, "I do not blame either parents or teachers for the present imperfect state of their knowledge; because they were not themselves taught; indeed, the information here described did not exist a few years ago, and it exists but very imperfectly still.—Ignorance, therefore is our misfortune, rather than our fault; and my sole object in adverting to its magnitude is to present us all with motives to remove it. While it continues so profound and extensive as it has hitherto in general been, sound and

salutary Education can no more be accomplished, than you can cause light to shine forth out of darkness."

PHYSICAL EDUCATION.—We mean by this that training and discipline by which the energies and powers of the body shall be brought out, and a healthful, vigorous action imparted to them all.—And this development of physical strength, force and efficiency, depends upon proper exercise—upon the right, the legitimate use and employment of each organ and faculty of the body. And here a consideration of the vastest moment presents itself; without such development, not only is there feebleness and languor of body, physical debility, suffering; but the mind partakes of this weakness and enervation—the soul, bearing the seal and superscription of the Infinite, is cribbed, confined, cramped in an imperfectly developed organization.

But the importance of physical Education is sufficiently beheld in the fact, that bodily health, vigor and consequent enjoyment, depend upon such an education. If we confine our children in illy constructed, unventilated, crowded school rooms, upon hard benches, where they shall be tasked and cramned six or eight hours each day, allowing them only brief space for recreation and physical exercise, we thus lay the foundation for feebleness, disease, pain, and premature death, and cause the consequences of our ignorance, carelessness, or unconcern, to be visited upon our children, and upon our children's children, unto the third and fourth generation.

It has been truthfully remarked, that, "Schools are great disease-breeders to both body and mind." Nearly ninety-nine out of an hundred of our school houses should be torn down. Plainly, they are mean, murderous things, the great mass of them. They are stinted in the ground they occupy, stinted in room, stinted in God's free air, and in short, are destitute of every thing almost that ought to be considered pre-requisite in a place of Education.—Yet in them our children must be huddled, and if the weather be a little cold, especially if it be in the winter season, every door and window must be closed, all air must be excluded, though in five minutes the inmates breath up all there is, and the stove must be well fed, and amid the press, the heat and a vitiated atmosphere, and the pantings for breath, the process goes on of rearing the tender thought and teaching the young idea how to shoot. No wonder that our children are feeble and sickly—no wonder they droop and fade like autumn flowers under such treatment, and early pass away.—Verily, parents and teachers need themselves to be taught.

Not only should our school houses be spacious airy, and in all respects comfortable; but long confinement ought to be avoided. The child has sot long enough, when in study he has been upon the bench half an hour. He should then be suffered to go out, and take exercise at his sports. He will be better, study better, learn more, and keep a good healthy body because of it. "This demand for vigorous and almost constant exercise in children is *imperious*, and its suppression fatal." Let it therefore be yielded to. And in all our schools, let not the very great importance of Physical Education be overlooked, or forgotten by those who have them in charge.

## First Teachers' Institute in Wisconsin.

The great work of education is fairly commenced in Wisconsin—The "good time coming," is near at hand, if indeed it be not already come, for the teachers and friends of education in our young and prosperous state.

Pursuant to public notice a meeting of the teachers and friends of education in the county of Jefferson, assembled at the seminary rooms in the village of Lake Mills, on Tuesday morning, March 20, 1849.

The meeting was called to order by the Hon E. Root, State Superintendent of Public Instruction, and on motion of J. L. Enos, Esq., S. W. Munn, Esq. of the Lake Mills Seminary, was chosen Secretary.

The following gentlemen constituted the BOARD OF INSTRUCTION.

E. Root, State superintendent of public instruction.

J. L. ENOS, Graduate of the New York State Normal School and Editor of the North Western Educator.

S. W. MUNN and H. M. MIXER, Principals of the Lake Mills Semiuary.

Lectures were delivered as follows, during the session.

By Hon. ELEZER ROOT, on Reading.

S. W. MUNN, on Grammar.

E. ROOT, Education in General.

JAMES L. ENOS, on Arithmetic.

S. W. MUNN, on Grammar, (2d lec.)

S. NUTTER, on Experimental teaching.

H. M. MIXER, on Geography.

J. L. ENOS, on Arithmetic and general principles of the Mathematics, (2d lec.)

S. W. MUNN, on Grammar, (3d lec.)

E. ROOT, on the Duties of the Teacher.

Rev. E. D. SEWARD, on Graduation of Schools.

The last evening of the session a discussion in regard to the use of the Bible in schools, sprung up, and was engaged in with

great spirit and eloquence by Messrs. ROOT, MUNN, FISK, ENOS, and MONTAGUE, and after the passing of several resolutions, expressive of the sense of the meeting, the institute in the midst of the most intense interest adjourned.

Much good has been done by this institute—the work has been commenced and it will go on. The instruction was practical and thorough—the lectures eloquent and useful.

The citizens of Lake Mills deserve much credit for this great move in the cause of education in our young and prosperous State, and none more than Messrs. MUNN and MIXER of the Lake Mills Seminary.—*Wis. Ex.*

EDUCATION OF THE YOUNG FOR AGRICULTURAL PURSUITS.—Where an ardent thirst is begotten, in the minds of youth, to become thoroughly prepared for an honorable and useful discharge of the active duties which make up the sum of a happy life, the first great step is taken towards the accomplishment of so glorious an end. We turn our attention to parents, the natural guardians of the young, possessing power to mould and fashion the tender mind, and lead and direct aright the inclinations as they are first developed. To parents we appeal, assured their influence will be exerted to lead the children under their care to contract an attachment to the employment in which they are engaged. Let the son be thoroughly instructed in every branch of labor to be performed on a farm, and its management in general, and no doubt, with proper opportunities for instruction from suitable books and well regulated schools, he will fall in love with the science, and delight in the practice of agriculture. In the successful prosecution of this highly honored and peaceful pursuit, female efforts and influence are indispensable to lead to auspicious results. I am aware that some persons of nearsighted and contracted views, have expressed the opinion that the female mind ought to be occupied altogether in the contemplation of unreal things, of ideas that float in a feverish or excited imagination, and of outward accomplishments, and be content to dwell upon the surface of the subjects, without an attempt to dig in the mine of knowledge. No one honored with the title of mother can for a moment listen to any such suggestion, but will, I am sure, put forth their utmost exertion for the fullest expansion and enlargement of the intellectual and moral capabilities of their daughters, as their sons.—*Mr. Ives' Address before the Jefferson County (N. Y.) Agricultural Society.*

NEVER GO BACK.—Never go back—never. What you attempt, do with all your strength. Determination is omnipotent. If the prospect is somewhat darkened, put the fire of resolution to your soul, and kindle a flame that nothing but the strong arm of death can extinguish.

RED ANTWERP RASPBERRY.—This is considered the best variety of Raspberry now grown. It is not injured by being picked and carried to market, and cannot be excelled for product.

EXTENT OF THE UNITED STATES—*We certainly have a big country.*—From the easternmost town in the United States, Eastport, Maine, via the St. Lawrence, Buffalo, Cincinnati, St. Louis, and the South Pass of the Rocky Mountains, to Astoria in Oregon, the distance by the travelled route is 4517 miles. From the Madawaska, in Maine, by the Atlantic route, via New York, Washington, New Orleans and Galveston, to the mouth of the Rio Grande, 2923. From New York to the head of Lake Superior, via Detroit and Mackinac, 1856 miles; thence down the Mississippi to the Gulf of Mexico, is 2884 miles. From Eastport, Maine, to the Bay of San Francisco, California, on the Pacific, via Portland, Philadelphia, Pitsburg, St. Louis, Santa Fe and the Colorado of the west, is 25,444 miles.

TOAST AND WATER.—This article, simple as it is, is rarely well prepared. Cut an upper crust of bread as thick again as it is usual for toast; brown it carefully, but see that it be not burnt, smoked, or black; pour on as much water as is required, and cover the jug till cold. A slice of thinly cut orange or lemon peel infused with it, improves it greatly; it should be made early in the day during summer, and placed in the sun, when it may be drank at pleasure.

EGG CREAM.—Take the yolk of an egg, with a dessert-spoonful of cream or new milk, and, if convenient, add two drops of oil of cinnamon; this will form a mixture sufficient to serve three people to mix with their tea; for cream being chiefly the oil of milk, and the yolk the most nutritive part of the egg, they are both lubricating and nourishing. The oil of cinnamon is cordial and tonic.

# NOTICES OF PUBLICATIONS, &C.

OHIO CULTIVATOR.—We are in the receipt of the numbers of this excellent Agricultural Journal from 1st of January to the present date—seven in all. They are filled with valuable selected and original matter, and in all respects, so far as we may judge from them, is deserving of, and undoubtedly has, an extensive circulation.

It is published on the 1st and 15th of each month at Columbus, Ohio, in octavo form, 16 pages, and furnished single subscribers for $1 per year, in advance—four copies for $3.

PENNSYLVANIA CULTIVATOR.—This is a new Agricultural journal published in Harrisburg, Pa., by Foster & Co., and edited by Dr. THOMAS FOSTER. The Nos. we have received proclaim the Cultivator entitled to rank among the first of kindred publications. Terms, $1.00 per year in advance.

N. E. FARMER.—The April No. of this journal has been received. It is sufficient to say that it is fully equal to its predecessors.

CANADIAN AGRICULTURIST.—The *fourth* No. only, of a new monthly paper bearing this title, has reached us. It is published at Toronto by BUCKLAND & McDOUGALD, Editors and Proprietors.—Terms, $1.00 in advance; It is ably conducted, and worthy of being widely circulated.

MICHIGAN FARMER.—The April No. of this Journal is before us, and rather surpasses any of the previous ones we have seen. Our brethren of the plow in Michigan will really do themselves great injustice if they do not universally give it their patronage.

THE ROCK COUNTY BADGER, is the title of a new weekly paper, recently started in Janesville, Rock county. It is a large, well-printed, well-filled sheet--Edited and published by John A. Brown, and Democratic of course. We wish our friend much success in his new field of labor.

THE WOOL GROWER.—We have seen several notices of a new publication bearing this title, and hailing from Buffalo, N. Y. From the excellent reputation of its proprietor and editor, T. C. PETERS, Esq., we judge it must be *au fait* in the department to which it is especially devoted. We will have more to say when we have seen it.

REPORT ON AGRICULTURE.—We have received, through the politeness of Mr. JOHNSON, Sec'y of N. Y. S. Ag. So., the Report of the Committee on Agriculture to the Assembly of that State. It is a good one, and we shall do ourselves the pleasure to give extracts from it in our next No.

F. K. PHOENIX, ESQ.—We have the pleasure of announcing to our numerous patrons and readers, that we have made arrangements whereby this gentleman will assume the Editorial charge of the Horticultural Department of the FARMER. Mr. P. for many years has been extensively engaged in Horticultural pursuits, is ardently devoted to his calling, and widely known as one of our best writers. He will make his *debut* in our next No.

OHIO STATE AGRICULTURAL FAIR.—We learn from the Cultivator, that the first Annual Fair of the Ohio State Board of Agriculture, is to be holden at Cincinnati on the 5th, 6th, and 7th days of Sept. next. Arrangements are being made on a large scale, and we make no doubt that the whole af-*fair* will be worthy of this great agricultural state. A list of the Premiums to be awarded has been published, and they are most liberal, and cannot fail to attract competitors.

When shall we have a State Fair?

TO CORRESPONDENTS.—Several communications were received too late for insertion in this No. We regret on our own account and that of our readers, that an article from Dr. HOY, in continuation of his series on Soils and their Analysis, is among the list.

The poetic article from D. we decline publishing—he will do much better at plain, sober prose.

We are greatly obliged to those who have remembered us in season for this No.—also to those whose favors came a *little* too late, but will not spoil by a month's delay.

☞ We acknowledge ourselves under very great obligation to the press in this State, and the Agricultural journals throughout the United States, for the highly complimentary manner in which they have spoken of the FARMER. We shall endeavor earnestly to deserve the good name they have given us.

Rural industry is very generally spread over too much surface, to be profitable in the highest degree. This occasions a great waste of travel in man and beast. It also leads to a bad system of husbandry by robbing remote fields of their fertilizing atoms, not a few of which cows and other domestic animals drop in the highway. A farm being a sort of chemical labratory, it is miserable economy to have it ten times larger than one has any use for. Less land, and more money drawing 7 per cent. annual interest, which will double the principal in 10 1-3 years, would be an improvement in the circumstances of more than one reader of this journal.

"Free as the winds and boundless as the sea,
Should trade and commerce unrestricted be."

# HORTICULTURE.

## Cultivation of Isabella and Catawba Grapes.

The following facts were collated from conversations with Mr. James Galbraith, whose high character as an accomplished gardener, entitles his opinions to be much relied upon.

The best vines are produced from cuttings, which should be made in the fall, (say October 20 to November 25,) and kept in damp sand, in a cellar or other cool place, free from frost.

Cuttings made in the spring have the disadvantage of having dried from the effect of sun and winds during the winter, while on the vines, and in consequence the capillary tubes and absorbents are not as well conditioned to perform the functions of growth, as plump well kept fall cuttings. When the cuttings are put out, cover the spaces between, (say one inch thick,) with tanners' bark, or salt hay. Give the cuttings water freely in May.

Vines may be multiplied from layers, but the results will not be equal to those obtained from cuttings. Layers receive so much of their nourishment from the *mother plant*, that roots of great vigor do not form, and consequently, when cut loose from the mother, their roots are not in as good condition as those of cuttings one year planted.—Roots of layers are softer and not so fibrous or firm as the roots formed on cuttings.

The top of a layer grows so much sooner than that of a cutting, that the root is not so perfectly formed before perfecting its top.

Layers are not active for some time after being cut from the parent, and do not for the succeeding year make any wood, while a cutting is steadily advancing.

*Planting of Cuttings.*—About fifteen inches in the ground and two eyes out, well manured; plant at an angle of forty-five degrees, transplant every other two plants after the trimming, when one year old, trimming down to one eye, and transplant the remaining cuttings the next year.

Cuttings should be planted in rows of fifteen to eighteen inches apart, and six inches apart in the rows.

When transplanted in the vineyard, where they are intended to remain, the distance between the rows should be twelve feet, and apart in the rows eight feet. Dig the holes three feet across, and two feet deep; fill up the hole in part with rich top soil or top sod, then a quantity of azotised manure, well mixed, covering the manure slightly with soil, place the roots of the vine on this soil, add more soil until they are slightly covered; place on more manure, and fill the top of the hole with soil. If the soil is good, a half to three quarters of a pushel of manure is sufficient; but if the soil is inferior, then a bushel or more is necessary. The more highly the manure is charged with animal matter, the better. Butchers' hog pen manure, (where the hogs are fed on blood and offals, (is the best.

*Training.*—Keep young vines upright; do not permit them to lie on the ground; if the top turns down, it ceases to grow, and the laterals will take the lead.

The vines, when properly trained, and in bearing condition, should have two horizontal arms' right and left, and two vertical shafts from each of these arms. One vertical shaft on each arm is supposed to bear fruit each year, while the other two vertical shafts or uprights, are making wood to be bearers of the following year: and each of these sets may be alternately trimed down every other year, to one eye, so as always to have fruit on new wood.

*Trimming.*—This should be performed from the 1st to the 15th of November, and at that date the vines will not bleed, whereas if pruned in the spring, they will bleed, and the vines will be weakened.

Some mistake the effect of cold in winter, on grape vines, by observing in the spring that some of the shoots are dead below the November pruning, and eroneously suppose that the winter frosts, operating on the cut, have killed the shoot. This is a mistake. The fact is, that an unpracticed hand may unknowingly, when trimming in November, leave some unripe wood which will die down to the ripe wood by the spring; but would have done so if left untrimed and does not do so from having been trimmed.

*Skinning.*—The dry, extraneous bark should be peeled off from the bodies or grape vines, and if an earlier time cannot be spared for it, it may be done even in the coldest weather. No harm ever ensues from this practice.

*Mulching.*—The more loose the ground is kept, the better the vine succeeds; by absorbing both ammonia and moisture from dews and rains, mulching vines in cold weather is always advisable.

*Summer Rest.*—Grape vines, sometimes in midsummer, seem to stand still, neither fruit or laterals increasing. In such cases, top dress with guano-water freely for two days, then top dress with a solution of potash, dilute, and the vine will proceed with vigor.

*Summer Treatment.*—In the beginning of May every eye will throw out a superfluity of shoots, particularly from old wood; those upon the old wood should all be rubbed off, if not wanted to supply new wood; and (except those wanted for bearers of wood or fruit,) they should be rubbed off from the new wood.

Those required to form new wood or fruit should be suffered to remain until they form the cluster; then pinch them off, leaving two eyes beyond the cluster. These eyes, so left, will in time throw out new shoots, which should be pinched off, (at one or two eyes, dependant upon their strength.)—Care should be taken not to pinch off the next set of shoots putting out from the last spoken of branches, because they supply leaves to take the place of elder leaves, which may, and probaly will be cut off by the *thrips*, "a green fly."

No leaves should ever be trimmed off as they are wanted to dessicate the sap.

The leading shoot of the vine must not be pinched off in summer, or the eyes below it will burst; at the November pruning is the proper time to trim leading shoots, if necessary.

Shoots from old wood should occasionally be permitted to run to take the place of old wood which it may be desirable to cut out.

☞ The following article forms the introduction to Mr. Cole's recent work on Fruit. It is in the authors happiest style, and thoughts, words, all are eloquent. It will be read with interest and profit.

UTILITY OF FRUITS.—In the whole routine of cultivation—and it is all delightful—there is no department more pleasing or useful than Fruit Growing; and our advantages, in this country, for its production, are varied and extensive. With due attention, we can have a great variety of the most delicious fruits; and the trees, with their beautiful bloom, luxuriant foliage, and rich and gorgeous crops, are among the most ornamental scenery.

Good fruit is a great luxury, in which we may freely indulge, not only with impunity, but with advantage as to health as well as pleasure. It forms a wholesome sustenance, and lessens the excessive use of various articles of diet, the too frequent use of which tends to inflammations, fevers, dyspepsia, constipation, apoplexy, gout, jaundice, and a host of other ills. In numerous instances, violent diseases, and almost hopeless cases of chronic complaints, have yielded to the constant use of fruits.

The vast amount of unhealthy meats, from the sudden change of filthy matters to slaughtered animals, and by far a too liberal consumption of those that are good; also of fine flour, and fine hot bread, of butter, cheese, fat, oils, stong tea and coffee, (all injurious in excess,)the high state of cookery; the free use of condiments and seasoning, and various rich dishes, and compounds,commingled, and confused; all call aloud for more fruit to lessen their use, or palliate their effects, and save thoughtless beings from untimely graves, or from lingering out a wretched state of existence. Fruits have a cooling and gentle laxative effect, regulating the stomach and bowel, correcting bilious affection, attenuating and purifying the blood, which is the very life of the whole system.

We have many excellent fruits. How delightful, refreshing, and salutary are strawberries and cream; or delicious cherries, ready to burst with their juices; the golden apricot, with its fine flavor; the plum, with its honeyed juice; the splendid peach, with its luscious sweetness; the melting pear, with its rich, sugary, or vinous flavor; the apple, in all its variety and excellence, and multifarious preparations, extending from one end of the year to the other; the rich, luscious grape; and others equally as delicious—the currant, raspberry, gooseberry, blackberry, whortleberry, mulberry, and cranberry, and the high-scented quince in its conserved state: all excellent, and conducing largely to health, pleasure, sustenance, and happiness. They add a charm to social life, affording a delightful treat to friends, and to children a constant harmless feast. As a social entertainment, they serve as a grateful substitute for the once ruinous cup, thus having a powerful moral influence. Every fruit tree is a silent preacher in the cause of temperance, a formidable ally in morality, religion, and philanthropy; for lusciousness of fruits, and the beauty of their attendant scenery furnish an Eden, where one may sit under his own vine and fruit trees, with none to molest, and no serpent to beguile; but with an Eve, as God's last, best gift, and perhaps cherubs gamboling in his Elysian grounds, as so many multiplied existences in which he lives and revels amidst the charms of nature and munificence of heaven, in the happy results of his own skill and industry, and faith in Him who gives the seed-time and harvest. Teach children the art and science of horticulture and pomology, and you will improve and exalt them; you will train them up in the way they should go, and spread around home the strongest endearments of social life, to which the memory will cling with the fondest recollection, while "breath they draw;" for though roaming the wide world, amidst the varied charms of nature and art, this faithful monitor reverts to the dearest scenes of childhood and youth, where once were

"My father, my mother.
My sister, my brother,
And dear * * *, more charming than all."

# EDITOR'S TABLE.

New York State Agricultural Society.—A list of the premiums of this society for 1849, has been forwarded us by the Secretary, B. P. Johnson, Esq., of Albany. The annual Fair is to be holden at Syracuse in September next.—The premiums offered in the several departments are most liberal, and gentlemen from other States are cordially invited to be present, with their Stock, Fruit and implements for competition. The North American Pomological Convention is appointed to meet on the day succeeding the Fair. Shall not Wisconsin be represented in both these?

☞We publish in this No. the Constitution of the State Agricultural Society. It is not, perhaps, in all respects what it should be, but future meetings may perfect in it that which is lacking. We are for the present satisfied with it, because it is the instrument completing the organization of a State Society. Thus the great beginning is made—let auxiliary societies follow, and the result will be a glorious progress, a permanent advancement of the Agricultural Interest.

The American Fruit Book.—We have received through the kindness of the Publisher, J. P. Jewett, Boston, Mr. Cole's new work bearing the above title. It need not be said to those acquainted with the writings of the author, that he is at home on the subject treated of in this manual, and that the book ought to be in the hands of every fruit grower. It is illustrated by about 200 engravings of fruit, and fruit trees, vines, &c., and the illustrations on the nature and treatment of all the various kinds of fruit, which can be cultivated in our country, are direct and intelligible, and the result of such observation and experience as render them valuable.

The mechanical execution of the work is of the first order—the binding gilt cloth—the price only 63 cents.

☞It is said that nature will *leave* all the trees this Spring. She's *green* to do so.

Cholera.—As this epidemic is spreading rapidly over the whole valley of the Mississippi, no family should neglect to make use of all sanitory measures in their power. The cleansing of cellars, yards, out-houses, wells, &c., should by no means be neglected. A free use of lime would be of great advantage. Avoid, as you would the plague itself, the use of intoxicating drinks.

A Valuable Table.—The following valuable table was calculated by J. M. Garnett, Esq., of Essex county, Va., and first published in the Farmer's Register:

A box 24 inches by 16 inches square and 22 inches deep, will contain a barrel, or 10,852 cubic inches.

A box 24 inches by 16 inches square and 11 inches deep, will contain half a barrel, or 5,426 cubic inches.

A box 16 inches by 16 8-10 inches square and 8 inches deep, will contain one bushel, or 2,150 4-10 cubic inches.

A box 12 inches by 11 2-10 inches square and 8 inches deep, will contain half a bushel or 8,075 cubic inches.

A box 8 inches by 8 4-10 inches square and 6 inches deep, will contain one peck, or 537 1-10 cubic inches.

A box 8 inches by 8 inches square and 4 2-10 inches deep, will contain one half peck, or 268 8-10 cubic inches.

A box 7 inches by 4 inches square and 4 8-10 inches deep, will contain a half a gallon, or 131 4-10 cubic inches.

A box 4 inches by 4 inches square, and 4 2-10 inches deep, will contain one quart, and 67 2-10 cubic inches.

The measures come within a small fraction of a cubic inch, of being perfectly accurate, as near indeed as any measures of capacity have ever yet been made for common use; the difficulty of making them without absolute exactness has never yet been overcome.

Brief Seasonable Hints.—This will be—it *should* be at least—a busy month for Farmers. It brings along usually a crowd of work, and none of it can be neglected without loss. It is a general cleaning-up, slicking-up month, when cellars, yards, out-houses, should all be thoroughly cleansed, renovated. The good and true farmer will have no heaps of filth about his house to pollute the air with its stench and to invite or breed disease.

Corn may be planted as early in the month as the ground shall be sufficiently dry and warm to warrant—the old rule is, as soon as the leaves of the white oak are as big as the ears of a mouse. Millet should be sown this month. Farmers in the West would find it to their advantage to cultivate it quite extensively. It is excellent for fodder when cut in the milk, and yields from four to five tons to the acre.

# COMMERCIAL.

## Steamboat Lines and Appointments for the Season of 1849.

The various Steamboat Lines running from this city, to different points, are now complete, and the several boats are assigned their respective places. The number of boats in the Chicago trade have deminished, while those in the Detroit lines have been increased, in order to form two lines—one by the Canada, or north shore, and the other by the south, or American shore.—[Buffalo Ex.

### THE CHICAGO LINE.

The EMPIRE STATE, new last season, and the largest boat on the western waters. M. Hazard, Captain; S. Chamberlin, 1st Officer; Whaley, 1st Engineer; N. Moore, 2d do; Goodrich, Clerk; Baker, Steward.

The NIAGARA, well and favorably known to the travelling public. W. T. Pease, Master; John Leonard, Engineer; Heely, Clerk; Carpenter, Steward.

The KEY STONE STATE, entirely new and of the largest class. Thos. Richards, Master; Wm. Stone, Mate; Thompson, Engineer; F. Parmelee, clerk; N. Emerson, steward.

The LOUISIANA, a favorite with the travelling public. Wm. Davenport, Master; John Miles, Engineer; J. Barton, clerk; H. Nottingham, steward.

The SULTANA, a capital boat—G. Appleby, Master; J. Weishun, mate; Lockwood, Engineer; John Taylor, clerk; W. Blossom, stw'rd.

The ST. LOUIS, a most capital and well-managed boat—F. S. Wheeler, Master; W. Kennedy, mate; Gilbert, Engineer, Mott, clerk; Bloomer, steward.

The ALBANY, a staunch craft—C. L. Gager, Master; Bradley, clerk; Wesley, steward; W. Megee, Engineer.

The A. D. PATCHIN, a staunch, commodious craft—H. Whitaker, Master; Newell, mate; Williams, clerk; Hathaway, Engineer.

The SUPERIOR—D. Wilkeson, Master; officers probably same as last year.

The GREAT WESTERN, well known on these waters—C. H. Whitaker, Master; Bancroft, mate; Brooks, clerk.

The GLOBE—Robinsin, master; Watkins, clerk; other officers probably same as last year.

The NILE—Blake, master; Pierce, steward; other officers as last year.

*Central Rail Road Line to Chicago*, comprises the following beautiful and most excellent boats which are to run by the American shore:

The EMPIRE—Capt. H. Randall; the other officers unknown.

The BALTIC—Capt. Ludlow; Foreman, mate; John Beals, clerk; Brown, steward.

The HENDRIK HUDSON—J. Imson, Master; Bond, mate; Cook, Eng.; Newman, clerk.

The SARATOGA—Stannard, Master; Stillman, mate; Wilson, steward.

The OREGON—Chapman, Master; Beaugrand, mate; Chase, steward; Munson, clerk.

*North, or Canada Shore.*—The MAYFLOWER, a new and beautiful craft, Capt. H. Van Allen; Caverly, mate; Nelson, steward.

The ATLANTIC—Capt. Clement.

The CANADA—G. Willoughby, Master.

*Buffalo and Sandusky Line.*—The QUEEN CITY—T. J. Titus, master; John Richards, 1s officer; Hinton, Engineer; Sanford, clerk.

The AMERICA—Capt. D. Howe; Gus. Bartholomew, 1st officer.

The ALABAMA—(new)—Perkins, master.

*Buffalo and Toledo Line.*—The G. P. GRIFFITH—A. T. Kingman, Master; Nash, mate.

The OHIO—Capron, master; other appointments probably the same as last season.

The TROY—Capt. Wilkins; other officers as last season, probably.

The ROCHESTER, Capt. Lundy; other officers not known.

The GEN. HARRISON—Wolcott, Master.

### RACINE MARKET.—Wholesale.

| | | | | |
|---|---|---|---|---|
| Beef | ℔ 100lb | $4 50 | @ | $5 00 |
| do mess | ℔ bbl. | 9 00 | @ | 10 00 |
| Pork | ℔ 100 | 3 50 | @ | 4 00 |
| do mess | ℔ bbl. | 10 00 | @ | 12 00 |
| Hams | ℔ 100 | 6 00 | @ | 7 00 |
| Shoulders | ℔ 100 | 3 50 | @ | 4 00 |
| Butter | ℔ lb | 11 | @ | 12½ |
| Lard | ℔ lb | 6 | @ | 7 |
| Eggs | ℔ doz. | 7 | @ | 8 |
| White Fish | ℔ bbl. | | | 5 00 |
| Fine Salt | ℔ bbl. | | | 1 50 |
| Coarse do | ℔ bbl. | | | 2 00 |
| Dried Apples | ℔ bush. | 1 24 | @ | 1 50 |
| Green do | ℔ bbl. | 2 50 | @ | 3 00 |
| Onions | ℔ bush. | | | 37½ |
| Potatoes | ℔ bush. | | | 50 |
| Cheese | ℔ 100 | 6 00 | @ | 7 00 |
| Flour | ℔ bbl. | | | 4 00 |
| Wheat Winter | ℔ bush, | 60 | @ | 64 |
| do Spring | ℔ bush. | 50 | @ | 54 |
| Buckwheat flour | ℔ 100 | 1 25 | @ | 1 50 |
| Oats | ℔ bush. | | | 22 |
| Beans | ℔ bush, | | | 75 |
| Corn | ℔ bush. | | | 37 |
| Corn Meal | ℔ 100 | 75 | @ | 87 |
| Hard Wood | ℔ cord | | | 2 00 |
| Soft do | ℔ cord | | | 1,00 |

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

VOL. 1. RACINE, WIS., JUNE 1, 1849. NO. 6.

WISCONSIN FARMER & NORTHWESTERN CULTIVATOR

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## Agricultural Schools.

*Report of the Committee on Agriculture to the New York Legislature.*

We are glad to see the attention of the people called to the important subject of Agriculture, and Agricultural Education; and to see how widely and earnestly the question is agitated? How shall we best promote Agricultural Interest, and elevate the standard, now greatly depressed, of the Agricultural Profession? We have already given our own views, and we are glad to find that they coincide with those of our agricultural brethren every where. This is a busy, restless, inquiring Age. Men are not contented with the old paths, with old systems, customs and habits. They would look further, and go further—be more, and do more. Because of this, another has been added to the list of Reforms; and big minds, and big hearts, are engaged in determined, powerful efforts to effect a reform in Agriculture. The good work is well begun. An appeal has gone abroad that has not been put forth in vain—it has gone up into the Assemblies and Senates of free States, and drawn attention to a long neglected interest. It is beginning to be seen—nay, it is clearly beheld—and Legislatures are giving it utterance, that Agriculture should have its Schools, its Departments in Colleges and Universities, its Teachers and Professors, its Model Farms, and all the varied agencies that are supplied for the education of other professions and callings.

We invite attention to the following extracts from the Report named at the head of this article. They utter the awakening convictions of the universal American People—are full of truth, and present clearly the claims of Agriculture, and show what is requisite for the promotion of its vital interests:

"That science is destined to contribute largely to the advancement of the agricultural interest, cannot, we think, be questioned. The application of mind, rightly cultivated, to the subject of agriculture, cannot but lead to its improvement. In every branch of the operations of the farm, intelligence in the farmer can be applied with the most beneficial results. It cannot in truth be doubted that the course of education which is pursued at our higher seminaries of learning is not suited to qualify those who design to engage in the ordinary pursuits of life; and it is within the experience of every well informed man, that those who have come from our institutions loaded with honors, have often proved entirely unqualified for the common pursuits of life, and have been compelled to undergo another education to fit them for pursuits which require an education of a practical character and an adaptation to the every-day business of our growing country. We need, then, an education which will fit a man for the every-day realities of life; and to accomplish this, an institution must be established for the cultivation of those practical sciences which will enable those who are to be the practical men of our country, to secure an education that will not only enable them rightly to discharge their duties in their profession or pursuit, but will at the same time fit them to occupy any station in the government of the State or Nation equally with those who have been educated for professional life at our present institutions.

"It can not be doubted, that many of the arts and sciences of the present day which are claiming the attention of every well informed man, are the creation of our own times, and are not to be found in the systems of education established in by-gone ages; and which in the main remain now as they were established centuries ago. Chemistry, mineralogy, geology, botany, electricity, are almost all of our own time; at least they are within the recollection of our old men, many of whom can point to the day of their birth. Their importance however is beginning to be felt, and no man can be said to be thoroughly prepared to grapple with the requirements of this advancing age, unless practically acquainted with acquirements of modern date. All

of these acquirements can be applied with most gratifying results to agriculture; and its advancement is to depend, in our judgment, upon facilities being afforded to attain that information which now is to be attained by the great mass of the people. An institution which should have for its object the teaching of these and kindred branches connected with practical agriculture, is, in our opinion, demanded both by the wants and the desires of that all-important portion of our citizens, the agricultural and mechanical classes.

"Agriculture, as yet, has not attained that perfection of which it is capable. We have not yet tested the capabilities of the earth; but we have every reason to believe that such a system may yet be devised to secure to the farmer, at a reasonable expense, the largest return which the earth is capable of producing. The improvements which have been made in agriculture are the result of the application of knowledge to the subject, and no one can, we think, hesitate to admit that when rightly directed, no more satisfactory advance has been made in any other pursuit, than in that of agriculture.

"Great care and attention will be required to arrange the details of an institution which shall accomplish the object in view and which shall subserve the interests of agriculture and the mechanic arts. The institutions of England and Germany may be well adapted to their systems of government, and may afford much information that will be useful to those who shall have the charge of preparing one for our own country; but an institution such as we need, must be one adapted to our country and its institutions and the practical wants of our own people. The memorial which has been presented to the Legislature and referred to us, contains many suggestions which commend themselves to the favorable consideration of your committee. We refer to them as embodying the outlines of a plan of education for such an institution as we think is imperiously called for at our hands.

"The memorial states 'that such an institution as would subserve the interests of the farmer and mechanic, we think should eventually have connected with it, a farm of liberal extent, embracing, as far as practicable, a great variety of soils, where the various crops could be raised, and experiments made, to test the qualities of the soils and their adaptation to particular crops. The farm should be stocked with every species of domestic animals, from the highest to the lowest, as well with inferior classes or breeds as the superior, that the pupil may be practically taught how to distinguish them, as well as the advantages of one breed over another upon the same feed and under the same treatment. The institution should embrace several departments, of which we would notice the following, not, however, going into a full account of what should constitute the studies and instruction of the institution.'

"'One for scientific instruction, in which mechanics, mathematics and other sciences of a physical and practical character should be taught. Another for agriculture proper, in which should be taught the character of the different soils, their adaptation to certain crops, the most profitable rotation of crops, the best and cheapest method of fertilizing, of draining and irrigation; the best and cheapest methods of preparing the ground, of putting in, cultivating, harvesting and securing crops, in all of which the pupil should take more or less a working part. In connection with this, should be given instruction in agricultural chemistry and vegetable physiology, where the pupil is to learn the component parts of the different varieties of soils and the manures which are likely to be used in the best course of husbandry, the best time and manner of their application, the component parts of every crop. From these investigations it may be known what crop is best adapted to particular soils, and what manure will be most beneficial.'

"'A veterinary department in which instruction should be given to the pupil with the animal before him. They should be taught how to distinguish between them, their good and bad properties, the best methods of improvement, and of remedying defects in breeding. The diseases of animals, comparative anatomy, and everything appropriate to the veterinary department, should be taught. In connection with this department, the management of dairies should be carefully considered in all its details. Botany may be usefully introduced in reference to the various kinds of grasses, or the food useful for animals. Horticulture should also be taught, so that the pupil may be made acquainted with the different varieties of fruit, the best method of cultivation, and in connection with this, gardening and ornamental shrubbery should receive attention.'

"'At the head of the institution, an individual should be placed, capable of conducting its operations and who would give instruction in one or more of the branches, with such assistants as might be required to carry out fully the objects to be obtained, and the farm should have an educated and experienced agriculturist as its manager. The object should be to render the farm productive and thus aid in defraying the expenses of the institution; and the students should be here taught practically, all the details of good husbandry.'

"'The importance of securing a suitable person for the management and supervision of the institution is obvious. The instruction should be most thorough and perfect. The analysis of the laboratory so important to the farmer, "if not *perfectly*

well understood, is worse than useless; it is false in its advice, and a good analysis of an apparently simple material requires a great deal of attention and time." One feature of the institution should be to keep a correct account of the experiments, proceedings and operations in each department, to be submitted for publication as often as may be deemed best calculated to promote the objects of the institution.'

"'The coming generation of farmers, through the influence resulting from such an institution, would be an intelligent, a reading and thrifty class of men. Agriculture would then cease to be a mere calling, but would most appropriately be denominated a profession. Men educated at such an institution would not only be initiated in the arts, mysteries and beauties of their profession, but would be well fitted to take position in all the active useful and public stations of life by the side of those coming from our higher seminaries of learning, and from the learned professions. From the labor of the farm, and from his consumption of merchandise, are now derived more than three-fourths of the canal-tolls, amounting to three millions annually; of the the town and county taxes levied and paid in this state exclusive of the cities, more than three-fourths are paid by the farmer. It would seem that a portion of our citizens contributing thus largely to our resources, should be entitled to draw something for the education of their class from the state funds; and we doubt not that this subject will receive all that attentive consideration which its importance demands.'

"These suggestions are important, and deserving of most careful consideration, and, in the opinion of your committee, an institution founded upon such principles, conducted by professors competent to carry them fully into practice, with such other aids from general science as might be needed, and which would be necessary to give a full and complete education to those who might receive the benefits of the institution, would be of unspeakable importance to the agricultural interests of our State and nation. No second rate institution would answer the purpose, or subserve the wants of the community.

"Knowledge is power, and no system of education should be adopted that would not afford to those who seek its advantages all that necessary information and education that would not only fit them for their particular profession, but which at the same time would enable them to fulfil the highest duties of citizens, and successfully to compete upon the great theatre of life, with those from any other institution which the country affords.

"The agriculturist should have the means of securing such an education as will fit him for the high duties to which we have alluded. He should be prepared to occupy that station among the other professions, which from the importance of his own, he is justly entitled to, and this, a complete system of practical education, will, in our opinion, eventually secure. In what other manner shall we be enabled to prevent the thronging of the sons of farmers to the learned professions, to the great cities of our country to engage in the hazards of mercantile pursuits, instead of continuing in that pursuit which will secure to them the most complete enjoyment, a sure competency, and the obtaining the highest eminence our country can command."

For the Wisconsin Farmer.

## Book Farming

There is an opinion prevalent, at the present day, which is extremely prejudicial to the Agricultural department of industry.—It is one which has too long wielded its baneful influence over the minds of those whose interests it most materially affects, as well as the ignorant of other classes of society.—Does the reader, and especially the agriculturist, ask what that opinion is, which is so destructive to the interests of that class of persons so vitally important to the well-being of every state and nation?

Does he feel his curiosity excited to learn what great error is pervading the minds of the people in relation to this honorable vocation? Let him cast a glance at the caption of this article, and he will at once recognize the subject to which we refer, and admit the propriety and importance of what we say.

We speak of the aversion from Book Farming, which is so palpably manifested in every portion of our Union—in every state, every county, and every town, to a great extent.

It is truly to be deplored, that, at a time when our country abounds in every agricultural facility, and affords reading matter, both literary and scientific, at a rate below what any prior period of the world can boast, the agricultural community, the corner stone of a nation's prosperity, should manifest so much indifference—should neglect to avail themselves of the opportunity offered them to store their minds with useful knowledge in relation to their own peculiar calling.

The assertion that book farming, or the use of books, in agricultural pursuits, is prejudicial, is sometimes made by influential men, and endeavored to be supported on the broad ground of interest and expediency. We would not be so uncharitable

as to suppose that such persons would seek the degradation of any class of our citizens; for such is not their wish or intention.—Their unwise and impolitic course is the natural result of an ignorance of the real duties of a citizen, as well as of the true and naturally fixed principles of the Science of Agriculture. They say, that experience is the only sure guide for the farmer in his vocation.

This we would most readily admit if they would allow the term a general application. But when they confine the word *experience* to one individual, we must beg leave to dissent.

Let us make the simple inquiry, how is a knowledge of the principles of philosophy, as applied by the mechanic, acquired?—How does the physician, in whose hands are entrusted the lives of his fellow men, obtain the necessary information to guide him through the labarynth of disease, by which the human family are afflicted?—How does the lawyer, upon whose skill and judgment often depend the fortune, the liberty, and the life of his client, become enabled to conduct his cause with success, except by fathoming the ocean of legal learning formed by its thousand tributaries having their sources in as many different regions of the globe? By what means is the divine enabled to teach the great truths of "Holy writ," but by the assistance of the minds of other ages? Were they governed entirely by their own observation, in all the different situations of life, what necessity would they have for the scientific works which they now value so highly? Throw these aside, and what would be the condition of the scientific world? The darkest ages of European literature would be like the glare of the noon-day sun, compared with such a state of things. If we class Agriculture among the sciences, as we certainly must do, why not furnish the farmer's library with works adapted to that peculiar science? An interchange of ideas is most certainly necessary to bring any science to perfection. To facilitate that interchange of thought and ideas, we must have some channel, some great highway through which they may freely flow to the minds and comprehension of all.

That can only be effected by the use of books. It is in this way that every person in the land may become familiar with the various improvements which are going on around him. In that way the science of agriculture becomes the corner stone of a nation's prosperity. In time of peace it affords us, by exchange, the products and luxuries of other climes.

In time of war it shields us from want and famine, which so grievously afflict a non-agricultural people.

By the use of books the experience of many is brought to bear upon a single point. By the reported plan of operations of one farmer, or a community of farmers, another may be enabled to gain the information necessary to bring parts of his farm, which he has heretofore considered worthless, into immediate profit. A crop, which he has never successfully cultivated, he may afterwards raise to advantage under different management.

In conclusion, we say, that every man, who cultivates the soil, should be a constant reader of the agricultural works of the day. He should be familiar with the principles of chemistry, that he may ascertain the composition of the different soils, and their peculiar fitness for the production of different crops.

As the mechanic applies the principles of philosophy to the trade which he exercises, so the farmer should be able to apply the principles of chemistry to his.

SOLOMON LOMBARD.

GREENBUSH, April 27, 1849.

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For the Wisconsin Farmer.

MR. EDITOR:—Should you think the following observations on the potato rot useful to the public, you are at liberty to publish them.

I have watched the operation of the blight for the last five years, and have invariably found that early planting is better than late—though not entirely a preventive. From my experience and observations I conclude that the variety known as *pinkeyes*, are much less liable to rot than other varieties—they have been the most successful under my cultivation. Last season I planted three varieties, side by side, and the pinkeyes came out much the best. It is well known to farmers, that these spread more in the hill than other kinds—many of them will often be found quite outside of the hill, which I think is the reason of their rotting less than other kinds. I have always found that the potatos lying nearest to the main stalk have suffered most, while those on the lateral branches have been sound. As pinkeyes spread more than any other kind, I

think the chance of a crop is in their favor.

Three things, considered and put in practice, I believe, will tend greatly to lessen the liability of the blight—good seed, the right kind of soil—dry, sandy and warm is preferable, without manure—and above all *early planting*.

By adopting the above course, I have not yet failed of having plenty of good potatoes for table use, and some for market; while many of my brother farmers—who plant at any time, and any kind of seed, and indeed all kinds mixed together—have lost nearly their whole crop.

I wish to make one inquiry, and will leave the subject for the present.

Can some one tell precisely what time the blight makes its appearance? I wish farmers in this County, and throughout the State, would note down its first appearance this season, and publish in the *Farmer*—perhaps something valuable may be learned from the result of such observation.

WM. A. FOSTER.

MOUNT PLEASANT, April 20th.

## Soils and their Analysis.—No. 5.

BY P. R. HOY.

### THE INORGANIC SUBSTANCES IN SOILS.

SAND.—Siliceous sand is the principal constituent in most soils. When analyzed it is found to consist of silican and oxigen in nearly equal proportions. Silica forms an average of at least from fifty to eighty per cent. of all arable lands. It forms the skeleton of the soil, rendering it permeable to moisture, heat, and light, the three great promoters of vegetable life. Among its separate particles the tiny rootlets can with ease wind and twist, thereby forming a secure support to the stalk. Vast extent of country is composed entirely of sand, such as the almost boundless deserts of Africa and Asia, the universal sterility of which prove that sand alone is not capable of sustaining vegetable existence; but a due proportion renders the soil easy to cultivate, warm and productive. Sand enters into the composition of plants; in fact, it is a part of their food. "It is not only, as it were, a plate to hold the food, upon which the living vegetable subsists, as most people suppose, but it is itself one of the things that plants absorb into their substance—on which they daily feed." You may easily prove this by burning any plant you choose, and analyzing its ashes; in them you will find a very considerable proportion of sand. Wheat ashes contain 28 parts of sand in 100 parts. The ashes of Barley contain nearly 50 parts of this material in 100. Oats 65 per cent. In the hard polished straw of which bonnets are made, the proportion of sand is much greater. Sand is always the most abundant in those parts of the plants most requiring strength and hardness. The straw of any grain contains more than ten times the amount of sand that the grain itself does; and the joints or knees of the stalk contain more than the smooth shaft. Sir Humphrey Davie found sand most abundant in the epidermis or outer *bark* of plants—this part evidently requiring the most protection. Thus has nature provided that a coat of mail shall surround the finely polished shafts of plants formed of the hardest of the *earth*; thus the bark of the bonnet cane, the sugar cane, the corn stalk, and the common reed, and all similar plants, are panoplied in an armor of flint, smooth and hard—at once forming protection, strength and beauty. The question hereupon naturally arises, how is the unyielding sand taken up by the plant—or, in other words, how can a plant *eat sand?* They cannot absorb those hard, flinty grits. No—they cannot use the sand in its natural state; they do not eat it raw; it has, so to speak, to be *cooked* for them. *Plants absorb sand in solution.* Rain water will somewhat dissolve sand, owing to its containing a minute quantity of amonia; but pure distilled water scarcely makes any impression on it. Sand is soluble in alkalies; in potash, for instance, you may melt sand. The ley that runs from wood ashes will dissolve sand in process of time. In all fertile soils there is more or less potash. It exists naturally in granite soils from the decomposition of the granite rocks, which contain potash. It is given subsequently to soils by the growth and decaying of vegetable matter. One of the uses, and I have no doubt a very important use of potash in a soil, is to assist in dissolving the sand, which by this operation and the assistance of rain water, is melted—liquified—dissolved—and in that state is *sucked up* by the spongy fibre of the plant. Clay always contains more or less potash, and as it retains moisture, considerably, acts perpetually as a solvent to sand. Lime also has considerable solvent action on sand when in a moist state. Thus you perceive that sand with proper auxiliaries, becomes an important food for plants, and an excellent friend of man.

Next to sand, alumina or clay, is most

generally present in soils; though, upon the average, in much smaller quantities than either sand or lime. It is the oxyde of the metal aluminum—that is, it consists of aluminum and oxygen, in the same way that sand consists of silican and oxygen—or as iron rust consists of the metal iron and oxygen. It is found in varying quantities from 1 per cent. in a sandy soil, to 50 per cent. in a heavy, tough clay soil. Alumina is not found in all plants, and only in minute proportion in those in which it does exist. In wheat it can hardly be traced at all; in barley and rye, 32 ounces only contain 4 grains, which is less than the five-thousandth part. It is therefore apparently of less importance as a direct food for plants, than as an integrant part of a soil necessary to its general fertility. The great use of clay appears to be in giving fixity and substance to the sandy particles of a soil. In this respect clay is exceedingly beneficial. Many barren sandy soils, which would not produce crops at all—indeed, merely shifting sands have been converted into fine arable land by spreading clay over the sand. Besides the mere mechanical benefit of clay in uniting and binding a soil, it is of material service in absorbing and retaining moisture Clay absorbs water more quickly and more abundantly and retains it longer than sand; it does not heat so rapidly as sand, in the sun, and it cools again more rapidly, thus helping, in hot weather, to maintain an equal temperature in the soil. Clay does not become so cold as sand in winter, and as frost causes it to contract, it closely embraces the roots of plants and prevents their being frozen. Clay has also pre-eminently the property of absorbing *amonical and other gasses*, which are generated by decaying manure in the soil. If in a stable from whence the strong fumes of the escaping amonia are issuing, you place a quantity of dry powdered clay, that strong pungent smell which almost took your breath, and made your eyes smart, will disappear. Where has it gone? It is still produced as before, and yet its presence is not perceived. The dry clay absorbs it; and escaping gasses are fixed in that earth, adding to its enrichment. Gypsum (or Plaster) has precisely the same effect but in a more marked degree. A clay soil—or one containing clay, will more beneficially and completely use the manure laid on it. When manure is put on land and ploughed in, the amonicle and carbonic acid gasses produced by its decomposition are partially taken up into the plants; but being formed faster than the plants can absorb, these products float away to waste or feed some overgrown marsh or forest, except the soil can attract and sustain them, and thus hold them over until they are required. This clay will do; this, sand alone will not do—this lime cannot do—and hence it follows that lands containing clay, constitute the most *lasting* and prolific, and are the most economical for manuring.

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For the Wisconsin Farmer.

FRIEND MILLER:—I snatch a moment in a hurry to redeem my promise to write something in commendation of buckwheat. I am aware that many farmers have strong prejudices against this grain, but if they would try it with the skill of good husbandmen, it would be found one of the most profitable crops that can be cultivated. Some despise it because, they say, it draws all the strength out of the land on which it grows. If these will but allow what every one knows, that this grain is generally raised on sterile lands where no other crop would grow, and produces well year after year, they would drop this objection. Or if they would examine this grain scientifically, they would find it draws less nourishment from the earth which is nutricious to the other crops, usually raised, and therefore exhausts the land less than most other crops. But these objectors say that it must be an exhausting crop because nothing else will grow with it —where buckwheat flourishes all other plants die. This is a truth, and where well understood, the reasons why and by what process this grain overcomes other plants, and upon what principles it is sustained, while other plants are choked to death, those who object to it would become its advocates rather than revilers.

Observe buckwheat when it first springs up; it throws out its broad leaves and shuts from the ground the very air. A perfect green carpet is spread over the ground. The sun, rain, air and dew are all appropriated to its own nourishment. Its roots are slender, do not strike deep into the ground, which shows that it lives mostly and is fed by light, heat, air and water. If this is so, how can it be exhausting to the soil? Does it not protect the soil and give it shelter to store itself with and perfect the ingredients necessary to nourish other and more exhausting crops? But let them look again, all other plants are surplanted by it; nothing will grow among it when it is sown suffi-

ciently thick to produce a good crop, these objectors say, "If this is so, cannot this grain be made a good clearer for foul lands?"—For my own part, I believe this to be one of the best qualities of this crop. For I do not doubt but that if your land becomes foul this crop will eradicate almost every foul plant it may be infested with. I have seen it tread upon the Canada thistle, which is one of the hardest of all plants to destroy with good success. The thistle will shoot up among it and struggle for awhile, grow pale, sickly and die, while the buckwheat appears to grow and fatten over its fallen foe.

Try it and see if there is anything that will so perfectly cleanse your land for a crop. If sown early it may be harvested in season to put in a winter crop, the soil will be light and easily pulverized. If any seeds remain upon the ground the frost will dispose of them, and the winter crop will be left in possession of the field, and will flourish better after this crop than any other.

If this crop is well harvested and covered, even the straw which is usually cast into some stagnant pool to fill it up, and to get it out of the way, will be found to be selected by your cattle before straw of any other grain. If you wish to manure your ground there is nothing that will render it more light and fruitful. Your milch cows, your sheep and hogs, and poultry, will not refuse this grain as feed, and man will not scorn the warm cakes made from the flour, especially if well saturated with butter and maple molasses. Try it. M. B. B.

THE TWO SYSTEMS OF FARMING.—Under a low standard of agriculture, the object of the farmer is to collect the natural produce of the soil with the expenditure of as little money or labor as possible. But under a high standard he does not grudge expense of labor nor of manure, in order to obtain a proportionate increase of produce; and he studies to obtain this by cultivating crops congenial to the soil, by growing them in such order that its natural powers shall be turned to the best advantage.

TO TAKE INK OUT OF LINEN.—Editors and clerks' wives will learn with pleasure that to take a piece of tallow, melt it, and dip the spotted part of the linen into the melted tallow, the linen may be washed, and the spots will disappear, without injuring the linen.

CUTTING OFF THE TOPS OF POTATOS, A SURE REMEDY FOR THE ROT.—We give below the testimony of a Genesee County farmer which is Confirmatory of that of several of our Correspondents. This cutting off the tops seems an unnatural process, but let it be tried and that thoroughly and then we shall know.

When I frequently mentioned after my success last year that I had saved part of my potatos by cutting off the vines as soon as I saw the rot begin, I was asked by some what day of the month I had done it? I had neither watched the sun nor the moon in the case, but the potatos, and of course my information was unsatisfactory to such as had paid for the Yankee secret of cutting Canada thistles on a certain day in summer, though by-the-by, even in this case it seems possible to do much in subduing these thistles by waiting till they grow "hollow hearted," soon after blossoming, and cutting them before a good shower that the roots may be filled with moisture and rot.

It was about the end of August last year that I cut my potatos; but the rot began a fortnight sooner this year, and upon the 16th of August I cut off all the vines of the most of my pink-eyes before the potatos had reached their full growth, but we thought, better small potatos than no potatos. They were not digged till the middle of October. Cutting seems to be better than pulling; it is easier; and when we came to dig those that were cut, we were persuaded that the roots must have continued to grow after the operation, as we had good sized Potatos. Indeed a similar fact is generally acknowledged with regard to early cut grain.

I am now, after three years experience and experiments, quite satisfied that the entire killing of the vines some way is a remedy for the potato Rot, if done as soon as the decay appears on the leaves. But though you were to publish this ever so extensively, it will not be generally regarded, as it seems too much trouble to watch and apply the remedy. Beside, some have had "good luck" this year,—have had no rot and been at no pains. The scecret of the good luck in many cases, is the early planting of inferior sorts on light soil, where they have ripened before the rot came.

We have a great enjoyment of plentiful yield of the best of sorts, and hope still to succeed by care and attention. If the blight come no sooner than an average of past years.

## The Importance of Scientific Knowledge.

We have received through the politeness of B. W. Johnson, Esq., of Albany, N. Y., (to whom we here acknowledge ourselves indebted for many favors,) a copy of an Address delivered at the Annual Meeting of the N. Y. State Agricultural Society, at Albany, in January last, by Prof. E. Emmons, M. D. That it contains matter 'profitable for instruction,' none who are acquainted with the learned Professor can doubt. It forcibly and convincingly shows the value and importance of scientific knowledge to the farmer, and that, too, by the presentation of clearly ascertained facts. We would that it might be read by every farmer, and its truths treasured up in good and honest minds. We give a few extracts:

"The state of agricultural knowledge at the present time, is characterized by an accumulation of facts which are unclassified and unarranged. They are like the brick and stone piled before and around the site of a great edifice about to be founded, and which are ready to be arranged in the walls of a spacious building. Many of these facts it is true, have a definite signification, or in other words their relations are well known, but a great majority of them have no known collection, although they clearly belong to the edifice. So too, to keep up the simile, I may with truth remark that the master builder is yet to be found, whose sagacity and skill is equal to the task of putting together the discordant parts, and to construct from them a symmetrical whole. Notwithstanding the illustration I have employed to show the view which I entertain of the state of agricultural science, it is still true, that it requires only a moderate amount of information of Chemistry and the collateral sciences to understand many of the applications of the principles upon which the practices of husbandry are based. When I speak, therefore, of the accumulation of facts, I mean to be understood, that it is their relation to a system and not to the meaning which they may have as individual facts. For example, the good effects of draining may be explained on philosophical principles, though the theory of Agriculture is yet to be put into form and shape. Draining operates beneficially in many ways; it may merely remove superfluous water by the construction of artificial underground channels, or it may, in addition to this, carry off water charged with astringent salts which are poisonous to the more valuable plants. In either case the principal result upon which the good effects depend is, the permanent elevation of the temperature of the soil. Surfaces constantly bathed in water and which are supplied with this element from springs, cannot attain the temperature required for the better grasses, cereals, or esculents, so long as it is in this condition. Evaporation as you well know, is a source of cold: vapor cannot be formed without heat; and hence, the heat instead of being expended in the elevation of the temperature of the earth as it is in a dry place, is wholly taken up by vaporous water and carried off. Hence, in a hot day, the temperature is always low, rising scarcely above 50 deg. of Fah., while the surrounding dry places are 70, 80, and even 120 deg. when the soil is dark. The principles of draining then are perfectly understood, and this is the case with many other agricultural practices. The practice of hoeing or stirring the soil is far more general than draining, but the principles upon which the practice is founded are not so well understood. Generally farmers suppose that the object is to kill the weeds; so far it is good; but the effect of hoeing is not confined to this single result; for hoeing, when all the weeds are already extirpated is followed by the most decided advantage to the crop; hence something more than the destruction of weeds comes to pass. One result undoubtedly arises from the absorbent powers of a fresh surface. Nutritive matters, such as carbonic acid and ammonia dissolved in atmospheric air, are readily taken up in this state of the surface, but an old and indurated surface becomes inert and inactive. The power of surface alone is effectual in promoting absorption and decomposition of the most active bodies. The perfect combustion of vegetable and animal matter, takes place first upon the surface, upon which they rest. An impure ash exposed to heat, though but just elevated above redness, undergoes a perfect combustion in contact with platina foil, while that part of the ash above the surface is still impure or unburned. So the power of surface condenses the nutritive gasses and chemical changes take place there more energetically than elsewhere. The surface of a leaf has surface action, and becomes the seat of chemical combination through its physical powers; for surface action, is at first all physical action, and precedes that of decomposition. What is here termed surface action may not be readily apprehended; it is undoubtedly analogous to the action of platinum black, or platinum sponge in igniting hydrogen. If a jet is thrown upon it, it takes fire, and has long been used as a means for producing instantaneous light and combustion. The earth acts upon the gasses when light and porus and fresh, as platinum sponge on hydrogen gas. Whatever way we may choose to explain the good effects of hoeing, there is no doubt that a fresh surface is frequently required is we desire a rapid and vigorous growth."

"The application of science to Agriculture, appears of the highest importance when viewed in this light; as pointing out first, the composition of productive and barren soils, and afterward, the true method of maintaining and restoring them to fertility at the least possible expense in labor or cash. In the same line of investigation lies the business of determining the composition of the inorganic matter which vegetables remove from the soil; indeed, in one sense, this work should precede the other, for it is by the composition of the inorganic matter of plants that all that "is essential to a fertile soil is determined." But chemists went to work the other way, and determined first, the composition of the soil; and inferred from their results what they supposed on the one hand constituted its fertility, or what on the other its barrenness. This method was unquestionably defective, and probably for that cause alone gave a doubtful importance to the value of the analysis of soils. The analysis of soils, and of the inorganic matter of plants, stood in very singular relations to each other; the elements of the former, which are in the smallest quantities, formed by far the largest in the latter; thus the alkalies and phosphates of soils are always inconsiderable in amount, and hence were not sought for, while in the plants they formed by far the largest proportion. Fertility depends upon these elements of which only traces appear, where only one hundred grains of the soil are employed in analysis. When therefore on analysis of two soils, one a fertile one and the other

known to be barren from experience, were left unfinished, that is, those elements which were small in amount were not sought for, it was impossible to see an essential difference in their composition: the barren soil looked as well on paper as the fertile one, and so it was said that no benefit could arise from the analysis of soils. This I believe is a fair statement of the case. I have now I believe said enough upon the points to enable you to form correct views of the subjects in question. I shall now state in detail several analyses which I have made, and which have a twofold purpose, that of information concerning their composition, and as illustrative of the importance of the analysis of the products of the soil."

We have not space for the analyses in this No., but will give them in the next.

From the Genesee Farmer.

## Management of Bees.

BY ALVIN WILCOX.

Having occasionally seen an article in the Genesee Farmer on the management of the Honey Bee, I have thought that more might be written on the subject, with profit to your numeruos readers; and for that reason I offer a few remarks, which may perhaps be the means of inducing others to write on the subject, who are more competent to give proper information.

I have had much experience in the management of bees for the last twenty-five years. Being a mechanic, and my work such as to admit of my seeing to them daily, if necessary. I have taken much pains to inform myself by actual observation and experiments, what was the best way to manage them profitably. In the spring of 1836, my brother-in-law and I had two hundred and twenty swarms, and we took from them that season over four thousand and six hundred pounds of box honey—being about twenty-one to every old hive. That was what is called a honey season. The honey brought in New York market, over thirty dollars per hundred. The amount of box honey will vary from five pounds to twenty to the old hives kept—depending altogether on the season for honey.

Those who intend to buy, should, if convenient, begin with two or more swarms, as there is always some that will not produce more than they will use. Select early, last season swarms, as they are the best, if they have honey enough to winter. Rather small hives are the best for profit. In winter they require but little care more than occasionally looking to, and keeping the passage clear; and board and tub hives should have a place for the bees to pass out and in at two or three inches above the bottom board, as in winter there is a mist continually rising from the breath of the bees that accumulates in the top of the hive in the form of frost; in milder weather it melts to water and runs down and freezes and shuts the lower passage tight; then if there is not a passage above to admit air the swarm will suffocate.

At the commencement of warm weather in the spring they should be examined, the bottom boards cleared off, and if any swarms are feeble as to amount of bees it is best to give them but one place to enter, as it enables them the better to gard against robbers. Bees are the most liable to rob each other the first warm weather before they begin to gather honey. If they begin to rob a hive the best way is to take it up, as I never had a swarm amount to any profit after the robbers had gained free access to the honey. It is very seldom that robbers injure a healthy, good swarm.—*West Bloomfield N. Y.* 1849.

THE SHEEP IN ITS VARIOUS FORMS.—Wise men regard with suspicious eye the assertions of those who profess to accomplish a variety of dissimilar effects by a single cause. It is customary to be jealous of the pretensions of "Universal Restorative," "Heal All," or any other panacea warranted to cure diseases of all symptoms or all origins. And the proposals *to adapt one breed of sheep to all circumstances*, of food, climate and situation, making it answer all the purposes for which sheep are usually employed, seems justly to meet with similar distrust and suspicion.

From the varied habits of sheep, the widely different circumstances in which they are placed, and the opposite result which the several kinds are intended to produce, we are at once led to doubt the practicability and value of the scheme. We are induced still further to view the proposition as contrary to the order of nature, when we consider the fact that there is scarcely any animal which appears under so many forms as the sheep. In Persia and other parts of the East. it is found with a tail of twenty pounds, weight, at the Cape of Good Hope, the tail is worth as much as all the rest of the carcass; and there, is in other parts of Africa, the sheep have clusters of horns, to the number of five or six. In Madagascar, the same horns and tail are to be seen, the ears hanging down like those of a hound. About Aaurengabad. Between Agra and Bengal, they are found without any horns at all, but so strong that, being bridled and saddled, they will carry

children of ten or twelve years of age. The (so called) sheep of Chili somewhat resemble camels, being hare mouthed and hunch-backed, and they are used for carriage and field labor. Those of China are small, with short tails, which however, are a lump of fat. Tereen, in his voyage to Surat, mentions sheep with bent snouts and pendant ears, with wool more coarse and stiff than goat's hair. In Africa to the north of the Cape of Good Hope, they never eat grass, only succulent plants and shrubs. In Thibet, the sheep have large, broad tails. In Natolia, these tails are laid in carts on wheels. In Anspach, in Germany, a small sort exist, that are shorn twice a year, and also lamb every spring and autumn. In Juliers and Cleves, also, they are said to lamb twice a year, and bring two or three at a time-five sheep have brought twenty-five lambs in a year. On the slave cost of Africa, the sheep have no wool; "but," says the old Dutch traveller Bosman, "the want is supplied with hair, so that here the world seems inverted, for the sheep are hairy and the men are woolly." This hair forms a sort of mane, like that of the lion, on the neck, and the same on the rump, with a bunch at the end of the tail. The Javanese sheep have tails weighing occasionally forty or fifty pounds, having a coat of red and white hair. Four-horned sheep are numerous in several parts of Tartary, and a few have six horns, with wattles under the throat.—*Agricultural Gazette.*

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IMPORTANT DISCOVERY.—We embrace the earliest moment, after the receipt of the following letter, to lay it before our readers. The season is not yet so far advanced that the process may not be beneficial to those who put it in operation—(*Boston Courier.*)

M. P. Wilder Esq. President fo the Massachusetts Horticultural Society:

*Sir*—Having discovered a cheap and effectual mode of destroying the *Rose Slug.* I wish to become a competitor for the premium offered by the Massachusetts Horticultural Scociety. After many satisfactory experiments with the following substance, I am convinced it will destroy the above insect, in either of the states in which it appears on the plant, as the fly, when it is laying its eggs, or as the slug, when it is committing its depredation on the foliage.

Whale Oil Soap, dissolved at the rate of two pounds to fifteen gallons, of water. I have used it stronger, without injury to the plants, but find the above mixture effectual in the destruction of the insect. As I find, from experiments, there is a difference in the strength of the soap, it will be better for persons using it to try it diluted as above, and if it does not kill the insect, add a little more soap, with caution. In corresponding with Messrs. Downer, Austin & Coon the difference in its appearance, they, say:—"Whale Oil Soap varies much in its appearance the alkali predominates, and when, light colored and flat taste, the grease predominates." The former I have generally used, but have tried the light colored, and find it equally effectual, but requiring a little more soap—say two lbs. to 13 gallons of water.

*Mode of Preparation.*—Take whatever quantity of soap you wish to prepare and dissolve it in boiling water, about one quart to a pound, in this state strain it through a fine hair or wire sive, which takes out the dirt, and prevents its stopping the valves of the engine or the nose of the syringe; then add cold water, to make it the proper strength; apply it to the rose bush with the hand engine or syringe, with as much force as practicable, and be sure that every part of the leaves is well saturated with the liquid.—What falls to the ground in application, will do good in destroying the worms and enriching the soils, and from its trifling costs, it can be used with profusion. A hogshead of 136 gallons costs forty-five cents—not quite four mills per gallon. Early in the morning or in the evening, is the proper time to apply it to the plants.

There are many other troublesome and destructive insects the above preparation will destroy as effectually as the rose slug.

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VINEGAR.—Many families purchase their vinegar at a very considerable annual expense: some "make do" with a very indifferent article; and others, for want of a little knowledge and less industry, go without. It is an easy matter however, to be at all times supplied with good vinegar, and that too without much expense.—The juice of one bushel of sugar beets, worth twenty-five cents, and which any farmer can raise without cost, will make from five to six gallons of vinegar, equal to the best made of cider or wine. Grate the beets, having first washed them, and express the juice in a cheese press, or in many other ways which a little in-can suggest, and put the liquor into an empty barrel; cover the bung with gauze, and set it in the sun, and in twelve or fifteen days it will be fit for use.—*Farmer's Advocate.*

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HOURS OF SLEEP..

NATURE requires five—custom gives seven; Laziness takes nine—wickedness eleven.

## Poisonous Qualities of Potato Plants.

The potato (*one of the solanums*) is exempted from the noxious qualities of its congeners, and De Candolle gives as a reason that it is the only one of its tribe which produces tubers on the roots: and these, from their structure and mode of growth, receive no portion, or at least not so much as to be injurious, of the poisonous ingredients. These however, exist in other parts of the plant, and were we eating the fruit, properly so called, or the leaves, we should find that they partook of the general properties of the nightshades.

The extracts of the leaves of the common potato is a powerful narcotic, ranking between belladonna and hemlock.

Having been so long familiar with the potato in a cultivated state, it is interesting to be acquainted with its appearance in its native localities, and unaltered condition, the more especially as recent events have given us some reason to fear that we may again have to recruit our present varieties by having recourse to the original stock.

The wild potato, says Dr. Darwin, grows on these Islands (Chonos Archipelego) in great abundance, on the sandy, shelly soil, near the sea beach. The tallest plant was four feet in hight. The tubers were generally small, but I found one of an oval shape, two inchs in diameter. They resembled in every respect, and had the same smell as English potatoes; but when boiled they shrunk much and were watery and insipid without any bitter taste. They are undoubtedly, here indigenous; they grow as far south, according to Mr. Low, as lat. 50 deg., and are called *aquinas* by the wild Indians of that part. The Chilotan Indians have a different name for them. Professor Henslow, who has examined the dried specimens which I brought home, says that they are the same as those described by Mr. Sabine, from Valparaiso, but that they form a variety which by some botanists, has been considered as specifically distinct.

It is remarkable, that the same plant should be found on the sterile mountains of Central Chili, where a drop of rain does not fall for more than six months, and within the damp forests of these Southern Islands.

The potato is said by the Rev. James Duncan, (from whose article we have collated the above,) to give out a vivid light sometimes when in a state of putrefaction. Doctor Linly mentions an instance in which an officer on guard at Strasburgh, thought the barracks were on fire in consequence of the light thus emitted from a cellar full of potatos.—*Penn. Cultivator.*

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The Rust in Wheat.—The following remarks from the Annual Report of the St. John (N. B.) Agricultural Society, as to one of the causes of rust in wheat, are thrown out rather as a supposition than an opinion, with the view of exciting inquiry.

The oat draws nutriment from the earth by the side roots, which spread over the ground. The wheat plant has similar rootlets, but, in addition thereto, when about to head, sends down a tap-root into the earth, for the purpose, it may be presumed, of procuring the additional nutriment which its large, rich ear requires; and this tap-root has been known to go down to the depth of four feet. We may observe, that up to the time of sending down the tap-roots, the wheat is the hardest and thriftiest of all the cereals, but afterwards the most liable to disease This delicacy is accounted for, when we consider that land is generally undrained; that not more than a few inches of soil get the benefit of sun, air, and manure; and that therefore, the root must encounter, in its downward travel, nothing but disappointment. It comes in contact with the cold clay, or a sour, wet subsoil, turns back in dispair, and dies. In accordance with the laws of nature, insects, or rust, which is itself a fungus, or vegetable insect, come to finish the work of devastation on the dying plants. The forlorn farmer rails at the climate, and cries out that his wheat is killed by rust while, in fact, it has died from starvation—from the want of that food, which, as a provident husbandman, it was his duty to have provided for it.—*American Agriculturist.*

*Remarks by the Editor of the New England Farmer.*—If the theory in the foregoing article is correct, much may be done to remedy the evil by subsoil plowing, as the subsoil will gradually become mixed with the surface soil, by deeper plowing, which should follow subsoiling; and by exposure to the air, it will be fitted to promote vegetation and improve the active soil by the addition of fresh ingredients.

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Fifty years ago, Mrs. Washington knit stockings for the general: now there are not fifty ladies in a city who can play that part, and hundreds know not how the apple gets into the heart of the dumpling.

# HORTICULTURE.

F. R. PHENIX, Editor.

## Salutatory.

The editor of the Horticultural Department, in entering upon the duties of his station, begs to make his most humble *salaam* to the readers of the FARMER, and craves their indulgence while making some introductory remarks.

Horticulture, it is now getting to be pretty well understood, is not merely a sort of a third-rate business in the scale of importance, which may well come in as the fag-end of every thing connected with the culture of the soil, and which none but clod-hoppers and muck-worms may devote themselves to; but it is beginning to be known and respected as a profession, a science in every sense of the term.

As such, its practical application is inseparably connected with some of the greatest necessaries and the most exquisite luxuries of life.

Its theory, embracing as it does the principles of vegetable life, and a thorough acquaintance with some of its most important groups, is certainly worhy of the most profound investigation, and hence requires and will fully and nobly occupy some of our best faculties. But like its twin sister, Agriculture, it has hitherto scarcely received a ray from the bright sun of science and genius, whose subtle influence had, in some directions, penetrated the most hidden recesses of Nature, revealing truths as wonderful as they were beneficial—which have, in their application, altered almost every thing about society and humanity save human nature itself. But thanks to the spirit of progress—to the Anglo-Saxon desire to know and try all things—peculiar to this 19th century, such humbling, diminufying confessions are not now quite so necessary! The first, as it is the most important, the most innocent and healthful of all pursuits connected with civilized life—the culture of the soil with its varied products is beginning to be somewhat more correctly appreciated. It being evident that people cannot well live without those products, and hence that labor and capital are required to raise them, it is found that the best, most approved application of means is quite as necessary to ensure the greatest degree of success in this department as in others. It is found, too, that respectability, and sometimes even *gentility*, may comport with such pursuits, and that even Science and Literature may condescend to make glad the home of the tiller of the soil!

As for the true nobility of human nature, for the profession of the many virtues that elevate and adorn society, they are found pre-eminently developed in those homes, together with the pure enjoyment consequent upon their exercise. And as every step away from that walk of life towards a more artificial and fashionable one seems somehow fraught with results directly or indirectly injurious to the individuals and society at large. It is there and there alone, that the highest hopes of our country and humanity must forever rest. Especially is this true in view of the character of our institutions; it is not in individuals that we may trust—it is not to the few great leading characters who may be our public servants that we may look in the hour of danger—but to the masses, the principals, the *sovereigns* themselves: and those, too, away from the corrupting influences that forever beset and attaint humanity when congregated in large cities. Those who breathe Nature's own pure, free air—who bow to her voiceless but impressive and sinless promptings, and revel in the profusion of innocent delights she provides for her votaries; who can 'look through Nature up to Nature's God,' and holding daily communion with Him shall gather new strength to battle with the ills and temptations of life.

But what has all this to do with Horticulture? Why, much, every way. Horticulture is one important part of agriculture, as fruit is one of the most important products of the soil—and that hence it comes in for its share of all the attributes and merits of agriculture—that it is intimately connected with all that is agreeable or profitable, healthful or hopeful, in short with all that is good or great. That hence, I, as a Horticulturist, am proud of my profession, and glory in being a resident of the country in contra-distinction to living in a city—that I would fain be, as every agriculturist should be, a tiller of the soil *from principle*, *from choice*, not merely from necessity or for profit, and yet as not unmindful that that, too, is dependent upon the skill with which the business is conducted—that it is our duty to make the best possible use of the means for improvement within our reach. That in this department as well as in every other, *perfection* should be our aim.

For the attainment of this great end we must put our wits at work, knowing that "Knowledge is power." As through our senses we become acquainted with the natural world we must carefully observe and consider the different developments that we meet with—remembering that effects always have adequate causes which if we can but ascertain, we are to a great extent masters of the subject and able to effect or prevent or modify as we wish—at least as far as lies within the limits of human power or skill. Knowledge, then, being the grand instrumentality of progress, "the staff of accomplishment," let us do our best to improve upon our present stock, and as fast as we can,

let us add to it and disseminate for the benefit of others. This, at least, is my aim in thus appearing before the public and having been one of the first settlers here, and having made the culture of the soil, or more particularly, the culture of "Fruits and Flowers" (what a charming duo!) my profession for life, as it has been my chief business for several years past, I can but hope to be enabled to communicate some things that may prove beneficial to those who have devoted less time to it. To do this most successfully, it will be desirable that those wishing information on those subjects should make inquires through the columns of the Farmer, and the editor of the Horticultural Department pledges himself to answer them to the extent of his ability.

It may be well to state that his acquaintance with green-house plants is but slight, having been mostly occupied with those that are hardy.

There need be no fear of touching on professional secrets, in making such inquiries. for he has none. It is his only desire to see the favored possessors of the fair fields and pleasant homes of the fertile West, moving forward in the path of true progress, improving the mind and cultivating those refined tastes which always accompany true elevation of character, and pre-eminently distinguish civilized from savage life. The sense of the beautiful, the love of the good, whether in the natural or intellectual world, is the source of man's purest, greatest enjoyment, and whoever contributes to the cultivation of those noble gifts, is certainly a public benefactor. In no way, perhaps, can this be done more effectually, than by making home pleasant, and furnishing those senses with the proper natural means of enjoyment. That which is filled with good can receive no taint from evil as there is no room for it.

Thus feeling, I may hope, as I shall certainly strive, to do some good in this vocation—and craving the assistance of those interested in the same noble pursuit with myself to aid in making this department all it should be, I close, promising hereafter something more practical.

## Work for June in Fruit and Flower Gardens

The most that can be done is to take good care of what you have put out. *Keep the weeds down, stir the surface of the ground often, and destroy the insects.* If the ants trouble your trees pour boiling water on their nests a few times. The aphis, or green plant louse, will probably be as usual, a great pest—which however nature has provided other insects to destroy. If left to their care the lice in most cases will after a while disappear. If you don't like to wait their notion, you can dip the shoots in a strong decoction of tobacco water, which is said to be effectual in destroying the lice.

The flower garden requires much care and vigilance this month. Insects are very troublesome. The rose-bug, the greatest of all pests in the garden whenever introduced, should be carefully exterminated by hand, as they multiply astonishingly fast. They appear in the fore part of June, and remain some four or five weeks. They are about one-third of an inch in length, and of an ashen yellow color, and feed upon the flower leaves of roses, though when abundant they almost destroy the foliage of fruit trees, and in fact nearly "every green thing" within their reach. Dahlia roots should be suffered to throw up but a single stem, and that staked.

If necessary to water plants let it be applied plentifully, towards night, on newly stirred soil. Layers of honeysuckle, roses, &c., for propagation can now be made. The soil should be deeply stirred, and the shoots buried some six inches deep. With plants that do not root easily it is of great service to cover the ground over the buried part with moss.

## A North Western Hoticultural Convention,

To be held at Chicago this fall, is proposed by Edson Harkness, of Illinois, in the May *Prairie Farmer*, and seconded by others.

Such an organization if taken hold of with spirit by our numerous nursery-men and fruit-growers, could not fail to be exceedingly useful and interesting. Something of the kind we must have soon, or be quite behind our sister states, and not only so, but in the meantime we must grope our way, "solitary and alone," through the unexplored recesses of Western Pomology, with nothing but the light of our individual wits, and the scarce-risen, distant Eastern suns to guide us! We had much better, it seems to me, commence now in the infancy of fruit culture, and so save the innumerable and sometimes almost ineradicable errors that creep in where a correct standard is not early reared. What say our Wisconsin fruit-growers?

CHANGING THE BEARING OF APPLE TREES.—Mr. Manning, of Salem, Mass., says, by cutting off all the blossom buds from a baldwin apple tree, in the spring of the bearing year, prolonged the time of bearing until the following season, and thus changed the unfruitful year to one of bearing, and *vice versa*.

## The Winter of 1848–9.

The past Winter seems to have been one of unusual severity throughout the United States. At the West it was preceded by a very remarkable fall, which will not be likely to be soon forgotten by those who resided here during that season. It was wonderfully wet, broken and stormy; so much so as greatly to hinder, and much of the time, entirely preclude laboring in the open air. For agriculturists it was particularly unfavorable, as they were in a great measure prevented from properly securing and marketing their produce. Winter set in on the 29th of Nov., with a smart snow storm followed by a freeze up, which in turn was succeeded by more snow. The snow continued to fall at intervals until it was some twenty inches deep, and lay on until the last of February, affording excellent sleighing the greater part of the time. The lowest depression of the mercury in our thermometer was 20 below 0, to which it fell but once, though there were several times it sank to 16 below. We have heard however that in other thermometers in different parts of Wisconsin, and northern Illinois, it indicated a considerably lower temperature, or about 25. It would seem as if at least a part of this difference would be occasioned by a variation in thermometers, which makes it more difficult to ascertain exactly the comparative temperature of different sections. It is stated in an article in the *Horticulturist* that at the East, no winter since that of '36 has been so severe upon half-hardy trees and plants, as a considerable number that usually bear the winter without the least injury, have lost a good part of their last season's growth, and in some sections plum and peach trees have suffered much. In New England it states that the germ of peach blossom buds is destroyed, so that there will be no peach crop there this season. This is also the case in the North West as far as we have heard, except on those branches that were under the snow during the winter, where they were not injured. Fruit trees generally at the West, in consequence of the wet fall, made a rank, late growth, which made them unusually susceptible to injury from cold.

Some varities however do not seem to have suffered as much here as might have been expected, whilst others heretofore comparatively hardy, have been severely handled during the past winter. English cherries which have always been considered one of the most delicate kinds of fruit trees at the West, are but little hurt with me, whilst pears and plums have suffered severely—more than in all the winters put together since I commenced cultivating them. This unexampled injury cannot, it seems to me, be attributed solely to the severity of the cold last winter, but must be, I think, in part caused by the leaf blight which struck them in the summer. This leaf blight is a new and troublesome malady, peculiar to pear and plum trees, causing a feeble, sickly growth, which often ceases entirely in August; the leaves and the ends of the shoots at the same time turning black. It is but a few years since it was first known at the East, and last season made its first appearance in this vicinity. It is much the most severe upon young trees, and particularly seedlings, which it often destroys entirely. From what I have seen of it, it seems altogether the most severe upon low, moist ground.—This doubtless occasioned the loss of many small pear trees here last winter, and I think had more or less to do with the injury done to the larger ones. Peach trees suffered somewhat last winter—those that were young and on low, rich ground altogether the most—and yet not as much I think as two years since. Apple trees as a general thing stood it pretty well, but on low ground the tops of some of the tender sorts, as the R. I. Greenings, and Roxbury Russet, were frozen down some. There was also considerable bursting of the bark at the ground *this spring* which I have never known to take place to any extent before at that season of the year—it having been hitherto done in the fall.

The past winter, taken together, is with but one exception (that of '42 and '43) the hardest by odds that we have seen in the twelve years we have lived at the West.—And though such severe winters are at the time trying to nursery-men and fruit-growers, yet if they only heed the lessons taught, they may be spared greater losses in the future. Those varieties of fruit the trees of which are tender in the winter, should be either thrown aside and hardier kinds substituted, or if there are no such, we must work them, (i. e. graft or bud them) and grow them on those stocks and soils, most likely to make them hardy.

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Life is a game which perversely varies its character according to the age at which we play it: in youth, when much may be lost, it is a game of chance; in manhood, when little remains to be won, it is a game of skill.

## Origin of various Plants.

Every farmer ought to be so far acquainted with the history of all ordinary plants and trees, as to know their nature, country, and condition. Such knowledge, besides being on every account proper and desireable, will sometimes explain phenomena in their habits that would otherwise appear anomalous and inexplicable.

Wheat was brought from the center table land of Thibet, where it is original and yet exists as a grass with small mealy seeds.

Rye exists wild in Siberia.

Barley exists wild in the mountains of Himalaya.

Oats, wild in Northern Africa.

Maize, Indian Corn, was brought from America.

Rice, from South Africa, whence it was taken to India and thence to Europe and America.

The garden bean, from the East Indies.

The horse bean, from the Caspian Sea.

Buckwheat originally came from Siberia and Tartary.

Rape seed and cabbage grows wild in Sicily and Naples.

The Poppy from the East.

The Sunflower from Peru.

Flax or Linseed, in southern Europe, a weed in the ordinary grain crops.

The Raddish from China.

The Garden Cress, out of Egypt and the East.

Hemp is a native of Persia and the East Indies.

The nettle, which sometimes furnishes fibres for spinning is a native of Europe.

Of Dye Plants, the Madder comes from the East.

Dyers weed grows in Southern Germany.

Safflowers from Egypt.

Dyers Knotgrass from China.

Hops come to perfection as a wild plant in Germany.

Mustard and Carraway seed the same.

Anise from Egypt and the Grecian Archipelago.

Koriander grows wild near the Mediteranean.

Saffron from the Levant.

The Onion out of Egypt.

Horse-radish from South Europe.

Tobacco is a native of Virginia, Tobago, and California. Another species has also been found wild in Asia.

Fuller's Teazel grows wild in Southern Europe.

The Gourd is probably an Eastern plant.

The Potato is a well known native of Peru and Mexico.

Turnip and Mangold Wurzel come from the shores of the Mediteranean.

Monalribi and White Turnips are natives of Germany.

The Carrot is supposed by some to have been brought from Asia, but others maintain it to be a native of the same place as the white turnip.

Amongst other kitchen garden plants, the Spinach is attributed to Arabia.

The Cucumber from the East Indies.

The Melon, from Kalmuck.

Parsley grows in Sardinia.

Celery in Germany.

Of fruit trees and shrubs, Current and Goseberry came from Southern Europe.

Medlar Pear and Apple are likewise European plants: but the Seckle, the best of pears, is traced to near Philadelphia, as its original locality so far as known.

The Cherry, Palm and Almond came from Asia Minor.

The Walnut and Peach from the same country.

The Citron from Media.

Of forest trees, the majority are native plants of England, except the Pine and Horse Chestnut, the former of which was brought from America, and the latter from Thibet. But the gratest variety of Oaks, and other fine timber trees, are natives of North and South America.

The Whortleberry is a native of Asia, Europe, and America.

The Cranberry of Europe and America. —*Exchange paper.*

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Egg Pone.—Three eggs, a quart of Indian meal, a large table spoonful of fresh butter, a small tea spoonful of salt, a half pint or more of milk. Beat the eggs light and mix them with milk; then stir in gradually the Indian meal, adding salt and butter. It must not be batter, but a soft dough, just thick enough te be stirred well with a spoon. If too thin, add more Indian meal, if too stiff, thin it with a little more milk. Beat or stir it long and hard. Butter a tin or iron pan; put the mixture into it, and set the pan immediately into an oven' which must be moderately hot at first, and the heat increased afterwards. A Dutch oven is the best for the purpose. Is should bake an hour and a half or two hours, in proportion to its thickness. Send it to the table hot and cut into slices. Eat with butter or molasses.

# EDUCATIONAL.

## Education.—No. 6.

Intellectual Education.—The Teacher has to do with mind—with the human soul. His business is with the very mysteries of God enveloped in the human form—with that which the Divine Hand has fashioned and impressed. To train the physical being, to develope its powers, is indeed the business of the Teacher. But this material frame-work—this dusty lodging-place is less than nothing when placed in contrast with the inhabitant which occupies and animates it. It is the embodied soul which is above all price—the sentiments, faculties, principles, which hold the mortal in subjection, and exalt it to honor, or bring it down to shame. "Wherever there is mind, there stands associated with it a nobler and more abiding interest than all the aggrandizements which wealth and rank can bestow." Possessed as he is of this thinking, reasoning, immateriality—of a soul that desires, and struggles, and battles amid the materiality by which it is surrounded, and that is endowed with capacities for the teachings of God, and the knowledge that takes in the universe; we may make the child all that is good and great—we may so mould his very nature, as that when he has become a man, he shall reflect an honor on his teachers, a glory on humanity, and be, in consequence of his correct principles and moral deportment, and meek, devoted life, a venerated member of society and a blessing to his race.—So, too, by an improper training—by neglect—by an injudicious application of means—by an erroneous discipline, or a wrong method of instruction, we may not only fail in all this, but work the lasting injury and dishonor of that child. Is not the office of a Teacher, therefore, one of great responsibility? With a slight variation we may say in the language of Mrs. Hemans,—

"——Wo for those who trifle with a mind!
——————they know not what they do,
Or what they deal with! Man perchance may bind
The flower his step hath bruised; or light anew
The torch he quenches; or to music wind
Again the lyre string from his touch that flew—
But for the soul!—Oh! tremble and beware
To lay rude hands upon God's mysteries there!"

We have said that great mistakes were made in this matter of educating in the intellect—that it has been made a sort of cramming process. We cannot liken it to anything else than *sausage stuffing*. Here is the material dished up, of prescribed quantity and quality, and down it must go, without any particular regard being paid to the capacity of mind, or the readiness with which it receives and applies knowledge. We need not say that this is all wrong—that it is greatly injurious—that hence it is not education, or, in any sense, a development of the intellectual powers.

The first care of the Teacher should be, to set the intellect of the child agoing—to induce thought, and the processes of reasoning. But how little is this thought of? We make parrots only of our children, at home, in our schools; and in a vast majority of cases, a parrot knowledge only do they obtain. We put books in their hands, and set them to committing *words*, without any particular reference to the communication of *ideas*. "Ideas and not words" is the motto of right education. Books are important and requisite only as aids, and it should be seen to that the committing of tasks be not an end, but means to the attainment of an end—the development of the intellectual portion of the human soul.

From Wright's Casket.

## Physical Education in Common Schools.

I have watched with deep interest, the progress of common school education in our land for the last five years, and have been much pleased in observing the many changes and improvements which have gradually taken place.

Not only have I been pleased in observing the improvements in school books—the manner of teaching, and the improvement in the construction of school houses—but I have observed with heartfelt gratitude the improvement in the *age* which calls for better teachers, more able instructors—men, who not only have the requisite amount of book knowledge, but also have a faculty for imparting knowledge to others—men who possess the power of moulding the youthful mind, and leading it forward in the right path to usefulness and distinction, who are continually storing the mind with new ideas and available knowledge, to be put in practice in future years.

But I have carefully watched with a philosophic eye, and with a still deeper interest, the change which has gradually taken place in the Physical Education of our children; and not only among our youth, but in the entire community, the subject of Physical Education is taking deep hold upon the minds of the people.

Elementary works upon "Anatomy and Physiology" have been introduced into almost all our academies and high schools in the eastern states, and I think I may safely say, into a *majority* of our common schools. Here we see the seed being sown, which will eventually spring up, and result in an incalculable amount of good.

Physical Education is teaching man to understand his own system; the uses and abuses of all the organs of the body, the office of the heart and lungs, bones and muscles, digestive organs, &c., in short, it teaches man to investigate the great physical and natural laws which govern and control his system—to understand the principles and laws on which health depends, and the cause of disease.

We are beginning to realize the truth of what Pope so long ago proclaimed, "That the highest study of mankind is man," and are in some degree conducting our education accordingly. Mankind are beginning to see that the majority of the ills and sorrows of life are brought upon man by his own conduct, and are merely the penalties attached

to the violations of the great natural and physical laws which govern the human system.

I am gratified to see the deep interest taken by our papers and periodicals in the diffusion of physical knowledge, and promotion of common school education in our land. They are doing a vast amount of good, for in no other way can knowledge be so generally diffused, as through the free press. I can say in the language of another, that when our colleges and schools shall expound the various branches of Philosophy, as portions of the institutions of the Creator—when they shall teach the great Physical and Natural Laws which govern our systems, and show their practical applications to man's duties and enjoyments—then will man assume his station as a rational being, and Christianity achieve her triumph."

## Common School National Convention.

The undersigned, deeming that the great cause of Popular Education in the United States, may be advanced, and the exertions of its friends strengthened and systematized, by mutual consultation and deliberation, respectfully request the friends of Common Schools, and of Universal Education throughout the Union, to meet in Convention, at the city of Philadelphia, on Wednesday, the 22d day of August next, at 10 o'clock, A. M., for the promotion of this paramount interest of our Republican Institutions.

We have only room for the following influential names, from among the large number of warm friends of Popular Education, who have signified their acquiescence in this call.

Rt. Rev. Alonzo Potter, D. D., Philadelphia.
George M. Wharton, Esq., President of Board of Comptrollers of Public Schools, County of Philadelphia.
Hon. Joseph R. Chandler, President of Board of Directors of Girard College, Philadelphia.
John S. Hart, A. M., President Central High School, Philadelphia.
Alfred E. Wright, Editor of "Wright's Casket" and "Paper," Philadelphia.
Townsend Haines, State Sup. of Public Schools of Pennsylvania.
Christopher Morgan, State Sup. of Public Schools of New York.
Dr. T. F. King, State Sup. of Public Schools of New Jersey.
Hon. Henry Barnard, Com. of Public Schools of Rhode Island.
Seth P. Beers, State Sup. of Public Schools of Connecticut.
William G. Crosby, Sec. of Board of Education, Maine.
Richard S. Rust, Com. of Public Schools, New Hampshire.
Hon. Ira Mayhew, Sup. of Public Instruction, State of Michigan.
Samuel Galloway, State Sup. of Public Schools, Ohio.
Robert J. Breckenridge, D. D., Sup. of Public Schools, Kentucky.
Hon. Horace Mann, for 12 years Sec. of Board of Education, Mass.
S. S. Randall, Esq., for eleven years Deputy Superintendent of Public Schools of the State of New York.
Ex-Governor Horace Eaton, State Sup. of Public Schools, Vermont.
H. S. Cooley, Esq., State Sup't of Common Schools, Ill.
Thos. H. Benton, Jr., State Sup't of Public Schools, Iowa.
Hon. Salem Town, N. Y.
Judge Willard Hall, Delaware.
M. D. Leggett, Esq., Editor of School Clarion, Ohio.
Asa D. Lord, Esq., Editor of the Ohio School Journal.
D. L. Swain, A. M., Pres't of the University of North Carolina.
Prof. J. H. Ingraham, Nashville, Tenn.
Judge E. Lane, Sandusky, Ohio.
A. Church, D. D., Pres't of University, Athens, Georgia.
Prof. M. L. Stoever, Pennsylvania College, Gettysburg.
H. B. Underhill, Principal Natchez Institute, Miss.
James L. Enos, Editor of the North Western Educator, Racine, Wis.
Edward Cooper, Esq., Editor of District School Journal, Albany, N. Y.
Philip Lindsey, D. D., Pres't of University of Nashville.
A. D. Bache, LL. D., Sup't of U. S. Coast Survey, Washington.
H. W. Heath, LL. D., Maryland College of Teachers.
Josiah Hurty, Esq., Sparta, Ohio.
Rev. R. Morris, Jackson, Miss.

The following named gentlemen have consented to act as a Committee of Arrangement, for the "National Common School Convention:"

Hon. Joseph R. Chandler, *Chairman.*
Alfred E. Wright, *Cor. Secretary.*

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|---|---|
| James J. Barclay, | William Martin, |
| George Emlen, Jr., | John Miller, |
| Daniel M. Fox, | Mordicai L. Dawson, |
| Joseph Cowperthwait, | S. S. Randall, |
| Edward C. Biddle, | J. Engle Negus. |

Communications in reference to the proposed Convention should be addressed to the *Corresponding Secretary.* Those intended for publication, should be addressed to the Editor of the *Casket.*

To Destroy Worms and Caterpillars.—The following curious remedy for destroying worms and caterpillars, we find in the *Pennsylvania Cultivator.* If this remedy be effectual why will it not protect trees from the borer and other insects, which are more to be dreaded than caterpillars, as their attacks are not so easily detected. Will some of our readers who have an opportunity make some experiments and communicate results:

Messrs. Editors: I have heard much inquiry concerning the best method of destroying the worm or caterpillar, which makes such havoc with our apple and peach trees; the course I pursue is as follows: I take a half inch auger, and bore as nearly as I can judge, into the heart of the tree; fill the hole with sulphur, plug it up with a branch cut from the same tree, make it air tight, and in forty-eight hours the result is seen. This plan I have found efficient, and if the information is of any importance to you, it is at your service.

Rock Bottom, Mass. W. S. Chapin.

## Keeping Farm Accounts.

Why should not farmers keep a strict debt and credit account with their farms? It is believed that keeping an account of every day's work of man and team, of every cent expended or received, would be far more likely to lead to system, order, economy, and profit, than any other plan that could be devised and adopted. The merchant could not hope to succeed otherwise! How then the farmer, while his affairs are more complicated, but at immense risk and peril?

The following is a form adopted by the writer.—It is not presented as a model for those who have a better, but to call attention to the subject. It is evident that farmers generally, are too willing to "*get along*" somehow through the year, without knowing whether their income exceeds their expenses, or the reverse.

1848. *Dr.* *Cr.*

| 1848. | | $ | | $ | Remarks. |
|---|---|---|---|---|---|
| April 6 | Lot No. 3, 2 acres, | | Lot No. 3, 2 acres, | | |
| | To plowing two days, | 2 00 | By 104 bushels oats, | 31 20 | April 6. Cloudy and cool. Wind N. E. |
| | To composted manure, 20 loads, | 5 00 | at 30 cents | 12 25 | April 7. Some warmer. Sun appears now and then. |
| April 7 | To drawing same, | 1 75 | Total cost, | | |
| April 8 | To seed, 5 bush. oats, | 1 25 | By Balance, | 18 95 | Birds sing sweetly. |
| | To sowing, harrowing, | 1 00 | | | April 8. Learn something every day. |
| July 17 | To harvesting, | 1 25 | | | |
| | Total, | 12 25 | | | |

It is necessary to keep an account of each lot, in order that we may observe the value and effect of manures, thereby enabling us to count their worth in dollars and cents.

Virtues of Smartweed.—In the *Ploughman*, (Me.) of the 17th of February, there was an article on the virtue of smartweed, and you requested some of your correspondents to let you know what they knew of the virtues of smartweed, as a medicinal herb. I am not one of that number; but I will tell you what has been my experience, as to its virtue, for more than twenty years.

In the first place, it is almost a sure remedy in the case of cholic. Steep and drink the same as any other herb tea. In the next place, it is worth $5 per hundred for a stock of cattle, if it is cut and well cured when in full bloom. Give an ox, cow, or horse, one pound per week, during the time they are up to hay, and it will keep their bowels and hide loose. It is an excellent physic. If a horse has one pound a week, there is no danger of his having botts, or worms of any kind; and they will eat it sooner than they will the best of hay. Try it.

Parsonsfield, Me. 1849. Gilman Lougee.

Influence of the Cold Spring upon Trees.—The destruction caused by the cold winds of spring was not limited to the tender varieties of the peach alone, but seemed to extend to cherries, apples, and even to some extent to wild fruit. We have a large Red Virginia Cherry that has borne fruit for years, and looked rich and full of blossoms early this spring, but is now almost leafless with the blossom buds hanging black and lifeless.

The frost seems to have altered the sap that was prepared for the support of the fruit bud, and turning it into a kind of black round leaf, giving the rich cherry tree in exposed situations, the appearance of a semi-bald pated batchelor clinging to the honors which are failing to encircle his time-honored front. The very Locusts have in instances died, and apples which have stood all the variations of many a winter, are in many cases blackened to the heart.

The tender shoots of the hardy trees that weathered the storms are crisped and curled, affording a convenient *nidees* for vermin which are already beginning to take possession of the suffering leaf, and although we dislike to be a "*Prophet of evil*," we cannot forbear anticipating a summer of destructive insects. We never were so fully convinced of this physiological truth as this spring, that a cold frosty wind alters the sap intended and prepared for fruit blossoms, and converts it into the mere watery material capable only of supporting leaves. The fact that peaches and other delicate fruit in Mr. Hobbe's and Mr. Scammon's garden (which are highly sheltered) are this season untouched by winter or spring, shew that cold alone, unaccompanied by severe winds, does not effect the mischief.—*Chicago Dol. Newspaper.*

Ripening Tomatoes.—A writer in the *Pennsylvania Cultivator* says, "while the fruit remains green I have much accelerated the ripening by removing the large leaves from the dense bunches of fruit, and placing white boards behind them, so as to reflect the sun's rays upon them." With the same view an English author of eminence recommends tin.

The British fruit raisers consider a good wall for fruit, equal to an advance of six degrees towards the equator. By planting the tomatoes in beds under a fence brilliantly whitewashed, or painted white, the maturation of the fruit would no doubt be materially advanced. Frequent and copious irrigation with soap suds, and cleanly cultivation greatly facilitates the development of this fruit.

Wiscosin has an area of 31,511,360 acres and a population not exceeding 300,000 persons.

Aim at cheerfulness without levity.

## Butter Making.

Good butter is always in demand in our markets, and at prices which will well repay the cost of production. And the cost of manufacturing a superior article—one that will be creditable to the manufacturer and satisfactory to the purchaser and consumer, is often but little if any greater than when only an inferior and low-priced article is produced. It is, however, a well known fact that much of the butter manufactured in this State is not of superior quality, and will not command the highest price in the market. And this may be attributed, principally, to a want of knowledge, care and skill on the part of those who make it.

* * * * * * *

To make good butter, good cows are requisite.—When poor butter is made we do not think the fault is generally in the cows; although there is a very perceptible difference in the milk of different cows, and probably from the milk of some, good butter cannot be obtained. Suitable food for the cows is another requisite. When cows are obliged to obtain their food in swamps, or to eat weeds, browse and foul stuff, it is unreasonable to expect to make good butter from their milk. The best butter is obtained from the milk of cows which are kept in good pastures covered with a healthy growth of the cultivated grasses, such as herds grass, red and white clover, and free from weeds, &c. When the pastures are short in the latter part of the season, the stalks of Indian corn, fed when green, will be found to be a very suitable and profitable food for milch cows; when fed with these, more butter may be obtained from their milk, than when fed on grass alone, and that, too, which is equally good.

The following directions are from several authentic sources, but principally from the published statements of Mr. B. A. Hall, of New Lebanon, N. Y., who, for two years in succession, received the first premium of the New York State Agricultural Society for the best Butter Dairy.

The milk room or cellar should be kept perfectly sweet and clean, and at a temperature of not above 60°, nor below 45°. With the best butter makers a thermometer, and a supply of ice for cooling the milk and regulating the temperature, are considered almost indispensible. When the temperature requires it, Mr. Hall draws the milk over ice placed in a can with a faucet, by which means the cream rises in much less time than when cooled in the ordinary way. After it is strained, it is put into pans, usually about eight quarts in a pan. It ought to stand thirty-six hours before being skimmed, but this time must be varied occasionally as the weather changes. The cream should be taken off when the milk is slightly changed, and before it is coagulated. The cream may be kept in stone jars, and its temperature should never be suffered to rise higher than about 58 degrees, and it should be churned before anything more than a very slight fermentation takes place.

"The great anxiety of dairymen to churn quick," says Mr. Hall, "is at the expense of a first rate article. Any person, at all conversant with butter making, has observed the whitish yellow color and oily appearance it will present when taken from the churn, whenever the cream has been, or is too warm when the operation of churning commences, thus forever destroying its rich flavor and keeping properties. The butter-milk cannot be expelled without working too much, which makes it sticky and oily. On the contrary, cream taken from the milk at a proper time, kept and churned at 57 or 8 degrees, will require more time in churning, but the butter will present a high and rich color, will be firm and hard—will not stick, and will readily break when being separated."

Many good butter makers wash the butter in pure cold water when first taken from the churn. Mr. Hall's method of freeing the butter from the milk, is to work it with a break attached to one side of an inclined table, handling it with a common butter ladle. It is not so well to work butter with the hands, the heat of which has a tendency to injure the butter. After the butter-milk is thoroughly worked out, the butter is to be salted; and for this purpose pure ground rock salt is considered the best, and less than one ounce of salt is sufficient for a pound of butter, unless the butter is to be shipped or kept for a long time, when an ounce of salt may be used. The quantity, however, is best regulated by the taste Saltpetre is useless in butter, if it is not positively injurious. If anything besides salt is allowed, it is a *very little* refined sugar. It is well to pass the salt through a fine seive, in order to keep out all lumps or particles that will not dissolve. The salt should be well worked in, and after it has had time to dissolve, the butter may be again worked a very little, when nothing will be expelled but a little brine slightly discolored.

Well seasoned oak firkns are considered the best for packing butter. The Irish butter dealer uses no timber for his firkins that has not been seasoned at least two years, and even then he takes the precaution of having his staves baked in an oven before they are set up. Pots of stone-ware with a vitreous and durable inside coating are frequently used. Mr. Hall, we are informed, uses firkins made of well-seasoned spruce, clear of sap, firmly put together, and neatly turned in the manner of what are called Shaker pails. Before the butter is packed, the firkins should be well saturated with brine.

When butter is properly made and packed, nothing more seems required to preserve it for almost any length of time, than to keep it from the air in a cool place. For the purpose of keeping it from the air, we know of nothing better than to place a cloth which has been dipped in melted butter over the butter in the firkins, and cover it with brine.—*Maine Farmer.*

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Raising Chickens.—Many persons fail in raising chickens, for want of a little attention to them at this season of the year. Convenient boxes for them to lay and hatch in should now be made. They should be cleansed, scalded with boiling water, and the bedding renewed. As soon as a hen shows a dispostion to sit, 12 or 15 eggs should be given her, and a date 21 days in advance, should be marked with chalk in a cospicuous place. Hens should be prefered that have proved themselves good sitters, and that have been successful in raising their broods. The difference between a good and a bad hen is worth attention. I have a hen whose long and polished spurs prove her six or eight years old, which to my recollection, has hatched her eggs and raised two broods of vigorous chickens every season.—*Albany Cultivator.*

## Plank Roads.

Scientific experiments have proved that the same power required to move one ton in a common lumber wagon on a level earth road, will move the same wagon with a load of 4½ tons, on a level wood surface.

One ton is the average practical load for a two horse team over a tolerably level common road; it follows then, that the same team can with equal ease draw a load of 4½ tons, on a properly graded plank road.—Practical results have proved this to be true, because 4 tons now constitute the usual load for a two horse team on all plank roads where the inequalities of the land's surface have been leveled to practical grades. Wagons however, to bear such increased weight, should be made some stronger than they are commonly made for ordinary use—but yet a common wagon will bear a much greater weight on a plank than on a common road, for the reason that the pressure is direct and uniform on a plank road, whereas on a common road, by reason of ruts and inequalities of surface, the wagon is subjected to severe trials by oblique and laternal strains. Both wagon and harness in constant use on a plank road by means of this steady action and diminished friction, will last longer than on ordinary public roads.

Suppose a farmer living some ten miles out of Detroit, has 140 bushels of wheat to take to market, in his wagon, over common roads in the condition in which they generally are. He would not ordinarily carry more than 35 bushels at a load—the weight of which at 60 lbs. the bushel is 2,100 lbs; one would occupy so much time that he could only make one trip a day, and then he would have to make four trips and consume four days in conveying his 140 bushels to market—but if he could travel on a plank road he could carry the whole 140 bushels at one load; the weight of the whole at 60 lbs. the bushel is 4 tons and 400 lbs. How then does the account stand? Four trips over a common road will cost, 4 days for himself and team at $1,50 a day, $6,00

One trip over a plank road, in one day is $1,50
Toll both ways, at 2 cents per mile is $1,90
Difference in favor of plank road is $4,10

The first impression is very strong against being taxed for travelling to market and great hostility is naturally felt against the conversion of a free into a toll road, but this arises from not understanding the advantages of a Plank Road.

The above calculation shows that the payment of 40 cents for toll is not in fact a tax out of pocket, but the cost of a privilege by which $4,10 are saved. Money saved, is money made—and in the case above stated, the farmer takes 40 cents out of his pocket and puts $4,50 in the place of it.

In the above calculation no notice is taken of the cost of strengthening the wagon because such cost is more than made up by the saving in blacksmiths and other mechanics' bills for repairing damages which continually accrue on common roads and in the greater duration of wagon and harness. —*Commercial (Detroit) Bulletin.*

Address Before the New York State Agricultural Show at Syracuse.—We learn from the Scretary of the Society, that Prof. James F. W. Johnson, of Durham, England, has accepted the invitation of the Executive Committee, and will deliver the annual address in September next, at Syracuse. Prof. Johnson is one of the most distinguished agricultural chemists in Great, Britain, and we doubt not the announcement of his name for that occasion will secure the attendance of many distinguished gentlemen from our country, as well as from the British Provinces.

Prof. Johnson, we understood, is expected to spend a year or more in this country and the British Provinces, to make himself familiar with the progress of agriculture in this new world. We trust he will be most cordially welcomed by the agriculturists of America, who have long known him through his writings and who we doubt not, will be truly rejoiced to form a personal acquaintance, with one who has done so much for the improvement of agriculture. His Catechism on Agricultural Chemistry and Geology, adapted to common schools, has been introduced into many of the schools in this country, with the most gratifying success: and he will find on his arrival here that many of our youth have, through his instrumentality, been enabled to enter upon a course of study that will lead them onward, until they become thoroughly prepared for their profession as agriculturists. We think the Society have been peculiarly fortunate in securing the attendance of this distinguished gentleman at their annual convocation.—*Genesee Farmer.*

Enjoyment.—If we would enjoy ourselves, we must take the world as it is—mix up a thousand spots of sunshine—a cloud here and there—a bright sky—the chill piercing winds of autumn, and the bland reviving airs of summer.

# Spirit of the Agricultural Press.

Under the above caption we purpose hereafter to give, in each number of the Farmer, one or more pages of matter made up by gleanings from our extensive list of exchanges of such items and abridgements as shall contain the spirit and essence of the agricultural press.

COWS WORKED AS OXEN.—A correspondent of the *Southern Cultivator* says: "I have worked cows in harness, not under the yoke, without detriment in any respect—on the contrary their calves were superior to the rest of the stock,—due of course to the extra feed and attention the cows received. I should like to see this practice extended—for many of the poorer class have no other animal power to aid them in their farming operations."

FEEDING BARLEY TO PIGS AND EWES.—I saw in the *Farmer*, some time since, a recommendation for feeding ewes that had lambs, barley meal. I wish to ask if any of the readers of the *Farmer* have tried the experiment; and if they have, what has been the result? It has a very bad effect on sows that have pigs—drying up their milk and eventually starving the pigs. Likewise, barely straw and barley beards will dry up milch cows.

In regard to sows and pigs, one circumstance has happened under my observation. A farmer had a fine sow which had a nice litter of pigs, and he thought he would take extra trouble and have nice hogs. He had some barley ground and gave the meal to the sow, and if he had not left off feeding it as he did he would have lost all. He made out to save two or three out of the litter by feeding other slops.—*Genesee Farmer.*

DUTY ON AMERICAN WHEAT.—After the 1st of February, 1849, the fixed duty on wheat in England is to be one shilling per quarter, or about three cents per bushel; on flour it is to be four pence half-penny per cwt., or nine pence per barrel of two hundred pounds—equal to about eighteen pence per barrel.

THE PURITY OF DIFFERENT KINDS OF SALT.—Prof. Beck, of Rutgers' College, has made the following analysis of the different kinds of salt:

1000 parts Onondaga coarse salt contain pure salt 991 parts.

1000 parts Onondaga dairy salt contain pure salt 974 parts.

1000 parts Turk's Island salt contains pure salt 984 parts.

1000 parts Cheshire crushed rock salt contain pure salt 986 parts.

If this be true, why is it that farmers and beef and pork packers still *prefer* Turk's Island, or Liverpool, Cheshire, salt? This fact is notorious. If Onondaga salt was better, would they not find it out?—*Buff. Com.*

We concur in, and repeat the inquiry above. If Onondaga salt is better than Turk's Island or Liverpool, why is it that our farmers and beef and pork packers do not find it out? There must be some mistake in this matter. Perhaps it is in the frauds practised in its manufacture or packing. If so, how can pure Onondaga salt be secured? We should like to know.—*Roch. Am.*

AGRICULTURAL SCHOOLS IN FRANCE.—At a recent session of the National Assembly of France, the principal part of the day was devoted to the bill relative to agricultural schools. It was resolved that one of these institutions should be founded and maintained in each department at the public expense; and further, that the country should be divided into agricultural districts, not exceeding twenty, in each of which a government school is to be established.—*Foreign Paper.*

CURE FOR SCRATCHES ON HORSES.—Feed a horse one or two tablespoonfuls of sulphur per day, (in order to cleanse his blood,) for three or four days, wash the feet in clean, soft water, then put on dry sulphur, and wind a linen cloth around the sore, and twice or three times a day drop in dry sulphur between the cloth and the sore. Be careful to keep the feet dry, as it is of no use to doctor the feet until the blood is put in order. This seldom fails in the worst cases.—*Pa. Cultivator.*

EARLIEST FOOD FOR BEES.—In a conversation the other day with a worthy and observing farmer, he remarked that the earliest food for bees, in the spring, is maple sap. He states that he has seen them gather round the sap troughs, in the woods, during the warm days in spring, before the buds or tassels of the willow and other trees and shrubs had put out, sipping and making themselves glad with the sweets that they find there. It wouldn't be a bad plan, if a person had any maples in the vicinity of his hives, to tap them for the use of his bees.—*Maine Farmer.*

LARGE PRODUCTION.—Mr. Allen Dyer, residing in Byberry, this county, gathered and threshed this season, from five bushels sowed, *ninety-three and a half bushels of wheat*, exclusive of the gleanings. The wheat was of the variety known as the Genesee white wheat, recently introduced into this neighborhood by George M. Ivins, and weighed sixty-six pounds to the bushel! With such a result as here recorded, this must be a most valuable variety of wheat, and ought to be generally known to and used by our farmers.—*Germantown Telegraph.*

A GREAT PRODUCT.—The Newark (New Jersey) Advertiser states that a farmer has raised this season on his farm at Clinton Place, in that vicinity, 603 bushels of white, or Belgium carrots to the acre—an amount of produce never exceeded in that climate.

HOW IT IS DONE.—The editor of the Mass. Plowman, speaking of the progress of improvement among the farmers of the Old Bay State, thus explains the manner in which it is done:—

"Farmers *read* vastly more on the subject of farming than they have ever done. The prejudicies against written agriculture are fading away as fast as farmers of practical knowledge are coming forward and giving the results of their own experience. They hold meetings and reason together on various matters relating to their business, and none can fail to improve by intercourse and free converse on any branch of farming."

THE WHEAT CROP.—The crop of wheat now on the ground, promises a plentiful harvest to the farmer. As far as we have been able to ascertain from observation and information from farmers, the prospect is more flattering than usual for a good crop.—*Min. Point Trib.*

A New Kind of Wheat.—Advices from St. Petersburg to the 12th of August, mention that a new variety of the Arnautka wheat has recently been discovered and cultivated in Bessarabia. It is called the Kolus, or large-eared wheat, on account of the peculiar beauty of its ears. At present it is limited to mere seed wheat, and fetches twice the price of the ordinary Arnaukta. One other and important peculiarity of this grain is, that it is less affected by drought than any other varieties. At the same time it possesses several other features, its deep amber color, and its earlier ripening. This important discovery was made by a peasant of the name of Bulatowisch, in the village of Troitzk, in the district of Bender, who being a close observer of nature, detected in his crops certain ears which were larger and became ripe more speedily than the rest of the crop. These he collected and sowed separately, and the result was an abundant harvest, and the introduction of a new and valuable variety of wheat. The event had created a great sensation amongst the agriculturists and dealers in grain, and the new wheat well merits being named after its discoverer.—*Genesee Farmer.*

Covering the Soil About Fruit Trees.—I have noticed with interest the remarks of Mr. Cleveland and others in this journal on the subject of covering the surface of the soil with substances to keep it of a uniform state of moisture, &c.

I will add my mite in favor of this process. I adopted the same plan last spring, covering the ground with straw two inches deep, laying it down smoothly and closely beneath the trees for a space as large in diameter as the spread of the branches.

The result has so far exceeded my expectations that I am tempted to believe that there must be some stimulating as well as protecting influence in the straw. I have gathered from a few quinces and plum trees (the only ones to which the application was made) fruit of nearly double the size of that from other trees in the same soil; and the plums held their fruit better than I ever had any do before on my premises.—*Downing's Horticulturist.*

Of the tonnage built in the United States during the year ending June, 1848, nearly one half was built in Maine, and exceeded by several thousand tons the aggregate of Massachusetts and New York.

Agricultural Education in Cuba.—Three of the principal schools of Havana have instituted a new department in which instructions are given in chemistry as applied to *Agronomia*, or cultivation of the various kinds of field crops.—*La Cronica.*

To Quiet Bees.—A correspondent of the *Ohio Cultivator* says that a little alcohol or almost any kind of ardent spirits, placed on the bottom boards around and under a hive of belligerent bees, will allay their fury, and cause them to cease fighting.

Fecundity of Hens.—A young hen will lay the first year about 150 eggs; the second 120; the third 100—diminishing every year as she grows older; and, says the *Maine Farmer*, she should "go to pot" after the fourth.

A correspondent in the *Maine Farmer* says a machine has been put in operation for pulling flax, which with one man, boy, and horse, will take up three acres per day.

Agricultural School.—At Mount Airy, seven miles from Philadelphia, there is an agricultural institute, where agriculture is thoroughly taught on an experimental farm of seventy acres; and in addition to agriculture, instruction is given, by competent instructors, in the English elementary branches, in mathematics and physics, in elementary and analytical geology, in botany, zoology, and entomology.

The Plow and a Bank Stock-Holder.—It is said that the plow goes in for banks, although it has but one *share*..

If they who wear the chains of creeds once knew the happiness of breathing the air of freedom, and moving with unencumbered spirit, no wealth or power of the world's gift, would bribe them to part with their spritual liberty.—*Channing.*

Buckthorn for Hedges.—From the many experiments that have been tried, it is evident that the Buckthorn is the best shrub for the purpose of making hedges. It is easily raised from the seed—insects do not destroy it—bears transplanting well—grows rapidly stands our climate well—accommodates itself to a variety of soils—and bears pruning and splashing like a martyr.—*Maine Farmer.*

## Home.

Is there a place that can impart
Blest visions to the aching heart?
Is there a place whose image dear
Can soothe our grief, dispel our fear?
That place is Home.

The exile, far in distant climes,
Oft, oft remembers by-gone times,
And o'er whatever land he roves,
Remembers still the land he loves—
Remembers Home.

Whatever hardships be our lot,
Still Home's the treasure of the heart;
Whatever can our bosom cheer,
Whatever we regard as dear,
Is found in Home, sweet Home.

## Summer's Address to Winter.

Why linger so?—why, prithee go,
Old Winter—get the gone!
Off, with thy agues, ugly elf—
Off, with thy cold blue zone.

Nay, do not turn thy grim gray front
Back on our waiting hills.
Trudge onward—with thy budget stuff'd
With fevers, gouts and chills.

We will not have thy diamond beads
To deck our waving spears,
For well we know that summer's flush
Will melt them all to tears!

Oh, we have buds, and blue hare-bells—
And bright green hills that fling
Their softened shadows—and sweet dells
Where birds their matin sing.

In sooth thou art a lazy loon,
To linger round our cot;
Go home—and put thy harp in tune
That's fit for frost-hung grot.

Lie down thy snow-wreath'd head once more
'Neath icebergs cold and far,
And keep thy distance, on that shore
Whose climes congenial are.

# EDITOR'S TABLE.

APOLOGY.—For the want of a suitable article of *box wood* for good engravings we are obliged to issue the present number of the Farmer without any illustrations. We shall have a supply in time for the July No. We have now on hand several drawings furnished for publication; among these we would notice one of a fine. Buck, the property of ERASTUS DRURY, Esq., President of our State Agricultural Society. Also, drawings of a machine (an entirely new invention) for grinding corn and cobs together.

POSTAGE.—We would state for the information of all patrons of the press, that all Postmasters whose commission for services does not exceed two hundred dollars per year, are authorized to frank letters to Publishers, enclosing either bills or specie for subscriptions, or requesting a discontinuance of papers or magazines.

☞ We are sorry to learn, as we do by a private note, that our old friend MOORE, of the Genesee *Farmer*, has been long ill, and hope for him, as he is now convalescent, a speedy recovery. His kind wish is reciprocated. We were led to think, as we did not receive the *Farmer*, that, for some reason, our "Please Exchange," would have no attention paid it. The excuse is sufficient, and the receipt of the back numbers of the present Vol., furnishes us with the opportunity to say, that the *Genesee Farmer* is as good—if not a little better—as ever; and that we consider saying a good deal.

FARM ACCOUNTS.—We have often wondered that farmers did not keep a regular, full journal of the doings on a farm, the time of plowing, sowing, planting, harvesting, etc., the expense attending the getting in, securing and marketing of crops, the sales of produce, etc., etc. We have recommended this before, and are confident that farmers would find it decidedly to their advantage.

A writer in the *Michigan Farmer* expresses our views exactly, and we take pleasure in calling attention to his article in another column.

NORTH AMERICAN POMOLOGICAL CONVENTION.—The following has been sent us by Mr. JOHNSON, with a request that we give it an insertion. We do so *pro bono publico:*

At the meeting of the Pomological Convention, held at Buffalo, September, 1848, the following resolutions were adopted:

"*Resolved*, That hereafter an annual assemblage or convention, shall be held under the name of the 'North American Pomological Convention.'

"*Resolved*, That this convention shall be held in the coming year of 1849, in the town or city in which the New York State Agricultural Fair may be held—to convene its session the first day succeeding the closing of the Fair, and that the Recording Secretary of the New York State Agriculture Society shall be entrusted with the charge, and respectfully solicited to give due notice of the time of meeting, by means of agricultural journals, and cards of invitation to gentlemen pomologists and horticultural societies throughout the Union and the Canadas, that they may send delegates or attend and bring or send specimens of fruits for exhibition."

The annual show and fair of the New York State Agricultural Society having been fixed for the 11th, 12th, and 13th of September next, at the city of Syracuse, I do in compliance with the request contained in the above resolution, hereby give notice of the meeting of the North American Pomological Convention, at the city of Syracuse, on Friday, the 14th of September next, the day succeeding the show of the New York State Agricultural Society; and on behalf of the said convention, extend a cordial invitation to yourself to attend, and the society with which you are connected to send delegates to the convention, and to forward specimens of fruits for exhibition.

Any fruits that may be sent can be directed to the care of P. N. Rust, Esq., Syracuse.

B. P. JOHNSON,
Sec. N. Y. State Ag. Society.

ALBANY, April 6th, 1849.

☞ We are now in the receipt of No. 9, of the *Pennsylvania Cultivator*. It wears a very good appearance, and contains much valuable information for the Agriculturist. We judge it must be well sustained.

LECTURES ON PHYSIOLOGY.—Dr. CUTCHEON has just closed a series of Lectures on this important branch of Knowledge, in the city of Racine. They were fully attended by a large number of the most intelligent portion of the citizens. Dr. C. appears to be thoroughly acquainted with his subject, and is an easy and eloquent speaker. From the short, but to us very pleasant acquaintance, we consider him eminently worthy of patronage; and we would be right glad, if he could succeed in awakening an interest in his subject, wherever he may go. Thousands have heard him with great satisfaction, and decided profit. That man is a benefactor, who assists us in truly knowing ourselves.

☞ We take pleasure in calling the attention of our readers to the advertisement of Mr. JOHNSON, Druggist, of Milwaukee, found in our advertising department. Mr. J. has for several years been engaged in business in this city, and is regarded as an excellent and honorable man. We commend him to all as eminently worthy of patronage.

THE OLD OAKEN BUCKET—Is the title of a new paper, published in Racine by Messrs. BLISS & ROUNDS, and edited by Rev. A. C. BARRY. It is a large octavo, issued semi-monthly. Terms $1 per annum.

We like the name—it is fraught with pleasant memories. Under the direction of its editor, (every body knows Mr. B.) whose heart is a well-spring of feeling, it will be the "source of an exquisite pleasure," especially to those who have drank form the "moss-covered bucket" in their early days. We cordially wish it success.

☞ The May No. of the *Prairie Farmer* has come to hand, well filled, as usual, with valuable original and selected matter. We know not how the editors should have reached the conclusion that this paper was dead or had declined an exchange. It has been mailed regularly to them from the beginning.

THE WOOL GROWER.—No. II. of this new journal has reached us—the only one we have received. It is a large octavo in size of 32 pages, with a double cover for advertisements, well printed on good thick paper, and well filled with valuable selected and original matter. It is specially devoted, as its title would indicate, to the wool growing interest, but devotes a share of its columns to Agriculture and Horticulture generally. It is published and edited by T. C. Peters, Esq., of Buffalo, and issued monthly at fifty cents per year.

THE VALLEY FARMER.—The May No. of this excellent journal has been received. It has some very talented correspondents, and its editor knows well his business. It is worthy an extensive patronage.

MICHIGAN FARMER.—The May No. of this excellent Agricultural journal is fully equal, if anything, rather surpasses any former numbers of it we have. It has, we should judge, a large list of correspondents—good ones, too—from among practical farmers, and those who know whereof they affirm. The *Farmer* is winning for itself golden opinions.

AMERICAN AGRICULTURIST.—We are in the receipt of the numbers from January of this popular work. It looks well reads well, is of course edited well and ably, and well and liberally patronized. It is an octavo of 32 pages, published monthly by C. M. SAXTON, 121 Fulton street, N. Y. Edited by Messrs. ALLEN, and afforded subscribers at the price of $1 a year, in advance.

A NEW IDEA.—It is said that when a native of Java has a child born, he immediately plants a tree, which adding every year a circle of wood, to its trunk, indicate the age of the tree and therefore that of the child. The consequence is, the child regards the tree with reverence and affection as long as he lives, Truly, a most excellent Birth Register.

In Grafting take care that the bark of the graft and the bark of the stock meet and join on one side.

SPRING.—An article of our own in the last No. of the Farmer, was, for this latitude at least, in advance greatly of the season. We thought, that, as May was the last of the vernal months, we were running but little risk in saying some nice things of it; but, unlike the Dutchman, whose hindthought was better than his forethought, the latter end of the springtime is no better than the first. At this date (16th May) the season, so far as this region is concerned, has been backward and cold—the herbage is but just springing, the buds bursting, and any and all the evidences to appear of the coming of the vernal season.

But this has not to be said alone of the West. Accounts from the East and South represent the season as unusually backward, and also that it has been attended with much and extremely cold weather. The peach-crop in embryo is said to be entirely destroyed, in New Jersey, Maryland, and Virginia. Much injury has probably been done by severe late frosts in other states. But we believe

"There's a good time coming, boys,
Wait a little longer."

☞ We have received through the politeness of the editor of the *Ohio Cultivator*, the "Third Annual Report of the Board of Agriculture of the State of Ohio." This Report was made to the General Assembly of that State, at the last session of the Legislature. We have not had time since its reception to give it a thorough perusal, but from an examination of it, we feel safe in saying that it is a very valuable document. It embodies in small space a very great deal of useful information, and abounds in statistical facts of an important nature. It tells a pretty good story of the Western Reserve—worthy of being told—we would like to tell the same of some *Western Reserve* in our State. It says:

"The uncertainty of the grain crops in some of the northern counties, induced many of the farmers, particularly in the Western Reserve, to turn their attention to the manufacture of cheese. The success attending their efforts induced others to follow their examples, and, in a brief space, this enterprising portion of our population has not only made this article one of our staples, but given it such character, as enables them to compete in the markets, at home and abroad, with the best article of the kind manufactured elsewhere. In 1836, the whole State of Ohio produced but little over 1,000,000 pounds. In 1848, the Western Reserve exported 15,593,439 pounds. From the other sections of the State, in the absence of reliable data, the product is estimated at 1,500,000 pounds; making, for the State, over 17,000,000 pounds of cheese; [These estimates are based on statistics of sales and exports, obtained and furnished to the Board by Geo. Hazlep, Esq., of Gustavus, Trumbull county.] to which may be added 4,000,000 pounds of butter per annum; and we have the dairy product in the State 21,000,000 pounds, worth say 5½ cents per pound, equal to $1,155,000 for the annual cash sales—and yet the business is in its infancy."

We are confident that very many of our farmers would find it much to their advantage, to turn their attention to dairying, and let alone the growing of so much wheat. Wheat growing is now pursued, greatly to the neglect of other branches of farm business.

☞ Very much is being said just now, relative to the introduction of the Tea Plant, and its cultivation in this country. We may be mistaken, but we have an idea that it can never be successfully and profitably cultivated here—even in the South. There will be found much lacking, which we cannot supply, requisite to success. We have no serious objection to the experiment, but believe it will turn out a *Morus Multicaulis* affair after all.

☞ We regret extremely that any thing we have written, should so disturb the equinamity, and ruffle the calm placidity of the gentle soul of the editor of the *Oskosh Democrat*. It is quite evident, as he himself says, that he was in a drowsy mood when he read our article; and we opine that if he will read it when wide awake and clothed in his right mind, he will be terrified by no such 'goblin damned' as stalked before him in his drowsiness, and may be in a dream—for in an editor's sanctum what dreams do come!

# COMMERCIAL.

## RACINE MARKET.—Wholesale.

| | | | | | |
|---|---|---|---|---|---|
| Beef | ℔ 100lb | $5 00 | @ | $5 50 |
| do mess | ℔ bbl. | 9 00 | @ | 10 00 |
| Pork | ℔ 100 | 3 50 | @ | 4 00 |
| do mess | ℔ bbl. | 10 00 | @ | 12 00 |
| Hams | ℔ 100 | 6 00 | @ | 7 00 |
| Shoulders | ℔ 100 | 5 60 | @ | 6 00 |
| Butter | ℔ lb | 11 | @ | 12½ |
| Lard | ℔ lb | | @ | 8 |
| Eggs | ℔ doz, | 7 | @ | |
| White Fish | ℔ bbl. | | | 5 00 |
| Fine Salt | ℔ bbl. | | | 1 50 |
| Coarse do | ℔ bbl. | | | 2 00 |
| Dried Apples | ℔ bush. | 1 25 | @ | 1 50 |
| Green do | ℔ bbl. | 2 50 | @ | 3 00 |
| Onions | ℔ bush. | | | 37½ |
| Potatoes | ℔ bush. | | | 50 |
| Cheese | ℔ 100 | 6 00 | @ | 7 00 |
| Flour | ℔ bbl. | 3 75 | @ | 4 00 |
| Wheat Winter | ℔ bush, | 60 | @ | 64 |
| do Spring | ℔ bush. | 50 | @ | 54 |
| Buckwheat flour | ℔ 100 | 1 25 | @ | 1 50 |
| Oats | ℔ bush. | | | 22 |
| Beans | ℔ bush, | | | 1 00 |
| Corn | ℔ bush. | | | 37 |
| Corn Meal | ℔ 100 | 75 | @ | 87 |
| Hard Wood | ℔ cord | | | 2 00 |
| Soft do | ℔ cord | | | 1 00 |

## MARINE INTELLIGENCE.—RACINE HARBOR.

—The Schooner *Empire*, of Niagara, Capt. WILSON, is now loading wheat in our harbor at the new warehouse—NORTON & DURAND'S. The above Schooner is a three-master, 130 feet keel, 141 feet on deck, 26 feet beam, 9 feet 6 in. hold—one of the largest class of vessels. For the purpose of giving some idea of the capacity of this harbor, we will state that the *Empire* turned at the Upper Warehouse, by the stationary bridge, with some three thousand bushels wheat on board. And the Captain informs us that he can go out from the warehouse of Norton & Duraud, the next one below, with 12,000 bushels wheat—the *Empire's* full cargo is 17,000 bushels. And at the end of the pier, vessels can at all times take in their full cargo. This notice is penned in presence of Capt. WILSON, the truth of which he affirms, for the purpose of showing that there is no better harbor on the West side of Lake Michigan than Racine Harbor. And according to the testimony of experienced Captains of many vessels, no port on the Lake can be made with greater safety in a storm. We like to record this proof of the superior facilities which our rapidly growing city has for a commercial business. We hope the natural capacity of this harbor will draw for it from the government the appropriation it deserves and needs to improve it still farther, and make it what it would be, *the best harbor on the Lake.*

The New Canadian Tariff, which goes into operation immediately, imposes a uniform ad valorem duty of 12½ per cent on certain enumerated articles. The exceptions among this class of articles are wines and spirits, which are charged with a duty of 25 per cent; and animals of all kinds, butter, cheese, flour, barley, buckwheat, meal, &c., which pay 20 per cent. ad. val. Mess pork is especially excepted from this category, and comes in at 12½ per cent. Wheat and Indian corn are among the exempts or free articles. So are seeds of all kinds, farming utensils and implements of husbandry.

The Governor in council is empowered to raise these duties 10 per cent. on the duty in case of a deficiency in the revenue under the grants made, to encourage the construction of railways.

REVENUE OF CANADA.—The estimated expenditures of Canada for 1849 is 365,403 pounds 200,000 of which is for interest on the public debt. The revenue is 474,640, of which 450,000 is from Customs, and 50,000 from public works.

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

VOL. 1. RACINE, WIS., JULY 1, 1849. NO. 7.

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PUBLISHED ON THE FIRST OF EACH MONTH, BY
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Post Masters and all others who feel an interest in the circulation of the FARMER, are invited to lend their aid in procuring subscribers and extending its circulation.

☞ The Farmer is subject to newspaper postage only.


## Early History of Wisconsin.—No. 1.

BY A. C. BARRY.

WISCONSIN forms a portion of the great North Western Territory, which formerly embraced within its broad limits, all that vast extent of country comprising the now states of Ohio, Michigan, Indiana, Missouri, Iowa and Wisconsin, and the Territories, Minesota and Nebraska. Its early history, therefore is the morning history of all these states—the narrative of the discovery, exploration, and first settlement of each, enter into and help form the records of the Great West. Here was one vast world, separated and far removed from civilization in the East, by a chain of great Lakes; its solitude undisturbed and its silence unbroken by the presence and the falling footstep of the white man—a land of primeval forests, of boundless prairies, of broad rivers and inland seas, of sunny dells and sparkling fountains, over which roamed the savage Indian, the proprietor and monarch of it all.

Of its History we have nothing written beyoud the year 1553, and the light furnished us by that early time is faint and dim. It is scarcely less uncertain than that which emanates in flickering and broken fragments from amid old ruins, the crumbling remains of demolished temples and fortifications, the ravished mounds and sepulchres of the dead—the remnants of a civilization and an unknown race long since passed away.

Cartier, the old French Mariner, was indeed told at the village of Hochelaga on the St. Lawrence, more than three centuries ago, of a great country west-north-west—of a strange people there in that far distant region, "who were clad as the French, and lived in towns, who were very honest, and had "great stores of gold and copper,"—that between them and the land they described, there were great lakes, and a fresh water sea, the end of which no man had ever found; and farther on, a mighty river, adown which they might sail a month ere they reached its termination.

This, then, is the date, and this the commencement of the history of the NORTH-WEST.

This history is blended somewhat with that of the early French settlements in Canada, which, as we have seen, extends back as far as 1553. After the founding of Quebec in 1608 by Samuel Champlain, the leader of a French Colonial Expedition, settlements continued to be extended farther and farther into the wilderness; and during the administration of Count de Frontenac, which began in 1668, the country bordering on Lakes Erie, Huron, Michigan, and Superior was explored; and military stations appointed at Macinaw, and at the Falls of St. Mary in Michigan.

The first white men, so far as we have any account, to set foot upon the shore of what is now Wisconsin, were Fathers Alloues and Dablow, two Catholic Missionaries, employed by the Society of the Jesuits to carry the Cross into the wilderness, and among the wild tribes of savage men. Fired with the zeal and the indomitable courage of the old martyrs, desirous only to serve their Church and their King, these stout-hearted apostles of the Romish religion, set out to explore the unknown regions of the far West; and through many privations, hardships, and perils, they found their way across the Great Lakes, and established a Missionary Post at Green Bay on the Western shore of Lake Michigan. This was between the years 1665 and 1668.

After thus penetrating many hundreds of miles into the wilderness, there was yet a vast extent of territory stretching out before them, inhabited by Red Men, and undisturbed by the footsteps or the sounds of approaching civilization. Separated by hundreds of leagues from their brethren in New France, alone and unprotected, they would go on. Others followed and joined them, and as they went,

They shook the depths of the desert gloom,
With their hymns of lofty cheer;
* * * * * * *
And the sounding aisles of the dim woods rang,
with solemn anthems of a Christian worship.

No danger or hardship moved them, neither counted they their lives dear unto themselves. "They toiled and suffered—were struck down with the tomahawk—they lived the live of beggars, and died the death of martyrs—were covered with burning bark and scalded with boiling water, and scarred with hot iron, until the gentle Lallemand cried out amid his tortures, "We are made a spectacle unto the world, and to angels and to men!" but with the zeal of ancient Martyrdom, the Jesuits pressed on from the stronghold of Quebec, filling the ranks of the dead as one after another fell, advancing to the remote bounaries of the Lake shores, the Cross and the lilies of the Bourbons."

☞A subscriber writing from Willow River, St. Croix Co., Wis. says:

I like your paper much, and so do all who have seen it in this county. I think it is calculated to do much good to the cause of Agriculture, which next to Education, is the greatest in our new state. I am much pleased with your suggestions in reference to an Agricultural Department in the State University, and should be happy to see them carried out—will co-operate all in my power. Wisconsin is and must continue to be an Agricultural State. Then let us endeavor by all proper means to give to the science of Agriculture that high position which it was evidently intended to occupy by the Creator of the Universe.

I shall endeavor to get you a number more subscribers by the commencement of your next volume, if not sooner. Wishing you all kinds of good luck in your new undertaking, I subscribe myself Sir,

Your ob't servant,

JOSEPH BOURON.

We are obliged to our friend for his kind wishes, for the interest he has always manifested in behalf our enterprise, and shall be glad to hear from him again.

WORK FOR JULY.—The weeds and worms are still busy and should be thoroughly extirpated. Budding or Inoculating is generally commenced the latter part of this month—directions in regard to which will be found in another column.

Hyacinths, Tulips, Crocus, Narcissus, and the like bulbous roots may be taken up and transplanted as soon as the foliage dies, or after drying them in the shade they may be packed away in dry sand and kept till fall. Layering may still be done.

CUCUMBERS.—When a cucumber is taken from the vine, let it be cut off with a knife, leaving about an eighth of an inch of the cucumber remaining to the stem upon which it grep, then slit the stem with a knife from its end to the vine, leaving a particle of the cucumber to each division, and as many slits or divisions as are made in it there will be new cucumbers, as large and as fine at those that grow in the natural way.

FOND DU LAC, June 23, 1849.

MARK MILLER ESQ.:

*Dear Sir:*—As a member of the Board of Public Works, for the improvement of the Fox and Wisconsin Rivers, I have recently had occasion to pass the whole length of the Valley of the Fox river, from Fort Winnebago on the Wisconsin to Green Bay through the several lakes: Lake Puckonwy, Buffalo Lake, Lake Butte de Mort, Lake Winnebago, &c, &c. As the prospects of of this improvement and the character of that country, are subjects of great interest not only to all the citizens of this state, but also to your readers in all parts of the country. I propose to give you, if you desire it, a short sketch of our journey. All the members of the Board, and His Excellency Gov. DEWEY were of the company. We slept in our tent several nights during our trip. The Governor was perfectly delighted with the country, and takes an enthusiastic interest in all that effects this great Public Improvement, and took his share, rough and tumble with the rest of us in camping out, sleeping on the ground, travelling on shore, roasting wild ducks, wading through sloughs and marshes, so deep in the water, that even the Governor's famous cow-hide boots couldn't save him from wet feet—unless they keep out water several inches above the tops. But on the whole, we had a pleasant time. The weather was inclement; several days and several nights it rained hard; but the beauty of the country and the novelty of the trip, made it, on the whole, quite agreeable. Yours truly,

ERASTUS W. DRURY.

REMARKS.—We take pleasure in placing the foregoing before our readers, because, as we trust, introductory to a series of articles from the pen of our talented correspondent, with reference to Northern Wisconsin, the Public Improvements now in progress along the Wisconsin and Fox, etc. We do much desire, and shall expect, that "short sketch' (please give us several *sketches,*) 'of our journey.'

THE CROPS IN WILL COUNTY.—Much of the winter wheat in this section has been harvested. The yield per acre will not be large, but the kernels are extremely well filled. Oats and Spring wheat promise more than an average crop. There is now a flattering prospect of a good crop of corn. Potatoes, however, will prove an entire failure, as many fields have been destroyed by tae rot already.—*Will Co. Telegraph.*

ACTION OF LIME.—Hon. John Delafield, in his address before the Yates County Agricultural Society, says: "Lime exists in plants in various proportion, viz: 32 per cent. of the ashes of oak wood is lime; 27 per cent. of the ashes of poplar is lime; 14 per cent. of the ashes of peas is lime; and 4 per cent. of the ashes of our wheat plant is lime.—Lime is an essential constituent of wheat. It *must*, therefore, be in our soils, or our wheat never can be matured. Lime therefore is a *direct food* for wheat, and so, also, for other plants. This important element of our soils possesses several qualities, most essential and highly beneficial to the farmer. For instance, where applied to heavey clay soils, it renders them more open and easily worked, admitting the action of the atmosphere.

"In all soils containing the sulphate of iron, lime will decompose the sulphate of iron, and thereby form plaster of Paris; a meterial well known. When we apply lime in its fresh or caustic state, it acts as a solvent, destroys the texture of matter in contact with it, or changes its nature. But when by exposure to the air this power is lost, and it becomes slacked, then it is food direct for plants.

"Now as to the best method of using lime, farmers are not agreed; and with some hesitation I will state my practice and give my reasons. We see and know that twenty bushels of wheat, if produced from a single acre, will take from that acre, about *seven* pounds of lime:—then as a bushel of lime weighs about 72 pounds in a caustic state, it will weigh when slacked, about 100 pounds by the absorption of water; therefore *one bushel* of lime is sufficient for *fourteen acres* of wheat or thereabouts, but as this supply is for one crop only, and as weeds and other vegetation will rob the wheat of its due share, I would apply ten bushels to the acre, and feel that it is sufficient for four or five years.

"It is true that farmers in this country have applied from 60 to 100 bushels per acre, and there may occasionally be a farm where such a dose may do good but more likely to do harm; at any rate, for the reasons above stated, it seems a wasteful and expensive system. For light soils, I would recommend a mixture of lime and muck, say one bushel of lime to a cubic yard of muck applyihg 20 to 25 bushels of this mixture to an acre. But never mix lime with your manure heaps; this is a ruinous practice, because it expels from your manure its chief power; it destroys the ammonia—a salt which it is our interest to preserve."

SIGNS OF A POOR FARMER.—He grazes his mowing land late in the spring. Some of his cows are much past their prime. He neglects to keep the dung and ground from the sills of his building. He sows and plants his land till it is exhausted, before he thinks of manuring. He keeps to much stock, and many of them are unruly. He has a place for nothing, and nothing is in its place. If he wants a chisel or a hammer he cannot find it. He seldom does anything in stormy weather, or in an evening. You will often, perhaps, hear of his being in the bar-room talking of hard times. Although he has been on a piece of land twenty years, ask him for grafted apples, and he will tell you he could not raise them, for he never had any luck. His indolence and carelessness subjects him to many accidents. He loses cider for want of a hoop. His plow breaks in his hurry to get in his seed in season, because it was not housed; and in harvest, when he is at work on a distant part of his farm, the hogs break into his garden, for want of a small repair in his fence. He always feels in a hurry, yet in his busiest day he will stop and talk till he has wearied your patience. He is seldom neat in his person, and generally late at public worship, His children are late at school, and their books are torn and dirty. He has no enterprise, and is sure to have no money; or, if he must have it, makes great sacrifices to get it; and as he is slack in his payment, and buys altogether on credit, he purchases everything at a dear rate. You will see smoke come out of his chimney long after daylight in winter. His horse stable is not daily cleansed, his horses curried. Boards, shingles, and clap-boards are to be seen off his buildings, month after month without being replaced, and his windows are full of rags.—He feeds his hogs and horses with whole grain. If his lambs die, or the wool comes off his sheep, he does not think it is for want of care or food. He is generally a great borrower, and seldom returns the thing borrowed, He is a poor husband, a poor father, a poor neighbor, a poor citizen, and poor christian.

AGRICULTURE, like the leader of Israel, strikes the rock—the waters flow, and the famished people are satisfied.

## Thinks I to Myself.

We are indebted to a worthy and observing friend for many of the following hints.

When I see a mass of chips accumulated in a farmer's back yard, remaining year after, year, "thinks I to myself" if the coarser ones were raked out, they would serve for fuel, while the finer parts, with the addition of soap suds, &c., from the house, would afford a valuable source of manure.

When I see a convex barn-yard, "thinks I to myself," there is comparatively but little manure made there.

When I see banks of manure resting against a barn during the summer season, serving only to rot the building "thinks I to myself," that manure might be better employed.

When I see the drainings of a barn-yard finding their way into gullies and rivulets, while, with small expense, they might be thrown on to a valuable swell or declivity, "thinks I to myself," that farmer is blind to his own interest.

When I see a hog-yard not well supplied with materials for making manure, "thinks I to myself" that man suffers loss for the want of care.

When I see a pieceof hoed ground in a mowing field, and the turf, stalks and stones, that were carried out by the plow or harrow, not collected together, "thinks I to myself," there is someting slovenish in the case.

When I see plowing done, year after year, in the same track by the side of a fence or a gully, till a dyke of considerable height is thrown up, and of course a corresponding leanness in the interior, "thinks I to myself," there is want of good husbandry.

When I see a stone wall topped out with a single tier of round stone, "thinks I to myself," the upper foot in the height of such walls ought never to have been put on and look out for dull scythes and loss of hay.

When I see a fruit tree loaded with twice the top necessary for bearing well; and this perhaps partly dead, thereby keeping the needed rays of the sun from the under crop, "thinks I to myself," here is an indication of bad husbandry.

When I see stones piled around thetrunk of a fruit tree, "thinks I to myself," here is an invitation to suckers and to mice, and if dull scythes should follow it would not be strange.

When I see a total failure of a crop of Indian corn, "thinks I to myself," if that man had bestowed all the manure and perhaps two-thirds the labor on half the ground, he would have had a fair crop and fine a piece of ground for a crop of Ruta Baga the following year.

When I see a farmer selling his ashes for ten cents per bushel, "thinks I to myself," he had better have given his purchaser fifty cents to leave it for his corn and grain.

*Maine Farmer.*

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Potash a Proper Food for Grape Vines.—Having, last year, seen it stated in a paper, that the ashes of grape vines contained a large amount of potash, I caused three vines, of the same size, to be planted in boxes filled with equal quanties of earth, in which I noted the following results:

No. 1 was supplied, when necessary, with pure water, and in a given time, increased six inches in length. No. 2 was watered with a solution of whale-oil soap, and in the same length of time acquired nine inches of growth. And No. 3 I watered with a solution of potash, and within the same period as above, it grew eighteen inches in length!

By the begining of November, Nos. 1 and 2 dropped their leaves, and showed no sighs of fruit; whereas, No. 3 retained its leaves three weeks later,and in the course of the season shot forth several bunches of fruit, which, of course, were not suffered to grow. This shows the importance of knowing what kinds of salts go to form wood and fruit, in order that we may apply such manures to the soil as the vine or fruit tree requires.

I wish we could have full analysis made of our great staple, Indian corn, including the grain, cob, stlak, and blades. [*Correspondent Amer. Agriculurist.*]

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Wisconsin Iron.—The Wisconsin Iron Company, at Mayville, Dodge County, are now in the full tide of successful operation, and several tons of pig iron, from their works, have been received here, and are offered for sale at Ludington's Old Corner Store, East Water street. This iron is of excellent quality, and will, we doubt not, speedly work its way into general favor and use. It is especially interesting to us, as being the first iron made in Wisconsin.—We heartly wish the enterprising proprietor of the Mayville works abundant success.—*Sentinel.*

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Laziness begins in cobwebs, and ends in iron chains.

## Review of the Wool Market for June.

We, perhaps could do no better than to reproduce our article on the subject of the Wool Market, in the last number. As we there predicted, manufacturers and dealers went west, and bought freely and early, and at prices too, that must generally be very satisfactory to them. Prices have rather exceeded the range which we gave for the month. The amount of wool growing through our canal, indicates pretty clearly that it has been bought up more rapidly, and sent forward freer than at any former period. The wool going East from this point, to 27th June, as appears from a statement kindly furnished at the Canal Collector's office, was

| | 1849. | 1848 |
|---|---|---|
| From this State, | 103,106 lbs. | 137,902lbs. |
| Canada & West, | 1,373,622 | 737,126 |
| Total | 1,476,728 | 875,028 |
| By Rail Road, | 100,000 | |
| | 1,576,728 | |

Making an increase of this, over last year, of 701,700 lbs. The entire shipments from this point East, by Canal and Rail Road, for the year 1848, equal about six millions of pounds, so that up to the first of July, the shipments will make full one third of all that went forward last year. We must add to this, also, the increased quantity which has gone from this state. For, although the shearing has been uncommonly late, yet the wool has been bought up with great rapidity, and is on its way to the manufactory, or to the dealers in the Eastern cities. The month of July, then, will find the manufacturers and dealers with good stocks on hand, sufficient to last, on an average, into October. Wool, therefore, may, for the next three months, be dull of sale; possibly in the hands of needy holders may decline. As dealers have bought very largely, and manufacturers, more or less, it will become a game with them, and it is possible that the manufacturers may win, as there is still a larger supply of wool yet behind, in the hands of local dealers and the farmers. If money should continue abundant, and there now seems to be no reason why it should not, the manufacturer may be enabled to purchase his wool for some months stock, without resorting to the large dealers. If so, they will be left with large stocks on hand, which they may be compelled to hold until winter.

As we have remarked in another place, and, as is stated by our correspondent from Boston in the last number, there is no "rubbing out the fact," that we do not grow wool enough in the Union for our own home consumption. And if the mills can have active employment through the balance of the year, they will lack full two months stock, which must be supplied by foreign wool.

We predicted that cloths would not advance before July; cloths have already advanced; the market is becoming firmer, and for the next three months, there will be a steady advance, until prices will touch a point that will induce orders for foreign goods. The recent news from California, is of that character, that we can have no doubt as to the immense supplies which must be furnished from this part of the Union. The whole coast of the Pacific must, to a great extent, be so supplied. Our proximity defies competition. The wants of the market there, are now well understood, and many manufacturers are already turning their power upon the production of the proper fabric. The vast field which is thus opened to our enterprise, will absorb all our supplies for an indefinite number of years. Gold there, has begun to depreciate, or in other words, the price of all kinds of property has enormously advanced, and the rise will be felt now, with increasing intensity.

Wool must advance in price. It may be dull of sale, for July and August, but it should not fall off in price. We advance our depot price, 2 cents per lb. for all, except the choice sorts. For very fine wool there will be no adequate price paid, until very late in the season. We consider it very unfortunate for all concerned, that fine wool has brought so low a price, for the last two years. Thousands of fine wooled sheep are being sold to the butcher, and their places supplied by coarser wooled, and, for the present, more profitable sheep. When prime Saxony wool must be sold under 50 cents per lb. it is no encouragement to grow it. Our fine wool manufacturers will be compelled to go to Germany ultimately for their stock, with how much profit, time will determine. We hope those who are able to keep up good blood will do so; but small farmers, we cannot advise to go beyond good grade sheep; say one half to three quarter blood.—*Wool Grower.*

Drinking water neither makes a man sick, nor in debt, nor his wife a widow.

From the Maine Farmer.

## The River Jordan and the Dead Sea.

The narrative of Lieut. Lynch of the navy, who commanded the expedition to explore the river Jordan and the Dead Sea, under the authority of the United States government, has recently been published. The book is one of great interest, and will be found to be a valuable contribution to biblical knowledge and the cause of science. From the July number of Sartain's Magazine we make the following extracts:

"On the 10th of April, Lieut. Lynch and his party, in two boats belonging to the ships which had been left at Acre, and one small, frail boat purchased at Tiberias, passed from the sea of Galilee into the Jordan. At first the river is three quarters of a mile wide, with a sloping and undulating country on the west, and the eastern bank broken up into gullies and alluvial hills. In an hour it narrows to seventy-five feet, banks thirty five feet high, and rising and retiring away to the mountains which border the valley of the Jordan on either side. On both sides banks and wavy hills were covered with grass, and a profusion of wild flowers, among which were the lily, anemone, oleander, and marigold; water clear, from eight to ten feet deep. Scarcely had their wonder and delight been satisfied in gazing on this sweet scene, when they heard the roar of a cataract; and in a few minutes they saw with astonishment and dismay, the waters rushing and leaping headlong down the narrow, rocky channel. During their seven days' voyage on the Jordan, they encountered more than a score of these dangerous cataracts; and that the reader may have an idea of them, I give the Lieutenant's description of the descent of one.

"The current, at first about 2½ knots, but increasing as we descended, until at 8.20 we came to where the river for more than three hundred yards was one foaming rapid: the fishing-weirs and the ruins of another ancient bridge obstructing the passage. There were cultivated fields on both sides. Took everything out of the boats, sent the men overboard to swim alongside and guide them, and shot them successively down the first rapid. The water was fortunately very deep to the first fall where it precipitated itself over a ledge of rocks. The river becoming more shallow, we opened a channel by removing large stones, and as the current was now excessively rapid, we pulled well out into the stream, bows up, let go a grapnel and eased each boat down in succession. Below us were yet five successive falls, about eighteen feet in all, with rapids between,—a perfect breakdown in the bed of the river. It was very evident that the boats could not descend them.

By clearing out a side canal, which had been cut to conduct the water to a ruined mill, the boats were brought below the worst part of the rapids, and by making a breach in the canal so as to let the water flow into the river, they were again launched on the current. In this way they cleared these successive cataracts. Others they descended by fastening ropes to bushes on the banks, and thus easing the boats in their descent.

The Lieutenant describes the Jordan as a very tortuous river, measuring at least 200 miles by its channel from the Sea of Galilee to the Dead Sea, while it is only about 60 miles in a straight line. It flows in a deep channel, in some places 40 yards, and in others 200 wide. It has many little islands, some of them thickly covered with shrubs, reeds, cane and wild flowers; others only sand-bars. The banks are generally steep, composed of loam, clay, and limestone; they rise from 12 to 30 feet, and then the country extends back from the river to the mountains on either side, which are sometimes close at hand, sometimes several miles distant. The country between these mountain ranges is naturally fertile, and was populous and powerful not only under the Romans, but also under the Mahometans. Between the mountains and the narrow lower bottoms which immediately border the river, the valley is undulating with hills of alluvial formation, and in many places luxuriantly covered with grass and wild flowers. The narrow lower bottoms dipping to the water are covered with thickets; in which the willow, the acacia, and some other trees mingle, rising above the almost impenetrable jungle of undergrowth, composed of grasses, flowers, vines and cane. These thickets abound with birds of varied and beautiful plumage, and with wild beasts, among which are the tiger and the boar. The lion also may yet lay down as in ancient days by the margin of the consecrated Jordan.

The following is an interesting sketch of a *Simoon on the Dead Sea*, and *a night encampment on its margin:*

"At 2. 25 p. m. close in with the eastern shore, but unable to land from the soft bottom and shoalness of the water. At 2.50 a light breeze from the N. N. W., hauled to the north towards the base of the peninsula. A long, narrow, dry marsh, with a few scrubby bushes, separated the water from a range of stupendous hills 2000 feet high. The clouds on the east (nimbus) seemed to be threatening a gust. At 3.50 steered N. N. E. along a low marshy flat, in shallow water. The light wind had subsided: air 97 degrees; water twelve inches below the surface 90 degrees. A thin purple haze over the mountains increasing every moment, and presenting a most singular and awful appearance; the haze so thin that it was transparent, and rather a bluish than a distinct color. I apprehended a thunder-gust or an earthquake, and for some moments we feared being driven out to sea. The thermometer rose immediately to 102 degrees. The men, closing their eyes to shield them from the fiery blast. were obliged to pull, with all their might, to stem the rising waves, at 4.30, physically exhausted, but with grateful hearts we gained the shore. My own eyelids were blistered by the hot wind, being unable to protect them from the necessity of steering the boat.

"We landed on the south side of the peninsula, near Wady Humeir, the most desolate spot upon which we had encamped. Some went up the ravine to escape the stifling wind; others, driven back by the glare, returned to the boats and crouched under the awnings. One mounted spectacles to protect his eyes, but the metal became so heated that he was obliged to remove them. Our arms and the buttons on our coats became almost burning to the touch, and the inner folds of our garments were cooler than those exposed to the immediate contact of the wind. We bivouacked without tents on a dry marsh, a few dead bushes around us and some of the thorny nubk, and a tree bearing a red berry, a short distance inland, with low canes on the margin of the sea. At a short distance to the north-east, on the peninsula, we found some fragments of an immense and very old mill-stone. The mill had doubtless been turned by a canal from

the ravine, down which the water must flow copiously in the rainy season.

At five, finding the heat intolerable, we walked up the dry torrent in search of water Found two successive pools, rather than a stream, with some minnows in them; the water not yet stagnant flowing from the upper to the lower pool. There were huge boulders of sandstone in the bed of the ravine; a dead palm tree near the largest pool; a living one in a cleft of the rock at the head of the gorge; and high up to the summits of the beetling cliffs the sandstone lay in a horizontal strata with perpendicular cleavage, and limestone above, its light brown color richly contrasting with the deep red below.

The sandstone below limestone here, and limestone without sandstone on the opposite shore would seem to indicate a geological fault.

Washed and bathed in one of the pools, but the relief was only momentary. In one instant after leaving the water, the moisture on the surface evaporated, and left the skin dry, parched and stiff. Except the minnows in the pool, there was not a living thing stirring; but the hot wind swept mourning through the branches of the withered palm tree, and every bird and insect, if any there were, had sought shelter under the rocks.

Coming out of the ravine the sight was a singular one. The wind had increased to a tempest; the two extremities and the western shore of the sea were curtained by a mist, on this side of a purple hue, on the other a yellow tinge; and the red and rayless sun in the bronzed clouds had the appearance it presents when looked upon through smoked glass. Thus may the heavens have appeared just before the Almighty in his wrath rained down fire upon the cities of the plain. Behind were the rugged crags of the mountains of Moab, (the land of incest) enveloped in a cloud of dust swept by the simoon from the great desert of Arabia.

There was a smoke on the peninsula, a little to the north of us. We knew not whether they were friends or foes, and therefore that little smoke was not to be disregarded. We had brought one of the Ta'amirah with us for the express purpose of communicating with the natives, but he was so fearful of their hostility that I could not prevail on him to bear a message to them. With his back to the wind and his eyes fixed on the streaming smoke, he had squatted himself down a short distance from us. He thought we would be attacked in the night. I felt assured that we would not if we were vigilant. These people never attack each other, but at advantage; and fifteen well-armed Franks can, in that region, bid defiance to anything but surprise.

The sky grew more angry as the day declined—

"The settling orb in crimson seems to burn,
Denouncing greater woes at his return,
And adds new horrors to the present doom,
By certain fears of evil yet to come."

The heat rather increased than lessened after the sun went down. At 8 P. M. the thermometer was 106 deg., five feet from the ground, at one foot from the latter it was 104 deg. We threw ourselves upon the parched cracked earth, among dry stalks, and canes, which would have before seemed insupportable from the heat. Some endeavored to make a screen of one of the boat's awning, but the fierce wind swept it over in an instant. It was more like the blast of a furnace than living air. At our feet was the sea, and on our right, through the thicket, we could distinguish the gleaming of the fires and hear the shouts from the Arab encampment.

In the early part of the night there was scarcely a moment that some one was not at the water-breakers; but the parching thirst could not be allayed, for, although there was no perceptible perspiration, the fluid was carried off as fast as it was received into the system. At nine o'clock the breakers were exhausted, and our last waking thought was water. In our disturbed and feverish slumbers, we fancied the cool beverage purling down, our parched and burning throats. The mosquitos as if their stings were envenomed by the heat, tormented us almost to madness, and we spent a miserable night, throughout which we were compelled to lie incumbered with our arms, while, by turns, we kept vigilant watch.

We had spent the day in the glare of a Syrian sun, by the salt mountain of Usdom in the hot blast of the sirrocco, and were now bivouacked under the calcined cliffs of Moab. When the water was exhausted, all too weary to go for more, even if there was no danger of a surprise, we threw ourselves upon the ground,—eyes smarting, skin burning, lips and tongue and throat parched and dry, and wrapped the first garment we could find, around our heads to keep off the stifling blast; and in our brief and broken slumbers, drank from ideal fountains. Those who have never *felt* thirst, never suffered in a simoon in the wilderness, or been far off at sea, with

"Water, water, everywhere
Nor any drop to drink."

can form no idea of our sensations. They are best illustrated by the exclamation of the victim in Dante's Inferno;

"The little rills which down the grassy side,
Of Cassentino flow to Arno's stream,
Filling their banks with verdure as they glide,
Are ever on my view,—no idle dream,—
For more than vision parches, make me weak,
Than that disease which wastes my pallid cheek."

Our thoughts could not revert to home save in connection with the precious element; and many were the imaginary speeches we made to visionary common councils against ideal water carts which went about unsubstantial city streets, spouting the glorious liquid in the very wastefulness of abundance, every drop of which seemed priceless pearls as we lay on the shore of the Dead Sea in the feverish sleep of thirst.

The poor affrighted Arab slept not a wink; for repeatedly when I went out as was my custom to see that all was quiet and the sentries on the alert, he was ever in the same place looking in the same direction. At midnight the themometer stood at 98° shortly after which the wind shifted and blew lightly from the north. At four a. m. the thermometer comparatively cool.

FEMALE INFLUENCE.—How much influence women exercise in society! The need not busy nor bestir themselves to increase it; the responsibility under which they lie is heavy as it is. To say nothing of that brief but despotic sway which every woman possesses over the man in love with her a power immense, unaccountable, incalculable, but in general so evanescent as to make a brilliant episode in the tale of life—how almost immeasurable is the influence exercised by wives, sisters, friends and most of all by mothers! Upon the mother, perhaps most of all, the destiny of the man, as far as human means are to be regarded, depends. Fearful responsibility! and by too many mothers how carelessly, how frivolously, how almost wickedly, is the obligation discharged.

## Do Animals Reason?

The Alpine hares, says Pennant, in August begin to cut great quantities of soft, tender grass and other herbs, which they spread out to dry. This hay, about autumn, they collect into large heaps, and place either beneath the overhanging rocks, or round the trunks of trees, in conical heaps of various sizes, according to the number of the society that make them. They select the best of vegetables, and crop them when in the fullest vigor, which they make into the best and greenest hay, by the judicious manner in which they dry it. The common squirrel makes a nest of moss and dried leaves at the forks of a tree's branches, with two holes at opposite sides, and, as the wind varies, shuts the hole towards it. It lays up magazines of nuts, acorns, fruit, and berries for winier, never touching them till wanted. The field man collects large stores, &c., in the same manner; the German harvester makes large Chambers for grain, beans, and peas, each in a separate cell, sometimes, a hundred pounds weight in the whole. The tuition which quadrupeds are capable of remarking, discovers a lower degree of that improvability which distinguishes our superior race, which, as far as it extends, resembles ours, although at the same time it marks its specific difference by its unvarying limitation. Blumenbach's ape would manage wood for the stove, and put it in with as much judgment and economy as a servant. He was often at the college, and used to examine the pupils' specimens with amusing imitation and grimace. One day he found a work on insects on the table, which he studied with great gravity, but a person, on entering the room an hour afterwards, found that the ape had, with great dexterity, pinched out all the beetles of the large plates, and eaten them, mistaking the picture for real insects. This was an unlucky, but not a foolish action. Vosmaer had an orang which was taught to eat with a spoon and fork, and pick out his strawberries one by one from a plate. Getting loose one day, it uncorked a bottle of Malaga wine, drank it off, and put the bottle in its place. Seeing others open its chain padlock with a key, it put a bit of stick into the key-hole, and turned it about in all directions to unlock it itself. A black sow was taught to find game, and to bark and stand nearly as well as a pointer. When very young she became attached to some pointer puppies, and the keeper resolved to try her. He gave her some pudding of barley-meal as her reward, and threw stones at her when she done wrong. By this mode he soon taught her what he wished. As soon as the game she pointed rose, she always returned for her reward.

The quadruped animals, of their own will and nature, and from inborn instincts, do actions which require knowledge, reasoning, and judgment in manking. Reindeer follow a leader which they implicitly obey; antelopes run in a regular file, led by an older one.

Elephants make their journeys on this plan. Many animals are found to make defensive arrangements. A Cape baboon having taken off some cloths from the barracks, Leutenant Shipp formed a party to recover them. "With twenty men, I made a circuit to cut them off from the caverns to which they always fled for shelter. They observed my movements, and detaching about fifty to guard the entrance, the others kept their post. We could see them collecting large stones and other missiles. One old grey-headed one, who had often paid us a visite at the barracks, was seen distributing his orders as if a general. We rushed on to the attack, when, on a scream from him, they rolled enormous stones upon us, so that we were forced to give up the contest." When the bisons scent the approach of wolvs, the herd throw themselves into the form of a circle, placing the weakest in the middle and the strongest outside, and thus present an impenetrable forest of horns. The black bear's method of fishing is as dexterous as any school-boy's could be. Setting on his hind paws on the bank of a river or lake, he continues so motionless that he might be mistaken for the burnt stump of a tree. He has sometimes deceived even the practised eye of an Indian. With incredible celerity, he seizes with his right paw the fish that pass by him. He seems to know that morning and evening are the time for fishing.

The following is Mad'lle De Laistre's account of her weasel:

"It plays with my fingers like a kitten, jumps on my head and neck, and if I present my hands at the distance of three feet, it jumps into them without ever missing. But it is impossible to open a drawer or a box, or even to look at a paper, but he will look at it also." Building skill appears in the beaver's construction as in any human fabrication of a cottage. Foreseeing caution is shown by many animals by their placing sentinels to watch and give alarm of danger. The bobae, which inhabits the dry and sunny places of the mountains, go in search of food in the morning and middle of the day, placing a sentinel to give warning of approaching danger. The mountain marmots place sentinels upon a rock while the rest make hay. If the sentinel sees a man, an eagle, or a dog, he alarms his companions by a loud whistle, and is the last to enter his hole. Wild asses, llamas, Siberian horses, and antelopes, placing sentinels. The sheep on the Welsh mountains feed in companies, and one is set as sentinels. If this sees any one advancing, it looks at him till he comes within eighty or one hundred yards; and if he still approaches, he alarms his comrades by a loud whistle, two or three times repeated, and all scamper off to the steepest parts. The Alpine marmonts lodge together in subterranean apartments, and their labor for collecting materials for these is carried on common. Some eat the finest herbage, and others collect it. To transport this, one lies down on his back, and extending his limbs for that purpose, allows himself to be loaded. Others trail him, thus loaded, by his tail to the place.

All the instances which occur, in these classes of beings co-operating action for some common end, show the intention and desire to unite their force for that purpose, and, therefore, a mind that designs, perceives, comprehends wills, operates, to produce it. This quality is shown by the rat leading a blind one by a straw which he puts into his companion's mouth. The migrating squirrels, when they come to a river which they wish to cross, draw a piece of birch bark to the edge of the water, mount on it, abandon themseleves to the waves, rasing their tails to catch the wind. The Cayenne opossum shows it; when it cannot reach the crab, upon which it lives with its paw, it thrusts in its long prehensile tail, it hooks them out. The honey weasel shows it. Towards sun-set he issues from his hole. Near this he sets upright, and holds one of his paws before his eyes, in order to modify the rays of the sun. When he sees the bees he is looking for, he knows they are going home, and he takes

care to keep in the same direction, in order to find them. When Messrs. Condamnie, and Bougre were measuring the length of a degree in Peru, some large monkeys were admitted to their rooms, during the time they were making their observations on the mountains. These animals, of their own accord, went through a series of imitations of their actions. They planted the signals, ran to the pendulum, and then to the table, as if to commit their remarks to paper. They occasionly pointed the telescope to the skies, as if to survey the stars. It is related of an orang that belonged to Mr. Grant, that, after a lady had given him cold water instead of tea for several times, he showed great vexation at it, and, to know whether it was so, put in his finger. Observing this, she gave him hot water, which scalded him. After that he always put in a spoon or a piece of wood first, and touched the spoon. This action was very like human reflection.—[*Illus. Nat. History.*

### Fine Growth of Cranberries on Upland.

An experiment of Mr. Winthrop Low, of Essex, on the cultivation of the common marsh cranberry on upland, is one of great interest. It establishes the fact, so far as it can be done in one year, that cranberries may be raised in perfection upon a dry upland soil, without artificial watering. The soil selected by him was most of it, a sandy loam. It was perfect Indian corn land. The soil is porous, and would not retain water, even if the ground were level.

As evidence of the completely upland nature of the soil, it may be stated that a row of white beans was planted between every two of cranberry vines; and, although it has not been a good year for white beans, Mr. Low has harvested nine bushels from the one hundred and twenty rods—a fact showing, also that the land is not lost to the cultivator even the first year, indeed that the bean crop has defrayed a large part of the expense.

The cranberry vines had put out runners in many cases, from three to four feet long, and have all the marks and numbers of health and vigor.—Sand was applied to about one-half of the hills but without any apparent advantage whatever. The attention of the committee was called particularly to this fact, because the experiments in Barnstable county seem to have been all made with sand, and it is there thought and declared, to be indispensable. There was no artificial watering. The cranberry sods were taken up, as appears, on the 15th of May, and set out on the 16th, 18th, and 19th. It should be borne in mind, however, by way of caution, that there had been more wet weather during the following six months than the average of the previous four years, or indeed any one of them. The whole quantity during the months of June, July, August, September, and October, 1847, was 25¾ inches; while, during the same months in 1846, there were but 15⅞ inches; though in 1845, the quantity were as great as this year, wanting 2½ inches.

It should be recollected, too, that this is the first year, and what the effect of the winter will be without the *indispensable presence of water*, as the Yarmouth Register would say, remains to be seen. The fact, that the roots could be taken dripping from their native meadow bed, on the 15th of May, put in a corn field soil, and then, with nothing but the rain of heaven upon them, in five short months to take root downward, and bear fruit upward, is most extraordinary. A speciment of the fruit appeared to be as good as the uncultivated fruit of the meadows. The quantity was one bushel and thirteen quarts. The land was carefully measured, and found to contain 120 rods. It ought to be added here, that the field exhibited a case of clean culture; weeds and grass having both yielded to the hoe.—*Condensed from Transactions of the Agricultural Society of Massachusetts.*

To Purify Tallow.—Mix 5 parts of beef tallow with 3 parts of mutton tallow, in a copper or iron kettle, with half a pint of water to each pound of grease. When melted mix 8 ounces of brandy, 1 ounce of salt of tartar, 1 ounce of cream of tartar, 1 ounce of sal ammoniac, 2 ounces of pure and dry potash, with the tallow. Boil fifteen minutes, and set off to cool. When cold, take off in cake and bleach it in the air and dew a few days and nights. It will then be hard and white. Candles, with a fine cotton-yarn wick, (6 to a pound,) will burn 14 hours.

*Tomato Catchup.*—First bake your tomatoes, then squeeze them through a sieve. Add to 6 quarts of juce an equal quantity of wine vinegar; boil slow until it begins to thicken; then add cloves allspice, and pepper, ½ an ounce each, cinnamon ¼ of an ounce, and 2 nutmegs, all finely powdered. As it thickens; add four spoonfuls of salt, andwhen done, pour, out in an earthern dish to cool. Bottle, cork, and seal, and it will keep years in a warm climate.

*Potato Pudding.*— Take ¾ of a pound of sugar, ¾ ditto of butter, and beat well together; add one pound of boiled potatos, (Irish or sweet,) rubbed fine through a collander or mashed; six eggs, the whites and yolks beat separately, and a wine-glassful of brandy and one of wine, a trifle of rose water, and cinnamon or nutmeg, as much as you like.

*Rice Bread* —Take six tablespoonfuls of boiled rice, and one of butter; rub them together, and then pour in half a pint of milk; add two eggs, and six tablespoonfuls of wheat flour. Mix all well together, and bake a little brown; and you will have a very good and wholesome kind of bread.

Domestic Accomplishments.—In the domestic relationship there ought to be no selfishness. Whatever elegant acquirements we may chance to have made, instead of being reserved for rare occasions, should be suffered to shed their softening influence on every-day experience. The prints should not be carefully kept out of sight of the children of the family, and turned over only for the benefit of the stranger; the picture should not be curtained except when there is company; or the piano be dumb because there is "no one but ourselves" to listen. There may be less triumph, but there is surely equal if not greater happiness in singing by the fireside than in warbling in the saloon; and though the thanks of father or brother be homely in expression, there is more sweetness in them than in all the studdied common place of society. A sadder sight can scarcely be conceived than that of the spirit of dulness taking possession of the family circle. We see it in the husband, who, hour by hour, gazes moodily by the fire; in the wife, who occupies herself with her mechanical employment, without seeking to break the enchanted silence. Neither entertains the intention of injuring the other, and yet they are mujually defrauded of the happiness they ought to entoy.

A Good Wife.—When a daughter remarks; "Mother, I would not hire help, for I can assist you to do all the work in the kitchen," set it down that she will make a good wife.

## On Breeding.—No 1.

The very little attention that is paid to systematic breeding of any species of animol, in this country, does not enable an American writer to give much from his own experience nor that of others, nor to state facts of an interesting nature, on this important branch of agriculture. Our people are not yet prepared for undertakings of so delicate and nice a character. Whether this arises from loose, irregular unmethodical modes of education, or from a restless and impatient frame of mind, or from the present habit of the American people to look upward instead of looking forward and onwards, or from the want of that fixed feeling that goes with, and belongs to, the idea of a settled and permanent residence, is of no consequence; it bears, however, on our general subject in so far as by these various reasons we may account for the American mind not having yet done much, or anything in this, almost the very highest department of the art of agriculture. If an American farmer of the stand-as-you-are order is asked, why attempts are not made to improve the breed of animals in his country, his reply is, that it does not pay. If, however, he should carry out this coarse idea to all the various conditions of civilized life, and he should ask himself, whether it would be economical to live in a log-hut, instead of one built of stone or brick, or to be drawn in a cart by a dog or a donkey, instead of a well-bred horse, he would then see in a question so personal, the absurdity and the illiberality of his response. It is not, in truth, because it does not pay, but because he takes no pride in the object; or because he does not like the trouble of the undertaking; or because his mind does not possess the necessary penetration or perseverance, or has not been prepared by previous training, habit of close observation, and clear reasoning, that are essential not only in this pursuit, but in all where success depends on precise and accurate details, and does not result from accident nor haphazard.

The writer does not mean to assert, that the breed of animals, in this country, has not very much improved within the last twenty years; on the contrary, the improvement has been marked. The old-fashioned, ragged, rawboned, half-starved, angry, and withered-looking beast, which seemed as if its early life had been suckled on hail-stones, and in its prime fed on weeds, has given way, in many places to the large, full and fat Durham, or some of its crosses. Every day may be seen, on some of the roads leading to this city, from the west, handsome specimens of animals raised in Kentucky, Illinois, and even Missouri; some with the appearance of having been crossed with the shorthorns, and others with no indication of any other descent than that their sire was a bull and their dam a cow. But this improvement is not the result of what is properly called and known as *breeding*. It is rather crossing, or the producing of a fine animal of some particular breed, with an inferior animal of no breed known nor acknowledged among agriculturists.

Breeding, if I understand the word rightly, is the preservation of a breed already formed, as is now done in England with the shorthorns; or else to create, as was done by Colling and Bakewell, from the materials that lay about us, a breed whose beauty and whose utility shall be the admiration of every one. To do this, requires far higher qualifications than the mere crossing. It exacts a perfect knowledge of what are the fine points of an animal. It requires a nice discrimination of those points, existing as they must, at the first, among the ordinary and imperfect animals that he has at hand, and which form his materials, and the elements of his process. The difficulty of discovering these points, is, no doubt, considerable; the difficulty of adapting and adjusting and uniting them, so as to bring about the end in view, is equally great. When I consider this, I cannot help according to such men my highest admiration. The British can refer with praise, and look with pride and triumph on the genius of their country, their poets and philosophers, who have ennobled the name, and made glorious the history of England.

In New England, and in those parts of our country where her people have gone, may be seen a stock of red cattle, no doubt descended from the English Devons. [?] They are, in many parts, very inferior animals; but that they are capable of being improved, and made equal to any cattle, is made sufficiently clear. At some of the exhibitions in Massachusetts and Connecticut, the size and quality of the animals to be seen there, give clear indications of what might be done by more care and a better judgment; but where capital and industry are superseded by poverty and negligence,

or by a spirit of parsimony, more ruinous than either, it is not to be supposed excellence can be reached nor even approached. Ignorance and indolence have no right to assume that they can rival enterprise, activity, and talent; and it is not possible to form a fine breed of animals, nor to preserve one, without the union of these qualities.

An American breeder has, in fact, far better opportunities for succeeding in his undertaking, than either of the distinguished Englishmen I have mentioned. He has no difficulty in selecting. He is not confused and perplexed by a variety of different breeds. He will, at each step, mark the success of his proceeding; and even, after one or two crosses, be in doubt as to what should be done next. He has the best of the British breeds within his reach; and has nothing more to do than to keep them at the high standard at which he finds them, and to engage in the patriotic purpose of regenerating the native breed of his country.

The great principles of breeding are now so well known, as to be accessible to every one. It would be inexcusable, even in an inexperienced person, to be ignorant of these; and he, certainly, must know them before he begins his enterprise, or ill-success, at the start, will probably depress and despirit, and perhaps force him, in despair, to give up all further exertion. It must neither be supposed that he has undertaken a matter of simple and easy attainment. He can, no doubt, bring males and females also together, and have any number of young; but of what use will they be while alive? and of what value when dead? These are things of far more importance than the mere procreation of the animal; and in those two questions is involved all, or nearly all, that belongs to breeding as an art.

The first great principle is obvious to every student of nature—it is, that "like produces like." But there is a difficulty in acting on this seemingly simple rule, that includes the chief danger, and most serious obstacle, in this pursuit, and which makes absolutely necessary those high and not very common qualifications—judgment, penetration, observation and experience. These constitute the genius of the breeder—the intellectual capital with which he is to work—the powers with which he is to create and reproduce something new. There is in this principle of "like producing like," as much evil to be avoided, as there is good to be attained. Disease, defects, or deformity can be inherited and perpetuated, as easily as strength, symmetry, or beauty. Life itself is but a continued inheritance. Every creature that is born, brings into the world something that belonged to an immediate or a remote ancestor; some peculiarity that allies it with its own particular family, besides that which it has in common with its race. Scrofula, insanity, and gout are, in the human family, as sure and as lasting entails, as lands and houses. Among brutes it is the same. Neither time nor successive generations will eradicate ill temper, faults of form, defects of constitution, nor other natural peculiarities; it can only be done by a proper selection of animals the most free from these infirmities. The system of breeding "in-and-in," is ruinous, chiefly from this perpetuating defect. To a certain extent, it may be adopted, until every animal produced has become entirely similar in form and constitution, with those from which it has descended, and those with which it is connected. After that, the declining will commence, which will only be arrested by crossing with some other family.

There is no doubt that Bakewell adopted this system, and probably, Colling, too; and there is little to doubt that it is the readiest and simplest mode of forming animals that will be more remarkable for beauty than strength of constitution, though nature herself at last puts a stop to this; it must be admitted a somewhat revolting process, by destroying the power of reproducing. It seems a truth, worthy of being constantly kept before the mind of those engaged in these interesting, but delicate enterprises, that nature will not allow art to go much further than she has gone herself. Man may carry his refinements almost to the point of creation. He may reach that which to him seems perfection. Heights like these are not inaccessible, though difficult; but when we have attained them, the difficulty is, to preserve our position.

A. L. Elwyn.

Philadelphia, Nov. 1848.

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The Potato Rot.—The fact that the potatoes raised at Mackinac are not affected with the rot, seems to confirm the theory that the disease spreads by floating particles in the air, infecting vegitation as they pass. Mackinac is isolated, and perhaps at a sufficient distance from the main land to shield it from the reach of disease. The fault, at all events is worthy of consideration.—*Green Bay Advocate.*

## Feeding and Managing Milch Cows.

The grasses, particularly the clovers, are the best summer food. When these begin to fail, the deficiency may be supplied by green corn, which is very sweet, and produces a large quantity of milk, of excellent quality. The tops of beets, carrots, parsnips and cabbage and turnip leaves, are good. Pumpkins, apples, and roots, may be given as the feed fails. Give only a few at first, especially apples, and gradually increase.

Roots are of great importance when cows are kept on dry fodder. Potatoes, carrots, beets, turnips, parsnips, artichokes, and vegetable oysters, are good. The last three and cabbage and turnips keep good in the ground through the winter, and are fresh and fine in the spring, before the grass starts.

Potatoes produce a great flow of milk, but it is not very rich. A little Indian meal is good with them, to keep up the flesh and give richness to the milk; and this is the case with beets and most kinds of turnips, as they tend largely to milk. A little oil meal or flaxseed is excellent, in addition to the Indian meal, to keep up a fine, healthy condition, and impart a rich quality to the milk, and gives a lively gloss to the hair of cattle, and softness and pliancy to the skin.

In all cases of high feeding in winter, particularly when cows have but few roots, shorts or bran are excellent to promote digestion and keep the bowels open. Three pints each of oil and Indian meal, or two quarts of one and one quart of the other, is as high feed in these articles, as cows should ever have. On shorts, bran and roots, they may be fed liberally. Four quarts of Indian meal, in a long run, will dry up and spoil the best cows, so that they will never recover.

Carrots are among the very best roots for milch cows, producing a good but not very great mess of rich milk, and keeping the cow in good health. Parsnips are nearly the same. Ruta-bagas are rather rich, and keep up the condition. To prevent any unpleasant taste in the milk from feeding turnips, use salt freely on them, and milk night and morning before feeding with turnips. Cabbage turnip, (or turnip-rooted-cabbage-below ground,) has no such effect. It resembles ruta-baga, is raised in the same way, and yields as much or more.

Some keep cows in the barn, by night, in the warm season. They are saved from storms, and more manure is saved. There should be good ventilation in hot weather. Cows are much better for being kept in the barn nearly all the time in cold weather. To drink freely of cold water, and then stand half chilled to death, is highly injurious. But they should go out a little while daily, in favorable weather, and be driven around gently for exercise. Inaction is death to all the animal race.

Cows and other cattle are badly managed. They are not *watered*, in short days, until ten o'clock in the morning and their last chance for drinking is about four in the evening. Thus they go sixteen hours without drink, and during that time they take nearly all their food, which is as dry as husk. They suffer to a great degree from thirst, and then drink to excess. As a remedy, give cattle a part of their breakfast, and then water them, and water again after finishing their morning meal; and if kept up, water at noon, and at night. If it be too much trouble to take good care of stock, then keep less, and they will be as productive and more profitable, if well managed. We have fed sheep that had constant access to water within eight or nine rods, and after eating thirty or forty minutes in the morning, they would all go and drink.

Milch cows are injured by being driven far to pasture, especially in hot weather, and still more if hurried by thoughtless boys.—*Cole's American Vetinarian.*

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The Brazil-nut Tree.—The following relative to a species of nut very common and much liked among us—will be new to many: The Brazil nut tree thrives well in the provinces and immense quantities of this delicious fruit are annually exported to foreign countries. It grows to the height of from fifty to eighty feet and in appearance is one of the most majestic ornaments of the forest. The fruit in its natural condition resembles a cocoa-nut, being extremely hard, and of the size of a child's head. Each one of these shells contain from twelve to twenty of the three-cornered nuts, nicely packed together During the season of their falling, it is dangerous to enter the groves where they abound, as the force of their descent is sufficient to capsize the strongest man. The natives, however, provide themselves with wooden shields, which they hold over their heads while collecting the fruit from the ground. In this manner they are perfectly secure from injury.

# HORTICULTURE.

F. R. PHENIX, Editor.

## Peaches in Wisconsin.

"You've gin up peaches now, I 'spose?" said a stranger, who called at the Garden a few days since. "Why so?" said I. "Wan't they all killed down here, last winter?" he asked.

"Not exactly," said I, "although considerably injured.* But you've 'gin up' potatoes, I 'spose, have you not?" "Gin up potatoes!" said he apparently very much surprised at the question —"not I. Why, I planted most two acres this spring!" "Indeed!" I replied, "but didn't your potatoes rot badly last season?" "They did to be sure; but may be they won't this year, and, besides, we can't get along without potatoes." "Exactly so," said I, "and may be peach trees won't kill down next winter, and for one, I shall not try to get along without peaches, whenever they can be raised here." "Its no use," said the old gentleman, "this aint a peach country, no how." "Perhaps not," said I, "and I'm not quite sure that it is a good country for potatoes, but you will keep planting them, and so will I the peach trees."

Such is a specimen of what I hear almost daily. To my mind it is also a specimen of the many fallacies observable in the reasonings and calculations of men. Potatoes may rot severely for half a dozen years in succession, so as greatly to enhance the cost and trouble of raising them, and yet folks will keep planting them—and wisely too, no doubt. But peach trees if killed down one year in six, or if there be one or two failures in the crop, why, they are to be given up—"its no use!" And that, too, when there is so little trouble in raising these trees, and so great a comparative profit on the fruit, even if the crop fail every other year, which is probably as often as it has failed since the trees became large enough to bear in this section. Such, however, is not the way I look at the matter.

If I wanted to make money in growing fruit in Wisconsin, and to make it quickly, I should by all means raise peaches—*that is, if I had the right kind of soil and location.* "Why so?" inquires some skeptical individual. Because the trees require so little attention after they are once planted, and come into bearing so quickly, and in peach years they bear so abundantly; because there is so great a demand and so good a price for them with no danger of an overstock in the market from either home or foreign competition.

The best soil for peaches, particularly at the West, is doubtless a light and rather poor one. On such soils the great desideratum in growing all trees, and especially peach trees, is best secured—*a moderate, thoroughly matured growth.* On the low, black, rich soil that prevails in some sections it will always be more difficult to raise peaches. In such places I would by no means advise any to attempt growing them on a large scale. And yet it would seem worth while for every farmer to try at least a few trees even in unfavorable localities; for a single crop would amply repay any common amount of pains that might be taken with them—the fruit is so perfectly luscious and beautiful and withal so wholesome.

The location or site for a peach orchard should be somewhat elevated, and if very descending should face to the East or any way rather than the South or South-west, because they are then much more exposed to the rays of our winter suns which sometimes do great injury to fruit trees. Nor should they be put close under the South or South-west side of a house or grove for the same reason.

Yet the more protection they have of the right kind the better it will be. Next to a rank, late growth the thing most to be feared here is our piercing winter winds which should be broken off by forests, buildings, fences, hedges, &c. It will also be of service to plant the trees pretty thickly—the rows say a rod apart and the trees not more than 6 or 8 feet apart in the rows. If planted further apart the spaces between them might be filled up with other fruit trees, bushes or shrubs.

In putting out the trees select the choicest, improved varieties whether you buy at the nurseries or bud them yourself. If you raise natural fruit your only chance of selling would be in the absence of better and at greatly diminished prices.

In regard to the cultivation, some recommend putting them into grass ground—which I have

* And here, by the way, I wish to correct a mistake I fell into in an article published in the June "Farmer"—in remarking that Peach trees did not seem to be injured as severely by the past winter as they were two years ago. They are worse killed, but did not appear so when I wrote.

never tried, disliking as I do the idea of having grass among trees any way. And yet if it be found to work well, that need be no objection. If the ground be cultivated it should be as little as possible, and early in the season, on account of having the growth moderate and well ripened.

Pruning peach trees in this section (except to cut out the dead wood) I believe as a general thing, unnecessary and useless.

So far as I am acquainted the peach in this section is subject to the attacks of few or no diseases or insect enemies—at least none worthy of note.

Such are my views and opinions in regard to growing peaches in Wisconsin, based on some eight years acquaintance with the trees here, in which time there have been several fine crops. My object in these remarks is not to persuade others to commence the business on my recommend, but to bring up the subject for investigation, that having thoroughly examined it we may be prepared to decide correctly upon the merits of this branch of Horticulture in our State. Messrs. readers and correspondents—you who have tried peach growing in Wisconsin, what say you?

## Budding or Inoculating.

This is one of the most important operations pertaining to Horticulture. For the speedy and sure propagation of trees it has some decided advantages over grafting, as it only requires a single bud, and if a bud fail the first time others can be afterwards inserted the same season—or if the operation fail entirely one season the growth of the stock is not lost as where grafting fails. The two conditions of plants indispensable to success in budding are—1, *a thrifty growth of the stock so that the bark will peel easily.* 2, *good, ripe buds*; which may generally be known by the perfect development of the young buds at the bases of the leaves and by the shield or bark to which the buds are attached separating easily from the wood—and in short by the general firmness and ripeness of the shoots. Those buds near the middle of the shoots are most esteemed.

Plums and Cherries should be budded early, whilst Peaches do best when set the latter part of August—and in fact are often budded in September.

Apples and Pears can be set from the commencement of the budding season (that is if the buds be ripe) until the last of August; though the first half of August is generally the best time. The time for commencing operations in the budding line varies considerably according to the seasons—it answering as well to begin the 15th or 20th of July, in some seasons, as the 1st of August in others.

Before commencing operations it will be necessary to have your stock in readiness, and to provide yourself with a thin-bladed knife, and a supply of strings for tying up the buds.

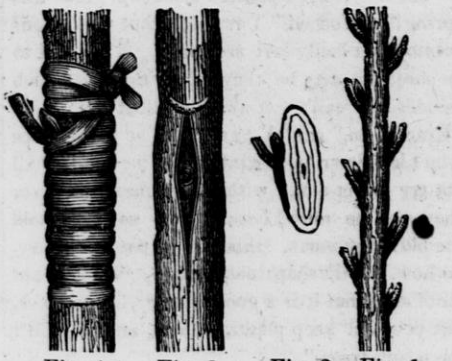
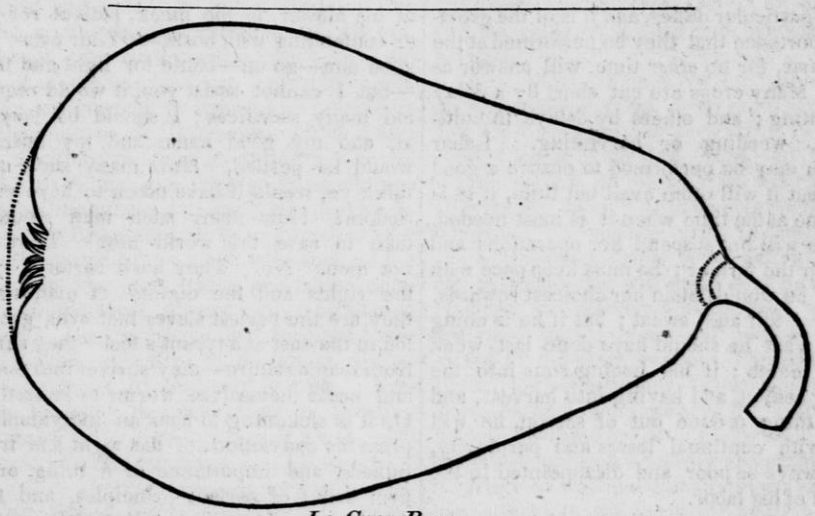


Fig. 4. Fig. 3. Fig. 2. Fig. 1.

Bass matting is generally used for this purpose, though yarn will answer. In budding the first thing is to prepare "a stick of buds"—that is to take off a thrifty shoot of this year's growth and after cutting off the upper, unripe portion of it, to clip off the leaves, leaving about half an inch of their footstalks on the shoots—as in Fig. 1. Having selected a smooth place in the stock, preferring the North or North East side, make a perpendicular incision through the bark an inch or an inch and a half in length, and at the top of this a cross cut, so that the whole shall form a T. With the point of your knife blade or with the haft of your budding knife, if you have one, raise or loosen the bark from the stock each side of the incision—being very careful not to bruise either the bark or sap wood beneath. As speedily as possible and with a clean smooth cut take off a bud (as in Fig. 2.) from your stick of buds with a thin slice of the wood attached. Having ascertained that it is about the right length, lift up the bark at the top of the cut and insert the bud, which with the aid of the footstalk should then be pushed down to

the bottom of the incision. If the top of the bud reach above the cross cut it should be cut off so as to fit exactly, as in Fig. 3. A bandage, as in Fig. 4., should now be tied evenly and snugly over the whole (saving the bud and footstalk which must be left exposed) extending a little above and below the wound. Care and expedition must be used in the operation to have it succeed well as if the parts are bruised or suffered to become dry they will not unite. If the footstalk remain fresh and green until it drops it indicates that the bud has taken, but if it wither up it shows the contrary. In two or three weeks, or as soon as the union between the bud and stock is perfect, the bandage should be taken off. Early next spring the stock must be cut down to within two or three inches of the bud, and whatever shoots proceed from the stock rubbed off, so that the growth may go into the bud. After it gets fairly started, or say the latter part of June, the old stock should be cut quite down to the bud in a sloping direction, towards the opposite side of the stock from the bud.



*Le Cure Pear.*

From the Genesee Farmer.

## Le Clure Pear.

VICAR OF WINKFIELD.—*Fruit and Fruit Trees of America.* CLION.—*Kenrick's American Orchardist.*

This is a French variety, supposed by many to be identical with the old *St Lexin.* The London Horticultural Society named it *Vicar of Winkfield*, from its having first produced fruit in the Vicar's Garden. Mr. Hovey, in his "Fruits of America," adopts the name LE CLURE, and we believe with propriety.

It has acquired a very high reputation among the best pear growers of this country, on account of its vigorous growth, rich luxuriant foliage, extraordinary productiveness, large size and beauty of the fruit, as well as its excellence both for the kitchen and the table. Col. Wilder, of Boston, who is known as one of the most eminent pomologists and pear cultivaiors in this country, has said that if he were to cultivate but one variety it should be this. He says: "It never fails to produce a good crop—never blows from the tree—may be used for cooking in August, and will ripen in a warm room in October, and will keep till February." Samuel Walker, Esq., of Boston, now President of the Mass. Hort. Society, stated at the New York Convention, that in the city of Boston they were sold at $1,50 per box of one dozen fruits, and the purchasers, at that, always thought they had the best of the bargain.

For some time after the introduction of this pear, and until of late, when its many good qualities have become better understood, it was much under-rated, being considered only as a "baking pear." We thtnk it is destined to occupy a place among she smallest collections. We have a specimen before us now, ripened in the desk of our office, that is buttery, melting and really delicious, though only second rate compared with White Doyenne, Seckel, and some others.

Fruit large, often six inches long and three in diameter. The specimen from which our outline was taken is rather below medium. Form, oblong, pyryform, occasionally one-sided. Skin, smooth and fair; pale yellow, with a blush on the sunny side, and sprinkled all over with distinct brown specks. Stalk an inch to an inch and a half long, usaally curved, with flesh at the base. Calyx, large, open, in a very shallow basis. Flesh white, juicy, melting, and often, as in the case before us, buttery. Flavor, sprightly, sweet and agreeable. May be ripened in October and kept till February. It succeeds admirably on the quince, and does well also on the pear.

# MISCELLANEOUS.

## Doing Things at the Proper Time.

It is an old proverb that "time and tide wait for no man." The seasons roll round with their accustomed order and regularity, whether we perform or neglect the labors appropriate to each. We have the promise of seed time and harvest; but if we do not improve the former we cannot reasonably expect to reap the rich fruits of the latter.

To the farmer, especially, every season has its particular duties, and it is of the greatest importance that they be performed at the *right time*, for no *other* time will answer as well. Many crops are cut short by a delay in planting; and others by delays in cultivating, weeding or harvesting. Labor enough may be performed to ensure a good crop, but it will often avail but little, if it is not done at the time when it is most needed. Nature will not suspend her operations and wait for the farmer; he must keep pace with her, if he would obtain her choicest rewards. He may toil and sweat; but if he is doing to-day what he should have done last week or last month; if his hoeing runs into the haying season, and haying into harvest, and every thing is done out of season, he will meet with continual losses and perplexity, and always be poor and disappointed in the results of his labor.

There are some bustling and busy people, who appear to be forever toiling and always in a hurry, and yet they never seem to bring anything to pass, They have started a little too late, and so every thing they do in order is done at the wrong time and to disadvantage.

The farmer needs system in his business. His business should be arranged that his labor may be directed, day by day, to those points where it is most required. This, we admit, is a difficult matter, requiring quick perceptions and a sound judgment, but it is, nevertheless, important. Much of the work on a farm cannot be put off, to suit our convenience, with safety or profit. Our summers are short, and much business is necessarily crowded into a short space of time. We sometimes have but a few days in which to perform some necessary operations upon which much of our success for the season depends. If these opportunities are neglected, the mischief cannot afterwards be repaired.

Much of the success of the farmer depends upon his undertaking just what he is able to perform, and doing every thing at the proper time. If he has his business so arranged and so much under his control, that he does not let any of these "golden opportunities" slip by unimproved, his success may be considered almost certain.—*Maine Farmer.*

From the North Western Educator.

## The Fearful and Faint-hearted.

The world has ever been full of men who say to the lone toiler in the wide vineyard of his Master, to the meek, patient reformer contending with hosts,—"Your cause is a good one—go on—battle for light and truth—but I cannot assist you, it would require too many sacrifices; I should be laughed at, and my good name and my business would be periled. How many such men, think ye, would it have taken to have saved Sodom? How many such men would it take to save the world now? They are not men. No. They have bartered away the rights and the dignity of manhood—they are the veriest slaves that ever grovelled in the dust at a tyrant's feet—they shrink from man's stature—they shrivel into things, and make themselves worms to be trod on. O, it is sickening to hear an individual express his convictions of the right and truthfulness, and importance of a thing, or his firm belief of certain principles, and then say, in acts if not in words, that because of their unpopularity, or their want of conformity to ancient standards, he can publicly give them no countenance, no aid. I had rather be a dog and bay the moon, than such a man.

Who makes a cause unpopular? These are the men who do it, and they are guilty before God of trampling in the dust what they believe to be truth and righteousness. Make these popular, give to a noble Reform the ascendency—then, *see how we apples swim!* But to labor with those who labor to bring around "the good time coming," to bear a part of the reproach and shame, and to weep with those who weep because of the errors and wrongs of the world, they have no thought of doing—they are only willing to render assistance when their assistance is not needed, when the work is finished, and the triumph completed. Poor, feeble ones, we pity you because of the bitterness of your bondage!

Racine, 1849. A. C. B.

EDUCATION AND POLITICS.—The power of the Press is at this day wielding a more powerful influence over the minds of the American people than all other agencies combined; perhaps I should associate with it the Common School. These two agencies build the character of the American Republic. That they must continue to exert this influence is unavoidable. The School may deposite seeds of faction that will silently and unobserved spring into life and become mighty agents in the destruction of this great and glorious Union of States. It may raise to light and influence some mind like the other containing the elements of discord, that will silently as before creep into the homes of thousands of our countrymen and inflict wounds fatal to their future usefulness as Republicans or Christians. How different to witness the pure atmosphere of moral purity rising up from our republican altars—our fire-side homes and our common schools. From the Press must go forth a voice among the people calling to a remembrance of the first principles upon which our fathers commenced this great superstructure of human liberty. Let the factious and fictitious Press be deserted, and cling to those that rest on the firm rocks of unchanging truth. Preserve inviolate the institutions of learning and make them *free to all your youth.* Do this and you can but prosper.—*Educator.*

THE SOLAR SYSTEM.—During a recent lecture before the Whitington Club of London, delivered by the learned and eminent Professor Nichol, of Glasgow University, he used the following extraordinary language relative to the destruction of the solar system:

"The planets are retained in their orbits because two opposite forces exactly balance each other. But modern astronomy has provided that there is power at work destroying their balance. From observations made on the retarded return of Encke's comet, and its gradual approximation to the sun, we learn the existence of a fluid, an ether, which however subtile, tends to diminish the centrifugal forces, and add to the attraction of the sun. However slowly it may approach, we may yet contemplate the day when this present system shall pass away; not, however, into a vast ruin, but in its own beautiful and majestic order, just like a flower which having adorned the earth, lets drop its leaves when its work is done, and falls back obediently upon its mother's bosom."

HEDGE FENCES.—*Messrs. Editors:*—I noticed in your June number a communication headed, "Hedges *vs.* Wire Fences," in regard to which you remarked that you would like to hear from other correspondents on this subject. The writer recommends the use of Italian Privet, Arbor Vitæ, and Red Cedar, for fences. The Privet, &c., will make an ornamental hedge around lawns, as a division for gardens, &c., but the man who plants Italian Privet, or Red Cedar, or Arbor Vitæ, as a hedge to protect his field or garden from the inroads of cattle, will learn wisdom from his sad experience, and the cattle will have the benefit of his blunder.

In another article a correspondent talks of "*the sections where live fences are a forlorn hope, owing to their destruction by mice.*" Now, I know of no such place, and if there is such an one, it must be in the "*regions of perpetual snow,*" or some other outlandish "*region.*" I believe that, in any place where trees and shrubs grow, native shrubs can be found that will make good protective Hedges. In England more than a score are used for hedging—all perhaps intermixed in the same hedge. The Alder, the Elder, the White and Black Thorn, the Bramble, and many others I have often noticed in the same hedge. In our country, so extensive, and consequently presenting such a variety of soil and climate, plants must be used suitable to the locality; and I believe, when proper attention is given to the subject, each section will furnish its own hedge plants in abundance. The editor of the Southern Cultivator says that in Georgia the Cherokee Rose makes a hedge that is sure protection against the inroads of man and beast. The *Norway Spruce* will make a good protective hedge, and the mice never trouble evergreens.

Now, I will give you my model for a beautiful protective hedge. Plant the Norway Spruce, say three feet apart, and between each plant a Prairie or some other free-growing running rose, and I will warrant a hedge that, for strength, beauty and durability, will be unequaled by any wire or rail fence. Any attempts to go through or over it, will be truly a forlorn hope. More anon.

RUSTIC.

*Rose Lawn, N. Y., June, 1849.*

JUST SO.—Bulwer, in one of his philosophical dissertations, says, "Society has erected the gallows at the end of the lane, instead of guide posts and direction boards at the beginning."

Galvanic Tree and Plant Protector.

In the *Gardener's Magazine*, conducted by J. C. Loudon, and published in London, there is a particular account of this very curious contrivance, contained in a letter from the inventor to Arthur Aiken, Esq., Secretary of the Society of Arts, from whence we copy the following interesting particulars. Mr. Walker says, "I have had these protectors in use in my own garden for twelve months, and can assure you that, although during that period, plants on all sides have suffered from the ravages of the *molluscæ*, not a plant has been injured that has had the protection of the galvanic circle. The above drawing and discription will exhibit the apparatus, and explain its operation. It consists of a somewhat conical ring of zinc, of the following dimensions, viz: 6 inches in diameter at top, 4¾ inches at bottom, and 4 inches in height. The top edge is flanged off, say half an inch, and cut into zig-zag or vandyke points. Immediately under this flange, a ring of copper is neatly fitted being exactly of the taper with the zinc ring, and one inch broad, forming a copper hoop around the zinc; this copper ring is fixed in its place by means of a dot of solder, in three or four places. Such is the apparatus, and its operation is thus: the bottom of the zinc ring being pressed into the soil until the copper ring is about an inch and a half above the surface of the earth, the *molluscæ*, &c., many crawl upon the zinc with impunity, but in coming in contact with the copper, will receive a glavanic shock, and immediately turn away or fall to the ground. I have repeatedly watched them, and have observed they were extremely cautious in approaching a seeond time. In fixing the Galvanic protector, care must be taken to enclose within it the rods which are required for the support of the plants; otherwise the *molluscæ* would find a ready way to them. The apparatus acts in wet or dry wether, and is therefore always in action. Iis appearance when in use, is like a vandyke flower pot, and its cheapness, neatness, utility and duribility must ensure its general adoption.

"I believe the same principle may be applied to walls &c., for the protection of fruit trees; straps of zinc and copper being placed in contact with the tree and along the wall; in this arrangement the copper might be made to clip over or embrace the edge of the zinc."

Thus far Mr. Walker. Mr. Loudon goes on to say: "The sensation of galvanism is produced by placing in contact plates of zinc, alternating with plates of copper, and a piece of moistened cloth between each. Now, if a snail or slug be placed on a plate of zinc, to which a narrow plate or strip of copper is fixed near the edge, and the zinc turned over it so as to form a rim of zinc, copper and zinc, it creeps unmolested on its surface, until it touches the rim where the copper is, when it receives a galvanic shock—its moist, soft body, acting as the moistened cloth—and immediately recoils, twisting itself back, and rarely ventures a second time to touch the copper. To protect a plant or crop, then, it is only necessary to have a zinc plate of sufficient length to surround it, of five or six inches broad, with a strip of copper one inch broad, rivetted to the upper part of the strip of zinc, and the zinc turned over it so as to from a rim; the plate so prepared, is set on edge, around the bed or plant. We have had one circular rim made with the copper on the *inside* instead of the *outside*, and having enclosed a number of snails and slugs in it, we find them hitherto effectually imprisoned; and this we conceive to be a more efficient test of the galvanic influence, than employing it to protect the plant; because in the latter case, the creature may turn for food elsewhere, but in the former it must starve if it does not cross the galvanic battery."

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Georgia Burr Stone.—A quarry of burr stone has been discovered in Burke county, Ga., near the line of the Central Railroad, and a company has been formed to work it. It is the only one known in the United States, and the quality of the stone is said to be equal, and in some respects superior to that brought from France.

From the New England Farmer.

## Haying—Horse Rakes.

Mr. Editor:—I am of the opinion that many farmers allow their grass to become too ripe before it is cut. It is my impression that it is best to cut nearly all kinds of grass as soon as the largest bulk of it is in blossom, as in the formation and ripening of the seed, the stem must lose much of its nutritive matter, and will be less tender and palatable to animals. The largest amount of clover heads will usually be found in bloom when about one third of them are turned brown. Herdsgrass may become quite ripe without losing its nourishing properties; but the stem grows dry and woody, and stock do not relish it as well as that which is earlier cut; and if it has grown rank, they will not eat it up very closely unless they are kept rather short of feed. Red top may become equally as ripe as herdsgrass, and still have its value less impaired. I believe many are led to suppose that late-cut hay contains more nutriment, for the reason that the stem, becoming wiry, is rendered less palatable, and consequently our animals will not eat of it as freely. In my remarks upon the time of cutting grass, I would have reference to the kinds most common in this section.

In curing hay, I aim to preserve as much of the green color and natural juice as is practicable, and not have it mow-burn. To effect this, it should not be exposed to the dew or rain after it has begun to make, nor for a long time to the sun. As soon as the ground is dry between the swaths, they should be spread, and when the grass is thoroughly wilted, or about one third made, it should be placed in the cock, where it will generally very soon begin to sweat. It should be kept in this state from twelve to thirty-six hours, according to the character of the hay and weather. The cocks should then be well shook out, and in from two to fours of favorable weather, with once turning, they will usually be sufficiently cured for the barn. I think this the best method for curing all kinds of hay, and parttcularly clover.

Hay cured in this manner is more tender, sweet, nutritious, and palatable; besides, we may save many leaves and heads that would be lost were it cured wholly by the sun and air. And another advantage is, that hay sweated in the cock is much less liable to heat in the mow. Any one may satisfy himself of this fact by observing how much less likely to heat is hay that has stood and sweated upon the load. And another advantage of hay early cut and cured as above, is, that it is more healthy; keeping the stomach and bowels of our stock in good condition, without the necessity of feeding roots; and I believe in a better condition than would be possible to keep them on late-cut hay with the addition of roots. The practice of treading hay much in the mow, is a bad one, unless the want of room strongly demands it, as hay thus pressed down is far more liable to heat.

I can fully respond to your remark in the last number of the New England Farmer upon salting hay. Those who use salt to preserve hay, should use fine salt, as the hay may become of so high a temperature as to injure its quality before coarse salt would dissolve and allay the fermentation.

I think much the best way of preserving hay imperfectly cured, is, to mix with it old hay, straw or corn fodder, in the proportion of from two to four hundred of one of these to a ton of new hay. I have frequently put up hay in quite a moist, green state, and by mixing in layers of old hay, have ever had it come out very bright, sweet, and heavy in the spring. I believe old hay summered over, and used for this purpose, will pay twenty-five per cent. Straw or corn fodder will answer equally well, but it gives the hay a slovenly appearance when feeding it out.

One word in relation to horse-rakes. I have used both the revolving and wire-tooth rake, and think that they make a great saving of time; yet there is one strong objection against the use of the latter, which is, that on ground that is top-dressed and newly seeded, or where there is fog or dead grass, it will scrape up and mix with the hay much dirt, old stubble, and fog, which is injurious to all animals that eat of the hay, and very much so to horses—often producing the heaves; and hay intended for horses should by all means be raked with the revolving or hand rake, unless the turf is very free from these injurious substances. I think more cases of the heaves are brought on by horses eating dirty, musty, and lifeless hay than by any other cause.

Ebenezer Bridge.

Pomfret. Vt. June 26, 1849.

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There is more pleasure in sweating an hour than in yawning a century."

How to Catch A Sheep.—In catching sheep, never seize them by the wool on the back, as it hurts them exceedingly, and has, in some eases, been known to kill them particularly in hot weather, if they are large and fat. Indeed, the best way is to avoid the wool altogether, and to accustom yourself to take them by the hind leg or, what is still better, by the neck, placing one hand under the jaws, and the other at the back of the ears; by lifting up the head, a child may hold almost any sheep. But much depends on how a flock is treated. Few people are sufficiently gentle with sheep. In Maryland, and south of it, sheep are rarely approached near enough to tonch or catch them, except as farmers are themselves treated, in all countries, and alike by tyrants and demagogues, when they are to be sheared or slaughtered.

When, for the first named purpose, sheep are to be caught, in the region referred to, they are huddled up in the corner of a large pen, as often as there are sheep in the flock; each time frightened and worried, until the shearer runs in and grabs by the wool the first one he can catch. The residue of the flock is then left until that one is divested of his wool, and small bits of his skin here and there, and then turned loose, as the farmer is after the election, untill the next shearing time. When brought up to be slaughtered, the only difference is, that the sheep is attracted by a grain of salt, or a handful of corn; while the farmer is charmed with the sound of the drum and fife, and liberty and glory!

By kind and gentle usage, and occasional salting a man may have his sheep so tame that he may play with them, as every man that has a heart will sometimes do with his dog. At any rate, the feeling and thoughtful farmer will never suffer his sheep, or any thing else under his guardianship, to be unnecessarily terrified, or otherwise ill treated.

"I would not enter on my list of friends,
Though graced with polished manners and fine sense,
Yet wanting sensibility, the man
Who needlessly sets foot apon a worm."

*Model American Courier.*

Preserving Currants.—Currant and gosseberries may be preserved the year round as fresh and sweet as when taken from the bush. The fruit should be plucked while green, or before the berries assume the red color which precedes and heralds maturity, and put into dry glass bottles, which should be corked and sealed tight, and put in the cellar or some other cool place.

The Value of Leaves.—What shall I do with my leaves? Are they good for anything? Why, treasure them, to be sure, as if they were coin of the realm; they are good for everything which a garden has to do. They are best of all shelter, the best of all materials for the bottom heat, the best of all soils, the best manure. It is true, they contain little or no nitrogen, but they rot quickly, and are full of saline matters, on which every-thing which bears the name of plant will feed gluttonously, and from their peculiar structure allow air to pass in and water to pass out with perfect ease.

If we wish to know what leaves are good for, we have only to burn them and see what a quantity of ash they leave behind. All that ash is as much food for other plants as beef and mutton are for us. It is the material which nature is perpetually restoring to the soil in order to compensate for the waste which is produced by the formation of timber. In wild land, trees are annually thus manured; were it otherwise, a wood would be a roof of life overshadowing a floor of death. If we can remove the leavs from our plantations, it is only because of the artificial richness of the soil in which they grow. This sufficiently indicates the value of leaves, which are in truth, hardly less important in their death than they were in their life, though in a different way.—*Pa. Far.*

An Excelent Dish.—Take of green corn twelve ears, and grate them; to this add a quart of sweet milk, a quarter of a pound of fresh butter, four eggs, well beaten, pepper and salt, as much as sufficient, stir all well together, and bake 4 hours in a buttered dish. Some add to the ingredients a quarter of a pound of sugar and eat the puddiug with sauce. It is good cold or warm, with meat or sauce, epicures of the most exquisite taste prefer it hot, with the first service.

The Beet Root was first brought from the shores of the Tagus, and was cultivated in gardens, on account of its elevated leaves and the rich red color of its roots, two hundred years before it found a place on our tables as an esculent luxury.

A beautiful oriental proverb runs thus:—"With time and patience the mulberry leaf becomes satin." How encouraging is this lesson to the impatient and desponding!—And what difficulty is there that a man should quail at, when a worm can accomplish so much from the leaf of a mulberry.

# Spirit of the Agricultural Press.

ADVICE IN POULTRY KEEPING.—The principles upon which I rely for success in keeping hens, are, first, to have two breeds—a few to hatch and rear the chickens, and twice the number of everlasting layers, as eggs are more profitable than chickens; second, to get a hatch as early as possible in the spring, and to keep them well; these never cast their feathers like the old birds, and if they begin to lay in autumn, lay more or less all winter: third, never to keep old fowls, (none but favorite fowls ought to be kept more than two years;) old birds lay larger eggs than pullets, but not nearly so many; fourth, to give them the best barley I could get, and so much as I could pick up, once a day in summer, and twice in winter; they are not only more profitable, well kept, but the eggs are better. The two breeds I like best are the spotted Dorkings for sitting and the pheasant breed for laying.—*Agricultural Gazette.*

WIRE WORMS.—A successful farmer in this vicinity, Mr. D. D. T. Moore, states that he has tried various substances for preventing the ravages of the wire worm, none of which, excepting sulphur, proved of any use. An Irishman told him that sulphur had been used with advantage in Ireland. Before planting his corn, Mr. M. wet it and rolled it in flour of sulphur, and afterwards coated it in plaster to prevent the sulphur from wasting. He saved a crop by this means, where he had failed for three years before. We see no reason why the sulphur might not be equally effective for other grain.—*Cultivator.*

IMMIGRATION TO MINNESOTA.—The St. Louis *Republican* says:

"We are credibly informed, that the tide of emigration to that quarter is equal, if not greater, than it was ever known to any of the newly organized territories. It is very certain that, in accommodations, and in many of the essential attributes of a new settlement, the demand vastly exceeds the supply."

THE CHARM OF CLEANLINESS.—"A white-yellow shirt on a man, said William Cobbett, speaks at once of the character of his wife; and be you assured, that she will not take with your dress, pains which she never takes with her own. Then the manner of putting on the dress, is no bad foundation for judging,—if it be careless, slovenly, or if it do not fit properly. No matter its mean quality; mean as it may be, it may be neatly and trimly put on; and if it be not, take care of yourself, for as you will find to your cost, a sloven in one thing is a sloven in all things. The country people judge greatly from the state of covering the ankles; and if it be not clean and tight, they conclude that all out of sight is not as it ought to be. Look at the shoes; if they be trodden on one side, loose on the foot, or run down at the heel, it is a very bad sign; and, as to slipshod, though at coming down in the morning, and even before daylight, make up your mind to a rope, rather than to live with a slipshod wife."

☞ The Cattle Sale which recently took place on the farm of Gen. Vail, Esq., of Troy, N. Y., amounted to $2,150. As high as $50 were paid for calves, $130 for heifers, and $300 was refused for one cow. They were of selected stocks.—*Alb. Atlas.*

BRUISES, SWELLINGS, OR SORES ON CATTLE. *Messrs. Editors:*—Take half a pint of soft soap, half a pint of vinegar, half a pint of urine, and a handful of salt, simmer them well together, and apply to the wound by rubbing. In the month of July last a swel ing suddenly appeared on one of my cows, which, when first discovered, was as large as a pint bowl, and was supposed to have been caused by a bruise or a hook. As it was a busy time of the year it was treated once a day only, with various remedies said to cure bruises, wounds, &c., but the swelling continued to increase until it became as large as a two quart pan, and became very sore. It was finally checked and cured by a few applications of the above prescription. I have known it used with perfect success in several cases of severe hooks, bruises, &c. It is not the most pleasant thing to use in trifling cases, but in severe cases it is the cure all." TORPEDO.

Lee Co., Iowa, 1849.

FLY-PROOF WHEAT.—The Centerville [Md.] *Herald* says:—We were the other day shown by ex-Governor Grayson, a sample of beautiful white wheat (the name of which we have forgotten) raised by him this season, and which he thinks is fly-proof. He obtained four bushels from a gentleman of Hartford county, and seeded it in a field with other kinds of wheat, and although the fly attacked, and destroyed a great deal of the wheat adjacent to it, there was not the least appearance of fly in the new wheat. The Governor thinks he will get about fifty bushels for the four seeded.

APPLICATION OF PLASTER AND ASHES TO MEADOWS.—If a meadow be manured only with plaster of Paris, the crops of grass will be at first greatly increased, but will afterwards diminish; for the silicate of potash which the soil contained, is soon exhausted by the rapid growth of the grass, and its further increase is checked. But if the meadow be strewed from time to time with wood ashes, which contain potash, the grass will thrive as luxuriantly as before.

FILIAL GRATITUDE.—Gratitude is a principle ingredient in filial affection. It often reveals itself in the most striking manner, when parents moulder in the dust. It induces obedience to their precepts, and tender love for their memory. A little boy was once passing the ornamental garden of a rich man. He was observed to look earnestly and wistfully at some sprouts that were germinating on the trunk of an old poplar. On being asked what he wanted, he said, "My mother loved flowers, and every green living thing. She has been dead two years, yet I have never planted one where she sleeps. I was just thinking how pretty one of these would look there." The gentleman kindly gave him a rose-bush, and the fresh wand of a weeping willow. Then the poor little fellow lifted up his streaming eyes, and gave thanks, in a broken voice, for himself, and for his dead mother.

QUANTITY OF GRASS SEED.—The Pennsylvania Cultivator gives the quantity of seeds mixed to be sown on an acre as follows:

"The seeds to be sown on an acre, when the land is laid down to grass, are as follows: Red Clover, eight pounds; Timothy, two pecks; Kentucky Blue grass, five pounds; White Clover, six pounds, or Orchard grass, two pecks; Rye Grass, two pecks, may be introduced. This is for a field intended to remain four or five years to grass.

INTERESTING AGRICULTURAL EXPERIMENTS.—Some recent experiments in wheat and flour go to prove that both contain water, and that the quantity is more in cold countries than in warm. In Alsace, from 16 to 20 per cent. In England, from 14 to 17 per cent. In the United States, from 12 to 14 per cent. In Africa and Sicily, from 9 to 11 per cent. This accounts for the fact that the same weight of Southern flour yields more bread than the Northern. English wheat yields 13 lbs. more to the quarter than the Scotch. Alabama flour, it is said, yields 20 per cent more than Cincinnati. And in general, American flour, according to the authority of one of the most extensive London bakers, absorbs 8 or 10 per cent more of its own weight of water in being made into bread than the English. The warmer the country the more is the water dried out of the grain before it ripens, and hence when made into bread, it absorbs more water again and is therefore more valuable. Professor Beck has written a report for the Patent Office, in which he shows that the presence of water unfits these articles for preservation. The books of a single inspector in New York city showed that in 1847 he inspected 218,679 barrels sour and musty flour. In his opinion the loss on these was $250,000. Every year the total loss in the United States from moisture in wheat and flour is estimated at from $3,000,000 to $5,000,000! To remedy this great evil, the grain should be well ripened before harvesting, and well dried before being stored in a good dry granary. Kiln drying is preferable. The mode of ascertaining the amount of water is this. Take a small sample, say 5 ounces, and weigh it carefully. Put it in a dry vessel, which should be heated by boiling water. After 6 or 7 hours weigh it carefully until it loses no more weight. Its loss of weight shows the original amount of water.—*Phil. Ledger.*

VEGETABLE MARROW.—Since the partial failure of the potato crop, the English farmers are turning their attention to the cultivation of this species of squash as food for hogs. Those who have tried it state that twenty tons may be raised per acre, and that when cooked it is found to be superior to most other vegetables as food for hogs. Its nutritive properties are equal to those of the ruta baga turnip. This vegetable is known by various names, such as the *Boston Marrow Squash*, *Midsummer Squash*, &c.—*Maine Farmer.*

POSTAGE ON SEEDS AND GRAFTS.—We learn by the *Maine Farmer* that the Cincinnati Horticultural Society are preparing to petition Congress on this subject, asking for a law to permit packages of *seeds* and *scions*, weighing less than two ounces, to be sent by mail for the same rate or postage as newspapers. Such a law would enable agriculturists to order seeds by mail, and thus have a safe and dry transportation.

LABOR IS HONORABLE.—All labor is honorable. The *Great First Cause* works. Nature works, and every man who enjoys her fruits ought to hold it honorable to work. When shall the glorious time dawn that intelligence and true philanthropy shall annihilate the selfish distinction which pride has made between labor and idleness? May that auspicious day soon arrive when the worthless distinctions between mental and physical labor, which separate man from his fellow man, shall cease to exist, and all the tenants of the earth meet as equal sovereigns of our common inheritance—the earth. *Rodgers' Scientific Agriculture.*

## Harvest Hymn.

BY MRS. LYDIA H. SIGOURNEY.

God of the Year!—with songs of praise,
And hearts of love, we come to bless
Thy bounteous hand, for thou hast shed
Thy manna o'er our wilderness;—
In early spring-time thou didst fling
O'er earth its robe of blossoming—
And its sweet treasures day by day,
Rose quick'ning in thy blessed ray.

And now they whiten hill and vale,
And hang from every vine and tree,
Whose pensile branches bending low
Seemed bowed in thankfulness to Thee,—
The earth with all its purple isles,
Is answering to thy genial smiles,
And gales of perfume bretahe along
And lift to Thee their voiceless song,

God of the seasons! Thou hast blest
The land with sunlight and with showers,
And plenty o'er its bosom smiles
To crown the sweet autumnal hours:
Praise, praise to thee! Our hearts expand
To view these blessings of thy hand,
And on the incense—breath of love,
Go off to their bright home above.

## Agricultural Hymn.

Great God of Eden! 'twas thy hand
First clad earth in bloom,
And shed upon the smiling land
Nature's first rich perfume:
Fresh at thy glance the flowers sprang,
Kissed by the sun's first rays—
While plain, and hill, and valley rang
With life, and joy, and praise.

God of the clouds! thy hands can ope
The fountains of the sky,
And on the expectant thirsty crop
Pour down the rich supply:
The farmer, when the seed-time's o'er,
Joys in the mercies given—
Thinks on thy promised harvest store,
And, smiling, looks to Heaven.

God of the sheaf! to thee alone
Are due our thanks and praise,
When Harvest's grateful labor's done,
On Plenty glad we gaze:
Then shall our thoughts on heaven rest;
Thy grace we will adore,
And thank that God whose mercies blest
Our basket and our store.

## I Would—Wouldn't You?

I'd like a young wife to dress neatly and plain,
And not deck herself in the gaudiest hue;
Yet alway genteel, without being vain—
Which so very few of the women can do—
I would like such a young wife as this!——
Wouldn't you?

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

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## Chess—How is it Produced?

There is a controversy going on through the columns of the *Michigan Farmer*, between the Editor and Mr. GIBSON, having reference to the subject of Chess, and the question, *How is it produced?* We have not room to give their arguments at length, pro and con, nor is it perhaps important that we should do so—a brief review will be sufficient for present purposes, and will open the way for a word or two of our own.

The Editor of the *Farmer* takes the ground that Chess is the result of the transmutation of wheat, or, as charged by his opponent, he has voluntarily enrolled his name among the believers in this unsound and unprofitable doctrine; and though his position, at first sight, would seem to be unphilosophical and quite pregnable, yet he boldly pronounces at the outset, such is the force of his convictions, that it can be triumphantly sustained, and gently raps over the knuckles those who discredit and reject this 'unsound and unprofitable doctrine.' Whereupon he s told, as an 'undoubted fact,' that generally, almost without an exception, 'the most able and really scientific agricultural writers of the last 25 years, the very fathers,(if we may so speak) of book-farming, have opposed the doctrine, and some of them even offered premiums of 50 or $100 for one single positive proof of such change.' And there is an earnest call made for proofs, for facts, to sustain the theory of the transmutation of wheat and the production of chess thereby. The whole theory is said to conflict with the operations of nature,and contrary to her established laws. So would it seem. But the editor replied witha good deal of ingenuity & much force,that the mere *ipse dixit* of learned authorities, of scientific agricultural writers, or the doctrines they have advanced, or decisions they have pronounced, are not absolutely to be received as sound and conclusive, and as settling a question definitely and forever. 'It is a failing we have,' he says, 'that we cannot bow down to the authority of great names, and believe simply because they believe.' He holds to progress, and that we have not yet reached the *ultimatum* of truth in agricultural matters—there is yet much to be revealed, much learned, much to be developed by human thought and effort.

But so improbable, so unphilosophical, so contrary to the laws of nature, is the doctrine of transmutation—so it seems to them—that men say they will not believe, and the cry is, Bring us proof. Witnesses unimpeached and unimpeachable, rise up and testify this improbable and unphilosophical doctrine is true—that they have seen with their own eyes, as the result of partial transmutation, wheat and chess growing in the same head; and yet the men of whom we speak will not now believe, but say that the doctrine is 'a physical, mathematical, and philosophical impossibility.' Among those is the learned and talented editor of the *Genesee Farmer*, who says, 'Only show it to us, and it will be a settler to our views on the subject, and we will give a premium for a knot hole to creep into.'

Now we care nothing for this 'physical, mathematical, and philosophical impossibilty,' have not even an averaged regard for the authority of great men, and do not intend yet awhile to creep into a knot hole; but conflict as it may with nature's operations, or however contrary to her fixed and unalterable laws, we are a believer in the doctrine of transmutation—and a believer, too, on evidence, seen, handled. If there be any reproach attached to such a belief, we are willing to bear our share of it. A field we once visited, sown to wheat, produced only chess on several of its acres—there were not a dozen heads of wheat. There also we saw wheat and chess growing in the same head, and growing from the same common root. The latter has also come under our inspection in this State. We have no theory with reference to this—we have not yet fathomed the laws of nature—we have not yet looked in upon her minute, infinitely varied and mysterious

operations. We do not know by the agency of what laws the transmutation is effected, our philosophy is sadly at fault respecting it—but what our eyes have seen we do know of a certainty, and with us there is no guess-work, no uncertainty.

With refereace to the illustrations against the doctrines of transmutation, based upon analogy, the Editor of the *Farmer* says, 'The *design* of them seems to be to show that the soil, all the world over, for aught we know, may be chuck full of chess seed, lying in a dormant state, and that cultivation causes it to germinate. But who ever heard of a crop of chess springing up upon the removal of a forest a hundred miles, or even one mile from the habitation of man? Nay, who ever heard of such a thing even in an old, cultivated country, except in fields devoted to wheat husbandry? Who ever heard of it in these portions of the rich bottom lands of the Sciota and the Miamies where no wheat was ever raised, and which have been devoted to the cultivation of Indian corn, in some cases, every year for forty years in succession? Who ever heard of such a thing in those parts of the south, where nothing but cotton, Indian corn and sweet potatoes, are ever raised?

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Making and Preserving Butter.—The following article was communicated to the Farmer's Monthly Visitor, by a lady of the United Society at Canterbury, N. H. The excellent economy of this society in every department of industry, gives an importance to their recommendations.

The pans or other vessels in which the milk is to be set should be made perfectly sweet by scalding previous to putting milk into them. A room in the basement story, where the air will circulate freely, is preferable to a cellar (when the weather will admit of it) for setting milk. Forty-eight hours is a sufficient length of time to raise cream for making butter to keep through the winter season.

After this cream is taken off, the milk may stand the same length of time, but the cream that rises after the first forty-eight hours will not make butter so palatable as the first which rises, and should be churned separate.

As soon as the cream is taken from the milk, it should be put into a tin pail and set into a kettle of scalding water, taking care to stir the cream often, otherwise it will turn oliy at the top; it should remain in the kettle till the cream is scalding hot, being particular to place it in a tub of cold water immediately. Stir it often, till it is nearly or quite cold: if it remains long after hot, it will be injured much. It will be necessary to change the water once or twice before the cream can be perfectly cold. It may then be kept three or four days before churning without injury.

After churning, the buttermilk should be partially worked out: then add one and half ounces of salt to one pound of butter. It may then be covered tight and stand till the following day; then work it over again, taking great care to work out every particle of buttermilk, which will prevent the butter from growing rancid by age. It may then be formed into cakes, or packed solid in a cask, which should be perfectly sweet and well dried.

The inside should be sprinkled and a little fine salt rubbed thereon. After the cask is filled, dip a cloth in melted butter, and spread it snugly over the top—cover it with fine salt, and fasten up the cask sufficiently tight to keep out the air: it should then be set in a cool place, to remain through the winter.

N. B. A cask made of red oak staves is preferable to any other for preserving the original sweetness of butter.

It will add to the flavor of butter to work in a little sugar at the last working over; say, a table spoon full to four or five pounds of butter.

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Bone Meal for Cows.—It may have been frequently noticed that cows, while giving milk, evince a disposition to eat bones. The appetite is sometimes very strong for them; indeed so voracious are some cows that they will leave all other food for the sake of obtaining bones, which they will chew by the hour together. This apparently morbid propensity is accounted for by the following theory: Chemical analysis proves that milk contains bone; and it is hence inferred that the food of the cow should contain the elements of bone, in order to produce milk of proper quality, or that which is capable of affording due support to all parts of the system. If the food is destitute of any of the essential principles of milk, the effort of nature to perfect this fluid, may occasion a drawback on some of the bodily tissues, and the substance of the bones and muscles may be carried off in the milk. The bones from this cause become weakened, and are unable to support the body. This effect is sometimes called the "bone disease." Prof. Johnston, several years since, suggested that *bone meal* fed to cows, would be found useful in such cases. A late number of the Massachusetts Ploughman states that a number of farmers have tried this, and report that they have found it an effectual remedy.

Land which has long been pastured by milch cows, has been found to become so much exhausted of phosphate of lime—the earthy matter of bones—that the milk was deficient in this principle, and the cows became weak in their frames, and unhealthy. On manuring the land with bones and with phosphate of lime, the composition of the herbage again became perfect, and the cows were strong, and gave good and nourishing milk.—*Albany Cultivator.*

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An esteemed friend, in whose *recipes* we have great confidence, has kindly furnished us with the following for making Cheese: Boil good white potatos, and when cold, peel and marsh them till not a lump remains. To five pounds thus prepared, add a pint and a half of *sour* milk, and as much salt as may be deemed necessary to season the mass.—Having worked it well, let it be carefully covered, from two to four days, according to the state of the weather; then work again, make the cheeses the size you like, and then dry them in the shade. After they have become sufficiently dry, place them in pots or pans, and let it remain a fortnight or more.—In this way cheese of a most excellent quality may be made, and, what is of no small consequence, it can be kept for years without the slightest deterioration from the effects of age, provided it be kept dry. A friend who has had the pleasure of eating cheese prepared in this manner, speaks of it in high terms.—*Maine Farmer.*

## Plank Roads.

A plank road from Schenectady to Saratoga Springs is about to be built. A letter from Prof. Gillespie (author of the "Manual of Road making,") which was read at the recent public meeting in Schenectady and published in the Cabinet, contains much valuable information on this important subject. and from which we extract some passages of general interest in relation to this improvement, the most valuable aid to locomotion since the invention of railroads.

The inland town roads are substitutes for navigable rivers. The more widely they radiate in every direction, and the better their condition, the greater will be the consequent prosperity. Their comparative value is determined by the different weights which a horse can draw upon them at any uniform speed, or by the different speeds at which he can draw the same load. Of all modes of improving their surface, plank roads are the most effectual at the smallest cost. If we take the load drawn on a new gravel road as our standard of comparison, experiments show that on a good broken stone, or Macadamize road a horse can draw four times as much, and on a smooth plank road eight times as much or twice as much as on a good Macadamized road.

Plank roads therefore enable a horse to do more than any other arrangement except railroads. But invaluable as the latter are to the hurrying traveler, the ordinary roads on which every farmer can drive his own team, when not needed for the farm labors, labors, are incomparably more useful to the community at large—and of all such, plank roads are the perfection. They are the farmer's railroad.

*Mode of Construction.*—The best mode of constructing them is briefly this: Lay out the intended line with great care to avoid steep inclinations, never ascending more than one foot in going thirty or forty, and winding many feet around rather than go up one. Grade the road-bed wide enough for two wagon tracks, but plank only one, and that on the right hand side coming toward the city, for teams generally come in heavy and go out light, and this arrangement makes the heavy ones keep the track, and the light ones do all the turning out. Lay down flatwise two stringers, twelve by three, four feet apart, center to center. Imbed them well in the earth; across them, at right angles, lay three inch hemlock plank, eight feet long. The lengthwise and skewing methods of laying them are now abandoned. Pack the earth well upon them; slope the earth track towards ditches (which should be wide and deep) and your plank road is made.

Many minor points must, however, be attended to in making your roads as perfect as possible. The inner stringers should be higher than the outer ones, so as to carry the water off freely. They should be in two pieces, each six by three so as to break joints. The end of the planks should not be laid to a line, but project a few inches on each side alternately so as to make it easy for wheels to go on the track, and to avoid forming a rut alongside. They need not be fasthned down, but I would recommend spiking down, say every fifth or tenth plank, the rest being well driven home against these. The stringers are now made heavier than formerly and the plank lighter. When hemlock planks get worn down two inches, the knots project so as to make the road too rough, and to require renewal. Allow one inch more to hold them in, and we have three inches thickness. Hemlock is generally used, as cheapest, but pine or oak would be better.

A single track will be sufficient for almost any amount of travel. The turnings out upon the earth road by the side of it are at such varied points, that its surface, if made properly crowning, will always remain in good condition. 160,000 teams passed over a Syracuse road in two years, averaging more than 200 a day; and for three days in succession 700 a day passed over it, and all this was on a single track.

*Cost.*—The cost of a road will of course vary with the price of lumber. On the plan recommended it will require 127,000 feet of plank, and 32,000 feet of stringers per mile, in all, say 160,000 feet board measure. Other items of cost are levelling the road-bed and laying the plank, which cost from 50 cents to a $1 per rod. The excavations and embankments necessary to give the road proper grades, and the bridges and sluices cannot be estimated without the data of a survey. Omitting these, as also gate houses, we will have the following rough estimate of cost per mile:

| | |
|---|---|
| Lumber, 160,000 feet, at $9 per M. | $1,440 |
| Levelling and laying at 75 cts per rod | 240 |
| Engineering and superintendance | 100 |
| In all | $1,780 |

| | |
|---|---|
| Add, for contingencies, 10 per cent | 178 |
| Total | $1,958 |

Or say $2,000 per mile, with lumber at $9, and omitting extra excavations and embankments and gate houses. The difference of $1 per M. in the price of lumber makes a difference of $160 per mile.

*Duration.*—As to durability, seven years for hemlock would be a safe estimate, though our experience is as yet very limited. One set of stringers will out-last two or three coverings of plank. But, to be profitable, the plank must have so much travel as to wear them out before they rot out. The wear and tear of the first year equals that of the following six, as a tough elastic coating of woody fibres is soon formed, and protects the plank from wear. And the sooner they wear out the better, for the sooner will their cost be repaid. On one road, the passage of 160,000 teams wore the plank but one inch.

*Profits.*—Before hemlock plank have been worn out, they will earn to the rate of tolls established by the general plank road law from $2,500 to $3,000 per mile above the repairs and expenses, or double their original cost, which they will thus reimburse, and leave as much more for dividends, which will of course be more or less large, according to the wearing out or concomitant earning is done in a shorter or longer time. On the Syracuse and Central Square Plank Road, the tolls on eight miles for two years, ending last July, were $12,900; the expenses of salaries and repairs were $1,500, leaving $11,400. The planks were half worn out (one inch,) so that their net profits before renewal would be $22,800 for the eight miles, or 2,850 per mile.

*Advantages.*—In improvements of this character it is difficult to say who gains the most—whether it is the stockholder, the farmer, the city merchant, or the consumer of the produce brought in. The *farmer* can bring his potatoes, apples grain, pork, wood, &c., to market at seasons when he would otherwise be imprisoned at home by the state of the road, and could not there work to advantage. He could also carry twice as heavy a load as ever before and therefore at half the former cost. He could therefore sell cheaper and yet make higher profits. The *consumer* would consequently get the articles that he uses at lower prices. Wood, for example, would be greatly lowered in cost by being brought from distant forests, now inaccessible to us. So with other articles. Every inhabitant would therefore be benefited, for every one must be warmed and fed. The *merchant* will find his old country customers and many new ones coming at all times, and will share their large profits. The *stockholder*, besides his gains as a member of one of these three classes, of producer, merchant or customer, will in addition, receive his dividends from tolls. It is one of those rare business transactions by which all parties gain.—*Ohio Cultivator.*

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ANALYSIS OF CABBAGES.—The different varieties analyzed by Mr, Salisbury, were the drumhead, savoy, red cabbage, and cauliflower, and turnip cabbage; they all contain much water. For instance, 100 lbs. of drumhead will give 88-6 lbs of water, and the remaining 11-4 lbs. dry matter.

The savoy contains 86 lbs. in the 100, and the cauliflower still less.

Estimated dry, the drumhead will give nearly 7 lbs. in the 100 of ashes, and the cauliflower 10 lbs. and nearly half in a 100.

Supposing an acre of land, planted to this crop, should yield thirty-six tons, as has been done; it would carry away from the soil the following amount of the following minerals:

| | lbs. |
|---|---|
| Silic acid, | 2-959 |
| Sulphuric acid, | 56-134 |
| Phosphoric acid, | 63-784 |
| Phosphorate of peroxide of iron, | 5-916 |
| Lime, | 14-484 |
| Magnesia, | 17-986 |
| Potash, | 142-448 |
| Soda, | 161-772 |
| Chlorine, | 3-978 |
| | 468,450 |

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MANURE FOR FRUIT TREES.—Manures for fruit trees should always be eool carbonaceous matters, with an excess of alkali.—Thus, muck decomposed by salt and lime, before being applied, may be used with safety, and an addition of lime, or ashes, as may be most desirable, added. The surface of the ground around fruit trees should always be top dressed to a moderate extent, with charcoal dust or gypsum, which would assist to render the muck available to the roots, by the assistance of the ammonia, which would be arrested by these ingredients from the atmosphere, and carried to the under manure by rains, dews, &c. Such treatment would materially lessen the attacks of insects on fruit trees.

## The Horse.

Though we have now machinery that surpasses this animal in speed, we are not yet ready to abandon him and set him adrift. Other people may prefer the camel or the mule, but farmers know of no servant to be compared with the horse.

For the heavy draught, or for the race; for a ride of pleasure, or for a tour into the rough interior of our country, the horse is our best companion and helper. We could hardly estimate his worth but by his loss.

This animal is often abused through wantonness or carelessness; but still more often injured for want of due consideration of the proper mode of treating him.

Within a few years, it has been customary for drivers of stages in our neighborhood to give their horses meal in the water, when they only stopped for a short time in the middle of the day. It was then not uncommon for horses when driven no faster than at present, to fall suddenly dead in the harness. On opening the animal, the meal would be found undigested and formed into a hard cake in the stomach.

We believe this practice is now wholly abandoned. There is a very prevalent idea, that it is injurious to give grain to the animal when he is warm. Now, we have never known any injury to arise from this practice. There is no more danger of injury to the horse than to ourselves by eating a hearty meal when warm. And whoever heard of a man killing himself with a hearty dinner, because he ate it when he was fatigued or heated?

It is hard driving—violent exercise—*after eating* hearty food that causes pain and often death.

Let a man but reflect on what has proved injurious to himself, and he will rationally conclude what treatment is most likely to injure his beast. Let him eat a hearty meal, then run, or use any very violent exercise immediately after, and he will be at no loss in conjecturing what must be the danger of furiously driving a beast after a hearty dinner.

It is hard driving immediately after eating grain that kills the horse, and we venture to assert, that not an instance can be shown in which he has sustained injury from eating grain, merely because he was warm. People should reflect and reason more on the subject.

Horses that travel and labor violently, as in stages and fast chaises, should eat their grain at night. When laboring moderately on a farm, it is not so material when their heartiest food is given, for horses are not liable to be injured in any gear when they are only driven on a walk.

But we have known many men, prudent in most matters, yet guilty of stuffing their horses with grain in the morning, just before starting on a journey! They give no grain the night before, reserving for the starting hour the heartiest food for the beast!

On a journey we have long been in the habit of giving our horse his grain at night. We give it as soon as he is rubbed down and put in the stable, and we have never found it injured him.

How absurd to let your horse stand for hours, after a day of violent exercise, to chop up his own fodder and attempt to appease his hunger on hay—often poor hay, not fit to be fed out to young cattle.

Give the horse half a bushel of oats, or one peck of corn, if he has been used to grain, as soon as you lead him into the stable, and he will fill himself in one hour or two and be willing to lie down and enjoy a nap, even before you retire to rest yourself.

In any part of the country, if you see the grain put into the manger, you may be pretty sure the hostler has not forgotten his duty.—*Penn. Cultivator.*

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Too Hot for Apples.—That very hot week in June was a little too strong for many of the apples in our vicinity. One hundred and one degrees of Fahrenheit in the shade, is a little too much free caloric for fruit of that description.

It fairly *cooked* some of the *outsiders*, and hence in many orchards we have noticed a great thinning out of the fruit, which had set abundantly and which promised to give an abundant crop. The crop must, of course be not a very great one. Friend Cole says we never have a great crop in "*odd years.*" It is *odd* to have such hot weather in June, as we have had this year, and it is *odd* to have baked apples so soon after the blossoming. This is an *odd* year to all intents and purposes, and the *odds* are against the apples.—*Maine Farmer.*

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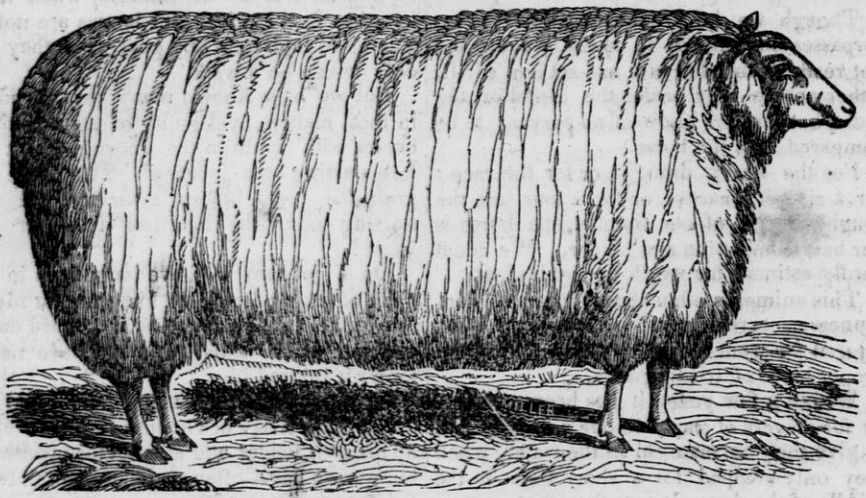
☞ The neatest way to separate Beeswax from a comb is, to tie it up in a linen or a woolen cloth or bag with a pebble or two to keep it from floating: place it in a kettle of cold water, which hang over the fire; as the water heats, the wax melts and rises to the surface, while the impurities remain in the bag.

SPECIMEN OF A FAT SHEEP OF THE NEW (OR BAKEWELL) LEICESTER.



BRED AND FED IN DELAWARE, FROM A STOCK IMPORTED FROM IRELAND.

The above is a portrait drawn from life of a splendid wether exhibited in Philadelphia in 1842, and which was slaughtered when two years old, his live weight being 251 lbs.; weight of carcass in the fore quarters, 147 lbs., cutting 4½ inches thick of fat on the ribs. Of this superlative breed of sheep, it is said in Professor Low's work on Domestic Animals:

"The formation of the Bakewell or Leicester breed of sheep may be said to form an era in the economical history of the Domestic animals, and may well confer distinction on the individual who had genius to conceive and fortitude to perfect the design. The result was not only the *creation* of a breed by art, but the establishment of principles which are of universal application in the production of animals for human food; it has shown that there are other properties than size, and the kind and abundance of the wool, which render a race of sheep profitable to the breeder; that a disposition to assimilate nourishment readily, and arrive at early maturity, are properties to be essentially regarded; and that these properties have a constant relation to a given form, which can be communicated from the parents to their young, and rendered permanent by a mixture of the blood of the animals to which this form has been transmitted; and it was BAKEWELL who carried these principles to their limits.—Every breeder of sheep is taught by the result, that an animal of a size to fatten 40 lbs. per quarter is more profitable than one that is capable of reaching only 30 lbs. in the same time. While Bakewell was compelled to confine himself to his own stock and to the blood of one family—to breed "in and in"—in order to preserve that standard of form which he had produced, modern breeders are relieved from all necessity of this kind: they can obtain individuals of the form required from different families of the same breed, and need never, by a continued adherence to the blood of one family, produce animals too delicate in form, deficient in weight, of wool, or in that hardiness of constitution, which are even more necessary than the perfectness of individual form, for the profit of the breeder—an incalculable advantage. Hence, the present breeds of the improved Bakewells are much larger than those which were the result of that great improver's exertion; and in every way has the diffusion of the race added to the value of live-stock in every country; it has even improved its agriculture in an eminent degree, by calling forth the necessity for a larger proportion of forage and herbage for the supply of a race of animals whose superiority over all the older races of the long-wooled districts, is attested by the degree in which it has supplanted them, and the eagerness with which it has been everywhere received, having, in little more than twenty years, supplanted other flocks of different breeds throughout entire districts, and given to the long-wooled sheep an uniformity of character, eminently favorable for further improvement, by multiplying animals of a given breed which can be selected for crossing, without the danger of a too close affinity."—*Penn. Cultivator.*

DO KINGBIRDS EAT WORKING BEES?—The kingbird has been regarded as one of the greatest enemies of the apairian, in some situations, from the fact that it is the devourer of bees. Wilson the ornithologist, suggested that the bird only picked out the *drones*, and never injured the working bees. Some Close observers have come to the same conclusion. One writer states that to test the matter, he killed a number of the birds, and though he found many drones in their gizzards, he could find no working bees in them. What has been the observation of others?—*Ex.*

The best shield against slanderers is to live so that no one may believe them.

# HORTICULTURE.

F. K. PHŒNIX, Editor.

Who of our Wisconsinites does not love fruit? and who does not use more or less of it in some form or other, from the littlest bub or sis that knows what fruit is, up to the grandparent who spent some of the happiest moments of child-hood among the fruitful orchards and berry-crowned windfalls of "Down East"—with whom these are inseparably woven in the bright garland of pleasant recollections which memory has gathered in the spring-time of life, and preserved all fresh and blooming through the storms and trials of riper years for the solace of enfeebled, declining age. Ah yes! the old orchard and cider mill, the paring bees and peach times of our younger days—who will ever forget them? and who would not feel rejuvenized if they could see such things among us here at the West? Surely our landscape and domestic arrangements can never be complete without them. And what, let me ask, have we to supply their places?—why, wheat and pork and corn, to be sure!—and wheat fields and corn fields and fields of porkers, and then wheat stacks and corn stacks and stacks of pork with all their grim array of edge tools, harvesters and thrashers, smut, and sweat, and dust! We are most unquestionably a great country for such things. But, notwithstanding all our greatness, we are compelled to bow down very submissively before the Horticultural deities of "Down East" when we want any fruit—and such sights of sacrifices as it takes to propitiate them too! Oh, could we but hear the groans of our burdened wheat fields and dying porkers that are victimized in their behalf, surely it were enough to move the heart of a stone! But fruit we must have and we will have if we can get it—all and singular the possessions and preparations of beef, pork, corn, wheat, potatoes and pumpkins in Christendom to the contrary notwithstanding—they can't stop that hankering after the leeks and, no—not the "leeks and ingyuns" but the apples of "Down East!" Well they are "not bad to take," to be sure, only so exceedingly cos-*tive*, as every one knows who has bought them here. For one I should like to know the amount of the voluntary fruit tax levied annually by the good people of the North West on themselves—but, alas for the statistics, I have never seen any, and must therefore guess at it; leaving it for others who have better means of ascer.aining to correct the estimate if they wish. Northern Illinois and Wisconsin contain, probably a population of half a million; which, reckoning five to a family, would give 100,000 families, all of whom, with but very few exceptions, are dependent on the East or South for their fruit. The average annual consumption of fruit by each of these families cannot be valued at less than a dollar and probably would considerably exceed that sum. But calling it that, only think what a snug little sum it makes, and how much of our wheat it requires to pay it—and then not one twentieth part of a sup ly either! And all this too, when had we gone at it in season we might have raised it ourselves, and very soon have been exporting largely. Say now, isn't it too bad? But the end is not yet, and if we don't plant out more trees than we have. I am afraid we shall not see it very soon. Indeed it may well be doubted whether one half as much is expended annually in purchasing fruit trees as in buying the fruit. Is not this the penny wise and pound foolish policy?—that is eating up the pound and not even putting out the pennies by way of seed when in a few years they will certainly produce pounds? Any one can see that 50 or 100 apple trees costing, say from 10 to 12 dollars, will, if properly cared for, pay for themselves in fruit whenever they get fairly to bearing—say in 5 or 6 years, and *then every year afterwards with compound interest, besides adding always far more than cost to the value of a farm.*

Who then that likes fruit, or would save money, or make money, or make home pleasant, but will plant fruit trees? Does now some croaker that has been here some 10 or 12 years without putting out as much as a currant bush, and now when far behind his neighbors, wish to excuse himself by saying—"this ain't no fruit country—better always buy your fruit than fool away your time and money trying to raise it?" If there be such a character, I have no time nor patience to waste in attempting to convince him. I can only commend him to the tender mercies of pumpkins and crab-apples or the genuine at a dollar or two a bushel, and beg of him to make a better use of his eyes and his senses—if he has any. To all who own land then, I would say, plant fruit trees and bushes—plant them for your own sake and for "the lands sake"—for your family's sake and community's sake—for your country and posterity plant fruit trees! Raise, buy, beg, or borrow them, only be sure and plant them—and then take good care of them.

### Work for Aug. in Fruit and Flower Gardens.

This is the month for budding, for which full directions were given last month. In from two to three weeks after inserting the buds the bandages should be taken off. This is also the month for putting out strawberry plants, if you wish fruit next season. Prepare a *deep rich soil* for them, and put them out carefully a foot or two apart. If the weather should be dry, they should be thoroughly watered until they become well established.

The standard recommended to destroy the weeds and insects should be thoroughly enforced this month.

In regard to removing evergreens this month or in the fall as is successfully practiced in moist climates, I am inclined to think it very risky as our falls are generally warm and dry—and would therefore by no means recommend it unless there were nothing to be lost by making the trial.

Flower seeds should now be gathered as they ripen. Bulbous roots, the foliage of which has decayed can now be safely removed.

## A new way to destroy Plant Lice.

The Aphis or Green Plant Louse is unquestionably one of the greatest pests to which fruit trees are liable in this latitude. All trees, in fact are more or less subject to their attacks, but the apple and plum are the greatest sufferers. As was remarked last month, Nature has provided other insects to destroy them, which however do not increase so rapidly as the lice and hence are oftentimes too late to prevent great injury. Great pains have been taken to find a specific which would destroy them without injuring the young growth. Tobacco water has been most esteemed—in which the shoots are to be dipped. This however has its disadvantage—as (like other places where tobacco juice is used!) it leaves a filth behind. Dr. E. G. Wygatt of Richmond, McHenry Co., Ill. has however brought into notice a new remedy which has proved a perfect specific with him in repeated trials. This is *the decoction of Quassia* a well known and intensely bitter article of medicine. He takes ½ lb. of the chips (which he states cost him 18¾ cents per lb,) and boils them a few minutes in 6 quarts of water. Into this when cold he immerses the lice which forthwith give up the ghost. This is worthy of extensive trial and should it prove generally as successful as with Dr W. must supercede every thing else in use for that purpose—and Dr. Wygatt will richly deserve the thanks of all the cultivators and lovers of fine fruit for bringing it into notice.

Crops in Walworth County.—Harvesting has now (July 28th,) very generally commenced, and should the weather continue fine, it will be very generally secured in the course of ten days, or two weeks.

Winter wheat is as a general thing, considerably injured by the rust—though there was comparatively but very little sowed, owing to the wet fall.

Hedge-row spring wheat promises tolerably well, probably an average yield, of which there is an immense amount on the ground. The Red River spring wheat which is being introduced considerably, seems to have suffered much more with the rust.

Oats are good though perhaps lighter strawed than usual. Grass is also fine.

Corn and potatos suffering some with the drouth, the rot it is feared is commencing its operations pretty extensively among the latter.

## Answers to Inquiries.

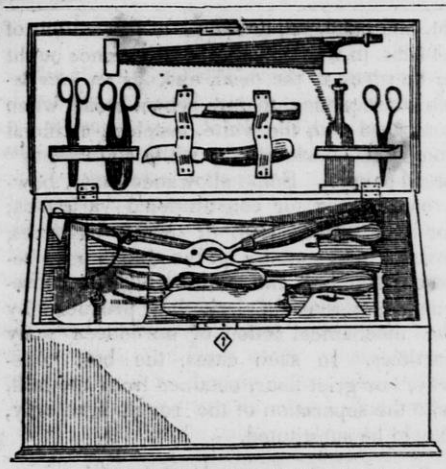
"Is pruning in the summer hurtful to fruit trees?" Ans. It is, if done to any extent so as to lessen the breathing, digesting apparatus of the tree, which all-important part the leaves constitute. Severe summer pruning always tends either to seriously impoverish the tree and thus lesson its growth, or a reaction to produce a late, immature growth which is always more liable to injury from the cold, and hence should be avoided, especially in this country. However, a light summer pruning about the middle of July by which the young side shoots that start out so abundantly on trees, are removed before they cost the tree much, I think advisable.

"Can the peach be successfully worked into cherry stocks?" Never having made the experiment nor heard of its being made, I could only state that I should very much doubt its practicability.

I have heard of the peach being successfully worked on the wild plum tree, which at any rate I should prefer risking a trial of to one with the cherry stock—and only mention in this connection on the authority of others, as I have never tried it myself.

Grafting Chisel.—The above is probably the best form for a Grafting Chisel. The wide edge is used for splitting the stock, after being cut off with a fine pruning saw. The two pointed ends are used to open the same to receive the scions.—*Genesee Farmer.*

Horticulture, said Mr. Speaker Winthrop, on a late occasion, in its most comprehensive sense, is emphatically the fine art of common life. It is eminently a republican fine art. It distributes its productions with equal hand to the rich and poor. Its implements may be wielded by every arm, and its results appreciated by every eye. It decorates the dwelling of the humblest laborer with undoubted originals by the oldest masters, and places within his view fruit such as Van Huysum never painted, and landscapes such as Poussin could only copy.—*Miner's Prospect.*



## Horticultural Tool Chest.

This is a small, portable chest, containing a useful collection of tools, such as are generally used in managing trees, shrubs and plants of any description. These articles are very convenient, and always at hand, when kept in a compact form, and neatly arranged in a chest, which is so light that it can be easily carried in the hand from one part of the garden to another, by the handle at the top. Such arrangement greatly facilitates labor, and aids in executing various operations in the neatest as well as in the most expeditious manner. This chest contains a pruning saw, pruning chisel, weeding hoe, garden rake, tree scraper, scuffle hoe, and hook, all of which are fitted to one handle, which may be screwed together or unscrewed, as required, packed into the chest, and locked up. It also contains twig cutter, vine scissors, flower gatherers, grafting hammer, strawberry fork, transplanting trowel, weeding trowel, garden rule and line, grass shears, sliding pruning shears, pruning knife, and budding knives.—*New England Farmer.*

Protect your Vines.—We are informed, by a gentleman of this town, says the Lynn News, of an experiment made by him, last year, upon his squash vines, which proved successful in clearing off the bugs. He strewed on the vines the bran of pepper, which may be obtained at any of the spice mills where pepper is ground. Every one who has a garden will appreciate the value of a remedy so cheap and simple, and give it a trial. We should like to have those who try the experiment give us the result, if they find it successful.

The Kum-Quat.—The Kum-quat, *(Citrus japonica,)* is extensively grown in pots by the Chinese for decorative purposes, during the winter months, and produces an excellent effect. It is much more hardy than any other of the orange tribe, and when in full bearing is literally covered with its small, oval, orange-colored fruit. It is of easy cultivation by grafting, and is worthy of the attention of American amateurs.—*Ex. Paper*

Pruning Stone Fruit Trees.—It has been but a few years since the cultivators of fruit have been in the habit of pruning peach trees at the extremities of the branches, instead of cutting off limbs at the trunk.—This system of shortening-in, as it is called, is gaining ground, and is a great improvement. The reasons for this mode of pruning are evident on examination. Most kinds of stone fruit grow rapidly, and bear the greater part of their fruit on new wood, which is, of course, near the ends of the limbs. In this way a tree spreads over much land, and has naked branches near the trunk, and pruning at the trunk causes the gum to ooze out, which sometimes endangers the health or life of the tree.

On the contrary, by pruning at the ends of the branches, the tree is confined to a small space, the wounds have no unfavorable effect, or only affect the twigs, and not the trunk, and much new wood is produced for the production of fruit.

Literary Habits of the Hog.—From the Transactions of the Worcester County Agricultural Society, for 1848, we copy the following racy pun on swine.—The hog is exceedingly *literary* in his habits. His works are published in large issues of 10 and 12 mo., with an appendix at the end of each, *interlarded* with liberal quotations from *Greece.* Although he has dealt somewhat largely in *stocks* and *banks* and domestic produce. his property, like that of most purely literary men is his *pen.* Like the good and great, in all ages, he has his imitators and counterfeiters *"in linked sweetness long drawn out,"* not only at Bologna, but in every other quarter of the world. It is said that some of the sweetest and rarest morsels imported into Eden when Adam was making preparations for house-keeping, were conferred upon Adam's rib, which he spared for domestic use. So, by a singular coincidence, some of the sweetest combinations of animal organization are conferred upon our friend's *spare rib.* He is in some respects a peripatetic philosopher, making all his discoveries in his rambles. He is no superficial search after truth. He skims not over the surface. He goes to the *root* of the matter. He takes things, not by guess, but knows. If he is not in favor of the "free-soil movement," he is of the *free movement of the soil*, and manifests his attachment to his principles by incessant labor in the—cause.—[*American Agriculturist.*

## Superiority of Brown Bread over White.

In the month of June, 1847, when breadstuffs were nearly at their maximum, in Great Britain, and bread sold at from 11*d.* to 1*s.* 1*d.* the 4.lb. loaf, an article was published in England "On the Nutritive Qualities of Bread in Common Use," in order to show the fallacy of common opinion, by embodying the leading points of a paper written by that able, analytical chemist, Professor J. Johnston, then of Edingburgh. From the period that the older organic chemists announced that all the constituent elements of the human and animal frames were built up, and supported by, the assimilation of certain specific matters contained in the food with which each was furnished, it became a primary object with them to subject every article of such food to severe analysis. *Bone*, *muscle*, and *fat* constitute the three chief materials of animal structure, the blood being the vitalized fluid which contains, and conveys through appropriate channels, those elements that are destined for their ultimate supply.

Bread ranks among the chief of the nutrimental substances destined for the support of the human frame; and therefore, particularly at the time of the late or anticipated scarcity, it became an imperative duty not merely to secure to the public a genuine and pure article, but to point out the means by which pure wheaten meal could be most economically prepared and so manipulated as more effectually to nourish the body and promote its general health. The professor announced that the best and most nutritious bread could not be made from the "whites," or houshold flour; but only from the "whole meal," consisting of the entire wheat grain ground up in one way, and used as it comes from the millstones, unsifted, and therefore containing all the bran. He also showed by calculation that 1,000 pounds of such *whole* or *entire* meal contains of the elements of

| | |
|---|---|
| Muscular matter, - - - | 156 lbs. |
| Fat, - - - - - - | 28 " |
| Bone material, - - - - | 170 " |
| | 354 |

Whereas, in fine flour, are found only, of

| | |
|---|---|
| Muscular matter. - - - | 130 lbs. |
| at, - - - - - | 20 " |
| Fone material, - - - - | 60 " |
| B | 210 |

If, then, the real elements of food, concertible by assimilation into muscular flesh, fat, and bone, superabound to the extent of 144 lbs. in whole meal, the preference ought to be given to the meal, and; as an inevitable consequence, to pure brown bread, when compared with the white, tasteless, artificial compound, made by the white and "fancy" bread bakers. Some allowance must, however be made for constitutional variations; for it is proved that, in many instances, bread which contains all the coarse bran becomes flatulent and too laxative, in consequence, perhaps of irritation produced by the mechanical action of unreduced scaly particles. In such cases, the best "one-way," or grist flour, obtained from the mill, with the separation of the rough bran only, should be substituted.

SALT FOR CATTLE.—In giving salt to neat cattle or sheep when stall-feeding, care should be taken not to give too large a quantity, or so much as would relax the bowles. If hay that is given to animals has been salted when storing, every farmer should be aware that this would be sufficient salt for the animals consuming it. One gallon of salt put to the hundred bundles of hay when storing, will never act injuriously upon any animal fed on this hay, as some of the salt may be lost. For hay that has been injured in curing perhaps double this quantity of salt might be applied, but damaged hay should not be given to animals that are stall-feeding for the butcher. The object of giving salt lo animals confined in stalls in winter, and fed on dried food, as to keep their bowles in a proper state. without scouring them· When such animals get a proportion of roots, however, there is not much danger of any thing wrong with the bowles. we have unquestionable authority that a due proportion of salt may be given to stall-feeding animals with excellent effect; but of course, the farmer requires to he careful that too large a quantity is not given, whether in hay, or in any other way. Ther is no part of the farmer's business which requires closer attention than the stall-feeding of cattle, to make it profitable. Without this, food may be wasted, and the animals not improved; and unless they are constantly improving by the food given to them, and the mode of management adopted, some thing must bo wrong, and a loss is almost certain to be incurred, instead of a profit.—*Agricultural Journal.*

**On the 4th inst, five of the Railroads running from Boston transported within a small fraction of 30,000 passengers.**

## Uses of the Black Currant.

The Black English Currant is represented to have qualities that entitle it to extensive propagation. A kind of wine has been manufactured from it, which is celebrated for its medicinal properties. The Boston Medicinal Examiner, quoted by Fessenden, said of this wine: "It has has all the properties of the best Port, without any of its heating or constipating effects. We could name several instances, where, in great debility and exhaustion, after protracted and severe fever, and from other causes, nothing else could be thought of or taken with pleasure or advantage, in which this wine proved grateful to the palate, and most friendly to the stomach; in which, indeed, it was the principal means of conducting the patient to health and strength. Its exhibition has been attended with remarkable success in the early stages of the cholera and dysentery,—and again in the latter stages of these diseases, after the symptoms of inflammation or febrile excitement had ceased. It has been strikingly remedial in the low stages of typhoid and billious fever. We have not room to enumerate many other morbid affections, in which this wine has proved useful. In *sore throat* it has, for many years, been considered almost a specific remedy."

These opinions are confirmed by other testimony. Kenrick, in his American Orchardist, says: "From the Black Currant a jelly is made, of considerable medicinal efficacy; a wine is also made from them, which possesses far superior medicinal virtues to Port wine. The jelly has been highly recommended for disorders of the throat, and as a necessary article in the stores of ships sailing to the East Indies. A liquor is prepared from the Black Currant, which Mr. Forsyth states is possessed of great medicinal efficacy in obstinate coughs, &c. The currants for this purpose are bruised, and being placed in a jar, whiskey or other species of alcohol is poured over them; the jar is then covered close for a fortnight; after this the liquor is strained and bottled."

The jelly from the Black Currant is further described as being fine for the table, and the wine is of a peculiar flavor, which to those long accustomed to its use, is delectable. A friend of ours, who has many years made use of this currant in his family, as a remedy for some of the above named affections, especially the diarrhœa, fully concurs in the foregoing estimate of its value. He considers it also excellent as a preserve.—*Mich. Farmer.*

Apple Orchards.—*Attack from Borers.*—The apple tree, as well as the quince, mountain ash, June berry, and various species of thorns and aronias, are attacked by the larvæ of two-striped asperda (*Saperda bivittato,*) denoted by the annexed figure.—The upper side of the body of the perfect insect is marked with two longitudinal white stripes between three others of a light brown color, while the face, the antennæ, the under side of the body, and the legs, are white.

This beetle varies in length from a little more than one half to three-fourths of an inch. It comes forth from the trunks of the trees early in June, making its escape in the night, during which time only it uses its ample wings in passing from one tree to another, in search of companions and for food.—In the day time, it keeps at rest among the leaves of the plants on which it feeds. In the months of June and July, the females deposite their eggs upon the bark of the trees near the roots; and the larvæ, or borers, hatched from them, consist of fleshy whitish grubs, without legs, nearly cylindrical in their form, and tapering a little from the first ring to the end of the body. The head is small, horny, and of a brownish color.—The first ring is much larger than the others, the next two very short, and, like the first, are covered with punctures and very minute hairs. This grub, with its strong jaws cuts a cylindrical passage through the bark, and pushes its castings backwards out of the hole, while it bores upward into the wood. It continues in the larva state two or three years, during which it penetrates eight or ten inches into the trunk of the tree, its burrow at the end approaching to, and being covered only by, the bark. It is in this situation that its transformation takes place, which is completed about the first of June, when the beetle gnaws through the bark that covers the end of the burrow, and comes out of its place of confinement in the night.—One of the oldest, safest, and most successful modes of destroying this borer is, to thrust a wire into the hole it has made; or, what would probably answer as well, to plug it up with soft wood.

From the Maine Farmer.

## Water for Bees.

Mr. Miner, the author of an excellent work on bees, recommends that artificial watering places be provided for the convenience and safety of these useful and industrious little creatures. Where there are no watering-places near the apiary, there is a loss of time, which, to them, is more than money; or if the place is not adapted to their habits and convenience, many of them will be lost in their attempts to satisfy their thirst. Says Mr. Miner:

"Writers on the management of bees have hitherto given no elucidation of the necessity of bees having water within their convenient reach, beyond the simple assertion, that they either should have water placed daily in pans near the apiary, or that they should be situated near to some stream, lake or river of fresh water. What the effect would be to have no water within the ordinary range of their flight, has never been shown; perhaps for the reason, that an apiary cannot be placed where the bees cannot find fresh water in some place, within the range of their flight, unless it be in a desert. Even the wells of the neighborhood frequently afford all the water that is required, from the drippings of the bucket, or from the troughs that often stand beside them.

"I have often seen bees around my well, in great numbers, extracting the moisture from the outside of the bucket, or arranged along the gently sloping sides of a trough, that I had placed there expressly for them. Bees do not like to descend the vertical sides of a bucket, or of any other vessel, to obtain water; because there is danger of falling in; but a sloping, shallow trough, the sides of which form an angle of from thirty to forty-five degrees with the horizon, suits them much better.

Every bee-keeper should either afford his bees a supply of water at his pump, or well, or place a shallow vessel near the apiary, filled with small stones, about the size of a pigeon's egg, in order to give a resting place for the bees; and the vessel then to be filled with fresh water every morning, unless there be a stream of fresh water near, in which case, both modes might be dispensed with. A tin baking pan, about an inch or more deep, is very suitable. Should no stones be put into the pan, many bees would be drowned. I have even known many to be drowned, in cool spring weather, when the stones in the pan were so large, as to admit of spaces or surfaces of water only two inches across! One would suppose that so small a space as this would be overcome by the bees at once; and when losing a foothold, and falling into the water, they would cross to the stones. and soon be on the wing again; but such is not the case in cool weather, such as we generally have from March to June. In *very* warm weather, fewer bees, under the same circumstances, would perish: yet water is so benumbing to them, at almost any season, that when once immersed, they seldom recover, unless assisted by man in placing them in some warm, sunny place to dry."

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To Cure Swelling of the Throat in Hogs.—In order to contribute to the usefulness of your valuable periodical, and to inform the public of what I find from experience to be an infallible cure for a certain disease with hogs, viz., the swelling of the throat, I herewith send you a receipt for the disease, with a desire that you publish the same in your work if you deem it of any import, and the same meets your approbation:

Take of molasses one-half a pint, and a tablespoonful of hog's lard; and to this add of brimstone a piece an inch in length. Melt it over the fire, and when in a cold or liquid state, drench the hog with it; and nine times out of ten it will be found to have the desired effect. My hogs were affected with this disease during the past year, and I found the above to be effective when every thing else failed.—*Farmer's Register.*

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Breaking Steers.—An effectual and speedy mode of breaking steers, is to use a yoke long enough to hold four bows at suitable distances. Put a strong steady yoke of oxen on the outside and the steers inside, treat them gently and do not use the whip nor goad, and you will soon have the young ones as well broken as the old.

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Cure for a Horse pulling at the Halter.—Fold one ear under a small strong cord which fastens him. He will give one jerk but never a second.—*Boston Cultivator.*

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From the New England Farmer.

## Kindness to Animals.

The noble horse, who toils for thee,
And does thy bidding willingly,
Endowed by God with instinct rare,
Should in thy love and kindness share.

The patient ox, who meekly bows
Beneath the yoke, and daily plows
The rugged field, should surely be
Repaid with tenderness by thee.

O, spare the lash! remember, they
Have not *thy* gift—bright reason's ray;
Be gentle to the helpless brute—
*Kindness* is heaven's own atttribute.

Lebanon, Conn. E. C. L.

## Large and Small Farms Compared.

Most young farmers are unsuccessful, simply because their farms are too large, and the complaint is often heard that no money can be made by farming.

Take up the directory of ten years since, and mark the names of all the merchants then doing business in New York or Philadelphia; follow these names through the directories of subsequent years, and see if over one in twenty have continued to do business for ten consecutive years without failing. This is a sorry fact, and arises from the fault of the merchants themselves. In agricultural language, "*they turn too heavy a sward, and do not lay it regular.*"

So with the unsuccessful farmer; he has too much land; he cannot manure it properly, and his labor bestowed upon manured land is not effective. Land fully manured, and thoroughly cultivated, will produce double the amount of crops that can be obtained from half manured land.

Land well manured is more easily worked. Its particles more readily disintegrate, and large crops do not require expensive labor in proportion to results.

Suppose a case: Two neighbors, each owning land of the same quality, and having each one hundred acres, valued at fifty dollars per acre. Thus their farms would be valued at five thousand dollars each, they commence operations with equal facilities for making manures.

| | |
|---|---|
| A leases out fifty acres of his land for seven per cent. on its value, and thus has an income of - - - - - - - - | $175 |
| He has for his stables, compost, &c., say five hundred loads of manure, worth, - - | 500 |
| One hundred and seventy-five loads he buys with the income named, and thus has six hundred and seventy-five loads to put upon fifty acres. | |
| He pays for the cultivation of fifty acres, valuing his own labor at $1 25 per day, using as above, thirteen and a half loads of manure per acre, - - - - - - | 500 |

Suppose the product to be worth thirty dollars per acre, he will receive fifteen hundred dollars, less five hundred expenses is one thousand dollars. Add to this sum what he receives for his own labor for three hundred working days, at $1 25, and his income will be $1,375, with his land improved for the next years operations, and a chance thereby of increasing his income to at least $1,500 per annum.

| | |
|---|---|
| His neighbor B puts his five hundred loads of manure and compost on his whole farm of one hundred acres and thus can give each acre but five loads instead of thirteen and a half loads. Now if A's hundred and seventy-five loads of manure give $1500 product, five hundred loads will give but $111 11, but to give B all the advantage he can possibly claim, we will suppose that he gets the same value of crops as A, | $1500 |
| To cultivate one hundred acres, he must pay at the same rate per acre as A paid, | 1000 |
| Profit, - - - - - - | $500 |
| Add to this what he saved by his own labor, | 375 |
| Whole profit of B, - - - | $ 875 |
| Whole profit of A, - - - | 1375 |

But the simile does not end here: A's land has improved both in quality and value, while B's is no better than before. The following year A can work his land with less labor and increased results, while B plods on without improvement.

Now you have only to imagine that each of these farmers owe for their farms, and perhaps for their stock, and you will find one of them a bankrupt and the other a rich man in a few years.

Should they reside near a large city, and A work but ten of his acres, using his five hundred loads of manure at the value of fifty loads per acre, and leasing out ninety acres, and buying his fodder from others, raising more valuable crops himself, and B should continue his old course, then A would gain upon him in a still more rapid ratio. But to do this advantageously A must be even with the improvements of the day, in every particular, and above all must own a subsoil plow.—*Penn. Cultivator.*

METHOD OF EXCLUDING DRONES FROM THE HIVE.—The ancient Greeks had an ingenious method of excluding drones from the hive. It was observed that these gentlemen, (the drones,) though in no way inclined to work, would yet occasionally, on very fine days, go abroad for exercise, rushing forth in squadrons, mounting aloft into the air, and there wheeling, sporting, and manœuvering in the sun. Taking advantage of their absence, they spread a fine net over the bee entrances, the meshes of which were large enough to admit the workers, but not the drones. By this means, the latter were excluded and destroyed.

PROMPTNESS.—There is no calling in which promptness is more important than in that of the cultivator. A great deal depends on doing every thing in the proper season. In vain to him come the various seasons, bringing seed time and harvest, if he be not ready to sow and reap at the proper time. A short delay in planting may affect the crop materially. If the land be naturally rather wet, a delay of one day in sowing, after it is sufficiently dry, and a storm ensuing, may cause a further delay of one or two weeks, in a wet period, and this may cause a late crop and a failure, from rust or blight.

From the Michigan Farmer.

HEMP CULTURE IN KENTUCKY.—Among our new acquaintances were three gentlemen from Kentucky, one of whom, (whose name is Meeker) is a newly appointed Supreme Judge of Minesota, a real clever, open hearted Connecticut yankee, who has resided in "Old Kentuck" about twelve years. He is a shrewd observer and a good thinker, and of course edifying in conversation. He gave us some information in regard to the culture and preparation for market, of the hemp crop, the great staple of Kentucky, which quite suprised us. He says there are men in Kentucky who raise five hundred acres of hemp per annum. To cultivate and harvest that number of acres requires about one hundred hands, and of course one hand will manage about five acres. The crop is harvested with a hook which cuts it down near the surface of the ground, or if it stands thick and fine and not remarkably tall, is cradled. A stout hand will cradle an acre a day. An acre will produce forty or fifty dollars worth of hemp the price being generally about sixty dollars per ton. But what suprised us most was the facility with which it is prepared for market. It may be recollected that we have heretofore published some acdount of a machine which was said to do wonders in breaking and cleaning hemp and flax. The performance of the machine was represented as being so extraordinary, that we made many grains of allowance in our own mind. But its performances seem even to transcend the representations which have been given of them. It breaks, cleans, and packs, or bales the hemp, all by one operation, and with astonishing despatch, doing it as fast as the bundles can be put into the machine by one man—as fast as bundles of wheat are passed through a common thrashing machine.

*And why not introduce it here?* Why can we not raise as good hemp on our prairies and on our rich bottom lands, as they can raise any where—and with the help of this machine why can it not be made as profitable a business here as any where? Would it not be far better to place our dependance upon a greater variety of crops for market, than to rely upom a single staple, and that so frail a thing as the wheat plant—a plant which is liable to more fatal contingencies than perhaps any other, and by the frequent failure of which the whole community is thrown into pecuniary embarrassment.

And flax, why can we not raise it, and manufacture, at least, our own linen? If it can be cradled, as no doubt it can, and if it can be prepared for market with the machine above mentioned, what hinders our going into the cultivation of this vegetable product? The seed alone would pay all the expense of cultivation and a profit besides. Why then may not this be made a profitable business among us? Hitherto there has not, we believe, been a linen manufactory in the United States. Accounts have recently been published, however, of the formation of a company at the east, with a heavy capital, for the purpose of establishing one, and they propose purchasing the flax from the farmer, and cleaning it themselves, undoubtly by means of the above mentioned machine.

WASHING APPLE TREES.—About this time is as good as any to wash the bodies with ley. More insects and worms will be caught now than at any other period. Bear in mind that one pound of good potash in one gallon of water will make a ley that will kill the animals that come in contact with it, but will not hurt the bark. It is more than thirty years since we have used this wash, and we have never known it to injure a tree, young or old.

A piece of woolen cloth nailed on a short handle will answer the purpose of a brush. This wash must not be permitted to touch the leaves that are to remain on the tree. Washes of this kind have a tendency to keep away the animalculæ that are inclined to harbor on the bodies of trees. When the trees have rough bark on, it ought to be scraped off before washing. The loose bark affords a harbor to various insects and grubs.

MAPLE SUGAR IN VERMONT.—We learn that, the past season, on account of its cold and backwardness, has proved unusuall favorable for the sugar crop, in Vermont, the trees averaging a yield of about four pounds of sugar each. Caleb Aldrige, of Sutton-from 1,700 trees, made 6000 lbs. sugar; Mr. Noyes, made 4000 lbs.; Woolston Brock, way, from 3000 trees, made 900 lbs.; Harlow Brooks, from 350 trees, made 1,200 lbs.; and Ferdinand Walker, of Lyndon, from 400 trees, made 1,700 lbs. These ammounts are exclusive of the last run, or molasses, being all stirred sugars, equaling in color our muscovado, and are worth at least six cents per pound.

# Spirit of the Agricultural Press.

COLORING WOOD.—French cabinet makers can now make wood of any color they please, by letting the roots of the tree absorb the colored fluids the year before it is cut down. A solution of iron passed up one root, and of prussiate of potash up the other, will give wood a permanent blue color.

REDUCED COST OF TRAVELLING.—In 1815, the cost of steamboat passage from Cincinnati to New Orleans was $130; time of running, twenty-eight days. Now it is $15, and time of running, six or eight days. Ten years ago or less, the price of a cabin passage from our city to Buffalo was $25; now it is $7, or less.

GOLD DOLLARS.—These pretty little coins, which are somewhat smaller than half dimes, have recently been issued, in considerable quantities, from the United States Mint, and will prove exceedingly convenient for transmitting through the Post Office for the payment of *dollar periodicals &c.*, from those states not authorizing the circulation of small bank notes. A word to the wise is sufficient.

CARROTS AS BEE FEED.—Some years ago, Mr. Scheidlin, gardner to the King of Wurtemburgh, observed that bees were fond of sucking the saccharine particles of the boild raspings of carrots, and accordingly placed some, boiled to a jeily, near their hives.—*American Agriculturist.*

HOW TO MAKE IMITATION WAX CANDLES.—Throw a quantity of quick-lime into melted mutton suet; and when the lime has settled in the bottom, so as to leave the suet pure and clear, dip off the suet very carefully. To every pint of this suet add the same quantity of real wax, and you will have a pretty white and firm candle. The candle may be improved by adding a double quantity of wax. The wick of these candles should be harder twist and not so large as those used for common beef tallow candles.

MOTHERS, SEE TO YOUR DAUGHTERS.—A distinguished Philadelphia physician says: I anticipate the period, when the *fairest portion* of the *fair creation*, will step forth unencumbered with slabs of walnut and tiers of whalebone. The constitution of our females must be first rate, to withstand in any tolerable degree the terrible inflictions of the corset eight long hours every day. *No other animal could survive it.* Take the honest ox, and enclose his sides with hoop poles, put an oak plank beneath him, and gird the whole with a bed cord, and demand of him labor. He would labor indeed, but it *would be for breath.*

Wonder if the girls of Ohio will remember this?—*Ohio Cultivator.* UNCLE J.

A LITTLE MILL WORTH HAVING.—A flour mill but little larger than the crown of a hat, was exhibited at the Fair of the American Institute, N. Y., that would grind sixty bushels of wheat per day, and can be had for $150, complete, with bolting apparatus. At this rate every farmer might have one and grind his own grist.—*Detroit Free Press.*

ANIMALS.—Before rain, swallows fly low; dogs grow sleepy and eat grass; water fowls dive much; fish will not bite; flies are more troublesome; toads crawl about; moles, ants, bees, and many insects are very busy; birds fly low for insects; swine, sheep and cattle are uneasy, and even the human body.

EFFECT OF SALT ON WHEAT.—Some of our readers may recollect that last fall we mentioned an experiment made by Mr. John Park, of Gates, by sowing a barrel of salt to the acre upon a summer fallow. The ground was plowed once the preceding fall, plowed again in May, and salt sowed thereon as above; and afterwards plowed twice before seeding. On the 1st and 2nd of September, wheat was sown two bushels to the acre. The crop has just been harvested, and Mr. P. is confident will yield 40 bushels to the acre. The berry he considers equal to the finest English wheat.—*Roch. Am.*

BIG CLOVER.—Mr. Wm. C. Ayers brought to our office last week some stalks of clover grown in his garden, which measures 4 feet and one inch in length. He thinks this specimen shows that in some things, at least, little New Jersey can beat big Illinois. How is it?—*Plainfield (N. J.) Union.*

Many who find the day too long, think life too short; but short as life is, some find it long enough to outlive their characters, their constitutions, and their estates.

☞ The *Fond du Lac Journal* says that the Mayville Iron Works, of Dodge county, "are now turning out 300 tons of iron per week, of the best quality. Our Mayville friends have reason to be proud of the prospects of their growing town."

☞ The Detroit Free Press of the 18th ult., states that the wool brought to that market in six days will amount to one hundred thousand pounds.

FREIGHTS.—Wheat has been carried to Buffalo at a price that cannot pay. One vessel took a cargo of 11,000 bushels from Milwaukee at 3½ cents.

In Lowel, Mass.. there are 50 public schools, attended by 8,256 scholars, more than half of whom are females.

WHEAT IN MICHIGAN.—The farmers through the northern portion of the State, have commenced cutting their wheat very generally. The crop was never better.

TO KEEP BIRDS FROM FRUITS.—Suspend in the trees or vines, pieces of looking glass by a string, so as to turn freely in every direction. No bird will come near, after a first trial or so.

WARTS.—The bark of a willow tree, burned to ashes and mixed with strong vinegar and applied to the parts affected, will remove all warts, corns or excressences on any part of the body.

There are over a thousand princes in Germany, great and small, who receive annually from the people over two hundred millions of dollars; while a laborer works eighteen hours out of twenty-four for seventy-two cents per week.

GRAVEL FENCE.—O. E. Garrison, of Troy, Ill., gives in the Prairie Farmer the following mode of constructing gravel fence. It looks quite practicable:

Put up a wall of gravel and lime three feet six inches high, (the same way they build gravel houses,) eight or ten inches thick at the bottom, and three or four at the top. When the last layer is in the molds, put in sticks (strips of lath will do) eight or ten inches long, leaving them six inches above the mortar, and sharpened like pickets, you will then have a fence four feet high, that will last forever.

PRODUCTIONS OF THE UNITED STATES.—The Patent Office Report furnishes the following important information.

Wheat, Oats, Rye, Indian Corn, Potatos, Hay and Tobocco, are raised in every State and Territory of the Union.

Barley raised in all except Louisiana.

Buckwheat raised in all except Louisiana and Florida.

New England, New York, New Jersey, Pennsylvania, Michigan, Ohio and Wisconsin do not raise Cotton.

The States that do not raise cotton, together with Maryland, Delaware and Indiana, do not raise Rice.

Every State and Territory except Iowa raises Silk.

Every State except Delaware, make Sugar.

New York raises the most barley, viz., 1, 802,282 bushels.

New York raises the most Potatoes, viz. 20,553,612 bushels.

New York raises the most hay, viz. 4,595, 536 tons.

Ohio raises the most wheat, viz. 10,786, 705 bushels.

Pennsylvania raises the most rye, viz. 8, 429,226 bushels.

Pennsylvania raises the most buckwheat, viz. 7,408,508 bushels.

Tennessee raises the most corn, viz. 67, 838,447 bushels.

Virginia raises the most flax and hemp, viz. 31,726 pounds.

Kentucky raises the most tobacco, viz. 72, 322, 543 pounds.

Georgia raises the most cotton, viz. 148, 175, 128 pounds.

South Carolina raises the most rice, viz. 66,892,807 pounds.

Louisana raises the most sugar, viz. 37, 173,590 pounds.

North Carolina raises the most wine, viz. 16, 346 gallons.—*Lancaster Farmer*

POWER OF THE SOIL TO ABSORB ODORS. It is well known that if onions buried in the earth for a few days before being cooked, will have lost much of their rank flavor. Wild ducks, which are often too fishy in flavor to bo good, may be rendered much more palatable by being wrapped in absorbent paper and buried in the ground for a few hours. Dried codfish loses much of its austerity of flavor(if we may coin a term)by similar treatment. During the plague, in Europe, clothing was often buried for a time to disinfeet it. This absorbent property of the soils is due to the presence of carbonaceous matters, for clean sea-beach sand will produce no such result, while pulverised charcoal will act with much greater energy than common soil. On this principle, animal matter coated with unleached ashes, and then buried in pulverulent peat or muck, will only decompose without giving off offensive odors, but the muck will also, by absorbing the resulting gases arising from decomposition, be rendered highly valuable as a fertilizer. Dr. Dana says that a dead horse, if cut in pieces, and treated as above, will render twenty loads of muck equal in quality to the best stable manure.

The following article from the Madison (N. Y.) Observer, shows in a conclusive view the invaluable advantages of these farmers' railroads:

PLANK ROADS—*A few facts concerning their Cost and Productiveness.*—The Waterville and Utica Road, 19 miles long, cost $41,000—dividend just declared of 10 per cent, payable to stock-holders on the first of May, and 10 per cent laid by for repairs, &c. Utica and Bridgewater Road, 20 miles long, cost $40,000—pays 25 per cent regularly.

The Fonda and Johnstown Road, 4 miles long, cost $8,000—pays 50 per cent.

The Boonville Road pays 22 per cent, and the Whitestone Road about 25 per cent.

There is one gratifying fact in relation to plank roads, which cannot be said of railroads, or cannals, or steamboats, or banks, as a never failing thing: it is this—those who have been interested in plank roads and watched their progress, have learned by experience, that *no plank road has yet been constructed, which has proved to be a losing concern to the stock-holders*—none which has not paid more than the legal rates of interest on the investment. Those also who are best acquainted with plank roads are now prepared to say, that it is *impossible* to build one of these roads through a well settled country, at any reasonable cost, which will not pay to the stock-holders more than seven per cent. Experience has shown that the people *will stock* these roads, and *will use* them; and unlike the railroads, they are an enterprise mutually beneficial to the stockholders and the public.

If it be true that not a single plank road has yet failed to pay a good dividend—no business in the world can show a similar instance of the fortunate investment of Capital and Labor.

# EDITOR'S TABLE.

THE WHEAT CROP.—The almost universal complaint is, that the present wheat crop is greatly injured, in some places almost entirely destroyed by insects, rust, and other causes. Says the Ohio Cultivator:

From all the information we can gather, it appears quite certain that throughout a large portion of Ohio, the wheat harvest is sadly deficient, owing to the damage by *rust* and the *wheat insect*. A few only of the more northern counties, we believe, have escaped these evils, and are harvesting nearly a fair average crop; but taking the state at large, we are of the opinion that full one half the crop has been destroyed—which is equal to *twelve millions of bushels!* This is an immense loss to our farmers, but we trust they will not be disheartened, especially as the corn and other crops are now quite promising.

IN KENTUCKY, all the papers agree in stating that the wheat crop is almost a failure, owing to the *rust*.

In Western Virginia and Western Pennsylvania the wheat has been much injured by the rust—same as in Ohio and Kentucky—not over a half a crop.

In Eastern Virginia and Pennsylvania the crop is represented as fair—some injury done by rust also by insects, but nearly an average crop harvested.

In Indiana the crop is said to be no better than in central Ohio. Its appearance was very promising till just before harvesting commenced when the hot and wet weather brought on rust which destroyed full half of the crop.

In Western New York, where there was a cheering prospect of an unusually abundant crop, much damage has been done by rust, and the yield will be light.

In this State, if we except the western part, the wheat has greatly suffered by blight, especially on low lands. The Spring wheat has received the greatest injury, generally speaking. The editor of the *Advocate* says:

☞ We were shown a day or two since, a handful of heads of wheat gathered from a field in this vicinity, upon the whole of which there was not one sound grain, and we were told that there was not one to be found in the whole field. The green ears looked as if they might bear, but the instant they changed color, the grain was gone. The upland wheat is we understand better, but light, and part of the spring wheat will also prove very light.

Many fields we ourselves have visited are hardly worth harvesting. Farmers hereabouts are sufferers to a considerable extent—some will lose almost the entire labor of a year. This must teach them not to rely so entirely on the growing of wheat.

☞A Wisconsin Farmer corresponding for the Genesee Farmer, says:

Speaking of plowing leads me to another topic.—I do not know but our western land may ultimately need deep tilling; at present it appears not beneficial. I know not whether we have any land that, with the best management, would produce such a crop of corn as stated by Mr. Sheldon. I have fifty acres that will produce from seventy to ninety bushels per acre, by plowing from six to eight inches deep, and hoeing, (without manuring or harrowing,) which I would like to let some of the Genesee farmers have, that they might cultivate it thoroughly and see if it would not produce as much as heart could wish, of corn, wheat or root crops. The latter, with half cultivation, are produced in astonishing quantities.

I have a little native cow that has been kept out at the stack all winter, which will give as much milk and of as good quality as any Durham of her weight; but the art of obtaining as much butter or cheese therefrom, as we read in the Farmer that some have done, I am confident we do not possess.

I am told that one man, a few miles from here, has commenced building wire fence, and finds it very expensive. We cannot go into it here so long as the merchants make us pay twenty-five cents per lb. for wire—and its utility and durability is doubted.

Our friend's views on "keeping the swinish multitude at home" are to the point. I intend to show the article to a well off Pennsylvania farmer, who keeps a large herd of swine and pastures them wholly in the road, in hopes that he will take the hint. That *Van* may be a decent man, aside from his politics.

Again he says:

The Horticultural Department of the Farmer we all much need in this section. It contains the most information on the subject of any journal that I have been privileged with reading.

We believe we furnish about as much Horticultural matter, and of as good quality, and as well adapted to this meridian as the Genesee Farmer.—He is right in the following:

Though more applicable to the farmers of New York and New England, (who farm it on a smaller scale than us westerners,) I feel disposed to continue the Farmer for the satisfaction of reading it; and learning what improvements are being made; also learning the views of many different and distant persons on various, and some very important subjects.

Let every farmer take as many Agricultural papers as he can afford to, and thus while he patronizes his own journal at home, and contributes to the interest of its pages, he will be sure to increase in wisdom, and aid materially the cause of Agriculture.

BREADSTUFFS OF THE UNITED STATES.—A very valuable, scientific report on this subject has recently been given by Prof. BECK of Rutgers College, in which he gives the results of some important experiments made under the patronage of the Federal Government. It will every where be regarded as a most valuable document, discussing as it does, and throwing light upon a topic of general interest. We call attention to the following synopsis of this excellent Report:

Professor Beck received the appointment in April

of last year, and his experiments thus far have been confined to wheat and wheat flour, which constitute the subject of the report before us. Indian corn and meal, which have now become such important articles of export, will receive due attention in the course of his researches. In entering upon the subject of his present report, his first object was to ascertain the amount of water in different kinds of wheat and flour, for all contain water in greater or less quantities. Its amount is greater in cold countries than in warm.

In Alsace from 16 to 20 per cent.
" England, from 14 to 17 per cent.
" United States, from 12 to 14 per cent.
" Africa and Sicily, from 9 to 11 per cent.

This accounts for the fact that the same weight of Southern flour yields more bread than Northern. English wheat yields 13 pounds more to the quarter than Scotch. Alabama flour, it is said, yields 20 per cent more than that of Cincinnati. And in general, American Flour, according to the authority of one of the most extensive London bakers, absorbs 8 or 10 per cent more of its own weight of water in being made into bread, than the English. The English grain is fuller and rounder than the American, being in truth puffed up with moisture. All this is accounted for by temperature. The warmer the country the more is the water dried out of the grain before it ripens, and hence when made into bread, it absorbs more water again and is therefore more valuable.

Water also unfits it for preservation. The books of a single inspector in New York city showed that in 1847 he inspected 218,679 barrels sour and musty flour. In his opinion the loss on these was $250,000. Every year the total loss in the United States from moisture in wheat and flour is estimated at from $3,000,000 to $5,000,000! To remedy this great evil, the grain should be well ripened before harvesting, and well dried before being stored in a good dry granary. Afterwards, in grinding and in transporting, it should be carefully protected from wet, and the flour kept from exposure to the atmosphere. The best precaution is kiln drying. By this process the wheat and flour are passed over iron plates heated by steam to the boiling point. From each barrel of flour 16 or 17 pounds of water are thus expelled, leaving still 4 or 5 per cent in the flour, an amount too small to do injury. If all the water be expelled, the quality of the flour is deteriorated.

The mode of ascertaining the amount of water is this. Take a small sample, say 5 ounces, and weigh it carefully. Put it in a dry vessel, which should be heated by boiling water. After 6 or 7 hours weigh it carefully until it loses no more weight. Its loss of weight shows the original amount of water.

The next object of Professor Beck was to ascertain the amount of gluten in the various samples of flour. Gluten is an adhesive, pasty mass, and consists of several different principles, though its constitution has not yet been satisfactorily determined. It is chiefly the nutritious portion of the flour. The remaining principles are mostly starch, sugar, and gum. These three latter have been thought not to be nutritious, but this is probably an error. On an average, their relative amount in 100 parts are about as follows:

| | *Average.* | *Kubanka Wheat, the best.* |
|---|---|---|
| Water, | 13 | 12 |
| Gluten, | 12 | 16 |
| Starch, | 67 | 60 |
| Sugar and gum, | 8 | 9 |

The Professor examined, according to the present report, 13 different samples, from different parts of the United States and Europe, and he gives the preference to the Kubanka variety from the south of Russia. There would probably be a prejudice against it in this country, from the natural yellowish hue of its flour and bread.

The process for determining the relative amounts of gluten, starch, sugar and gum is this: Put a few ounces of flour carefully weighed in a cotton or linen cloth. Pour cold water upon it and work up the dough with the fingers. All except the gluten strains through the cloth. This is then dried and weighed.

The gum and sugar becomes dissolved in the water, but the starch settles at the bottom of the vessel. This water is poured off and the starch is thus obtained, and may be weighed. The water is next evaporated, and the gum and sugar also obtained in a dry state for weighing. This is not a perfect method—other methods more complicated give different results; but this is sufficiently accurate in a practical way for ascertaining the *relative values* of different specimens.

The report contains some valuable remarks on agriculture in general. The inquiry is not simply how productive a field may be made, however important that may be, but concerns also the *cost* of such production. A man may astonish the country by the great abundance of his crops, and yet become bankrupt with his great returns—simply because they cannot repay their cost. The question therefore of economy of measures and economy of treatment, are of the first importance. It should be known also that wheat raised on a rich soil is more nutritious, taking the same quantity, than that raised in poor ground.

We hope these enquiries will be continued without delay. As yet, after so few months' labor, they are merely preliminary. Professor Beck has given abundant proof of his ability to pursue the subject in his noble report on the mineralogy of New York, and in his valuable work on Chemistry and Botany; and we may reasonably anticipate that his researches in organic analysis will be entitled to a place with those of Professor Horsford of Cambridge, or of Professor Norton of Yale.—*Newark Daily Advertiser.*

America, the Granary of the World.—We claim not too much when we say this—at any rate we claim not too much when we say that our country is destined to become the granary of the world. "The fact that we sent forty-three millions of dollars' worth of food to relieve a famine in Europe in a single year—great as the amount really is, dwindles nevertheless into insignificance when compared with the profuse abundance we enjoy at home. The aggregate amount of the agricultural products of the United States convertible into breadstuffs or its substitutes, upon an average of three or four years, is about 900 millions of bushels, of which nearly one half is Indian corn. The quantity of wheat may be put down at 100 millions of bushels. The whole amount of this vast aggregate product required for home consumption does not probably exceed 300 millions. Of course the immense surplus is subject to exportation;" and who will say that the words at the head of this article are not true, or are not in process of verification?

☞ The Light House at Port Washington is completed. It is 116 feet above the Lake.

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

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## The Wheat Crop.

*Some Remarks on its Failure, Cause, Remedy, etc.*

What at first was apprehended, is now more clearly manifest—the wheat crop in this State has suffered greatly, with here and there an exception, so that its average is hardly two thirds of an average yield. Still in the aggregate, the quantity is much greater than any previous season, because of the increased number sown.

There were three causes affecting the wheat crop throughout nearly the whole of Wisconsin.—*Insect, Mildew, Smut,* and *Rot.* The first of these was quite destructive in some localities. It was found in the stalk, generally about the joints, of a light brown color. A few of them sent us, on being confined, fed voraciously on the berry.

A similar worm is described by Judge Buel, in the Memoirs of the N. Y. State Agricultural Society, as being about three sixteenths of an inch long, pale yellow, with brown spots about its mouth —making its deposites thrice a year. and a few days earlier than those of the Hessian fly. Mr. Worth of Penn, speaks of this depredator as follows:

"The ravages of the first generation have usually been confounded with those of the fly, as the plants decline in both cases about the same time, and in the same manner; but such as are effected by this insect, can readily be distinguished by an enlargement of the culm near the roots. The second generation is lodged about the several joints, and may frequently be found in apparently healthy plants. This generation must materially lessen the quantity of grain, and I conceive the principle cause of the bad product from the straw. The third generation, in the autumn, is lodged in the manner of the first, and the change has also been charged to the Hessian fly."

It is supposed that this worm harbors in the ground, which is probably true. If so, the remedy at once suggests itself, which is salt and ashes, or lime. They should be applied at the time of sowing, and harrowed in with the grain.

The mildew or rust is pretty clearly ascertained to be a species of fungus, "so small as to require glasses to render its form distinct, and rapidly propagated by its seeds." It spreads very rapidly from stalk to stalk, enters the cells connected with the common tubes, and feeds and fattens on the very life of the grain. Most writers claim that no remedy has as yet been discovered for the disease, but recommend that no mildewed straw be spread upon the land to be sown to wheat, as the fungus increases by the diffusion of its seeds. The opinion of Judge Buel was, that, the mildew or rust is generated, or propagated, by a moist, hot, and close atmosphere, and all observation and experience testify that it abounds most where fresh manures have been applied in quantity.

"These causes suggest the remedies—which are, to ensure a better circulation of air, by laying the lands (especially if level) in narrow ridges; and to prevent a too luxuriant growth, both of straw and weeds, by applying the manure *first* to a hoed crop, which will extirpate the weeds introduced by the manure, and deprive the latter of its heat."

With reference to smut in wheat, we extract the following from a communication of Mr. James McCall of New York.

"When I resided in Seneca county, several years ago, my attention was particularly drawn to this subject, by observation, that while myself and neighbors were much injured by smut in our wheat, the crop of Mr. C. uniformly escaped. I enquired into the cause of this singular exemption, and learnt that it was owing to the seed having been limed.

In 1816, therefore, I washed my seed, put about three pints of lime to each bushel, mixed it well, and let it lie in a heap twelve hours before sowing. My crop was perfectly clean, while I can say all my neighbors had more or less smut.

In 1817, part of my seed was washed and limed, as in the preceding year; another part was washed and limed, and a pint of salt to each bushel mixed with the lime: a third parcel was washed in a strong pickle and limed; and a fourth sown without any preparation. The result was as follows: The first had a little smut, the second none, the third none—and the fourth was a quarter smut—all on the same kind of land, and all sown in good weather, between the 5th and 15th September.

## AN ACT RELATING TO COMMON SCHOOLS.

*The people of the State of Wisconsin, represented in Senate and Asembly, do enact as follows:*

### OF COMMON SCHOOLS.

#### DISTRICTS.

SECTION 1. Whenever a school district shall be formed in any town, it shall be the duty of the town superintendent, within twenty days thereafter, to prepare a notice in writing of the formation of such district, describing its boundaries, and appointing a time and place for the first district meeting, and to deliver such notice to a taxable inhabitant of the district.

§ 2. The town superintendent shall, in such notice, direct such inhabitant to notify every qualified voter of the district, either personally, or by leaving a written notice at his place of residence, of the time and place of such meeting, at least five days before the time appointed therefor; and it shall be the duty of such inhabitant to notify the voters of such district, agreeably to the requirement of said notice, and endorse thereon a return containing the names of the persons by him notified; and said notice and return shall be recorded as a part of the record of the first meeting in such district.

§ 3. In case such notice shall not be given, or the inhabitants of the district shall refuse or neglect to assemble, or form a district meeting, when so notified; or in any case any school district having been formed and organized. shall afterwards be dissolved, so that no competent authority shall exist therein to call a special district meeting in the manner hereinafter provided, notice shall be given by the town superintendent,and served in the manner prescribed in the precedeng section.

§ 4. Whenever a district meeting shall be called in the manner prescribed in the preceding chapter, it shall be the duty of the electors of the district to assemble at the time and place mentioned in such notice.

§ 5. Every male inhabitant twenty-one years of age or upwards, who shall reside in any school district meeting therein, shall be entitled to vote at such meeting.

§ 6, If any person offering to vote at a school district meeting, shall be challenged as unqualified, by any legal voter in such district, the chairman presiding at such meeting shall declare to the person challenged the qualifications of a voter, and if such challenge shall not be withdrawn the chairman shall tender him the following oath or affirmation, "You do solemnly swear or affirm, that you are an actual resident of this school district, and that you are qualified according to law to vote at this meeting." Any person taking such oath or affirmation shall be permitted to vote on all questions proposed at such meeting; but if any person shall refuse to take such oath or affirmation, his vote shall be rejected.

§ 7. Every school district shall be deemed duly organized when any two of the officers elected at the first legal meeting thereof, shall have consented to serve for the offices to which they have been respectively elected, by a written acceptance thereof filed with, and recorded by the clerk; and every school district shall be considered as legally organsized after it shall have exercised the franchises and priviliges of a district for the term of two years.

§ 8. Every school district organized in pursuance of this chapter; or which has been organized under any previous law of the state or territory of Wisconsin, shall be a body corporate, and shall possess the usual powers of a corporation for public purposes, by the name and style of "School District number (such number shall be designated by the town superintendent in the formation thereof,) of ," (the name of the town or towns in which the district is situate,) and in that name shall sue and be sued, and be capable of contracting and being contracted with, and of holding such real and personal estate as is authorized to be purchased by the provisions of this chapter, and of selling the same.

#### DISTRICT MEETINGS.

§ 9. The annual meeting of such school district shall be held on the last Monday of September in each year; the hour of such meeting shall be two o'clock in the afternoon, unless otherwise provided by the district, special district meetings may be called by the clerk, or in his absence by the director or treasurer, on the written request or any five legal voters of the district.

§ 10. No annual meeting shall be deemed illegal for want of due notice, unless it shall appear that the omission to give such notice was wilful and fraudulent.

§ 11. The inhabitants qualified by law to vote at a school district meeting, when assembled at the first meeting in their district, or when lawfully assembled at any other district meeting shall have power,

1st, To appoint a chairman for the time being;

2nd. To adjourn from time to time as occasion may require;

3rd. To choose a director, treasurer, and clerk at their first, and at each annual meeting.

4th. To dosignate a site for a district school house;

5th. To vote such tax on the taxable property of he district, as the meeting shall deem sufficient to puchase or lease a suitable site for a school house, and to keep in repair and furnish the same with the necessary fuel and appendages;

6th. To vote a tax on the taxable property of the district of such sum as the meeting shall deem proper for the pay of teacher's wages in the district;

7th. To authorize and direct the sale of any school house, site; or other property belonging to the district, when the same shall no longer be needful for the use of the district;

8th. To impose such tax as may be necessary to discharge any debts or liabilities of the distsict lawfully incurred;

9th. To vote a tax not exceeding twenty dollars in any one year for the purchase of globes, blackboards, outline maps; or any other apparatusfor illustrating the principles of agriculture, chemistry, or the mechanic arts;

10th. To give such direction, and make such provison as may be deemed necessary in relation to to the prosecution or defence of any suit or proceeding in which the district may be a party or inrerested;

11th. To alter, repeal, and modify their proceedings from time to time, as occasion may require.

12th. No sale of any school house shall be author, ized or the site of the same changed, or any tax voted-

at any special meeting, unless the notice for such meeting shall be served in the same manner as is provided for the first meeting of a district after its organization.

§ 12. Whenever the time for holding an annual meeting in any district for the election of district officers shall pass without such election being held, the clerk, or in case of his absence, either the director or treasurer last elected, within twenty days after the time of holding such meeting shall have passed, may notify a special meeting for such election in the manner prescribed in the tenth section of this chapter; but if such meeting shall not be notified within twenty days as aforesaid, the town superintendent may order any taxable inhabitant of such district to notify such meeting in the manner provided in this chapter for the formation of a new district; and the officers chosen at such special meeting shall hold their offices until the time for holding the next annual meeting.

§ 13. No tax to be voted by a district meeting for building, hiring or purchasing a school house, shall exceed the sum of three hundred dollars, unless the town superintendent of the town in which the school house is to be situated, shall certify in writin his opinion that a larger sum ought to be raised, and shall specify the sum, in which case a sum, not exceeding the sum so specified may be raised; and in districts composed of parts of several towns, the certificate of a major part of the superintendents of said towns shall be necessary for such purpose.

§ 14. The qualified voters, at each annual meeting, may determine the length of time a school shall be taught in their district the then ensuing year, which shall not be less than three months, and whether such school shall be taught by a male or female teacher, or both, and whether the school moneys, to which the district is entitled from the common school fund and from the town, shall be applied to the support of the summer or winter term of the school, or a certain portion to each, but if such matters shall not be determined at the annual meeting, the district board shall have power, and it shall be their duty to determine the same.

DISTRICT OFFICERS AND THEIR DUTIES.

§ 15. The officers of each school district shall be a director, treasurer and clerk, who shall hold their respective offices until the annual meeting next following their election or appointment, and until their successors shall have been chosen, but not beyond ten days after the time for holding the second annual meeting after their election or appointment, without being again elected or appointed.

DIRECTOR.

§ 16. It shall be the duty of the director of each district to sign, together with the clerk, all orders drawn by the clerk upon the treasurer of the district for moneys collected, or received by him to be disbursed therein.

§ 17. The director shall appear for and on behalf of the district, in all suits brought by or against the district, when no other direction shall be given by the qualified voters of such district at a district meeting.

TREASURER.

§ 18. It shall be the duty of the treasurer of each district to collect all taxes assessed in pursuance of the provisions of this chapter, in obedience to the command contained in the warrant annexed to the tax lists; he shall also apply for and receive from the town superintendent, all school moneys apportioned to his district, and pay over on the order of the clerk and director of such district, all moneys so collected and received by him.

§ 19. The treasurer shall present to the district at each annual meeting a report in writing; containing a statement of all moneys received by him the preceeding year, and of the disbursements made by him, with the items of such disbursements, and exhibit the vouchers therefor, also a statement of all taxes assessed upon the taxable property of the district during the year; the purposes for which such taxes were assessed, and the amount assessed for each particular purpose, which report shall be recorded by the clerk, and if it shall appear that any balance of moneys is in the hands of such treasurer at the time of making such report, he shall immediately pay over such balance to his successor in office.

§ 20. The director and clerk shall require of the treasurer, and the treasurer shall execute to the district a bond in double the amount of money, as near as can be ascertained, to come into his hands as treasurer during the year, with sufficient sureties, to be approved by the director and clerk, conditioned for the faithful discharge of the duties of his office.

§ 21. Such bond shall be filed with the clerk, and in case of any breach of the condition thereof, the director shall cause a suit to be commenced thereon in the name of the district, and the money when collected shall be applied by such director to the use of the district as the same should have been applied by the treasurer.

§ 22. If the treasurer shall fail to give a bond as is required in this chapter, or from sickness or any other cause shall be unable to attend to the duty of collecting any district tax; the said board shall appoint a treasurer, who shall possess all the powers of the district treasurer, and shall before entering upon the duties of his office, give a bond to the district in double the amount of moneys to come into his hands as near as can be ascertained, in the same manner and with the same effect as the district treasurer is required to give.

§ 23. If such treasurer shall refuse or neglect to pay over any balance remaining in his hands, it shall be the duty of his successor in office to prosecute without delay, his official bond for the recovery of such balance;

§ 24. If by the neglect of any treasurer, any school moneys shall be lost to any school district, which might have been collected within the time limited in the warrant delivered to him for their collection, he shall forfeit to such district the full amount of the moneys so lost, and shall account for the same to such district in the same manner as if they had been collected.

CLERK.

§ 25. It shall be the duty of the clerk of each district to record the proceedings of his district in a book, to be provided by the district for that purpose; to enter therein copies of all reports made by him to the town superintendent, and to keep and preserve all records, books and papers belonging to his office and deliver the same to his successor in office.

§ 26. He shall be the clerk of the district board,

and of all district meetings when present; but if he shall not be present at any district meeting, the qualified voters present may appoint a clerk of such meeting, who shall certify the proceedings thereof, and the same shall be recorded by the clerk of the district.

§ 27. The clerk shall contract with and hire qualified teachers for and in the name of the district; which contract shall be in writing, and shall have the consent of either the director or treasurer or both endorsed thereon, and shall specify the wages per week or month as agreed upon by the parties, and such contract so completed shall be filed in his office.

§ 28. The district board shall provide the necessary appendages for the school house, and keep the same in good condition and repair, during the time a school shall be taught therein; and they shall keep an accurate account of all expenses incurred by them and present such account for allowance to the qualified voters at a regular district meeting; and the amount of such account as allowed by such meeting may be assessed and collected in the same list with the other district taxes, but no such account shall be allowed at a special district meeting, unless the intention to present the same shall be specified in the notice for such meeting.

§ 29. It shall be the duty of the clerk to give at least six days notice of every annual and special district meeting, by posting up notices therefor in four or more public places in the district, one of which notices shall be affixed to the outer door of the school house if there be one in the district, and he shall give the like notices for every adjourned district meeting, when such meeting shall have been adjourned for a longer period than one month; every notice for a special district meeting shall specify the objects for which such meeting is called, and no business shall be acted upon at any special meeting which was not specified in such notice.

§ 30. It shall be the duty of the clerk, between the first and fifteenth days of September, in each year, to make and transmit a report in writing signed by him, to the town superintendent, dated on the first day of September, in the year in which it shall be transmitted, showing:

1st. The number of children male and female, designated separately, residing in the district on the last day of August previous to the date of such report, over the age of four and under the age of twenty years.

2nd. The number attending school during the year under the age of four and the number over the age of twenty years;

3rd. The whole number that have attended school during the year.

4th. The length of time a school has been taught during the year by a qualified teacher, the name of each teacher, the length of time taught by each, and the wages paid to each;

5th. The average length of time scholars over the age of four, and under the age of twenty years, have attended school during the year;

6th. The amount of moneys received from the town superintendent within the year, and the manner in which the same has been applied;

7th. The amount raised by the district in such year, and the purposes for which it was raised;

8th. The kind of books used in the school;

9th. Such other facts and statistics in regard to the school, and the subject of education, as the state superintendent may direct.

§ 31. It shall be the duty of the clerk to draw orders on the treasurer of the district for moneys in the hands of such treasurer, which have been apportioned to, or raised by the district, to be applied to the payment of teacher's wages and apply said moneys to the payment of such teachers as shall have been employed by him in the name of the district; and also to draw orders on said treasurer for moneys in his hands, to be disbursed for any other purpose, for which the same shall have been voted by the district, agreeably to the provisions of this chapter; *Provided*, said orders shall be signed by the director.

§ 32. It shall be his duty to make out tax lists of all taxes legally authorized by the district, and annex to such tax lists a warrant, under his hand, directed to the treasurer of such district, requiring him to collect the sums therein named.

§ 33. The clerk shall furnish under the instruction of the superintendent of public instruction, a suitable school register, in which every teacher in the district shall be required to enter the names, ages, and studies of all the scholars attending school and daily their attendance, tardiness, and absence; which register shall be deposited with the clerk at the end of each term; and any teacher who shall wilfully neglect or refuse to comply with the requirements of this section, shall forfeit his or her wages for teaching in such district.

DISTRICT BOARD.

§ 34. The director, treasurer, and clerk shall constitute the district board.

§ 35. They shall purchase, or lease such a site for a school house, as shall have been designated by the district, in the corporate name thereof, and shall build, hire, or purchase such school house out of the funds provided for that purpose, and make sale of any school house, site or other property belonging to the district, and if necessary execute a conveyance of the same in their name of office, when lawfully directed by the qualified voters of such district at any annual or special meeting.

§ 36. The said board shall have the care and keeping of the school house and other property belonging to the district, except so far as the same shall be especially confided to the care of the clerk, including all books purchased by the district for the use of any children.

§ 37. The said board shall have power to fill, by appointment, any vacancy that shall occur in their own number, within ten days after such vacancy shall occur; and if such vacancy shall not be filled within ten days as aforesaid by said board, it shall be the duty of the town superintendent to fill such vacancy by appointment.

§ 38. The district board may purchase, at the expense of the district, when families or guardians may not be able to furnish the same, such school books as in their judgment may be necessary for the use of any children attending school in their district, and they may include the amount of such purchase in any tax list to be collected in such district.

SCHOOL BOOKS.

§ 39. The board in each school district shall have power, under the advice of the superintendent of public instruction to determine what school and text books shall be used in the several branches taught in the school of such district.

§ 40. In every district school there shall be taught orthography, reading, English grammar, geography

and arithmetic, during the time which such school shall be kept, and such other branches of education as may be determined upon by the board.

TOWN SUPERINTENDENT AND HIS POWERS AND DUTIES.

§ 41. It shall be the duty of the town superintendent of common schools within ten days after he shall have been notified of his election or appointment, to execute to the chairman of supervisors of his town, and file with the town clerk, a bond with one or more sufficient sureties, to be approved by the said chairman of supervisors by endorsement over his signature on said bond, with a penalty as near as can be ascertained, of double the amount of all the school moneys to come into his hands during the term of his office, and conditioned for the faithful application and legal disbursement of all such school moneys according to law, and for the faithful discharge of all the duties of his office; and in case such bond shall not be executed, approved and filed within the time prescribed in this section the office of such town superintendent shall be deemed vacant

§ 42. It shall be the duty of the town superintendent of each town.

1st. To divide the town into a convenient number of school districts, and to regulate and alter such districts as hereinafter provided;

2nd. To describe and number the school districts, and to deliver the description thereof and numbers in writing to the town clerk, immediately after the formation or alteration thereof;

3rd. To apply for and receive from the county treasurer, all moneys apportioned for the use of common schools in his town, and from the treasurer of the town, all moneys raised therein for the same purpose;

4th. To apportion the school moneys received from the town and county treasurer, on the first Monday of April in each year, to the several districts and parts of districts within the town, in proportion to the number of children residing in each, over the age of four, and under the age of twenty years as the same shall have appeared from the last annual reports of their respective clerks;

5th. To see that the annual reports of the clerks of the several school districts in his towns are made correctly and in due time;

6th. To sue for and collect in his name of office, all penalties and forfeitures imposed in this chapter, which shall be incurred by any officer or inhabitant of his town, and in respect to which no other provision is made.

§ 43. It shall be the duty of the town superitendent, between the first and fifteenth days of October in each year to make and transmit to the clerk of the board of supervisors of the county a report in writing, bearing date on the first day of October in the year of its transmission, stating,

1st. The whole number of school districts separately set off within the town;

2nd, The districts and parts of districts from which reports shall have been made to him or his immediate predecessor in office, within the time limited for that purpose;

3rd. The length of time a school shall have been kept in each of such districts or parts of districts, distinguishing what portion of that time the school has been kept by qualified teachers;

4th. The amount of public moneys received in each of such districts and parts of districts;

5th. The number of children taught in each, and the number of children over the age of four and under the age of twenty years residing in each;

6th. The whole amount of moneys received by him or his predecessors in office, since the date of the last preceding report, distinguishing the amount received from the county treasurer, from the amount received from the town treasurer, and from other sources, if any;

7th. The manner in which such moneys have been expended, and whether any, and what part remains unexpended, and for what cause;

8th. The amount of money raised in the districts and paid for teachers' wages, in addition to the public money paid therefor; the amount of taxes raised for purchasing school house sites, for building, hiring, purchasing, repairing, and insuring school houses, for fuel, for district libraries, and for any other purposes allowed by law, in the districts or parts of districts from which reports have been received by him, or his predecessor, since the date of the last preceding report, with such other information as the state superintendent may from time to time require.

§ 44. No money shall be apportioned to any district or part of district, unless it shall appear, by the report thereof, that a school has been taught therein, for at least three months during the year ending at the date of such report, by a qualified teacher, and that all school moneys received during that year from the school fund have been applied to the payment of the wages of such teacher; and no portion of the library money shall be apportioned to any district, unless it shall appear from the last annual report thereof, that the library money received at the last preceding apportionment was duly expended according to law, before the first day of September subsequent to such apportionment, and that such district has complied with the regulations established by the state superintendent in respect to district libraries.

§ 45. The town superintendent in each town shall keep a just and true account of all school moneys received and expended by him during each year for which he shall have been chosen, and shall lay the same before the board of auditors of town accounts, at the annual meeting of such board in each year.

§ 46. The town superintendent of common schools in each town shall within ten days after the termination of his office, render to his successor in office a just and true account, in writing, of all school moneys received by him during the preceding year, and of the manner in which the same shall have been appropriated and expended by him; and the account so rendered shall be delivered by such successor in office to the town clerk, to be filed and recorded in his office.

§ 47. On rendering such account, if any balance shall be found remaining in the hands of such town superintendent, the same shall immediately be paid by him to his successor in office.

§ 48. Such successor in office shall bring a suit, upon the official bond of any previous town superintendent, for the recovery, with interest, of any unpaid balance of school moneys, that shall appear to have been in his hands on leaving his office, either

by the accounts rendered by such town superintendent, or by other sufficient proof.

§ 49. The town superintendent in each town shall have the powers and privileges of a corporation, so far as to enable him to take and hold any property transferred to him for the use of common schools in such town,

§ 50. The town superintendent shall be entitled to receive one dollar per day for every day actually and necessarily devoted by him, in his official capacity to the service of the town for which he may be chosen, the same to be paid in like manner as other town officers are paid.

§ 51. If after the time when the annual reports of the school districts are required to be dated, and before the apportionment of school moneys shall be made, a district shall be duly altered or a new district shall be formed in the town, so as to render an appointment, founded on such annual reports, unjust as between two or more districts of the town, the town superintendent shall make an apportionment to such districts, according to the number of children in each over the age of four, and under the age of twenty years, ascertaining that number by the best evidence in his power.

§ 52. All moneys apportioned by the town superintendent, to any district or part of a district which shall have remained in the hands of said town superintendent for one year after such apportionment, by reason of such district, or part of a district, neglecting or refusing to receive the same, shall be added to the moneys next thereafter to be apportioned by such town superintendent, to the several districts and parts of districts in such town, and apportioned therewith.

OF INSPECTION AND SUPERVISION BY TOWN SUPERINTENDENT.

§ 53. It shall be the duty of the town superintendent to examine annually all persons offering themselves as candidates for teachers of common schools in his town, in regard to moral character, learning, and ability to teach school; and he shall deliver to each person examined and found qualified, a certificate signed by him, in such form as shall be prescribed by the state superintendent; which certificate shall be in force for one year from the date thereof, unless annulled within that time, and no person shall be deemed a qualified teacher within the meaning of this chapter who has not such a certificate in force.

§ 54 The town superintendent may annul any such certificate, given by him or his predecessor in office, when he shall think proper, giving at least ten days previous notice in writing to the teacher holding it, and to the district board of the district in which he may be employed, of his intention to annul the same.

§ 55. The annulling of a certificate shall not disqualify the teacher to whom it was given, until a note containing the name of the teacher, and the time when the certificate was annulled, shall be made by the town superintendent, and filed in the office of the town clerk.

§ 56. The town superintendent, whenever he shall deem it necessary, may require a re-examination of any of the teachers in his town, for the purpose of ascertaining their qualifications to continue as such teachers.

§ 57. It shall be the duty of the town seperintendent to visit all such common schools.

§ 58. At such visitation, the town superintendent shall examine into the state and condition of such schools, both as respects the progress of the scholars in learning, and the good order of the schools, and may give his advise and direction to the board of directors, and the teachers of such schools as to the government thereof and the course of studies to be pursued therein.

OF THE FORMATION AND ALTERATION OF SCHOOL DISTRICTS.

§ 59. In the formation or alteration of a school district, the board of directors of any district to be affected thereby, may apply to the chairman of the board of town supervisors and town clerk to be associated with the town superintendent; and their action shall be final, unless duly appealed from.

§ 60. No alteration of any school district, made without the consent of the district board thereof, shall take effect until three months after notice in writing shall be given by the town superintendent to some one or more of such district board; nor shall any alteration of an organized school district be made to take effect between the first day of September, in any one year, and the first day of April following.

§ 61. When a new district is formed in whole or in part, from one or more districts possessed of a school house, or entitled to other property, the town superintendent, at the time of forming such new district, shall ascertain and determine the proportion of the value of the school house and other property justly due to such new district.

§ 62. Such proportion shall be ascertained and determined, according to the value of the taxable property of the respective parts of such former district, at the time of the division, by the best evidence in the power of the town superintendent; and such amount of any debt due from the former district, which would have been a charge upon the new had it remained in the former district, shall be deducted from such proportion.

§ 63. Such proportion, when ascertained, shall be raised and collected, with fees for collection, by the district board of the district retaining the school house or other property of the former district, upon the taxable property of their district, in the same manner as if the same had been authorized by a vote of their district for the building of a school house, and when collected, shall be paid to the treasurer of the new district, to be applied towards procuring a school house for such district; and the money so paid to the new district, shall be allowed to the credit of the taxable property taken from the former district, in reduction of any tax that may be imposed on said taxable property, in the new district, for the building of a school house.

§ 64. Whenever it shall be necessary to form a district from two or more adjoining towns, the superintendents of such adjoining towns shall meet together, and form such district, and deliver the notice of such formation to a taxable inhabitant of such district, whose duty it shall be to serve such notice as provided in the second section of this chapter, and the clerk of the district so formed shall make such report to the superintendent of each such adjoining town, of such part of said district as may be

situate in such town, as is prescribed in the thirtieth section of this chapter; and any district so formed, may be altered and regulated by the superintendents of such adjoining towns as may be deemed necessary; *Provided, however*, That the decision appealed from shall be operative until the state superintendent shall reverse or change the same.

§ 65. Any person conceiving himself aggrieved, in consequence of any decision made by any school district meeting, or by the town superintendent, in forming or altering, or refusing to form or alter any school district; or concerning any other matter under the provision of this chapter, may appeal to the state superintendent, who is hereby authorized and required to examine and decide the same, and such decision shall be final and conclusive.

OF THE ASSESSMENT AND COLLECTION OF SCHOOL DISTRICT TAXES.

§ 66. All taxes raised and collected in any school district, for any of the purposes authorized by the provisions of this chapter, except when otherwise provided, shall be assessed on the same kind of property as taxes for town and county purposes are assessed.

§ 67. The clerk of each school district, in making out any tax list, shall enter therein the names of all persons, liable to pay a school district tax in such district, the amount of personal property to be taxed to each such person, and a description of all the taxable real estate in such district, and he shall set opposite to each description of taxable property the valuation of the same and the amount of tax charged upon such property, and to each person respectively; such description and valuation of taxable property, shall be ascertained so far as possible from the assessment roll of the town.

§ 68. Whenever any real estate in any school district shall not have been separately valued in the assessment roll of the town, and the valuation of such real estate cannot be definitely ascertained from such assessment roll, the district board of such district shall estimate the value of the same, in proportion to the valuation affixed in said assessment roll to the whole tract of which such lot or piece of land forms a part.

§ 69. Whenever a school district embraces a part of more than one town, the town superintendents of the towns so in part embraced, upon application of any three persons liable to pay taxes in such district, shall proceed to enquire and determine whether the valuations of taxable propererty in the assessment rolls of such towns are just, as compared with each other, in respect to such district, and if considered not to be so, they shall determine the relative proportion of taxes to be assessed upon the real estate of the parts of such district so lying in different towns; and any tax thereafter to be raised in such district, shall be apportioned and assessed according to such determination, until the same shall be altered upon a like application and determination as before mentioned; and in case where two superintendents cannot agree as to such valuation, they shall summon a superintendent from an adjoining town, who shall unite in such inquiry and determination.

§ 70. The warrant annexed to any tax list shall be under the hand of the clerk of the district, and shall command the treasurer of such district to collect from each of the taxable persons and corporations named in such tax list, and of the owners of the real estate described therein, the several sums set opposite to the persons and corporations so named, and to the several tracts of land so described, within forty days from the date thereof, and within ten days from the date of such warrant, to personally demand such tax of the persons charged therewith in such lists, if they be found within his town; and that if any such tax shall not be paid within said ten days to collect the same by distress and sale of personal property, in the same manner as town treasurers are authorized to collect town and county taxes; and the said treasurer shall execute said warrant and return the same to the clerk, at the expiration of the time limited therein for the collection of such tax list.

§ 71. If any tax or real estate, in any tax list delivered to the treasurer of any district, shall remain unpaid at the time he is required, by law, to return his warrant to the clerk of the district, such treasurer shall make out and deliver to the town clerk of his town, a statement in writing, containing a description of the lots and pieces of land upon which such taxes remain so unpaid, together with the amount of tax assessed to each; and he shall make and subscribe an affidavit to such statement, before some justice of the peace, or other person authorized to administer oaths, that the taxes mentioned in such statement remain unpaid, that after diligent efforts he has been unable to collect the same; and whenever any school district shall embrace parts of more than one town, such treasurer shall make his return, as aforesaid, to the town clerks of the towns, in which such parts of such district shall be situated.

§ 72. The town clerk upon delivery to him of such statement, shall give a certificate to the treasurer of the amount of taxes so remaining unpaid, as the same shall appear from the statement of such treasurer; which certificate shall be deposited by the treasurer with the district clerk: and shall be filed by such clerk.

§ 73. Such town clerk shall, in making out the duplicate assessment roll of the town next thereafter, enter such unpaid taxes in a separate column therein, opposite to the description of the land upon which the taxes remain unpaid; and such taxes shall be collected in the same manner as town and county taxes are collected, and when so collected, shall be paid over to the town superintendent of such town, who shall pay the same to the treasurer of the district in which such taxes were originally assessed.

§ 74. The warrant issued by the clerk of any school district for the collection of any district tax authorized to be raised and collected by any of the provisions of this chapter, may be executed in any other district or town in the same county, or in any other county in which any other part of such district is situate, when the district is composed of parts of two or more adjointng connties, and such warrant shall have the like force and effect as a warrant issued by a town clerk for the collection of town and county taxes; and the treasurer of the district, to whom any such warrant may be delivered, for the collection of a tax list, shall possess the like powers in the execution of the same as are conferred by law upon the treasurers of towns in the collection of town and county taxes.

§ 75. Whenever any error shall be discovered in any district tax list, and made to appear to the district board, they may order any moneys, which may have been improperly collected on such tax list, to be refunded, and may authorize and empower the clerk to amend and correct such error in said tax list.

§ 76. Whenever the clerk of any district shall deem it necessary he may renew the warrant annexed to any tax list in his district for thirty days, but he shall have power to renew such warrant but once, without the consent of the superintendent of the town in which the school house of such district shall be located, which consent shall be endorsed on such warrant.

§ 77. When any district tax shall be lawfully assessed and paid by any person, on account of any real property, whereof he is only a tenant at will, or for any period not exceeding three years, such tenant may charge and collect of the owner of such real estate the amount of the tax so paid by him, unless some agreement to the contrary shall have been made by such tenant.

CERTAIN DUTIES OF TOWN CLERK.

§ 78. It shall be the duty of the town clerk of each town, as soon as the annual assessment roll in such town shall be completed each year, to make, for each district and part of district in such town, a description of all the taxable property therein, with the valuation fixed thereto, as the same shall appear in said last assessment roll; which shall be certified by him, and delivered to the clerk of each such district and part of district, when applied for by such clerk.

§ 79. It shall be his duty to receive and keep all reports made to the town superintendent, from clerks of school districts, and all books, maps and papers belonging to the town superintendent, when required, and file them in his office; and he shall record, in a book kept for that purpose, such description of school districts; and organization, or alteration thereof, as shall be transmitted to his office by the town superintendent.

OF THE DUTIES OF THE CLERK OF THE COUNTY BOARD OF SUPERVISORS.

§ 80. It shall be the duty of the clerk of the county board of supervisors in each county, to receive all documents transmitted to him by the town superintendents of the several towns in his county, and all communications directed to him by the state superintendent, and keep the same in his office, or dispose of the same as directed by said state superintendent.

§ 81. The said clerk shall, on or before the tenth day of November in each year, make and transmit to the state superintendent a report in writing, setting forth the whole number of towns in his county, distinguishing those from which the required reports have been made to him by the town superintendents, and containing an abstract of their reports.

§ 82. He shall also, within the time mentioned in the preceding section, make and deliver to the county treasurer, a written statement of the whole number of children in each town in the county, over the age of four, and under the age of twenty years, as shown by the town superintendent's reports, and the board of supervisors of each county shall allow to the clerk thereof such compensation as they may deem reasonable, for the services required of him by the provisions of this chapter.

LIBRARIES.

§ 83. So soon as the total annual income of the school fund of this state shall amount to a sum equal to or exceeding the sum of thirty thousand dollars, it shall be the duty of the superintendents of the several towns to appropriate and distribute annually ten per cent, of all moneys received by their respective towns, to the several districts in such towns, to be applied by such districts to the purchase of school district libraries, which shall be the property of such districts, and the parents and guardians of all the children therein between the ages of four and twenty years shall be permitted to use books from such library without charge, being responsible to the district for the safe return thereof, and for any injury done thereto, according to such rules and regulations as may be established by the state superintendent.

§ 84. The taxable inhabitants of each school district shall have power, when lawfully assembled at any district meeting, to vote a tax on the district, not exceeding thirty dollars in any one year, for a district library, consisting of such books as they may direct their district board, or any other person, at such district meeting, to purchase; and such further sum as they may deem necessary for the purchase of a book case; the intention to propose such tax shall be stated in the notice required to be given of such meeting.

§ 85. The clerk of the district, or such other person as the taxable inhabitants may at any regular meeting appoint by a majority of votes, shall be the librarian of the district, and shall have the care and custody of the district library.

§ 86. Every school district library and the appurtenances thereto belonging, shall be deemed to be vested in the district board of the district, so as to enable them to maintain any action for the same, or the value thereof, or for the recovery of any fine or penalty for damage done to any book or books, or neglect to return, or loss of the same; and all such fines and penalties, incurred in consequence of a violation of any regulation lawfully established in respect to district libraries, shall be sued for and collected in the name of such district board, and when so collected shall be applied for the benefit of such district library.

§ 87. The legal voters in any two or more adjoining districts may, in such cases as may be approved by the town superintendent, unite their libraries, and also their library moneys, as they shall be collected or received, and purchase a joint library for such districts, which shall be selected by the district boards thereof, or by such persons as they shall designate, and shall be under the charge of a librarian to be appointed by the district boards of such districts, and the provisions of this chapter shall be applicable to such joint libraries, except that the property in them, and their appurtenances, shall be deemed vested in all the district boards, for the time being, of the districts so united; and in case any such district shall desire to divide such library, such division shall be made by the directors of the districts whose libraries are so united, and in case they cannot agree, then such division shall be made by the town superintendent.

OF SUITS AND JUDGMENTS AGAINST SCHOOL DISTRICTS.

§ 88. Justices of the Peace shall have jurisdiction in all cases, in which a school district is a party interested, when the amount claimed by the

plaintiff shall not exceed one hundred dollars, and the parties shall have the same right of appeal as in other cases; and when a suit shall be brought against any school district it shall be commenced by a summons, a copy of which shall be left with the director of such district.

§ 89. No execution shall issue on any judgment against a school district, nor shall any suit be brought thereon, but the same shall be collected in the same manner prescribed in this chapter.

§ 90. Whenever any final judgment shall be obtained against any school district, if the same shall not be removed to any other court, the director of such district shall certify to the town clerk of the town, the date and amount of such judgment, with the name of the party in whose favor the same was rendered; and if such judgment shall be removed to another court, the director shall certify the same as aforesaid immediately after the final determination thereof against the district.

§ 91. If the director shall fail to certify such judgment, as required in the preceding section; it sh ll be lawful for the party obtaining the same, his agent, or legal representatives, to file with the town clerk of the town, the certificate of the justice or clerk of the court rendering the judgment, showing the facts which should have been certified by such director.

§ 92. If the district against which any such judgment shall be rendered is situate in part of two or more towns, a certificate thereof shall be delivered as aforesaid to the town clerk of each town in which such district is in part situated.

§ 93. The town clerk receiving either of the certificates of a judgment as aforesaid, shall proceed to assess the amount thereof, with interest from the date of such judgment to the time when the warrant for the collection thereof will expire, upon the taxable property of said district, placing the same on the next town assessment roll in a separate column, and the same proceedings shall be had thereon, and the same shall be collected and returned, in the same manner as other town taxes, and shall be paid to the party entitled thereto.

PENALTIES AND LIABILITIES.

§ 94. Every taxable inhabitant, receiving the notice mentioned in the first and second sections of this chapter, who shall neglect or refuse duly to serve and return said notice, and every chairman of the first district meeting in any district, who shall wilfully neglect or refuse to perform the duties enjoined on him in this chapter, shall respectively forfeit the sum of five dollars.

§ 95. Every person duly elected to the office of director, treasurer, or clerk of any school district, who shall neglect or refuse, without sufficient cause, to accept of such office, and serve therein, or who, having entered upon the duties of his office, shall neglect or refuse to perform any duty required of him by the provisions of this chapter, shall forfeit the sum of ten dollars.

§ 96. Every town superintendent, who shall neglect or refuse to make and deliver to the clerk of the county board of supervisors his annual report, as required in this chapter, within the time limited therefor, shall be liable to pay the full amount of money lost by such neglect or refusal, with interest thereon to be recovered by the town treasurer in the name of the town.

§ 97. Every clerk of the county board of supervisors, who shall neglect or refuse to make the report required in this chapter to be made by him, to the state superintendent within the time therefor limited, shall be liable to pay to each town the full amount which such town, or any school district therein shall lose by such neglect or refusal with interest thereon, to be recovered in the manner specified in the preceding section.

§ 98. All moneys collected or received by any town treasurer, under the provisions of either of the last two preceding sections, shall be apportioned and distributed to the school districts entitled thereto, in the same manner and in the same proportion, that the moneys lost by any neglect or refusal therein mentioned would according to the provisions of this chapter have been apportioned and distributed.

§ 99. Every clerk of a district who shall wilfully sign a false report to the town superintendent of his town, with intent of causing such town superintendent to apportion to his district a larger sum than its just proportion of school moneys of the town, shall be deemed guilty of a misdemeanor, and punished by a fine not exceeding one hundred dollars, or by imprisonment not exceeding six months

§ 100. Every school district clerk who shall neglect or refuse to deliver to his successor in office all records books and papers appertaining to such office shall be subject to a fine not exceeding fifty dollars.

HARRISON C. HOBART,
*Speaker of the Assembly.*
JOHN E. HOLMES,
*Lieut. Governor and President of the Senate.*
Approved March 31, 1849.
NELSON DEWEY.

## Early History of Wisconsin.—No. II.

BY A. C. BARRY.

WHEN the powers of the Human Soul each exerted, so to speak, on a separate and distinct object, they will usually accomplish but little—the efforts thus made will be barren of great results; but when these powers, their vast and almost creative energies, are all gathered up and combined by a single, strong, ruling passion, and brought to bear on a single object, the very world lifts its hands in astonishment at the magnitude of the result wrought out, or the grandeur of the triumph achieved. We can discern how this is. We can see the man whose ruling aim it is to amass riches, his efforts crowned with success. We can see how Ambition climbs up to high places, and lays its hands on crowns and dignities. We can see how the thirst of knowledge is quenched—how science is made to yield her treasures—how new worlds are discovered, and the mightiest difficulties and obstacles grappled with, and removed from the path of man. It is by ruling principles of the mind, the concentration of the mighty sweep of the soul's vast energies, subduing to its own purposes, and arousing and nerving the whole being for resolute action—and directing the combined powers of the soul and body to the accomplishment of a purposed end. Apply this to the Catholic Fathers in the New World, and among the savage tribes of the wilder-

ness, and we see how the same passion that aroused and sent forth the Chivalry of Europe, to the rescue of the Holy Sepulchre from the Infidel, also fired the souls of these men and sent them forward in this great religious enterprise,—courageous to grapple with the most formidable impediments; endure the severest hardships, and to brave the most appalling dangers—and all for the glory of their CHURCH and KING!

From Green Bay, Allouez and Dablon, explored the country to the south of it along Lake Michigan, forming the acquaintance of the Kickapoos and Miamies, and conciliating their favor. From these and other tribes they learned, what had before been told them, that far to the westward was a broad river, called by them Michisspe, or Great River flowing thousands of miles into the sea.

In the language of that elegant writer, Monette: "As yet no Frenchman had ever advanced beyond the Fox River of Green Bay. All beyond was a region of Romance, unknown or mistified by Indian tradition. The ardent entertained hopes that the Great River might afford an easy direct route to China, or at least, into the South Pacific Ocean. This was one of the bubbles of the age. Every nation of Western Europe had been enthusiastic with the hope of discovering a direct route by water to China, and all had searched for it in vain. It was believed by some that the pioneers of New France would have all the glory of the great discovery, and be the first to reap the advantages of a direct trade. To the disappointment of the commercial world, this route still remains as much unknown as it was two hundred years ago; and such it will remain until it is opened by way of the Oregon River or the Bay of California."

The honor of having first projected the movement for the discovery of the Mississippi, belongs to Marquette, a Catholic Missionary, and most energetic, devoted, self-sacrificing man. He readily won over to his side and converted to his views, the first intendant of New France; who, about to relinquish a station he had long filled with distinguished ability and success, would "close his career with the brilliant discovery of the great storied river of the West." Could he but succeed in this, the height of his ambition would be attained.

We digress for a space to speak of Father Marquette—he is worthy of honorable mention in this history. We are no man-worshiper, and do not greatly venerate either State or Church Dignitaries, merely as such, but we respect merit, and yield homage to goodness; and when we behold a man leaving his country, home friends—the refinements, comforts, companionship of them all—for the hardships and dangers of a life in a "howling wilderness," thousands of miles away from civilization, and devoting himself meekly and with an immutability of benevolent purpose to labors of love among wild tribes of savage men, we accord to him more than praise. His Creed—that is nothing to us; a loving heart and a loving life, these speak the Christian; and he is Christ's disciple who humbly and reverently follows him in the blessed work of doing good, and whose triumphs are wrought out amid the dark and benighted places of this revolted world. We do not speak of Father Marquette as a Priest, a recollet Monk, a Jesuit, but as a *man*, whose achievements were infinitely nobler than those of Napoleon, his countryman, whose victories were won on the red battle-field. He planted the Cross amid the uncivilized wilds of the North-West, caused churches to be builded for the purposes of a Christian Worship, taught his red brethren patiently, faithfully, as a father would his children, and through kindness, devotion to their interest, and a meek and inoffensive life, won their confidence and love. It is a worthy tribute to his memory, that he "endeared himself to the savages in a remarkable manner, not only by his apostolical piety, but by his tender affection for them, and his kind offices in all their distresses. Such was the veneration of the savages for this good man, that for years after his death, when overtaken in their frail bark canoes by the storms on Lake Michigan, it is said they "called upon the name of Marquette, and the winds ceased and the waves were still."

This man by his travels through the wilderness, and the acquaintance he had formed with Indian tribes remote from Lake Michigan, and along the great rivers of the now Wisconsin, had prepared the way for the voyage of discovery he proposed. In this Fathers Allouez and Dablon had assisted not a little, having made their way across from Green Bay to a point on the Fox river, at which a remnant of the Foxes had gathered. But beyond this the foot of a white man never trod, and away thousands of miles still westward, were vast regions yet unexplored by a pale face.

Associated with Marquette, and the appointed leader of the expedition, was M. Joilet, a trader at Quebec, every way qualified for the responsible post to which he was chosen. With five other Frenchmen, these two resolute, energetic spirits set out from Mackinaw, on their difficult and perilous journey, on the 12th of May, 1673. Their route lay along the western shore of Lake Michigan, across Green Bay into Fox River, which they would ascend.

AMONG the wild tribes of the wilderness, there obtained generally the belief, that the Michisepa, or Great River, could not be explored—that the very undertaking of such an enterprise was fraught with much danger, and to proceed in it would be at the

cost of life. There were fierce, blood-thirsty savages, whose ferocity no kindness could tame, and who could notbe turned from their sanguinary and murderous purposes by the sight of the Cross, or the uplifted and weapouless hand of the Christian Missionary. Beside, there were "monsters who would swallow up them and their canoes—a demon who would engulf all who ventured near his watery and boiling domain, and heats that would parch them." When, therefore, Marquette and his companions made known their plan, at an Indian village on the shore of Lake Michigan, they were besought not to go forward in an enterprize which could result only in their destruction. The superstition of course was not credited, and whatever of peril was before them, they were prepared to encounter it with stout hearts, and in an humble, devout trust in the superintending care of Divine Providence. Says Marquette, "I thanked them for their good advice, (speaking of his Indian friends,) but informed them that I could not follow it, since the salvation of souls was at stake, for which I should be overjoyed to give my life."

Reaching the Rapids on Fox River, where now is the thriving and enterprising little village of Neenah, and dragging their canoes through them with great labor, this adventurous band passed on to the Portage, under conduct of two Indian guides. Here these turned back, and the explorers, now hundreds of miles away from their brethren in the east, were "alone amid that unknown country, in the hand of God."

They had arrived at a point where the waters of the Gulf of Mexico and those of the St. Lawrence divide, or, as has been incorrectly stated, the waters of the Atlantic and Pacific. Here were two great Rivers, less than a mile distant from each other—the Fox, running north and emptying into Green Bay, the Wisconsin, sweeping majestically on in a southern direction, and paying tribute to the Father of Waters. Carrying their canoes across the narrow slip of intervening land, the voyagers embarked in them on a river whose waters had never before mirrored the face of a white man, adown which they floated amid green and beautiful islands, until, on the 17th of June, they entered the Mississippi.

For one hundred and thirty years, no white man had looked upon the Great River, or paddled a canoe upon its waters. It had indeed been previously discovered. In 1543, De Soto, the leader of a Spanish Expedition, and a Conqueror of Florida, fighting his way through the savages that swarmed to oppose him, at length found himself on the banks of this river, which he called "Rio Grande." Says Monette, whom we have before quoted, "De Soto may be said to have been the first European who beheld the magnificent river which rolled its waters through the unbroken forest, and splendid vegetation of a wide and deep alluvial soil. The lapse of three centuries has not changed the character of the stream. It was then described, as it now is, as more than a mile in width, flowing with a strong current, and by the weight of its waters forcing a channel of great depth. The water was described as being always muddy, and trees and timber were continually floating down the stream."

Marquette and his companions passed down the Mississippi, making the acquaintance of several tribes along its shores, and collecting much valuable information. Having employed four weeks in this manner, they began to think of returning to Canada, to friends and home. They had accomplished the great object of their mission, and it was not demanded of them in the discharge of further duty, that they expose themselves to disaster, and peril their lives in an attempt to penetrate farther into the wilderness, or to extend beyond their explorations of the Great River. They had obtained the information that was sought, and like prudent, reasonable men, were satisfied.

They were now eleven hundred miles below the mouth of the Wisconsin river. They turned back, and commenced a toilsome and weary ascent of the river, urging their canoes against its strong current, exposed to many and severe hardships and privations. Yet their souls shrank not, nor were appalled. After several weeks severe toil on their return journey, they reached the mouth of the Illinois River. Ascertaining from the Indians that this was easier of ascent, and that it afforded the most direct route to the Great Lakes, they decided to make trial of it. Passing up this "gentle stream," a few days sufficed for the performance of their journey to Lake Michigan, which they entered through Chicago Creek. Here Marquette parted from Joliet and other companions in this great tour, and sought his way alone to his missionary post among the Hurons. The others took up their line of march across to Lake Erie, on their return to Quebec.

Great was the joy and rejoicing in New France, at the discoveries of the two distinguished leaders of this mighty enterprize. The Cathedral resounded with *Te Deum*, and the people kept jubilee. So vastly important were the results of the mission deemed. The long-dreamed of and talked of route to China, had without doubt been discovered, and in the discovery France had covered herself with glory. M. Joliet received as his fitting reward a grant of the Island of Anticosti, in the St. Lawrance —Father Marquette had secured his reward in the performance of his duty, and the pleasing consciousness that he had been doing good.

# HORTICULTURE.

F. K. PHŒNIX, Editor.

## The North West as a Fruit Country:

*Its Climate—best Soil and Site for Orchards and Nurseries—Red Cedar.*

We confidently believe that this will prove a first rate country for apples; common red cherries and the smaller fruits generally; and until last winter we thought it would prove first rate for pears and plums also. The trees were then more or less injured in some localities, yet as it was owing to a very unusual combination of unfavorable influences in the weather, and as it was the first time they have been thus injured with us so it may be the last, at least for many years. We may at least call it good for pears and plums if any section of our country may be so considered, for the cultivation of those fruits in many parts of the Union is increasingly beset with difficulties owing to various maladies to which they are subject, but which have scarcely made their appearance here. English cherries, peaches, and quinces will be more uncertain and difficult to raise—that is, as regular staple crops, but under favorable circumstances and with proper management they can be made to succeed tolerably well so as at least to well repay the trouble of rearing them—as we stated in the July *Farmer* in regard to peaches. As the country grows older we shall have more time to bestow upon them, and greater facilities to aid in their cultivation, and hence may reasonably expect their comparatively general introduction amongst us. The only difficulty with them or indeed with any fruit tree here, seems to be the occasional severity of our winters although the liability to injury from cold seems increased in consequence of a peculiar tendency existing in much of our soil to produce a rank, late or immature growth. This tendency is doubly developed when we have a late, wet fall as was the case last season. This peculiarity of our soil is, I think undeniable—that it contains a principle which tends to produce a rankness and immaturity of growth as compared with that of the Eastern States. Hence the great comparative growth of straw or cornstalks to a given amount of grain—hence the very rapid growth of peach and English cherry trees, and hence the increased size, which as a general thing or on much of our soil, fruit trees have to attain before bearing. The richness of our soil is of that kind which tends to, and increases the growth, the expansion of leaves and vegetable tissue rather than the grain or the fruit. Thus we see the two great difficulties (the one in the soil and the other in the climate) with which Nurserymen and Fruit growers at the West and indeed every where except in warm climates have to contend,

1. The tendency in our soil to produce rankness and immaturity of growth.

2. The occasional or relative severity of our winters acting upon that unripe growth.

A glance at these causes is sufficient to show their intimate connection and that either acting alone or without the co-operation of the other would be comparatively innoxous. Having the cause of the trouble we are prepared to consider the remedy. The first or that connected with the soil being more within our reach is that to which we should mainly direct our attention. The great disideratum then (as we before stated) is a *moderate perfectly matured growth.* If we would attain this we must as far as possible. in planting fruit trees, avoid *low, rich ground* where this tendency always exists to a much greater extent than on elevated ground. This is especially necessary in planting nurseries which should always in this country occupy elevated and if possible gently sloping ground. If it be desirable to plant "basins" or low places let evergreens or forest trees be used, but on no account fruit trees. Elevated ground is also better for orchards, not only on account of the superior hardihood of the trees but for greater security against late spring frosts. This latter disideratum may also be promoted by selecting any other slope rather than a S. or S. W. one, on which the trees would incline to start earlier and hence come forward too soon. The *moderate* use of *old, well rotted* manure about trees, more particularly apple trees we think a decided corrective to a late, immature growth. This seems paradoxical to be sure, but is nevertheless in strict accordance with our experience. It should be applied before or after the growing season and the poorer the soil the more manure it will bear of course. A dressing of slacked lime or ashes or chip manure would also seem very beneficial in this respect. It will greatly promote our object, to have the young growth

of the trees made as early as possible so as to give it ample time afterwards to ripen thoroughly before winter sets in. Hence they should be "put thro" early in the season and after the middle of August at the farthest, the cultivation should cease, unless in the case of seedlings or root grafts which are to be taken up and buried in the fall. After the middle of August the weeds should be kept down with a hoe without stirring the soil. Severe summer pruning should also be avoided as tending to produce a rank, late aftergrowth.

In regard to the second cause—the occasional severity of our winters the most that can be done to mitigate that, is to put the more tender sorts where they will be as much sheltered as possible from our cold winds—as was remarked in regard to peach trees in the July *Farmer*. For a screen or protection from the wind and cold we know of nothing so admirably adapted as the Red Cedar, which is found in different parts of our State. It is also an ornamental evergreen and tho' not of very rapid growth yet of unequalled durability, and on good ground, well managed, will make in five or six years a perfect barrier to the wind. Its great value for fence posts should also cause it to be extensively cultivated among us. Our nurserymen, especially where prairie predominates, should grow them for sale by the thousand which is easily done from the seed.

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Work for September in Fruit and Flower Garden's.—But little can be done this month where grounds have been well tended—that is by way of work—we could *do* a great deal by way of demolishing those unsightly productions of trees called fruits—if—we only had them! However if you wish the privilege you can *do* considerable towards attaining it by sowing the seeds of resolution this month on the hot bed of the will, where if only well tended by taste and memory; refreshed occasionally by eastern showers (of fruit) which however can only be applied and enjoyed thro' the medium of a pocket pump ejecting "mint drops"—if you will only attend to this, I say those seeds might very possibly produce a crop of fruit trees before winter or by spring at the farthest, which you know, and I know, produce fruit! Really now is n't that a capital way to get fruit?—only think of it! Do you know of a better one—if so, please divulge it—that is (for I would be very modest in my request) as soon as you secure a patent for it!

Weeds should receive a finishing touch this month. Bandages around buds that have become united to the stalks should be removed. Strawberries may yet be planted—choosing moist weather, or if dry, watering well until they get rooted. Bulbous roots the foliage of which has decayed may be removed. Seeds should be gathered as they ripen.

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## Selecting Seed Corn.

We heard much complaint last spring about seed corn that was planted not coming up. From a number of facts that have come under our notice we have no doubt it was in part at least owing to the feeble vegetative powers of the seed used. Many of our farmers it is to be feared do not select their seed corn as carefully as they should, but take it from the crib when they come to plant. Last fall it will be remembered, was exceedingly wet, so that the corn as well as the wheat was in many instances put up wet or damp. Lying thus through the winter its vegetative powers were either wholly destroyed or much enfeebled, although its external appearance might have been fair. It only remained then for the unfavorable weather this spring to quite overpower the remnant of vitality and leave the grain to rot in the ground. The true way to get seed corn is to select from the field as soon as the corn begins to get ripe—taking the earliest, most perfect ears from those stalks which have the most on, braid them together and hang them up in a dry place away from the mice. Such seed corn with any fair chance will come "every time" and afford far more robust plants than the other sort, besides making the whole crop earlier and heavier. Will not then our farmers generally adopt this method?

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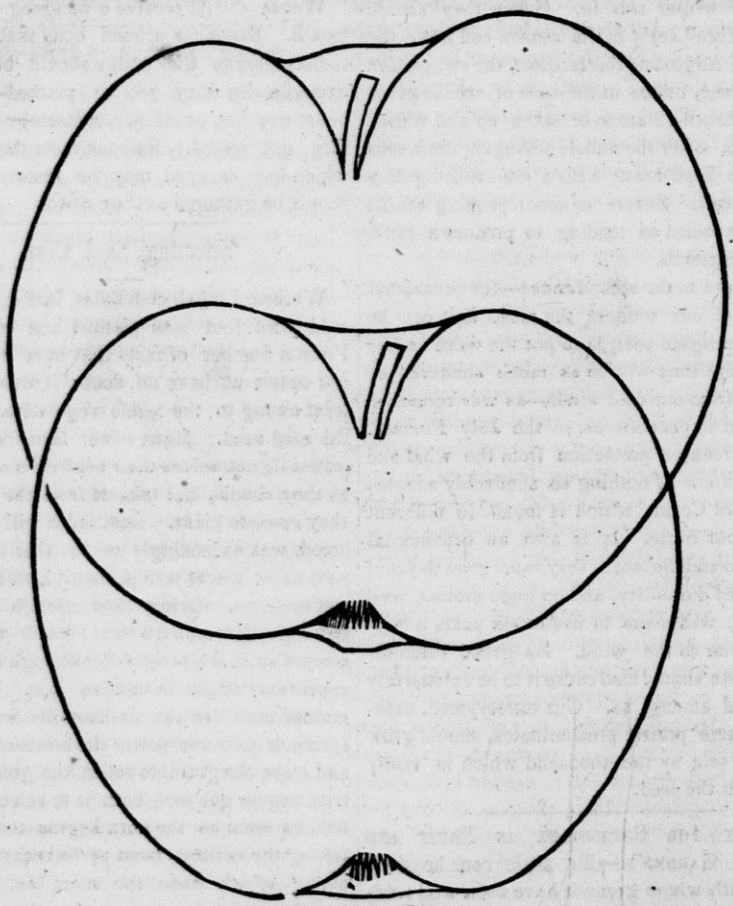
Grafting the Grape.—Can cultivated grapes be grafted or inocculated (or both) into wild grape stocks with success?—and if so, at what seasons of the year? R. B. Warren.—*Alabama, N. Y.* 1849.

The grape may be grafted successfully at the season when other grafting is performed, or sooner. A correspondent of the Ohio Cultivator states that he had great success in grafting in February. The grafts were inserted in the stock three inches below the surface of the ground, and no plaster used, but the earth simply pressed around them. Grafting by approach, that is if the stock or graft be in a pot, may be done now. Budding we have not practiced, but presume it had better be done in the spring.

## DESCRIPTION OF TWO FINE NATIVE APPLES OF WESTERN NEW YORK.

*Bailey Sweet.*



*Mackie's Clyde Beauty.*

From the Genesee Farmer.

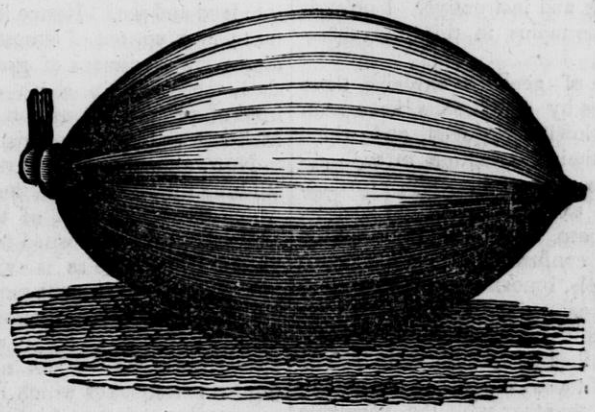
We have been acquainted with the *Bailey Sweet* for two years, and do not hesitate in saying that it is the finest looking and richest sweet apple of its season. *Mackies's Clyde Beauty* possesses all the good qualities of a first rate Desert Apple. It comes in at a season when good apples are very scarce, and hence it is particularly valuable. Both of these apples combine beauty and good quality.

BAILEY SWEET—*Paterson Sweet.*—This is a splendid sweet apple, received from E. A. McKay, of Naples, Ontario Co., who called it the *Peterson Sweet*, and is said by him to have been introduced from the east by Peter Paterson, of New York, Livingston Co. Since then we have been informed from good authority that it originated with Calvin P. Bailey, Esq., of Perry, Wyoming Co., N. Y., and hence its name. Size very large, roundish oblong, slightly ribbed. Stalk about half an inch long, slender and in a deep cavity. Calyx closed and nearly covered with folds of the flesh that grows in around it irregularly, giving a peculiar appearance here. Skin smooth and fair, ground color pale yellow sometimes striped and mottled with bright red and stripes of darker, and some specimens entirely covered, except at the stem and eye, with bright red and clouded with small grey specks. Flesh yellow, fine grained and tender, with a rich saccharine flavor unequalled in so large a fruit. In form, colos, size, &c., this fruit is admirable, and distinct from any we know. November and December. We kept some specimens until April last year.

MACKIE'S CLYDE BEAUTY.—A beautiful seedling apple, from Mathew Mackie, of Clyde, N. Y. It originated in a seedling orchard of his father. The tree has been in bearing 12 years, and is a fine grower and bearet, size large, 2½ to 3 inches in diameter; form inclining to conical, broadest at the base, and tapering to the

crown; slightly ribbed. Skin smooth and glossy—gronnd color of a pale greenish yellow, crimson in the sun, striped and mottled with light red in the shade. Stalk quite short and slender in a deep and broad cavity. Calyx moderately deep, closed in a furrowed basin. Flesh white, fine grained, juicy and tender, with a splendid sub-acid flavor. In use October, November and December. This apple is far better than the Autumn Strawberry and keeps later. Indeed, taking size, beauty, and quality into the account, it must soon take its appropriate rank among the very best.

*Autumnal Marrow Squash.*



From the New England Farmer.

To Mr. J. M. Ives, of Salem, Mass., we believe, belongs the credit of introducing this valuable squash into this region. It is the most popular kind cultivated, always selling at prices considerably higher than any other variety.

Of late years, this squash often fails from its being eaten in the root, just belew the surface, by small white worms, so that the vines often die after the squashes are partially grown. Generally these worms are the most destructive on old lands, but we have noticed some cases in which they have been injurious on green sward, while they have done no injury on old land near by.

Some suppose that this worm is produced in the land or manure; others think that it is from a fly which lays eggs at the root. As a preventive, we have, for two years, used fresh horse manure with about one fifth part of wood ashes, mixing the whole up in the soil; and our vines have not been injured, and the crop has been fine; while other vines, in the same lot, where old manure and no ashes were used, were all destroyed by worms. Yet this may not be an infailibie preventive. Numerous experiments are necessary to settle a question of this kind, where numerous causes, and some unknown, may have an influence.

Fresh horse manure is free from these worms, and ashes may destroy them in the soil, and being mixed with the soil with which the seeds are covered, they may be a preventive even if the worms are from the eggs of a fly.

A Word About Gardening.—No one can be truly said to live who has not a Garden.—None but those who have enjoyed it can appreciate the satisfaction—the luxury—of sitting down to a table spread with the fruit of one's own planting and culture. A bunch of radishes—a few heads of lettuce—taken from the garden of a summer's morning for breakfast; or a mess of green peas or sweet corn, is quite a different affair from the same articles brought in large quantities from market in a *dying condition*, to be put away in the cellar for use.—And a plate of strawberries or raspberries lose none of their peculiar flavor by passing directly from the *border* to the *cream* without oeing jolted about in baskets until they have lost all form and comliness. And yet, how many in the smaller cities and villages of our country, possessing every facility for a good garden, either through indolence or ignorance are deprived of this source of comfort?

Peaches.—A gentleman handed us yesterday the following, which may be of service to some of our readers. A friend of mine has just informed me of the success he met with by the application of charcoal to peach trees. A few years ago he had some fine peach trees in his garden, which invariably had wormy fruit, and the trees were full of gum. When the fruit was about the size of marbles, he had the earth removed from each about two feet around and three inches deep, and filled with charcoal.—The result was that the fruit grew to a fine size, free from worms, and every year since the fruit has been good, and the trees became healthy and free from gum, while two trees left without the charcoal continue to bear wormy fruit, and are unhealthy.

## On the Origin and Diversity of Soils.

BY PROFESSOR H. COULTAS.

If the origin of soils be considered with reference to the geological agents which have produced them, and the whole be then considered in connection with practical agriculture, the subject will be found to be very interesting and instructive. I propose treating on these topics in this and subsequent articles.

The science of geology explains those natural agencies by which soils have been gradually and slowly produced, and which have effected their distribution in such diversity of character over the earth's surface. From a partial examination of the surface, we might suppose that the interior of the earth was all confusion and irregularity: sands and gravels, limestones, and clays, are mingled together without any apparent order; and hence it is that such an opinion is actually entertained by many persons. The examination of these superficial accumulations of gravel, together with the vegetable soil generally resting on them; teaches us little concerning the true structure of the earth: on the contrary, this loose, superficial matter, and this grassy mantle covering the earth's surface, only tends to mask and conceal its real features from observation, and hence, to become acquainted with the structure of the interior, we must examine a spot where the crust of the earth has been broken, either by a natural or artificial cause, and presents what geologists call a natural or artificial section, as, for example, a sea-cliff, ravine, railway cutting, quarry, coal mine: we shall then see that the crust of the earth is composed of a series of mineral masses piled one above the other, and observing a regular order of superposition.

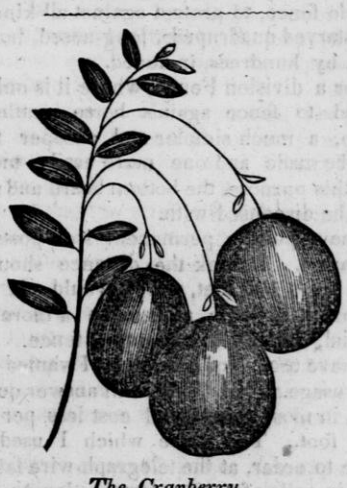
It may be remarked here, that the examination of the superficial gravels has brought to light many facts in relation to the revolutions which the earth's surface has undergone. When examined scientifically, these gravels are found to consist chiefly of the decomposed substance of the under-lying rocks, or those in the immediate neighborhood, which have been transported from the adjacent hills by superficial currents of water. It is common, however, to find fragments of rock which bear indubitable evidence of having come from a considerable distance, there being no rock like them in the neighborhood, or for many miles around. The fact is, that the superficial gravels constituting the diluvium and alluvium of the geologists, are composed of the wreck of strata of all ages, alluvial formations having occurred in all ages, the disintegration of rocks and the transportation of their loose material having taken place in every period since the surface of the earth was divided into land and sea. Hence it is an easy matter to pick up, out of almost any collection of gravel, specimens of granite, porphyry, slate, sandstone, in short, of almost every kind of primary, transition, and secondary rock known to the geologist.

Now, although the layers, or strata, constituting the structure of the mineral masses which form the crust of the globe, have originally been deposited from water in the horizontal posture as is evident from their identity in structure with modern strata formed by aqueous deposition of sediment at the mouths of rivers, or on the coasts left dry by the retreat of the sea, yet nevertheless, owing to earthquakes which have taken place repeatedly, and at vast intervals of time, the greater part of them have been thrown out of the horizontal posture and dip, and strike into the earth at every angle of inclination from 0° to 90°. Hence it is that the edge of the beds emerge in succession from the bowels of the earth; and in travelling over a given district, we pass over the edges of the upturned beds, the soil varying with every new bed, and the amount of superficial area covered by any particular soil being in proportion to the thickness of the upturned bed out of which the soil has been formed.

The disturbance suffered by the strata, however disastrous to animal life at the time of its occurence, has nevertheless, been productive of much ultimate good. Had the strata continued in the horizontal posture, the same rock would have spread over a vast extent of country, and the soils of countries would have been the same. There would also have been a difficulty in obtaining valuable minerals, which can now be had with the greatest facility. Coal, for example, which lies at a considerable depth, could not have been obtained without boring through the upper series of strata. The surface of the earth would not have been diversified with its present grand and beautiful scenery, produced by mountain, hill, and valley; and that the admirable intermixture of mineral matter, which is so essential to the fertility of the soils, and the va-

riety and progress of organic life on the globe, would never have taken place.

The whole subject of the formation of vegetable soils, and their distribution in such diversity of character over the face of the earth, is replete with the profoundest interest and instruction. Every earthquake which in by-gone time fractured and dislocated the solid strata, every flood which has swept over the ancient continent, every change of level which has elevated the bed of the ocean, or depressed the land beneath its surface has contributed to bring about the preaent admirable intermixture of material—sand, clay, and lime, which now forms the earth's upper covering,—the fruit-bearing soil, the inexhaustible source of national prosperity and strength.—*Philadelphia Dollar Newspaper.*



*The Cranberry.*

From the New England Farmer.

## Cultivation of the Cranberry in Gardens.

Mr. Editor:—It is probably not generally known, that the cranberry can be successfully cultivated, like the strawberry in our gardens; yet such is the fact. It is necessary, however to prepare a bed of common garden soil, not absolutely dry, in which a portion of sand and peat has been well incorporated. This preparation of soil we deem important in the cultivation of the cranberry. Possessing as it does, a delicate, fibrous, or hairy root, it requires a sandy peat, in which to thrive. In the selection of plants for the purpose of cultivation, we prefer those growing in low grounds, near the upland, in preference to those found in wet, mossy meadows. We think the autumn a favorable season for transplanting the cranberry, as they can the more readily be taken from low, wet lands. In removing the plants, it is best to take up a sod of earth with them, carefully picking out the grass. These may be set in the bed, in rows twelve or eighteen inches apart, and if the ground is mulcted with litter between the plants, it will serve to keep it moist, and prevent the growth of weeds. This will be no longer necessary when the vines extend and cover the ground with a thick mat of verdure; they are then less affected with the drought, and the weeds disappear.

It may be necessary to water the bed, in very dry weather and keep it clear from weeds and grass at all times. The plants of the cranberry need protection in winter. This, you will recollect, it always receives in its wild state in the meadows, by the overflowing of them by water. My plants are protected by covering them with the boughs of some evergreen tree. I prefer for this purpose, the prostrate branches of the juniper, or, as it is sometimes improperly called, ground hemlock. This effectually protects the roots of the plants from the effects of the frost, likewise its evergreen leaves, and its fruit.

We have been in the habit of leaving a considerable portion of the fruit of the cranberry on the vines during the winter. We find it keeps well, and can be taken fresh from the vines, when wanted. The cranberries I send you were taken from my bed yesterday, and you will perceive a plumpness and freshness not to be found in those dried in garrets, or drowned in water, in cellars. Those persons, who have had much experience in the cultivation of native plants, found growing in swampy or very wet land, will have noticed that some of them will bear a removal, and more readily accommodate themselves to a comparatively dry soil, than others. And I am inclined to think the cranberry is disposed, when removed to our gardens, and a suitable reception is prepared for it, to accommodate itself to its new location. But in order to completely naturalize it, and render it at home, we should produce plants from seed taken from specimens under cultivation. I can see no obstacle in the way of complete success, in the cultivation of the cranberry, provided the same care and skill is bestowed upon it, that is rendered to other fruit. S. P. Fowler.

*Danvers, New Mills*, Dec. 12, 1848.

From the Amercian Agriculturist.

## Col. Capron's Improved Wire Fence.

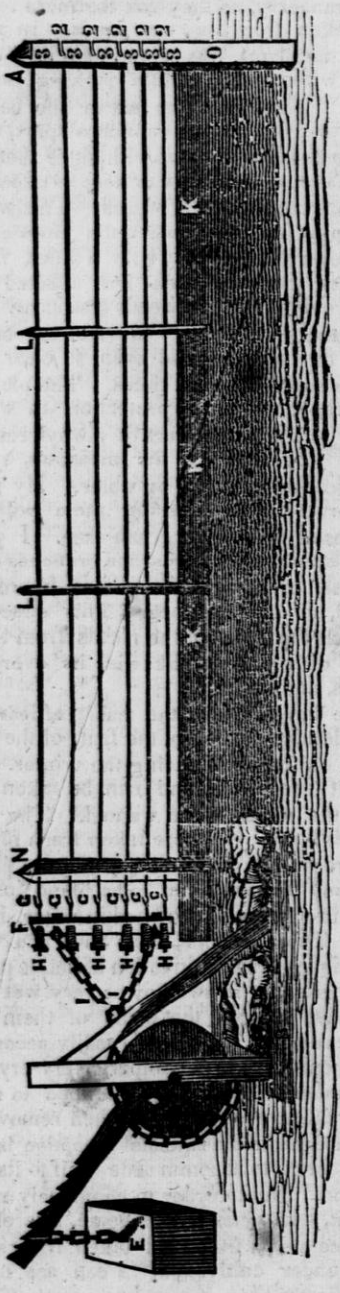



FIG. 56.

The above cut represents an extension of wires in a section of fence, with bottom boards and strips for holding and supporting the same, &c.

*A*, represents a side view of the permanent iron posts, made of flat bars of iron, 3 inches wide, ¼ inch thick. 3, 3, 3, 3, are holes drilled through, about 1 inch from the outer edge, for the wires to pass through. 2, 2, 2, 2, 2, 2, are slits cut into the bars, just over the holes, to slip the wires into their places These slits are filled with a hard wood key, to keep the wires down, and trimmed off even with the post.

*B*, is a solid framework and lever, with fixtures for equalizing the tension of the wires, and to accommodate the contraction and expansion—keeping them always the same, under every change of temperature.

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A very valuable improvement in the mode of constructing wire fence has lately been made and carried into practice by Col. H. Capron, of Laurel Factory, Maryland. The following description is from his own pen, as published in the "American Farmer;" but all who are desirous of erecting such fence, I think it would be well worth their attention to make him a visit, which would be much more satisfactory than anything that could be written by him or me.

The fence I have constructed is for an outside fence, to protect against all kinds of half-starved quadrupeds, long-nosed, hungry hogs, by hundreds, included.

For a division Fence, where it is only required to fence against horse, cattle and sheep, a much simpler and cheaper fence may be made and one more easily moved. For this purpose, the bottom board and strips may be dispensed with.

I have put the permanent iron posts 150 feet apart. I think the distance should be from 75 to 100 feet, which would add a trifle to the expense, and make a more substantial, durable and beautiful fence.

I have used No. 5 wire, as I wanted it for hard usage. No. 7 wire will answer quite as well, in most places, and cost less per running foot. The wire which I used was made to order, at the telegraph-wire factory, and in coils of 1,000 feet in length—cost 8½ cent per pound. Good No. 5 wire can be purchased for 5½ cents per pound, in lengths of about 50 feet. This would require to be joined, which I think, can be better done than at the factory; as, in the joints made at the factory, the wire is twisted too short, more for looks than strength, and breaks easily at these points.

The accompanying sketch will give you an idea of the manner of constructing this fence.

In the framework *B*, *c*, is a wooden cylinder, (in this case, part of an old mill shaft,) about 28 inches in circumference, three feet long, suspended in the wooden frame by gudgeons of 1½-inch round iron, driven into the ends, and secured by a band sunk into the wood to prevent splitting, and wedged.

*D*, is a strong *oak* lever, eight feet long, three by six. *E*, is a granite stone, weight about 150 lbs., with an iron strap over the lever, to slide up and down, as required, to give the proper tension to the wires, which also raises and falls to accommodate the contraction and expansion of the wires. *G*, is a bar of iron, 1½ inches square, drilled out to match the holes in the iron posts. *G*, *G*, *G*, *G*, *G*, are iron hooks, of 1½ inch iron, running through the bar *F*, and spiral springs *H*, *H*, *H*, *H*, *H*, *H*, and secured by nuts, as represented in the cut. *This is for equalizing the tension of the wires.* These spiral springs may be made of ⅜ iron rods. *I*, *I*, is a strong log chain, for attaching this iron bar to the cylinder *C*, by a bolt passing down through one of the links, as represented, by which the chain may be taken up or lengthened, as desired. *K*, *K*, is a bottom board, 14 inches wide. *L*, *L*, are strips, 1 inch by 3, notched upon the wires, eight feet apart, to support the bottom board.

With this powerful apparatus, the wires being in their places, and properly secured at the other extremity of the line, it is evident they can be drawn to any required tightness that the strength of the wires will permit, and the contraction and expansion of the wires be accommodated, by the rising and setting of the lever and weight. This apparatus, in the fence, I have constructed, takes up the expansion, and lets out for the contraction, for a line of fence of 3,500 feet, with one bend of about 30 degrees, and sundry inequalities in the surface, or horizontal line.

For short lines of fence, this apparatus may be dispensed with, where hogs are not allowed to run. But, even in short lines, the wires may be so slackened, in a hot day, that a long-nosed hog may wedge his way through. The apparatus itself, however, is easily constructed, and of little comparative cost.

To save trouble in the construction of this fence, I will give you a short direction how to proceed, which I have learned by experience, and may save others some useless expense, which the want of experience put me to.

Put your framework down permanently in the ground, and secure both extremities of the line beyond the possibility of being moved. Bore out, with a post auger, holes 2½ feet deep, 100 feet apart, on a perfect straight line, for your permanent posts,

Set the (iron,) permanent posts in, and ram round well with stone, and pour in grout. It is necessary to have one very strong post, *N*. (mine is a hollow cast iron, five inches square,) about eight feet from the cylinder, and stayed at the top with wires or rods, made fast to the framework to hold the wires as they are stretched up, one at a time, during the construction. Stretch out one wire at a time; joint it, and make it fast at the further extremity of the line; lay it into its place in the posts, and attach the chain to the end of it; then by the use of the lever and cylinder, draw it to the desired tension, and key it there in the post *N*. So proceed until all are drawn up. Then attach the spiral springs, hooks, and bar to the wires and cylinder, by the chain, as shown in the sketch; hang on the weight, knock out the keys in the permanent post *N*, and the work is done.

If the bottom board and strips are used, they can now be put on. If large coils of wire are used, they should be put upon a reel before they are unfastened, or they will kink up and give much trouble. In my case, I slipped the coil of wire on the cylinder *C*, and put strong oak pins on each side of the coil, to keep it up snug; it then wound off without trouble.

To remove a line of this fence, knock out the keys 2, 2, 2, 2, 2, 2, in the iron posts; throw the wires out upon the ground; attach a horse or other power to the end of the wires, and haul them round to the new line; set in your framework and posts, and put in your wires. In this way, two or three hands and a horse may remove a mile of fence in a few days.

I have a very simple apparatus for taking the kinks out of the wires, which I will give you a sketch of, when I make up the cost of construction. Good oak, locust, or cedar posts will answer in place of the iron.

*New York, July 5th*, 1849.

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Shoeing Horses.—At a meeting of the Royal Agricultural Society of England, sometime since, Professor Sewel remarked, that he frequently found old horses shod with a layer of leather, forming an artificial sole between the hoof and the shoe, recovering from severe affections, causing injury to the hoof—such for instance, as contraction, brittleness, and cracks, or even diseases of the foot itself, as thrushes, corns, cankers, etc., and permanently regain their original elasticity and firmness.

## The Blackberry—Its Uses.

We quote the following from the *American Farmer's Encyclopedia.* This shrub, which is only used by the chance passenger plucking its fruit, possesses, however, several advantages which deserve our attention. Its long branches can, in case of need, be employed as cords, and its fruit produces an excellent wine, the mode of making which is as follows:

"Five measures of the ripe fruit, with one of honey, and six of wine, are taken and boiled; the froth is skimmed off, the fire removed, and the mixture being passed through a linen cloth, is left to ferment. It is then boiled anew, and allowed to ferment in a suitable cask.

"The berries have a dessicative and astringent virtue, and are a most appropriate remedy for the gums and inflammation of the tonsils.

"The flowers, as well as the berries of the bramble were ignorantly considered by the ancients as remedies against the most dangerous serpents. They are diuretic, and the juice pressed out of the tendrils or young shoots, and afterwards reduced to the consistency of honey by standing in the sun, is, adds the above author, a singularly efficacious medicine, taken inwardly, or applied outwardly, for all diseases of the mouth and eyes, as well as for the quinsy.

"But Pliny has lost his celebrity as a medical authority, if he ever had any, and modern blackberries have also lost their virtues.

"Boorhave affirms that the roots taken out of the earth in February or March, and boiled with honey, are an excellent remedy against the dropsy.

"Syrup of blackberries picked when only red, is cooling and astringent in common purgings or fluxes. The bruised leaves, stalks, and unripe fruit, applied outwardly, are said to cure ringworm.

"Doctor Harris, in his report to the Massachusetts Legislature, upon destructive insects, says that this plant, and its near relation, the raspberry, suffer from borers that live in the pith of the stems—a fact which does not appear to be generally known. The beetle is a species of *saperda*, and finishes its transformations towards the end of July, laying its eggs early in August, one by one, on the stems of the blackberry and raspberry, near a leaf or small twig. The grubs proceeding from these eggs, burrow directly into the pith, which they consume as they proceed, so that the stem for several inches is completely deprived of its pith, and consequently withers and dies before the end of summer."

## To Dairymen and Others.

A new method of increasing the quantity of cream produced from milk has been discovered by Francis Bernard Bekaert, a citizen of Belgium; and we find it thus described in Newton's London *Journal*, for January, 1848. in an account of a patent for the purpose taken out in England:

"The invention consists, firstly, in a method of increasing the quantity of cream produced from milk, by the addition of one tablespoonful of the liquid hereafter described, to every quart of new milk; the milk is then stirred once or twice around, and left in the pan or vessel; and the skimming may take place at the usual time, but the patentee prefers to delay it a little. He states that, by the application of the liquid, a much larger quantity is forced to the surface of the milk than can be obtained in the ordinary way. The liquid is prepared by adding to one quart of water, one ounce of the carbonate of soda. one teaspoonful of a solution of tumeric or curcuma, and three drops of marigold water. The soda is first mixed with the water, and then the tumeric and marigold water. The patentee claims, under this head of his invention, any salt of soda when mixed as before stated, and applied to milk, for the purpose of causing a larger quantity to rise to the surface of the milk, than is procured by the ordinary process. The soda and water form the basis of the improvement—the solution of tumeric and the marigold water being only used to improve the color and quality of the butter made from the cream. Although the patentee finds the use of the soda most convenient, he claims any other alkali when applied in a similar way.

The second part of the invention consists in the following method of preserving milk: One tablespoonful of a solution of soda, is introduced into a quart bottle, nearly filled with new milk, only sufficient space having been left for the spoonful of liquid; after which, the bottle is corked, and a piece of string is tied over the cork, to prevent its flying, and then the bottles are put into a copper or other vessel containing cold water, which is to be gradually brought to the boil-

ing point. When this has been effected, the fire is to be withdrawn from beneath the copper, or the vessel, if moveable, is to be taken off the fire, and the water and the contents of the bottle are allowed to cool; the bottles are then taken out of the water and packed away.

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WASHINGTON, D. C., June 13, 1949.

*Dear Sir:*—I send you the above extract from the forthcoming Agricultural Report of the Patent Office, in hope that some of your readers will be induced not only to try the experiment as above described, but also to report results, whether successful or not, for publication in this Journal.

Most Respectfully Yours,

F. G. SKINNER,

Agricultural Agent of the Patent Office.

To the Editor of the *American Farmer.*

## Good Farming.

Mr. John Johnston, near Geneva, had on his farm a cow, which probably gives more milk than any cow in the United States. Through the month of June, 1848, she gave 42 quarts per day; and for five days she gave 45 quarts per day; which is probably without any parallel in this country. From the cream only they made 14½ lbs. butter per week. Had they churned from the milk, they would have got more butter. The cow was milked three times a day. The only feed she got was grass in the pasture. She is of a roan color, half Durham and half native breed, and is seven years old. She is finely formed, and a handsome animal. She was raised by Mr. Johnston, who says she will be a good cow at 12 years or more. He has eight cows in his pasture of clover up to their knees, all fine animals, which it is a pleasure to look at.

Mr. Johnston is a Scotch farmer and grazier of great celebrity, and sells many fat cattle for New York. He has a farm of 305 acres, in one compact body of land, on the east side of the Senaca Lake, about three miles from Geneva, in fields of 8 to 18 acres all in the best condition. One field of 18 acres of Indian corn, last year yielded 83 bushel of shelled corn per acre. One field of 8 acres yielded 91 bushels and 45 pounds per acre. Mr. Johnston drains his land by underground draining, and has some miles of earthern pipes (made at Waterloo) which he has been laying the last 8 years. From the rich feed in his pastures, the cattle are all in the best condition. He does not feed the grass down to the ground. This he calls bad farming,—as the roots get scorched by the summer drought, and frozen in the winter. But a covering of grass protects the roots from both, and also keeps the cattle in good condition. He has large barns, and yards and sheds for the cattle. In the yards the cattle make large quantities of manure—from wheat straw. He carts no mud from his meadows into his barn yard. He puts the manure on the land in the fall, spreading and plowing it in at once, and not letting it remain for the sun and wind to dry up.

He observed to the writer of this that he never seen land too highly manured. Land will always give a return for all that is put upon it. The best proof of this is, that in the last twenty years, he has brought his farm from what was called worn out land, to its present superior condition, not by borrowed capital, but solely by the proceeds of the farm itself, obtained by his practical knowledge of good farming, combined with industry and economy.—*Jour. of Commerce.*

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SOLID MILK.—A Mr. Louis, of Southwark, England, has lately taken out a patent in England, for preserving cow's milk, goat's milk, etc., by converting it into solid cakes, which are soluble in warm water, and which may be kept for a long time without losing their original sweetness. The process consists in using some loaf sugar, agitating the milk, evaporating it by heat and then pressing it into cakes while soft and evaporating them to dryness after being moulded.

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DRESSING WOUNDS.—Nine times out of ten, a wound will heal quicker if done up in its own blood, than in any other way. As for a burn, whatever will exclude the air the quickest, is the best. Cotton will do this; so will oiled silk, if stuck down at the edges by any kind of sticking salves. Put nothing on a burn to heal it. Nature will soon do that, when the air is excluded, and the pain will almost immediately cease.

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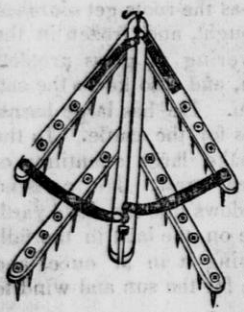
ECONOMY OF TIME.—The Chancellor d'Aguessau, finding that his wife always kept him waiting a quarter of an hour after the dinner bell had rung, resolved to devote the time to writing a work on Jurisprudence. He put this project in execution, and in the course of time produced a quarto work of four volumes.

## GEDDES' HARROW.



"The Geddes' Harrow, so called from the inventor, GEORGE GEDDES of Tyler, Onondaga County, in this State, is considered by those who have used both, to be superior to the square harrow, inasmuch as it draws from a centre, without an uneasy and struggling motion, and is of course easier for the team.—The accompanying cut is so simple that it needs no description. Being hung on hinges, it is easily lifted when in motion, to let off collections of weeds, roots and other obstructions. It can be doubled back, and is of very convenient form to be carried in a wagon about a farm. Some have teeth put in as in common harrows, simply by being driven in from the upper side; with a washer below, and a nut and screw on the top; this avoids the loosing of teeth, by preventing them from dropping out, as in the common harrows.

There are several sizes containing more or less teeth as required. The following table shows the number of teeth in the several sizes, and their prices:

| | |
|---|---|
| 14 teeth, for one horse, | $8.00 |
| 18 teeth, for one or two horses, | 9,50 |
| 22 teeth, for two light horses, | 11,00 |
| 26 teeth, for two heavy horses | 13,00 |
| 30 teeth, for two or three horses, | 15,00 |

The work performed by this harrow is better, with one operation than can be done with a common A harrow by going twice over the ground."

This harrow may be obtained at the Albany Agricultural Warehouse, Albany, and at the Genesee Seed Store and Agricultural Warehouse, Rochester. Also of the principal manufacturers and dealers in implements throughout the country.—*Genesee Farmer.*

VINEGAR.—Many families purchase their vinegar at a very considerable expense: some "make do" with a very indifferent article; and others, for want of a little knowledge and less industry, go without. It is an easy matter however, to be at all times supplied with good vinegar, and that too without much expense. The juice of one bushel of sugar beets, worth twenty-five cents, and which any farmer can raise without cost, will make from five to six gallons of vinegar, equal to the best made of cider or wine. Grate the beets, having first washed them, and express the juice in a cheese press, or in many other ways, which a little ingenuity can suggest, and put the liquor into an empty barrel; cover the bung with gauze, and set it in the sun, and in twelve or fifteen days it will be fit for use.—*Farmer's Adv.*

TO THE WOOL GROWERS OF THE UNITED STATES.—A purse of $100 having been offered for the best 25 Merino ewes and the best 25 Merino lambs under one year old, by a private gentleman, the exhibition to be at the fair of the New York Agricultural Society, I propose to be a competitor in that exhibition against any and all flocks of Merino sheep that may be brought against me, I give this out not as a challenge, but simply as a proposition which shall call out my brother farmers throughout the length and breadth of the land. My object is to convince myself where the best Merino sheep are; if I have them, I must have them, for I am resolved to improve from the best whatever may be the cost. By a fair and manly competition, we may compare the best specimens from the best flocks, and by that means may find where the best sheep are to be found. For a series of years, I have spared no pains to possess myself of the best sheep of the pure Merino race the United States could afford or to be found in the old world. It remains to be seen whether the efforts have been successful; and to that end, I earnestly invite the Merino wool growers throughout the Union to meet me on the show ground at Syracuse next September, in honorable competition, to compare the best 25 ewes and 25 lambs from our respective flocks, and thus add another new feature to this somewhat National exhibition, which will be made at the New York State Fair.

A. L. BINGHAM.

Cornwall, Vt., July 26, 4849.

## To Preserve Tomatoes.

Six pounds of tamatoes first carefully wipe,
Not fluted nor green, but round, ruddy, and ripe;
After scalding, and peeling, and rinsing them nice—
With dext'rous fingers 'tis done in a trice—
Add *three* pounds of sugar, (Orleans will suit,)
In layers alternate of sugar and fruit.
In a deep earthern dish, let them stand for a night,
Allowing the sugar and the juice to unite!
Boil the sirup next day in a very clean kettle,
(Not iron, but copper, zinc, brass, or bell metal,)
Which having well skimmed, 'till you think 'twill suffice,
Throw in the tomatoes, first adding some spice—
Cloves, cinnamon, mace, or whatever you like best—
'Twill add to the flavor, and give them a zest.
Boil slowly together until they begin
To shrink at the sides, and appear to fall in;
Then take them up lightly, and lay them to cool,
Still boiling the sirup, according to rule,
Tutil it is perfectly clear and translucent—
Your skill will direct you, or else there's no use in it—
Then into the jars, where the fruit is placed proper,
Pour boiling the sirup, direct from the copper.
After standing til cold, dip some paper in brandy,
Or rum, or in whiskey, if that is more handy;
Lay it over the fruit with attention and care,
And run on mution suet to keep out the air;
Then tie a strong paper well over the top—
And, "now that I think on't, the story may stop."
If you'll follow these rules, your preserves, never fear,
Will keep in good order till this time next year. A. B.

Washington, October, 1848.

CASE'S MACHINE SHOP AND THRESHING MACHINES. We intended earlier to call the attentien of our readers to the establishment of our friend J. I. CASE of this city, but for many reasons—among the most prominent of which is carelessness—have been prevented doing so until now. We have recently been reminded of our remissness, by seeing the large building commenced and raised two stories by him last fall for a Machine Shop, going rapidly forward to completion—a third story being added, and other improvements being made. The machines manufactured at this establishment—of which nearly one hundred are turned off in the course of a year—are in high repute among the farmers in this section; and are probably not surpassed by any machine of the kind for finish, strength, and the rapidity and excellent manner in which they perform their work. Those who call on Mr. CASE may be sure they are dealing with a worthy and honorable man, and one who deserves the patronage of the public.

TO HAVE FINE MUTTON.—The sheep, as soon as killed, should be disembowelled. It is the neglect to remove the entrails at once, and not the meat being touched by the wool, which imparts to it that strong mutton taste. The reason of this is, that the warmth of the body, carried off by the loss of blood, is for a time supplied from the warmth of the bowels, and thus the objectionable taste created.

☞ Feather beds are highly injurious: because "the whole external skin of the human body is continually exhaling a vapor loaded with various excrementitious matters, and held in a æriform state by the heat which passes with it from the body. Feathers being non-conductors, not only retain much of this heat about the body, but also retain so much of the gaseous and other perspired substances as to keep the body surrounded by a very impure atmosphere, while in bed.—This impure atmosphere penetrates into every part of the bed: and besides this, there is always more or less of dead animal matter belonging to the feathers, which is continually undergoing decomposition and forming unwholesome gases and offensive odors.

PINE LUMBER IN MAINE.—*Immense raft.*—A correspondent of the Maine *People's Press* writing from Moosehead Lake, June 18, tells of having just taken across said Lake, a distance of 17 miles, the largest raft of pine logs ever seen thereabouts—containing, by actual survey, *twenty-one and three-fourths acres*. These logs are taken at different landing upon the eastern shore of the Lake and towed by steamboats across to the outlet or the head of the Kennebec waters, by which they are borne to market.

DIRECTIONS FOR RIDING.—Keep your head up, chin down, chest forward, shoulders back, elbows in, hands down, back in, belly out, feet forward, thighs fixed, knees in, legs close, heels down, and toes in. Trot two hours a day without stirrups, loins loose, seat firm, hand tight, horse and rider well balanced, and then time and perseverance may make you a horseman.—*Bell's Life.*

WORTH TRYING FOR.—The London *Athenæum* says that the Belgian Government has instituted two prises of five thousand francs, with a gold medal and one thousand francs respectively: the first for the best work on general agriculture, the second for the best treatise on the disease of the potatoes. Foreigners are invited to compete, and manuscripts are to be sent to the Ministry of the Interior before the 1st of January in next year.

CLEANING SILK.—The following directions for cleaning silks are by one of the first Parisian dyers: Half a pound of soft soap, a teaspoonful of brandy, and a pint of gin; mix all together; with a sponge or flannel, spread the mixture on each side of the silk, without greasing it; wash it in two or three waters, and iron it on the wrong side; it will then look as good as new.

True glory consists in doing what deserves to be written, writing what deserves to be read and making the world happier and better for having lived in it.

TEST FOR GOOD LIMESTONE.—The best lime for agricultural purposes is that which is lightest, whitest, and softest to the touch; the purest and strongest lime is always found the lightest. If, then, by calcination, limestone loses much of its weight by the process; if the limeshells are extremely light, and require for slaking them fully, a large portion of water, if they are a considerable time before they begin to fall; if, during the process of burning, the limestone is not disposed to run or become vetrified; if it increases very much in bulk by slaking, and the lime is of a pure white, and fine and light to the touch, it may be set down as very good, and should be used in preference to other lime not possessing the same qualities.—*English Paper.*

THE MANNER THE WOOD PIGEON OBTAINS ITS FOOD.—The wood pigeon has a weak bill; but nature has provided her with very strong wings; when the flock therefore, settles upon the lying portion of the wheat field, instead of breaking off the heads and carryidg them away, (as is done by the rook,) they lay themselves down with their breasts upon the grain, and using their wings as flails, they beat out the "prickles" from the heads, and then proceed to eat them.—*Burn Murdock.*

TO PRESERVE EGGS.—To preserve eggs, immerse them in a solution of gum Arabic, taking them out immediately, and when dry, pack them away in bran. Some apply oil to the shell, and others again dip the eggs in boiling water. We much prefer the first process, as by it the air is entirely prevented from passing through into the shell.

MANITOUWOC.—This is probably the greatest lumber manufactory in the State. At the opening of navigation, 3,000,000 of feet were ready, and 800,000 shingles. The exports of timber for the whole season are estimated at 5,000,000 of feet.

THE LAW.—An editor down south, who served four days on a jury, says he's so full of law, that it is hard for him to keep from cheating somebody.

HOUR OF DEATH.—It will afford sweeter happiness, in the hour of death, to have wiped one tear from the cheek of sorrow, than to have ruled an empire, to have conquered millions, or enslaved the world.

# EDITOR'S TABLE.

SEPTEMBER.—Wheat we think as a general thing had best be sown this month—the earlier the better. This we conceive to be the most safe and certain preventive of rust, or mildew, for this reason: it is thus enabled to come forward and mature before the hot weather in July, when if there be frequent showers it can hardly escape injury. Sow early, therefore, and of hardy sorts; and increase the quantity of seed to the acre.

TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY FOR 1848.—We are in the receipt of this work through the politenese of Mr. JOHNSON, Secretary of the Society. It is a large volumn of 975 pages, and the eighth that has been issued. It contains a large amount of valuable information, and furnishes conclusive evidence of deep interest and rapid progress in Agriculture in the Empire State. We feel under great obligation for the copy sent us, and hope to be able after a little to return the compliment.

☞ A farmer writing to the *Ohio Cultivator*, inquires:—"Where can a mill be procured for grinding corn with the cob for stock—the best kind for a small farm?" To this the Editor makes reply: "Pitts' corn and cob mill, advertised in our last number, we think is the best in use. It requires a horse power." We believe we can recommend a better, that is *Whiting's Grinder*, noticed in another place. It requires no horse power, and grinds very rapidly.

☞ Much complaint, we notice, is made in many sections, of the injury done by a worm to the wheat crop. In some instances it is described as a yellow worm, about a quarter of an inch in length, found in the first or second joint. A similar worm of a brownish color, has been committing its depredations in some parts of this State; and is found not only in the straw but in the heads, and preys even upon the ripened kernel. We do not believe this worm is the cause of *rust*, though it is quite evident that it has co-operated largely with the latter in producing a general failure of the wheat crop.

MASSAGE BIRD.—A new quarto of 16 pages, bearing this poetic title, has just made its appearance. It is bi-weekly, terms $1,25 per single copy. M. T. BROCKLEBANK & Co., Publishers, 135 Broadway, New York. We welcome it as we would all beautiful things. It comes to us laden with song, and like the message of old upon the mountains, it publisheth peace, and bringeth good tidings of good. May its wing never tire; but refreshed and invigorated by all true inspiration, may it be spared for an eternal flight in its blessed mission of truth and love through all the world.

MANUAL OF MORALS.—A new work bearing this title, designed for schools and families, has been laid on our table. From a slight inspection of it, we judge that it possesses considerable merit, and may with much profit be placed in the hands of every youth. It is published by JEWETT & Co., Boston, and may be obtained at MILLER'S Bookstore, No 108 Main Street.

OHIO CULTIVATOR.—The number for August of this excellent Journal has been received, and is good as usual. We regret to learn of the affliction and severe trial of its worthy and talented Editor by reason of the prevailing Epidemic. A brief absence from the post of duty is spoken of, when it is hoped he will returned refreshed and strengthened for the labors of his arduous and responsible calling.

MAINE FARMER.—This deservedly popular Journal reaches us regularly, and is always first rate—always readable. The very sight of it is refreshing—it has a good look, and is filled with good things. Next to our own paper—never mind, we will say that in a more private manner.

NEW ENGLAND FARMER.—This deservedly ranks at the head of the list of our best Agricultural Journals. The last Number is a rich one, and fully sustains the excellent reputation won by former issues. Its Editor is a sound, vigorous writer, and has a host of first rate correspondents to back him.

ROCK RIVER JEFFERSONIAN.—Such is the title of a new weekly paper just started at Watertown in this State. It is Democratic in its politics, and ably conducted by our friend Butler, formerly of the *Pilot*, who will undoubtedly make it worthy of liberal patronage. We wish him abundant success in his new entetprise.

SHEBOYGAN DEMOCRAT.—*Still they come.* A new paper bearing the above name, and hailing from the enterprising and thriving village of Sheboygan, has recently made its appearance. It is a large, respectable looking sheet, Democratic in politics, and in all respects is creditable to those who have it in charge. Published by A. D. & J. LADUE, at $1,50 per year in advance.

AMERICAN LITERARY GAZETTE, AND LANCASTER COUNTY FARMER, is the title of an exchange, devoted to Literature, Agriculture, Science, Arts, Education, &c., &c. It is a large well filled folio, and worthy an extensive circulatiou which we doubt not it has. It is published weekly by JACOB B. GARBER, and edited by ALBERT G. WILLIAMS, Terms, $1,50 a year in advance.

CHICAGO DOLLAR WEEKLY.—We are much pleased with this paper, of which we have been in receipt from the commencement. It is a well executed sheet mechanically and ably edited. It is we believe obtaining a wide circulation. BUSHNELL AND BULL Editors and Proprietors, 200 Lake Street Chicago.

AIR, MOISTURE, AND WARMTH.—For the successful culture of all crops it is necessary that the roots should be supplied with air, moisture and warmth. The condition necessary to supply air and warmth are the same. First, looseness of soil. Second, a proper depth beneath the surface. Whatever may be said of the carbonic acid in the atmosphere, as the food of plants, farmers certainly will not infer from it that it is no matter how the roots are served. As no seed will germinate without air, so plants will not thrive if their roots are deprived of it. Too much moisture in the soil prevents the access of air as perfectly as a dense or compact soil from any other cause. Hence the necessity of providing passages and ways by which water may pass off. This is as necessary as guano, or any other nitrogenized substance. A wet soil is cold from the evaporation constantly going on at the surface. The moisture which passes into the atmosphere is immediately replaced from the water below rising by capillary attraction to supply its place, and constant circulation is thus preserved from below upwards; even an upward current of moisture goes on in the coldest weather in the winter. Let a pit with water be covered with boards, and the under surface of the boards will be covered with frost during the most severe weather of winter. How much more rapid is the escape of water in warm summer weather than the winter? As the evaporation in one case exceeds the other, so in the same proportion with the temperature.—*American Quarterly Journal of Agriculture.*

CHARCOAL.—When packing away clothes, blankets, and other articles of clothing and bedding, when they are to remain for some time it is well to place among them messes of recently burnt charcoal wrapped in linen or cotton rags. Such precaution effectually prevents them from acquiring that unpleasant odor with which they otherwise would become impregnated by being long packed.

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

VOL. 1. RACINE, WIS., OCT.. 1, 1849. NO. 10.

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Post Masters and all others who feel an interest in the circulation of the FARMER, are invited to lend their aid in procuring subscribers and extending its circulation.

☞ The Farmer is subject to newspaper postage only.

For the Wisconsin Farmer.

MR. EDITOR.—Should you think the following worthy of publication you are at liberty to make use of it.

If there is any one subject that should be brought before the minds of the people at the present time, more than another, it is that of scientific and practical agriculture. The enquiry should not only be, how many acres we can sow, how many horses, cattle, sheep, and hogs we can raise, without regard to cash, profit, or economy. But the number and amount that, with the least labor and expense, will conduce to the aim and object of every enterprising farmer and stock-grower.

Under the present general ruinous system of farming in our State, they are beginning to reap the most scanty returns; and it will continue to be the case, so long as they follow the hap-hazard course without any order, system, or arrangement. Travel in any direction you please, you can see enough in one day's ride to convince you, that an energetic movement should be made to arrest the hand that would convert the soil, that would well compare with the far-famed Eden, into a comparatively barren waste of unproductiveness.

I do not wish to exaggerate the truth. It is bad enough when only half told. I have seen with my own eyes, what were termed summer fallows, and the reader will pardon me when I tell him, that I ascertained the fact by parting the weeds of six feet growth, and found the broken turf.

I do not mean to say that such is universally the case—happily for the traveller, his eye is occasionally relieved by a well defined farm, neat and commodious buildings, whose proprietor makes it his pride and study to imitate if not excel the practical farmer of the East; and invariably proving to a demonstration, that ease, luxury, and prosperity can be obtained here if we act in conformity with Nature and her laws.

I have been shocked at the manner that many cultivate, if it can be so termed, with an apology for a team, plough, and, I might justly say, a ploughman, scratching the earth, as though they were afraid to excite her anger by stirring up the soil two inches from the surface. To hear their arguments would excite the laughter of one who has gone forth with his three and four horse teams to turn (not cut and cover,) as good a soil as ever the sun shone upon, ploughing nine inches deep, thoroughly harrowing, and manuring, and drilling in the wheat, almost invariably insured a good crop.

It is as impossible to grow good crops from the present management, as it is to convince some men, that, by a proper management, they might increase the returns of their farms 30 per cent above the amount under the present system.

The chances for a good crop in a deep soil, over that in shallow, is so obvious to most minds as to need no comment; its power to withstand the drouth, to take root, and to derive a greater amount of nourishment, and as a natural consequence to be more vigorous and hardy, are the advantages it has over that planted on the surface, the sources of which are exposed to the scorching rays of the sun, and if it becomes dry, must suffer for want of nourishment, and the proper requisites to sustain life and form the grain. I would say to farmers, one and all, who have not tried the experiment—procure the best plough you can get, put on a good team, select a lot that has an even grade of soil, and plough one or more acres, at your pleasure, 3 inches deep, another 6 inches, another 9

inches deep—keep the weeds from growing by harrowing or cultivating, and if you have a flock of sheep put them on when they can live on it—so as to tread the surface and keep down all grass or weeds that may escape the harrow, then put on a coat of manure if you have it, which you would apportion to meet the wants of your soil—spread evenly, then sow your grain, which should not be less than a bushel and a half of wheat per acre, then either plow or drill it in—persevere in this way for four years, long enough to try it satisfactorily, and then if you do not decide in favor of my position, I will be as ready to acknowledge as now to deny that Wisconsin soil is an exception.

I will not speak of the rotation of crops and the management thereof, which my experience would say becomes every farmer to enquire into, who desires to avail himself of the best means to bring about the quickest and most profitable returns, but will leave that to them more able, and having more experience.

It is time that farmers begin to awake upon this great subject—we have been asleep long enough. Let us profit by the sad experience in the the stinted crops that we have been reaping for the last three years, and make an effort not only to practice, but to use our influence in convincing others of the truth, that while we are reaping an average of 15 bushels wheat per acre, we can with proper management produce twice and even three times that amount. When the farmers get over the grain *mania*, and turn their attention to the growing of stock, so as to escape the influence of the fluctuations of the seasons, and markets, no longer will be heard the cry of hard times; but with their multiplied resources, can have peace and pleniy smile upon them. Instead of having only a chance for wheat and a fair price.—They will cease in a measure to raise the quantity, thereby increasing the demand; and instead of having only one commodity in market, they will have horses. cattle, sheep, hogs, beef, pork, butter, cheese, and wool, all available articles at all times in the year.

## Stirring the Earth.

In frequently stirring the earth, there are several and important advantages. It loosens the soil, and makes it permeable to the roots of plants. It finely pulverizes the soil, reducing the sods and clods, and mixes the different kinds of layers of soil turned up by the plow together, and mixes the manure finely with the soil. We have plowed greensward for immediate sowing with fine seeds, and by manuring, and the frequent use of the harrow and cultivator, we have made it of fine tilth, and well adapted to tender plants, like old, mellow soil.

By stirring the soil often, so as to present new surface to the air, it becomes enriched by elements imbibed by the atmosphere. But if the earth is allowed to rest, a crust is formed at the top, and no improvement of consequence takes place in this way. Hence, in plowing or cultivating land often, in order to kill witch or couch grass, sorrel, or other noxious plants, the soil becomes improved by means used to eradicate the weeds with which it is infested: so that the whole labor is not spent merely to destroy the cumberers of the ground. The soil that is turned up in deep plowing, or that works up moderately in sub-soil plowing, becomes greatly improved on exposure to the atmosphere, and frequent stirring.

By stirring the soil, weeds are destroyed in their tender age, before they become large, to rob the plants of nutriment, or require a grest deal of labor to destroy them. If the farmer can keep ahead of his work so as to stir his tillage lands often, just as the weeds have started, he will save a great deal of labor, besides gaining an advantage in having his land in the best condition in other respects for a good crop. Some writer says, in regard to manuring, "Feed your crop and your crop will feed you;" and it may, with equal propriety, be said, Protect your crop against the weeds, and your crop will protect you against want.

Frequent stirring the soil is the cheapest and most effectual protection of crops against drought. The soil that is often stirred, in a dry time, is moist almost to the surface, while that which is neglected, or lands in grass or small grains, which do not admit of this operation, are dry to a great depth; and this is one reason why wheat sowed in drills, and cultivated as other crops sowed in the same way, yields more than that which is sowed broadcast. At another time, we may make further remarks on this subject.

Every good cultivator is aware of the important advantages in stirring the soil often, and he practises on the principle with excellent success. Let those who have any doubts on the subject select a part of a lot, give it extra culture, and mark the result.—*N. E. Farmer.*

## Plaster—Its Action.

When sulphur is entirely absent in soils, plaster, by furnishing that salt so essential to the growth of clover, wheat, &c., produces a marked and striking effect, especially on red clover.

The result of the application of so small a portion as one bushel to the acre, is almost magical in some soils; so much so, that a spot which has received *none*, may be seen by the yellow, sickly hue of the grass, almost as far as you can see the land. Although so small a portion of gypsum will produce beneficial effects, if it does by no means hold good that one bushel per acre is sufficient, although some will contend that a half bushel is sufficient. Land which has been much exhausted requires a much larger dose, and even four to five bushels would not be too much for an acre. It is well known that most micacious and granitic soils contain potash; such soils, after having become exhausted by severe cropping and shallow plowing, on being deeply plowed, to throw up fresh portions of soil, the potash of which has been consumed by the crops, show surprising increase of fertility upon the applicotion of plaster.

Plaster, then, not only acts by furnishing sulphus to the soil, but also by its chemical action upon the potash of the soil, thereby rendering it fit to enter into the growing crop. That such is the case, is evident from the fact that after plaster, upon having been applied for a series of years, ceases to act, and the land, judging from the appearance of the grasses, is growing poor, the application of twenty-five to forty bushels of ashes per acre, to the soil, at once restores the land to its fertility, and the crop of grass, in many instances, greatly exceeds the best produce of former years, when plaster was doing the most good. After having received one or two dressings of ashes; plaster acts upon the same soil as beneficially as when first used.

It is perfectly plain, that the failure of plaster to produce beneficial effects upon the land to which it has been repeatedly applied, arises first, from an excess of sulphur in the soil; and secondly, from the exhaustion of the potash contained therein.

We not unfrequently hear farmers complain that plaster injures their land, and upon inquiry, almost invariably find, that they uniformly sell all their hay, and never think ot plowing their fine crops of red clover under. This always "taking out of the meal tub and never putting in, must soon come to the bottom." They might as well complain that their plow horses grow weak upon an exclusive diet of buckwheat straw.

All are well aware that plaster produces no visible effects upon some soils. In all such instances there is already a sufficiency, or perhaps an excess of sulphur in the soil. Such lands, like limestone lands generally are more benefited by the application of barn-yard manure, than by lime or any other *mineral manure*, if the expression is applicable.

From experience and observation, I would advise that upon exhausted soils, a heavy dressing of plaster, not less than two bushels to the acre, should be applied. I have seen astonishing effects produced by such a dressing, when neither lime nor stable manure had been used. Two things seem, from the foregoing, if allowed to be correct, to suggest themselves to the mind: First, That upon worn-out soils the allowance should exceed one bushel to the acre; and secondly, that upon plaster ceasing to act, ashes should be at once applied to restore the potash to the soil; and a third may be added, plow under clover.

AGRICOLA.

Long Green, Md., 1749.

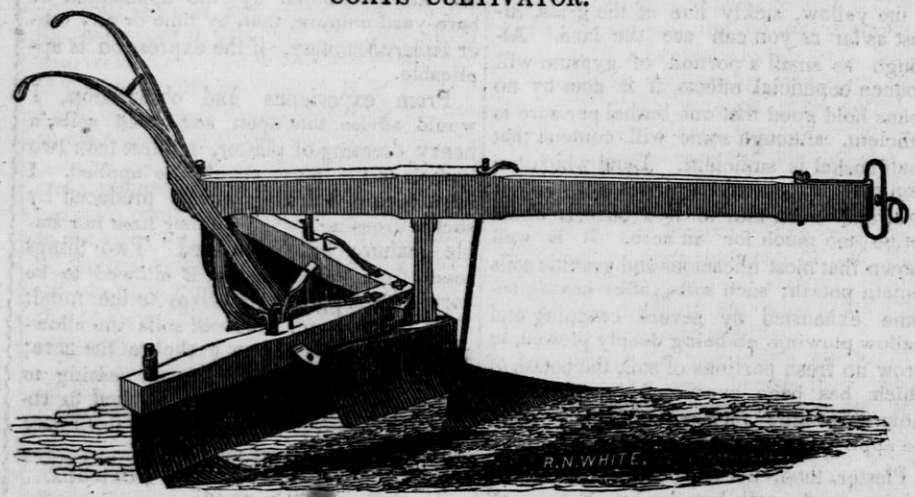
[*Dollar Newspaper.*

## Longevity of the Horse.

It has long been an impression that the ordinary duration of a horse's life is much shorter than it ought to be, and that the excess of mottality is the result of carelessness or ignorant management, The great error consists in regard to the temperament and general constitution of a horse as altogether different from those of a human being; whereas they are precisely the same in all important respects. Disease arising from excessive fatigue, over heating, and exposure to air, want of exercise, improper diet, both as respects quality and quantity, and from many other causes, affects the horse and his master alike, and neglect in either case must terminate fatally. Indeed, when a man or a horse has acquired, by a course of training, a high degree of health and vigor, the skin of each is an infallible index of the fact. It as been often remarked in England, that the skin of the pugilist, who has undergone a severe course of training,

when he prepares himself for the fight, exhibits a degree of beauty and exceeding fairness, that excites the admiration as well as the wonder of the spectator. So with the horse—his skin is the clearest evidence of the general state of his health. Even the common disease of foundering is not peculiar to the horse, but is merely a muscular affection, to which many men, who have overstrained themselves at any period are subject. In fact, the medical treatment of the horse and his rider ought to be the same; and we confidently believe that if this principle were acted upon with a moderate share of attention and resolution, the average age of this useful animal would be much longer, and profit derived from his labors proportionally greater.—*Norfolk Beacon.*

## COATS' CULTIVATOR.




Above we give an engraving of a new Cultivator, the invention of Mr. Stephen Coats, of *Lafayette Walworth County.* It is for weeding and hoeing corn, and all other crops grown in rows. We have not seen it in operation but from what we have heard in commendation of its usefulness, from those who have used it, we should judge it to be a valuable implement in the cultivation of corn and many other crops. We have received no particular description of it, nor do we think it requires any, beyond what may be learned from the cut above.

The inventor will take pleasure in answering any inquiries that may be made in regard to it.

*Lafayette, Sept.* 24th 1849.

The undersigned having used Mr. Stephen Coats Corn Plow the last season, hereby certify that, it is the most valuable implement for weeding and hoeing Corn and all other plants that need hoeing, that we have ever seen, and that it saves one half of the labour of hoeing.

JOHN BARNARD, REUBEN WESSEL,
NICHOLAS LAMBERSON, NOAH HERRIMAN,
DUDLEY HERRIMAN, BENJAMIN FAIRCHILDS,
WM. HERRIMAN.

A person who undertakes to raise himself by scandalizing others, might just as well sit down on a wheel-barrow, and undertake to wheel himself.

RULE FOR CONSTRUCTING CHIMNEYS.—A very erroneous practice prevails among chimney builders, of contracting the passage for the smoke at the lower part near the fire place. "This," says Treadgold, "is like contracting the aperture of a pipe which supplies a jet." Chimneys, to draw well, should be contracted at the top. The rule for ascertaining the required degree of contraction is as follows:

Let 17 times the length of the grate, in inches, be divided by the square root of the height of the chimney, in feet, and the quotient will be the arena in inches, of the transverse section of the aperture at the top of the chimney. For example, a grate 15 inches in length, with a chimney 36 feet high, to which the contracting top is required—17 multiplied by 15 gives 255, which number divided by 6, the square root of 36, gives 42½ inches for the arena of the top.

CHOLIC IN HORSES.—Dissolve in a quart of pure water as much salt as will thoroughly saturate the liquid, and drench the animal thoroughly until you discover symptoms of relief. This is a simple and effectual remedy.

For the Wisconsin Farmer.

## Education of Farmers.

How often do we hear it asserted, and see it manifested in the actions of men, that persons require but a limited education to become skillful agriculturists, and to enable them to discharge the duties required of that class of our citizens. That their profession is one which requires but a small share of mental exertion; and that muscular power is the great, and, in fact, the only pre-requisite to ensure a successful cultivation of the soil. That the affairs of Government should be left to the management of those who have more time to devote to them, and who are consequently more familiar with political concerns. That the station of the agriculturist is one which science and literature can never reach to divert, and to which honor will not condescend to bend.

How fallacious is this idea! It manifests a grand deficiency in the powers of comprehension, and an illiberal feeling in the minds of those who cherish it. It shows a willful ignorance of all the great principles of a republican government, and an inability to appreciate the blessings of civil, religious, and political liberty. It conflicts with the generally received opinion, that, "the diffusion of knowledge is the bulwark of liberty."

Were the persons, who make these unguarded assertions, and thus underrate the responsibility of this class of men, under the domination of despotic power, and there "basking in the sunshine of royal favor," they might, with safety, advocate such corrupting principles, as they would comport with the general principles of their government. But, under the influence of free institutions, in a country which stands as a "beacon light," in the cause of liberty, to other nations yet groping in the darkness of despotism—where the people acknowledge no earthly power superior to their own will, who will have the audacity to advocate such a degrading doctrine? Who will stand forth and proclaim, to the American people, the blessings of universal ignorance? Who, in defiance of facts and experience, will tell them, that their own happiness, and the prosperity of their country, and the perpetuity of her institutions, are as secure under the influence of ignorance, vice and superstition, as under the protection of virtue and intelligence? Who will assert to a free people, that unremitting toil is the only duty of him who cultivates the earth? Who so void of all that better feeling for his race, as to doom to perpetual ignorance, those who form the primary population of any and every country? It is in the pursuit of knowledge that man is destined to realize much of the happiness of the present state of existence. No station is necessarily accompanied by ignorance. Science and literature will flourish as well in the rustic brood, as in the spacious halls of the university. Amid incessant toil, science gladly wanders, and spreads her influence over those devoted to her cause. History, that "reverend chronicler of the grave," furnishes us with some of the most glowing examples. It points us to those who were called from the plow, to stand at the head of cities and empires—to still the tumultuous waves of internal dissension, and secure peace and harmony to their distracted countries. But it is useless to enumerate examples. The American agriculturist has a higher and more noble duty to perform, than to seek for the pleasure and happiness of himself alone. He owes, and he is proud to acknowledge it upon every suitable occasion, an important duty to his country. He owes, not only submission to her mild and peaceful laws, but he owes her every reasonable exertion to perpetuate her freedom, and render her institutions firm and secure. He should not be forgetful, that he has a higher interest than his own to protect. He should ever remember that "eternal vigilance is the price of liberty." He should recollect that the class which he represents, constitutes the primary population of his country—to which all others are but secondary and subservient; and to what extent soever power might encroach upon the rights of the laboring classes in the monarchial governments of the old world, where those rights are unknown, or if known, there is not sufficient energy to assert them, they, as freemen, should cherish in their bosoms the sacredness of such rights, and proclaim, upon every fit and necessary occasion, their determination to assert them. In no country is there so much depending upon the agricultural population, as in ours. Their duties require all the energies of the mind, developed by science and literature. The preservation of our government, in its purity, is the great object to which all self-interest and sectional feeling should be sacrificed; and, consequently, it is all-important that every class, and every individual, should be prepared to fill the rank of free and enlightened citizens; for, upon the people rests the whole burden of the government, and every office of trust is at their disposal. They require, then, faithful and efficient agents. They require a sufficient amount of political information to enable them to make judicious selections—to place suitable men, as sentinels upon the watch-tower of liberty, to warn them of every danger. How important is it, then, for them to fit themselves for any station in life; and especially for those high and responsible duties, which are principally at the present time, and ever have been, filled by the professional classes. And, how important to educate, in a proper manner, the rising generation, to whose hands the ship of state

is soon to be committed, and whose success depends upon the direction of their youthful minds. Let not the doctrine, that, man is incapable of self-government, be inculcated upon the minds of our youth. Let them, upon the contrary, be convinced of the importance of intellectual improvement, under a free government. Cease to do this, and, ere the present century shall have rolled away, ignorance and superstition will ravage our country, as the Simoon sweeps over the ocean desert, and, as sure as effect follows the cause, so is freedom sure to find a grave in the New World.

SOLOMON LOMBARD.

GREENBUSH, Wis., Aug. 28th, 1849.

## The Slug—What is it?

We have heard considerable complaint this season about a "nasty, slimy worm on pear and cherry trees, that looks like a leech, and eats all before him." This is commonly known by the name of "slug." It is the larvae of a species of fly, and is a very destructive creature upon pear, cherry, and some other trees.

It may be destroyed by sprinkling suds made of the whale oil soap upon them, or by obtaining some pulverized quick-lime, then wetting them with a watering pot, and sprinkling the lime upon them. By going over your trees once or twice in this way, you will destroy them.

To use the whale oil soap, the Michigan *Farmer* recommends to put a pound of the soap into a quart of boiling water, and when dissolved add four gallons of cold water and sprinkle them with a common watering-pot.

The natural history of this destructive enemy is thus given by Browne in his "Trees of America:"

"But by far the most pernicious enemy to the common cherry tree is the slug-fly, *Blonocampacerasi*, of Harris. He describes the perfect insect, in his "Report," as being "of a glossy color, except the two first pairs of legs, which are dirty yellow or clay-colored, with blackish thighs and the hind-legs, which are dull black with clay-colored knees. The wings are somewhat convex, and rumpled or uneven on the upper side, like the wings of the saw-flies generally. They are transparent, reflecting the changeable colors of the rain-bow, and have a smoky tinge, forming a cloud, or broad band across the middle of the first pair; the veins are brownish. The body of the female measures rather more than one-fifth of an inch in length; that of the male is smaller. In the year 1828, I observed these saw-flies, on cherry and plum trees, on the 10th of May; but they usually appear towards the end of May or early in June. Soon afterwards, some of them begin to lay their eggs, and all of them finish this business and disappear, within the space of three weeks.—Their eggs are placed, singly, within little semicircular incisions through the skin of the leaf, and generally on the lower side of it.

* * * * On the fourteenth day afterwards, the eggs begin to hatch, and the young slug-worms continue to come forth from the 5th of June to the 20th of July, according as the flies have appeared early or late in the spring. At first, the slugs are white; but a slimy matter soon oozes out of their skin and covers their backs with an olive-colored, sticky coat. They have twenty very short legs, or a pair under each segment of the body, except the fourth and the last. The largest slugs are about nine-twentieths of an inch in length, when fully grown. The head, of a dark-chestnut color, is small, and is entirely concealed under the fore-part of the body. They are largest before, and taper behind, and in form somewhat resemble minute tadpoles. They have the faculty of swelling out the fore part of the body, and generally rest with the tail a little turned up. These disgusting slugs live mostly on the upper sides of the leaves of the pear and cherry trees, and eat away the substance thereof, leaving only the veins and skin beneath, untouched.

The slug-worms come to their growth in twenty-six days, during which period they cast their skin five times. Frequently, as soon as the skin is shed, they are seen feeding upon it; but they never touch the last coat, which remains stretched out upon the leaf. After this is cast off, they no longer retain their slimy appearance, and olive color, but have a clear yellow skin, entirely clear from viscidity. They change also in form, and become proportionately longer; and their head and the marks between the rings are plainly to be seen. In a few hours after this change, they leave the trees, and, having crept, or fallen to the ground, they burrow to the depth of from one inch to three or four inches, according to the nature of the soil. By moving their body, the earth around them becomes equally pressed on all sides, and an oblong-oval cavity is thus formed, and is afterwards lined with a

sticky and glossy substance, to which the grains of earth closely adhere. Within these little earthen cells or cocoons, the change of the chrysalides takes place; and, in sixteen days after the descent of the slug-worms, they finish their transformations, break open their cells, and crawl to the surface of the ground, where they appear in the fly form. These flies usually come forth between the middle of July and the first of August, and lay their eggs for a second brood of slug-worms. The latter come to their growth, and go into the ground, in September and October, and remain till the following spring, when they are changed to flies, and leave their winter quarters. It seems that all of them, however, do not finish their transformations at this time; so that, if all the slugs of the last hatch in any one year should happen to be destroyed, enough of a former brood, would still remain in the earth, to continue the species."—*Me. Far.*

## Milk House.

Experience had taught me that the great difficulty to be encountered in the manufacture of butter, in warm weather particularly, is the preservation of the milk after it is taken from the cow, until all the cream can rise to the surface, be taken off and transferred to the churn in a perfect state. To obviate this difficulty, after a consultation with my wife, who, by the way, I must be allowed to puff a little, is *au fait* in all matters of this kind. We devised and caused to be constructed, a milk-house, on the plan and of the dimensions following. Intending to make butter for my own family use only, the arrangements were to be, of course, upon a corresponding scale.

Now then, to a description of the building:

Frame, of joist and scantling, 7 by 10 feet; 6½ feet from floor to plate, covered with inch pine stuff, planed and matched, painted on the outside; roof of the same. At each end, and near to one side, a window, exactly opposite each other, 20 inches wide, extending from the floor to the bottom of the plate, covered with wire cloth sufficiently fine to exclude flies, and painted to prevent rust.—In the front end a door, and in the rear end a window exactly opposite, about twenty by thirty inches, covered same as the other windows, and placed sufficiently high from the floor to be on a level with a stationary table, (1½ inch plank,) for the convenience of straining, skimming, working out butter, &c. Six shelves on one side of the room, ranged one above the other. These shelves are each composed of two strips of pine stuff, 1½ inches in diameter and of the length of the room, joined together at the ends and middle by cross pieces framed in, leaving the longitudinal strips about four inches apart. These shelves are supported at the ends by strips nailed to the window-frames inside, at suitable and equal distances, and at two places between these points, by corresponding strips, fastened at one end to a stud, and at the other to a stanchion placed about 20 inches in front of the stud, and secured at the top and bottom. This distance is necessary, that the shelves may slide back and forth, as convenience in handling pans of milk requires. In this way, but a small part of the bottom of the pan is covered by the shelf, leaving a free circulation of air, which comes in at the windows at each extremety. The building is placed under a cluster of fruit trees, which effectdally shield it from the rays of the sun during the heat of the day. A second roof of rough boards, elevated, say two feet above the top of the milk house, and of sufficient dimensions to cast a shade all around it, would doubtless answer every purpose.

I do not pretend to say that this is the very best kind of a milk house that can be constructed, but it is the best that we could devise, and with its results we are perfectly satisfied. It answers admirably all the purposes for which it was intended. The milk keeps much longer before changing, giving an opportunity for all the cream to rise, and during the warmest weather in July and August, we are enabled to make the choicest kind of butter, and, for aught I can discover, as much in proportion to the quantity of milk, as at any other time of the season.—We have the benefit of an ice house in close proximity, the contents of which I consider an indispensible auxiliary in the manufacture of butter in warm weather.

Before the erection of this building, we had tried in vain to make butter in warm weather. The cellar was too damp, or too cold, or too something, and the pantry too hot. I am, respectfully, yours, A.

BUFFALO, June 16, 1849.—*Wool Grower.*

It is a truth well established among cultivators, that land planted with fruit trees of good varieties, will yield more to the acre, for man and beast, than any other crop, with less labor.

## Answers to Inquiries.

CRANBERRIES.—Supposing it to be a fact that vine or marsh cranberries will grow on dry land, I should like to know the time to take them from the marsh, the manner of putting them up for carrying a long distance, and the manner of re-setting.

I have tried in vain for three or four years to raise cranberry plants from the seed—have planted them in all soils, and in all seasons, the berries entire and the seeds expressed from the pulp, and all without any signs of vegetation.

Please tell us how they can be made to grow.

A SUBSCRIBER, Jamestown, Wis.

We have never tried them to any extent, but from what we have read we should greatly prefer moist land and deem it questionable whether they can be profitably grown on our dry soil. Were they to be tried on dry land however, we should select a "basin," manure well with peat or muck if to be had, otherwise with very thoroughly rotted manure, and protect well with litter in the winter to prevent the freezing and thawing from injuring the plants. The weeds should be kept down until the vines cover the ground. The plants can be removed either in the fall or spring *in sods* as they grow and packed in sacks or mats for transportation—as other plants or trees are. They should be planted two or three feet apart.

We find no directions in regard to growing them from the seed, but as this would certainly seem the easiest way to raise the plants and especially to get varieties adapted to upland, we infer from its not being mentioned, that it is a difficult matter to make seed grow. Still if the seed be perfect it must be that if rightly managed it will vegetate. We would suggest that it be sowed both in the fall and spring, *shallow* and on very *light, mucky soil*, and kept moist and shaded from the rays of the sun by an awning of boards, 16 inches or so from the ground.

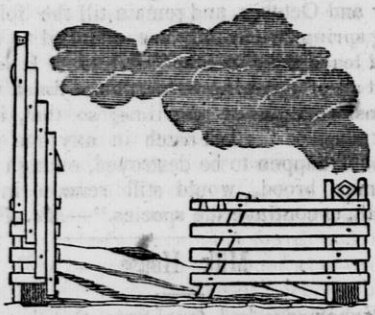
For the last three years my onions have all been destroyed by a small louse-like looking insect which commence their depredations on the tops about the time the onions commence bottoming. The tops turn yellow and soon all die. The bottom does not get one-third its growth, and is very strong flavored and unwholesome. I wish to know if you or any of your subscribers can inform the public what will prevent the devastation of this mischievious insect. I tried scattering wood ashes on them when the tops were wet, but it had no effect towards checking their voracious appetite; on the contrary, those that I put the ashes on were the first to die.

Respectfully yours,

M. HOLMES.

The above insect is a stranger to us, nor can we find any thing answering to Mr. H's description in our works on Gardening. Will he not give us a more definite account of it; its size, appearance, habits, &c.? If he will send us a few dried specimens we will forward them to Dr. Harris the Entomologist for a name. To destroy them we would recommend in the absence of any information on the subject, to try dusting with snuff, sulphur and the like, or syringing with soap suds, tobacco-water or the decoction of quassia, mentioned in the August Number.

## Smith's Vertical Gate.



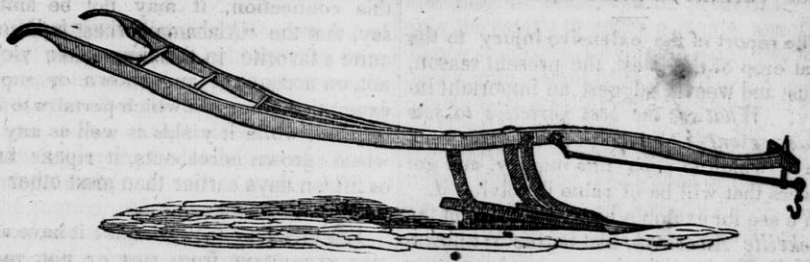
One of the new things under the sun, for which a patent has been obtained recently, is Smith's Verticle Gate, a cut of which is here presented to our readers.

We have a fine model at this office, which we should be happy to show. All who wish a new and improved gate, are requested to call and examine it. One that is neat and ornamental—will not take up so much room to move in as the old fashioned swing gate—one that can be opened as well in deep snows, without shovelling away, as if there was no snow at all—that cannot be swung back and forward by the wind, and broken or torn off its hinges as many often are. By reference to our advertising columns, you will learn further particulars.

It is strange that more gates are not put up on farms and enclosures, instead of the heavy and cumbrous bars which everywhere meet the eye. If the farmer would sit down some rainy day, and make a calculation of the saving in time that he would effect by the use of gates, instead of bars, to say nothing of the difference in labor or strength required, he would at once be convinced that gates are vastly more economical.

Just cipher it out, friend, during the first leisure hour you have, and our word for it, you will begin to *pull* down the bars, and put up the gates in all your thoroughfares.—*Maine Farmer.*

THE ORIGINAL DEANSTON IRON SUB-SOIL PLOW.



Many inquiries have been made of us as to the advantages of sub-soil plowing, in answer to which we give the following article taken from the Pennsylvania *Cultivator* which reflects our views upon the matter as well as any thing we could write.

## DEEP AND SUB-SOIL PLOWING.

The advantages of *deep* plowing are beginning to be appreciated. The small fibrous roots of vegetation will extend a great depth in the earth, if the soil is loose and deep. In loamy or sandy soils, the roots of trees have been found to penetrate to the depth of ten or twelve feet; and the roots of the Canada thistle have been traced six or seven feet below the surface. Wheat, if planted in a mellow, rich soil, will strike its roots three feet downwards, and elongate much farther horizontally. The roots of oats have been discovered at eighteen inches from the stem; and the long thread like roots of grass extend still further. The roots of the onion are so white that in a black mould they can be readily traced, and in a trenched or spaded soil they have been followed to the depth of two feet. The potatoe throws out roots to the distance of fifteen or twenty inches, and the tap-rooted plants, turnips, beets, carrots, &c., independent of the perpendicular root, spread their fibres to a distance which equals, if it does not exceed the potatoe. It is perfectly absurd to expect to suceeed with the roots of this class, unless the ground is so mellow as to allow them to penetrate.

But though many farmers agree as to the propriety of and benefits attending *deep plowing*, some are afraid of "turning up the *pisen* of the under soil." In a few instances there is reason for this fear. The system of SUB-SOIL PLOWING, however, which has in latter years been introduced from England, must obviate all objections in the minds of even the most prejudiced. This consists in merely *loosening the soil* just below that which is tilled, *by a plow without any mould-board to turn it up*, called a SUB-SOIL PLOW. In England, the effects of the use of such a plow, as stated by some agricultural writer, would seem almost incredible: by these means their crops have been doubled, and in many instances trebled; though the expense is said to have been very great. The plow used there, however, is one of great size and weight. One of the first of them brought into this country, a number of years ago, was deposited in the Franklin Institute at Philadelphia. It measures twelve feet six inches in length, is constructed throughout of iron, weighs upwards of three hundred pounds, and is capable of rooting up stones of two hundred pounds weight; it is intended for a team of four or six, or even eight horses or oxen, with which force it might be let down to the depth of the beam.—[*See Plate.*] But instruments are now constructed of much less magnitude, chiefly of wood and properly ironed, the *sole-share* being of cast iron; the length of the handles being in proportion to the weight of the plow that is to be raised by means of their *leverage*.

The principal effect of sub-soil ploughing is, that the earth is deepened to a considerable depth, and air and moisture is afforded freely to the roots of plants: if the sub-soil be wet and full of stagnant water, it will act as a substitute for under draining, especially if in plowing, the land can be laid to give a *gradual fall throughout its whole length*. If it be hard and rocky, causing the surface soil to dry up; or if *hard pans* exist, preventing a superabundant moisture from passing through it; or over which the tender fibres of the roots vainly wander in search of proper nutriment, and as fruitlessly strive to penetrate; sub-soiling will effectually break up the pan, and induce fertility where before all was barren.

The *mode of operation* is thus: A heavy plow is first run along the field some six or eight inches deep, and a sub-soil plow follows in the bottom of the furrow, deepening it to fourteen or sixteen inches id all. It must not be forgotten that in loose, gravelly, thirsty soils, sub-soil plowing is of doubtful advantage.

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In an able article under the head of *Improvements in Farming*, by Prof. MAPES published in his *Working Farmer*, we find the following remarks upon subsoil plowing;

Sub-soil plowing, the greatest of modern improvements, is being adopted even by those who have always professed to be opposed to novelties. When we commenced in 1847, our readers will recollect that we required three or four yoke of oxen to move the sub-soil plow in our hard pan sub-soil. Let them come now, and they may see a single pair of mules moving the same plow with ease: indeed, our soil has been more improved by sub-soiling than by manuring, but by the united effects of both, we have changedt hirty-two acres of apparently worthless soil, into a garden capable of raising any crop in comparison with any field in our State. By following the rules we have collated and published in the *Working Farmer*, we have now the full varieties of crops *without a failure.*

## Wheat—Varieties adapted to Western Culture.

The report of the extensive injury to the wheat crop of the West, the present season, by rust and weevil, suggest an important inquiry: *What are the best varieties to sow in this region?* And the present is the very time in which to push this inquiry, and get answers that will be of value in solving it.

We see for example by a statement in the *Brookville American*, that in the Whitewater Valley, where the damage has been very great, the "red chaff bearded, and "blue stem" varieties have suffered most, while the "Mediterranean" and "Alabama" varieties have received least injury; so far as *rust* is concerned, indeed, both these varieties are said to have "almost escaped."

A statement similar to this, in reference to the "Alabama" wheat, met our eye some days since, in a Hillsborough (Highland county, O.) paper; and we remembered to have seen a statement last week in an Illinois paper, that the "Mediterranean" wheat was this year making the best yield of any in the part of that State referred to.

These are few and scattering facts, but if there is anything in them, they can, in a very short time be multiplied so as to show it. We do not suppose that any variety of wheat can escape the depredations of the weevil, in seasons when that destructive insect seizes upon the crops. *Rust*, however, is a different matter, depending as is generally supposed, for its full development, on heavy rains and hot sunshines, and their sudden alternations. Now it is not at all unlikely, that varieties of wheat exist, which will, much better than others, withstand those quick and extreme changes of weather —from dry to wet, and from cool to hot— as well as the *steaming* atmosphere produced by rapid successions of sunshine and shower. And it seems perfectly accordant with geographical and climatic facts, to suppose that the "Mediteranean" and "Alabama" wheats are these very varieties.

Any farmer in the West, who has a wheat field, may be able to throw some light upon this subject. The country millers have superior opportunities of making observations as to the general freedom from rust, in unfavorable seasons, of different varieties of wheat. The country newspapers can also do a great deal towards collecting and disseminating correct intelligence upon the subject. For ourselves, we shall be pleased to hear from any one who is better informed than we are in relation to this matter. In this connection, it may not be amiss to say, that the "Alabama" wheat is becoming quite a favorite in this immediate vicinity; not on account of any known or supposed exemption from rust which pertains to it, but because, while it yields as well as any other wheat grown hereabouts, it ripens full ten or fifteen days earlier than most other varieties.

But this very fact, whether it have a superior exemption from rust or not, may in many seasons be the very thing to preserve it from that wasting disease.—*Cin. Gazette.*

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The Poison in Eggs.—An article is going the rounds, which purports to be taken from a Cyclopedia, stating that there is a poison in eggs, and that if the white of an egg be boiled hard, and then the shell hung up in the air, a liquid will drop from it which dissolves myrrh, which is more than water, spirits, or even fire itself can effect. It also states that a little of it taken into the stomach occasions nausea, *horror*, fainting, vomiting, diarrhœa and gripes—inflames the bile, excites heat, thirst, fever, and dissolves the humors like a plague.

We do not know what sort of liquid they had when that Cyclopedia was written. We don't have the *best of liquor*, or "*sperits*," now-a-days, but we can dissolve myrrh with them, and bring on the *horrors* infinitely quicker with them, too, than by eating hard-boiled eggs.

The true English of this poison in eggs, is this: Let the eggs get rotten, whether boiled or unboiled, and they are poison;— but a sucking child, (egg-sucking one, we mean,) knows there is no poison in them till then.—*Maine Farmer.*

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Salt upon Wheat.—We noticed, not long ago, a paragraph in the Rochester *American*, stating the result of the application of salt as a dressing to the soil where winter wheat was afterwards sown. The experiment was tried by Mr. John Parker of Gates, N. Y., who applied a barrel to an acre of summer fallow. He states that the ground was plowed once the preceding fall, plowed again in May, and salt sown thereon as above, and afterwards plowed twice before seeding. On the 1st and 2d of September wheat was sown,—two bushels to the acre. The crop has just been harvested, and Mr. P. is confident will yield 40 bushels to the acre. The berry he pronounces equal to the best English wheat.—*Me. Far.*

## The Merino Sheep Speculation of 1815--17.

The Merino sheep speculation was one of the most extraordinary bubbles that were ever known in America. It had its origin in 1815, soon after the treaty of Ghent, and at a time when thousands of our people were actually under the influence of a manufacturing mania.

In the summer of that year, a gentleman of Boston imported some half a dozen sheep, from one of the Southern provinces of Spain, whose fleeces were of the finest texture, as it was said, and such undoubtedly was the fact, though the sheep were so thoroughly and completely imbedded in tar, and every other offensive article, that it would have been very difficult to prove it. But that very offensive appearance of the sheep seemed to imbue them with a mysterious value, that rendered them doubly attractive. It was said that the introduction of these sheep to the United States would enable our manufactories, then in their infancy, to produce broadcloths, and other woolen fabrics of a texture that would compete with England and Europe. Mr. Clay was consulted in reference to the sheep, and he at once decided that they were exactly the animals that they wanted.

The first Merino sheep sold, if I recollect right, for fifty dollars the head. They cost a dollar in Andalusia! The speculation was too profitable to stop here; and before a long time had elapsed, a small fleet sailed on a sheep speculation to the Mediteranean.

By the end of the year 1816, there probably were three thousand sheep in the Union; and they had advanced to twelve hundred dollars the head.

Before the autumn of that year had passed away, they sold for fifteen hundred dollars the head; a lusty and good looking buck was worth two thousand.

In New England, in the year 1817, the speculation, in consequence of the surplus importation, began to decline; but it steadily and rapidly advanced throughout the Western country. Kentucky, in consequence of the influence of Mr. Clay's opinion, was especially benefitted.

In the month of August, 1817, I saw a Merino buck and ewe sold for eight thousand dollars; and even that seemed no great price for the animals. They were purchased by Mr. Samuel Long, a house builder and contractor, who fancied that he had, by the transaction, secured an immense fortune.

This Mr. Long was actually rabid with the merino fever, and in proof of it, it is only necessary to relate a single anecdote: There resided in Lexington—and not more than a mile distant from Mr. Clay's villa of Ashland—a wealthy gentleman named Samuel Trotter, who was, in fact, the money king of Kentucky, and who, to a very great extent, controlled the Branch of the Bank of the United States. He had two sheep, a buck and ewe, and Long was very anxious to possess them.

Long often bantered Trotter for the sheep, without success; but one day the latter said to the former: "If you will build me such a house, on a certain lot of land, as I shall describe, you shall have the merinos."

"Draw your plans," said Long, "and let me see them." The thing was done, and Long eagerly engaged in the enterprise.—He built for Trotter a four story brick house, about 50 by 70, on the middle of an acre of land, finished it in the most approved modern style, and enclosed it with a costly fence, and handed it over to Trotter for the two merino sheep! The establishment must have cost fifteen thousand dollars.

Months before the establishment was completed the price of merinos declined gradually; and six months had not passed away before they would not command twenty dollars!

Mr. Long held on to them till they had reached the par value of any other sheep, when he killed them, made a barbecue, called all his friends to the feast, and whilst the "goblet went its giddy rounds," like the ruined Venetian, he thanked God that he was not worth a ducat! He was ruined and soon after died of a broken heart.—*N. Y. Atlas.*

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PAGE'S PATENT PORTABLE SAW MILL. This mill has been extensively used, and has fully recommended itself to the public. Mr. Page has made several important improvements upon it, and it is now very generally considered the very best mill extant for sawing lumber. M. PAGE (who is from Baltimore, Md.) has in his possession certificates from gentlemen of undoubted character, saying that with this machine they have cut 8,000 feet of inch boards in one day, with eight horses. He has moved his mill, after sawing 200 boards in the morning, thirteen miles in one day, and was sawing again before eleven o'clock the next morning, without any extra help other than in use at first—six horses and two men.—*N. Y. Farmer and Mechanic.*

# HORTICULTURE.

F. K. PHŒNIX, Editor.

ERRATA.—On page 173 near the middle of the right hand column instead of "10 to 12 dollars," read 10 to 20 dollars. On page 174 in the article headed "A new way to destroy Plant Lice," please allow Dr E. G. Mygatt the credit of introducing the new method, instead of "Dr. E. G. Wygatt."

The "middle of August" is mentioned in the September number, as the time to stop cultivating fruit trees. It should have been the first of Aug., which is quite late enough.

## Fall Work in Nurseries and Gardens.

*Transplanting Fruit Trees and Bushes in the Fall.*—Although the great bulk of Nursery and Orchard planting cannot be safely done in the Fall at the West, yet very much can be done in Nurseries and Gardens by way of lighting the press of business in the Spring, to which nurserymen especially are subject here. The best season for transplanting trees here is unquestionably in the Spring, as soon as the ground gets dry enough to work, Fall planting is decidedly risky. If, however, the work be well done throughout, and the following winter prove favorable, it is preferable for apple trees and the common red cherry, and will answer for pear and plum, but the chances as a general thing are against success at that season. Tender trees we would by no means plant in the Fall, still the Fall is the very best season for getting trees from the nurseries, because—1st, you get the first choice as to size and sorts—by the way, a very considerable item, as many find by experience who go late in the spring, expecting to get as large trees as their neighbors did weeks before them. 2d, farmers, themselves, have generally more time to attend to such things in the Fall than in the Spring. Whilst hauling off their produce they can much easier call at the nurseries and get their trees than to leave in the Spring and go on purpose. "But what shall we do with our trees if we get them in the fall?—you say it won't do to set them out then." Let me tell you. *Take great pains always to keep the roots moist and fresh*—fish don't do well out of water you know—and when you get the trees home, dig a trench where mice will not be likely to get at them, about two feet deep with one side a good deal slanting. Against this sloping side lay your trees and then fill in carefully among the roots with your best top soil, and tread it down on them. If the ground or roots be dry, throw in some water,—let it soak away and then fill up. This is generally sufficient, but it will be still better if the tops be covered with manure. Trees wintered in this way come out in the Spring *in better order*, of the two, than if left standing through the winter—*and are on hand when you want to plant.*

If you get trees from the east or south do not think of planting them in the Fall, but bury them as recommended above—and you will thereby preserve what life there is in them—generally little enough as many of us have learned to our cost!—We would recommend to remove gooseberry, currant, and raspberry bushes and grape vines early in the fall, or as soon as the foliage drops. Plant them in *deep rich soil*. The grape in particular is a very gross feeder, and will show its keeping about as soon as any other plant.

*Cuttings*.—Should be prepared and put in as soon as the foliage drops. Currants, grapes, quinces, willows and syringas, point and upright honeysuckles are most easily raised in this way. The gooseberry, abel and snow-ball, will also grow from the cuttings, though not so readily. These, and in fact all cuttings, will come more surely if put on the north side of a fence or covered with an awning of boards to screen them from the direct rays of the sun. To preserve cuttings take the present year's growth, and cut them up from 8 to 18 inches in length, according to circumstances, always having the base or lower end come 1-2 inch or so below a good bud. They should be planted in a sloping direction in rich soil, with only a few buds above the surface. Of the grape one bud is enough. The soil should be firmly trod around the base of the cuttings, and the bed when planted covered with a foot or so of manure—to be removed early in the Spring.

*Sowing Seeds*.—Seeds may be sowed just before the winter sets in, and we think apple and pear seeds are quite as well and perhaps better sowed in the fall, if on light sandy soil. Very heavy soil had better be sowed in the spring. Chestnuts, plum, and cherry pits may also be planted in the fall. In any case they should not be suffered to get thoroughly dry before planting—although it is not as injurious to wild plum pits as to cultivated ones. And, by the way, wild plum seedlings make the best stocks, we think, for making improved sorts on. We would sow mountain ash, evergreen, and forest tree seeds generally, in the fall, if convenient—always sowing fine seeds in a very light fine soil. If not convenient to sow in the fall they should as soon as possible be put into the ground where they will *keep moist* (or frozen) through the winter.—Thus preserved, all sorts may be sowed in the spring. Peach stones however require to be cracked before planting. In putting out fine seeds thro' the winter it is well to mix sand or earth with them. Apple and pear seeds should never be suffered to

mould, as they are apt to, if put up moist. An inch or 1 1-2 inches is deep enough to sow them.

*Grape Vines*—These, where bearing, and within reach, should be thoroughly trimmed before winter sets in. Take off the feeble shoots, thin out the stronger, and head in those left—one-half, if they will then be long enough to reach up to the trellis. The Isabella, Sweetwater, Catawba and all sorts not perfectly hardy we prefer to take down, coil up on the ground and cover with litter—to be taken up and re-festooned to the trellis in the spring.

*Ornamental Plants, Shrubs, Bulbs, &c*—Hardy shrubs as roses, snowballs, lilacs, &c., do well when moved in the fall, if early and carefully transplanted, and they be not placed in too exposed a situation. All hardy bulbous roots, as narcissus, hyacinths, tulips, crocus, &c., should be set in Oct. or Nov. Give them a deep, rich soil. Old manure should be used, if any, in preparing the ground.—They may be put in rows 10 or 12 inches apart and 2 or 3 inches in the row. Herbaceous plants, generally, should be moved in the fall as they do much better the next season than if moved in the spring. It is well to protect the crowns of all herbaceous plants, the tops of most roses, tender shrubs, and the like, by throwing some coarse manure or litter over them.

*Dahlias, and tender Bulbs and Plants.*—As soon as the frost kills the tops of Dahlias, they should be cut off near the ground, and in a sunshiny day the roots taken up and left to dry until the dirt can be shaken off. They should then be put in a dry, cool cellar, where no frost can reach them—on shelves or in boxes, with or without being packed in sand. The bulbs of the Mex. tiger flower, tuberose amarryllis, and of tender plants generally, should be treated in the same way.

House plants generally should be re-potted as soon as possible.

*Preparation of Ground, Beds, &c*—The ground intended for nurseries and gardens should be prepared in the fall as far as possible. Let it be ploughed deep, and the sub-soil turned to the mellowing influences of the air and frost through the winter.—Borders, strawberry beds, &c., should all be manured and spaded up ready for planting in the spring.

*Cutting and keeping Scions.*—As soon as the leaves fall vines may be safely cut, and if kept moist and from the air, may be transported about any distance. To keep them over winter, bury them in the ground using leather strings to tie the bunches with, which will not rot off and suffer the sorts to mix as other strings.

*Preparation for Root Grafting.*—The very best roots are large thrifty seedlings. They should be taken up and buried where they will keep *cool* and *moist*—not water-soaked—until wanted. We prefer to bury them in the open ground, unless the cellar be cool. For root grafting a supply of fine dirt or sand for boxing should be carried into the cellar—unless saw-dust be used which is said to be very good.

*Protecting young Root Grafts and Seedlings.*—It is very necessary that young root-grafted trees and seedlings receive protection through the winter. This may be afforded to root grafts in two ways. 1st.—If your trees are of hardy sorts, on good ground, and stand well—that is, thick enough and have not grown too rank and late, they may be suffered to remain out through the winter. But *just before winter sets in* they should have the dirt hauled up around them to the height of say 4 inches. This will prevent in a great measure the injury otherwise done by the bursting of the bark at the crown or collar—a species of injury to which young root-grafts are very liable at the West, as experienced nurserymeu well know. If, on the other hand, they be of tender sorts, on low ground, or have made a very rank, late growth, or if they have died out much, they had better be taken up and "laid in by the heels" through the winter.—The latter way is less risky but more laborious, than the other. All pear and apple seedlings of this season's growth should have the dirt hauled up around them in the same way—and it will prove of material benefit if newly planted orchards of root grafted trees are served in the same way. only the dirt should be 6 or 8 inches high at least around their base.

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APPLES AS AN ARTICLE OF HUMAN FOOD. The importance of apples, as food, has not hitherto been sufficiently estimated in this country nor understood. Besides contributing a large portion of sugar, mucilage, and other nutritive matter, in the form of food, they contain such a fine combination of vegetable acids, extractive substances, and aromantic principles, with the nutritive matter, as to act powerfully in the capacity of refrigerants, tonics, and antiseptics; and when freely used at the season of ripeness, by rural laborers and others, they prevent debility, strengthen digestion, correct the putrefactive tendencies of nitrogenous food, avert scurvy, and probably maintain and strengthen the powers of productive labor.

The French and Germans use apples extensively; indeed, it is rare that they sit down, in the rural districts, without them in some shape or other, even at the best tables.

The laborers and mechanics depend on them, to a very great extent, as an article of food, and frequently dine on sliced apples and bread. Stewed with rice, red cabbage, carrots, or by themselves, with a little sugar and milk, they make both a pleasant and nutritious dish.—*American Agriculturist.*

## THE HONEY HEART CHERRY.

This variety is also called *Sparhawk's Honey*, and it was formerly called *Roger's Pale Red.* The Honey Heart is doubtless a native variety, and it probably originated in this vicinity some sixty years ago. Mr. Samuel Hyde, an aged gentleman of Newton, first saw it in that town, and he propogated it in his nursery, from the original tree, as he thinks.

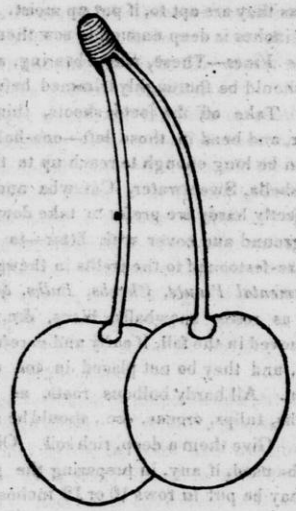
It was called Roger's Pale Red. His sons, and successors in the nursery business, Messrs. S. & G. Hyde, gave to this cherry the name *Honey Heart*, and under this appropriate appellation it has been extensively disseminated. As some authors called it *Sparhawk's Honey*, without sufficient authority, as we think,—for those who had first introduced had previously named it,—this name obtained considerably for a while, but of late its true name is becoming prevalent.

The tree is large and productive, and the fruit is unusually hardy against storms, which often destroy cherries very extensively, when they occur just before their ripening.

The fruit is of medial size; flattish-roundish, heart-shaped; skin very thin, glossy, bright amber and red, the red finely variegated with minute specks of yellow or amber; stem slender, and rather long; flesh yellowish, very tender, juicy, sweet, and delicious; the stone rather large. Rather late; ripening from the 1st to the 12th of July. This late season from the 12th to the 20th.

The Honey Heart is one of the very best of all cherries, particularly for the private garden. Some larger kinds, of inferior quality, may be more profitable for the market. But many intelligent horticulturists say that if they had but one cherry tree for their own use, they would choose the Honey Heart; and we consider this opinion correct.—*N. E. Farmer.*

## THE REINE HORTENSE CHERRY.



Fruit large, rouudish oblong. Stalk about 1½ inch long, and rather slender. Skin very waxy—pale red, similar to Belle de Choisey. Flesh pale amber colored, tender, juicy and sweet. Stone medium size. Tree bears very early and abundantly; in its growth similar to May Duke—is very hardy, and will prove valuable for northern localities. Ripens from the beginning and middle of July; began to ripen about the fourth this season, and on one tree was wholly ripe on the 9th. It is one of the best for dwarfs.—Cultivate on the Mahaled, trees two years from bud will be nice bearing bushes.

This is the second year this fruit has borne with us, and we are glad to say that it sustains, much better than many others, the high character which the French and some English cultivators have given it. We can recommend it among the smallest assortment of garden trees.—*Genesee Farmer.*

CULTIVATION OF THE PLUM.—Years ago it was common to see exposed for sale in our stores, bushels of the common blue plum.—Now, such a sight is comparatively rare.—A brief chapter on the cultivation of this fruit, at the outset, may convince some that they yet can be cultivated. I have had experiance, and a very expensive one, too.

Plums want a favorable soil for perfecting choice trees. A moist, rich, clayey loam has thus far proved the best adapted to this fruit, with me. I never cultivate the sprouts for stocks, and never bud on them, but carefully propagate choice varieties, which have been fully proved as such, on the *strongest* and most thrifty seedlings only. I believe no other course will ensure so perfect success. Let those who purchase trees see that they

get good ones, and their success will be more certain.

If, in laying out grounds, the walks are left wider than usual, and the centre is occupied with plum trees, it would leave the amateur every opportunity for the gathering of the premature fruit. This I consider the true way of managing the plum, where a plot is not reserved exclusively for its cultivation. These garden trees can be trained espalies, or fan-fashion, if desired.

MORRISTOWN, N. J., June, 1849. W. D.

## Purchase of Horses.

Nothing requires more caution than the purchase of horses; and we give the following hints, which are extracted from the excellent volume "*On Horses*," published by the Society for the Diffusion of Useful Knowledge:

"In the purchase of a horse, the buyer usually receives, imbodied in the receipt, what is termed a warranty. It should be expressed thus: 'Received of A. B. forty pounds for a gray mare, warranted only five years old, free from vice and quiet to ride or drive.' It is important to observe that the age, freedom from vice, and quiet to ride or drive, should be mentioned, because warranty as to soundness does not include these. Many disputes have arisen as to what ought to be termed sound or unsound. A horse is sound in whom there is no disease, nor any alteration of structure which impairs his natural usefulness; and he is unsound if he labors under any disease, or had any accident that has impaired his natural usefulness by an alteration of the structure of any part of his body. The term unsoundness does not apply to any original defect in the temper of the horse, or any deficiency in the strength and powers of the animal. The principle circumstances which constitute unsoundness, besides the great number of actual diseases, are broken knees, which may indicate a stumbler, though not always; for any horse may meet with an accident, and the knee may now be quite well, though it requires great judgment to distinguish in this case. Contraction of the foot is sometimes, but not always, unsoundness; for it is occasionally natural, and not a fault. The following defects are considered to indicate unsoundness: Lameness through any cause; pumicid foot; sand crack; spavin; splent; thickening of the back sinews of the leg; thrush; ossification of the cartilages of the foot; defects or diseases of the eyes; coughs, roarings, broken wind, or any defects of the lungs; quidding, or imperfect mastication; cribbiting; biting; kicking; restiveness.

"In order to complete the purchase, there must be a transfer of the animal, or a memorandum of agreement, or the payment of earnest money; the least sum will suffice for earnest. No verbal promise to buy or sell is binding without one of these; and the moment either of these is effected, the legal transfer of property or delivery is made; and whatever may happen to the horse, the seller retains or is entitled to the money. If the purchases exercises any act of ownership by using the animal without leave of the vender, or by having any operation performed or done to him, or medicine given, he makes him his own. The warranty of a servant is considered to be binding on the master.

"A man should have a more perfect knowledge of horses than falls to the lot of most persons, and a perfect knowledge of the vender, too, who ventures to buy a horse without a warranty. Where there is no warranty, and a defect is discovered after purchase, an action may be brought on the ground of fraud; but this is difficult to be maintained, for it is necessary to prove that the dealer knew the defect, and that the purchaser was deceived by his false representation. If the defect was evident, the purchaser has no remedy—he should have taken more care; but if a warranty was given, it extends to all unsoundness, palpable or concealed. Although a person should ignorantly or carelessly buy a blind horse, warranted sound, he may return it; the warranty is his guard, and prevents him from so closely examining the horse as he otherwise would have done: but if he buys a blind horse, thinking him to be sound, and without a warranty, he has no remedy. The law supposes every one to exercise common sense. If the horse should be afterward discovered to be unsound at the time of the sale when the warranty was given, the buyer may return it and recover the price; but this proof is requisite; coughing on the following morning will not be sufficient, except the horse was heard to cough previous to the purchase, for the horse might have caught cold by a change of stable. Although not compelled to give notice to the seller of the discovered unsoundness, it will be better for it to be done. The animal should then be

tendered at the house or stable of the vender. Should the latter refuse to receive him, he may be sent to a livery-stable; for, in case of action, the expense will be recovered with the price; and it will be prudent for the buyer to refrain from any medical treatment. If a person buys a horse, warranted sound, and discovering no defect in him, and relying on the warranty, re-sells him, and the unsoundness is discovered by the second purchaser and the horse returned to the first purchaser, or an action commenced against him, he has his claim on the first seller, and may demand of him not only the price of the horse, or the difference in value, but every expense that may have been incurred. When an action is brought, the lawsuit is usually very intricate; a fair trial of the horse is allowed, and a certain time specified: but it is not always easy to ascertain whether the fault lies with the horse or his rider, and sometimes the dealer, as well as the buyer, is hardly used. If the horse is detained after the specified time of trial, he is supposed to be sold.

"In London, and in most great towns, there are repositories for the periodical sale of horses by auction. They are of great convenience to the seller, who can at once get rid of a horse with which he wishes to part, without waiting month after month before he obtains a purchaser, and who is relieved from the fear of having the horse returned on account of breach of the warranty; because in these places only two days are allowed for the trial, and, if the horse is not returned within that period, he cannot be returned afterward. They are also convenient to the purchaser, who can thus find a horse that will suit him, and by which, from this restriction as to the returning the animal, he may, perhaps, obtain twenty or thirty per cent below the dealer's prices. But although an auction may seem to offer a fair open competition, there is no place at which it is more necessary for a person not much accustomed to horses to take with him an experienced friend, heedless of the observations or manœuvres of the bystanders, the exaggerated commendations of some horses, and the thousand faults found with others. There are always numerous groups of low dealers, copers and chanters, whose business it is to delude and deceive."—*New England Farmer.*

☞ A change of fortune hurts a wise man no more than a change in the moon.

## Rearing and Management of Poultry.

It is a mooted point, as yet, I believe, amongst farmers, how our domestic fowls can be made to net the most profit; still I think the opinion is fast gaining ground that a good hen house, with a large range attached, is the true way—at any rate, it has been stated, on good authority, that "poultry, kept for profit, should never be allowed to roam at will, leaving their eggs here and there to rot, nor furnish food for foxes, weasels, and skunks."

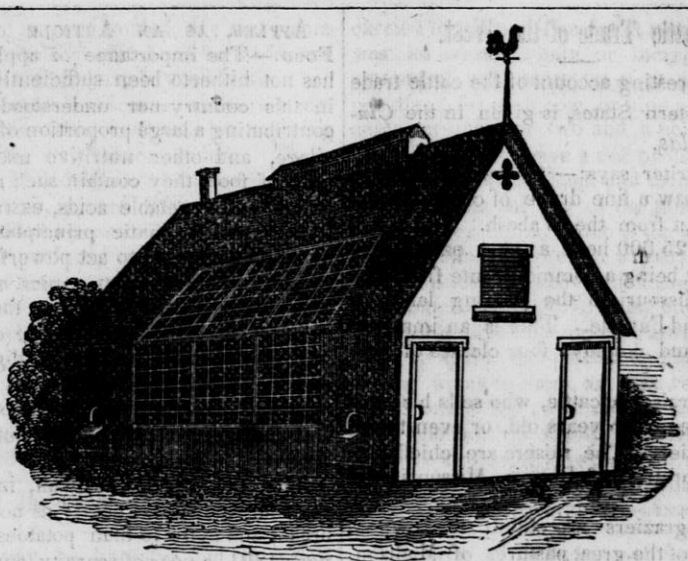
When we consider that the value of the poultry annually raised in the United States is $12,000,000, it is surprising that this branch of domestic industry is looked upon as if of so little importance; and as it is in the province of your journal to keep this and all kindred subjects before the people, it is desirable that you insert a series of practical articles upon the "Rearing and Management of Poultry," from the shell to the spit, similar in character to those now in course of publication on the horse, the cow, and swine. I think there is no doubt, that, if they were furnished, they would prove very acceptable to a large number of your readers, and would be productive of much good. J. B. D.

Boston, August, 1849.

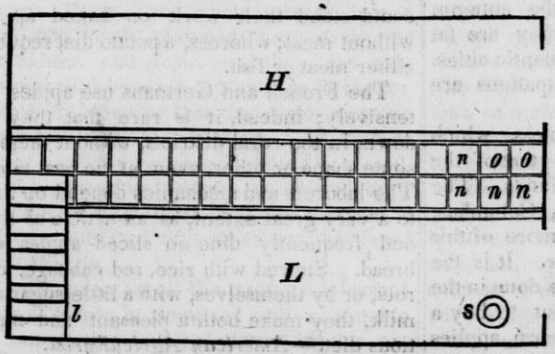
We think the suggestion of our correspondent an important one; and we will endeavor to impart to our readers as much information on the subject as our knowledge and experience will afford, and the limits of our pages will allow.

*Description of a Hen House.*—Fig. 71 represents a hen house, in perspective, 20 feet long, 12 feet wide, 7 feet high to the eaves, with a roof having a 7-foot pitch, a chimney top, a ventilator on the peak, twelve feet in length and one foot or more in height, and openings in the gable ends for the admission of fresh air. In the easterly end, there are two doors, one leading into the laying apartment and loft, and the other into the hatching room. In the same end there is also a wooden shutter, or blind, which may be opened, whenever necessary, to let air or light into the roost. In the back, or northerly side, there is a large lattice window, 3 feet above the floor or ground, 4 by 12 feet for the purpose of affording fresh air to the sitting hens: In the front or southerly side, there is a large glazed window, 4 by 12 feet, and another in the southerly side of the roof, of a corresponding size designed to admit the light and heat of the sun, in cold weather, to stimulate the laying hens. In the southerly side, there are also two small aperatures three feet above the floor or ground, for the ingress and egress of the fowls. These openings may be provided with sliding shutters, as well as with "lighting boards," inside and out, and may be guarded by sheets of tin, nailed on below them, to prevent the intrusion of rats, weasels, or skunks.

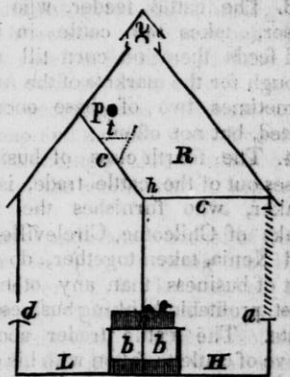
The buildings may be constructed of wood or other materials, and of such style or order of architecture, as may suit one's taste, only preserving the internal arrangements and proportions, in reference to breadth and height. As a general rule, as regards the length of the building, each hen, irrespective of the cocks, may be allowed a foot.



*Perspective View of a Hen House.—Fig. 71.*




*Ground Plan.—Fig. 72.*




*Transverse Section.—Fig. 73.*

Fig. 72 shows the ground plan of the above, in which *L*, denotes the laying apartment; *H*, the hatching room, each 6 by 20 feet; *n*, *n*, &c., nest boxes for laying, 14 by 14 inches, and 10 inches deep; *o*, *o*, &c., nest boxes for the sitting hens, of the same size; *l*, a ladder or steps, leading into the loft and *s*, a stove for warming the apartment, if desirable, when the weather is cold.

Fig. 73 shows a transverse, or cross section, of the building, from the bottom to the top, with the internal arrangements. *L*, denotes the laying apartment, and *H*, the hatching room, divided in the middle by a partition; *n*, the nest boxes, resting on tables, three feet above the floor or ground; *b*, *b*, boxes, or troughs, containing water, grain, brick dust, sand, ground oyster shells, and other materials for the convenience of the fowls; *d*, an aperture, or door, three feet above the ground or floor for the ingress and egress of the fowls; *a*, a lattice window, three feet above the floor or ground, for the admission of fresh air to the sitting hens; *R*, the roosting place or loft, shut off from the laying and sitting apartments by the ceilings, *c*, *c*; *h*, a hole, or opening in the ceiling, for the escape of air below into the loft; *v*, the ventilator at the peak of the roof; *p*, the roosting pole, or perch; *t*, a trough, or box, for retaining the droppings, or dung.—*New England Farmer.*

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WHITEWASH.—Take one bushel of unslacked lime, and slack it with cold water; when slacked add to it twenty pounds of Spanish whiting seventeen pounds of salt, and twelve pounds of sugar. Strain the mixture with an iron sieve, and it will be fit for use after reducing with cold water. This is intended for the outside of buildings, or where it is exposed to the weather. Two coats should be laid on wood and three on bricks. A whitewash brush may be used for laying it on, and each coat must be dried before the next is applied. This may be made any color you please. For straw color, instead of the whiting, use yellow ochre; for lemon color, use ochre and chrome yellow; for lead or slate color, use lampblack; for blue, indigo; for green, chrome green.

## Cattle Trade of the West.

An interesting account of the cattle trade of the Western States, is given in the *Cincinnati Atlas*.

The writer says:—"While at Yellow Springs I saw a fine drove of cattle, which were driven from the Wabash. I was told that about 25,000 head a year passed that point; that being a common route from Illinois and Missouri to the grazing lands of Madison and Fayette. This is an immense business, and employs four classes of persons.

1. The raiser of cattle, who sells his animals at one or two years old, or even three, to the grazier. The raisers are chiefly in the great prairies of Illinois, Missouri, and Iowa.

2. The graziers are chiefly the owners or renters of the great pastures of Madison, Fayette, and Union counties Ohio.

3. The cattle feeder, who is the corn raiser, takes the cattle in the autumn, and feeds them on corn till they are fat enough for the markets of the Atlantic cities. Sometimes two of these occupations are united, but not often.

4. The fourth class of business, which arises out of the cattle trade, is that of the banker, who furnishes the funds. The banks of Chilcothe, Circleville, Columbus, and Xenia, taken together, do more of this sort of business than any other. It is the most profitable banking business done in the State. The cattle trader about to buy a drove of cattle to fatten with his corn, applies to the bank for a loan. For this he gives a bill of exchange on Philadelphia or New York, at four months, which the bank discounts, receiving the funds when the cattle are sold, and getting both interest and exchange, which brings the profit to about 10 or 15 per cent. But this is not all. The cattle feeder receives the notes of the bank, which are paid to the grazier, who pays them out for cattle through the entire Western States. In this manner the circulation of the bank is kept out. These transactions are as commercial and safe as they can be possibly made; for they are all based on the actual sales of cattle in the Atlantic cities. I suspect the sales of cattle in the counties of Ross, Pickeway. Franklin, Madison, and Fayette, amount to near a million of dollars, and which, therefore, supply that amount of bills of exchange."

Apples, as an Article of Human Food.—The importance of apples, as food, has not hitherto been sufficiently estimated in this country nor understood. Besides contributing a large proportion of sugar, mucilage, and other nutritive matter, in the form of food, they contain such a fine combination of vegetable acids, extractive substances, and aromatic principles, with the nutritive matter, as to act powerfully in the capacity of refrigerants, tonics, and antiseptics; and when freely used at the season of ripeness, by rural laborers and others, they "prevent debility, strengthens digestion, correct the putrefactive tendencies of nitrogenous food, avert scurvey, and probably maintain and strengthen the powers of productive labor.

The operators of Cornwall, in England, consider ripe apples nearly as nourishing as bread, and more so than potatoes. In the year 1801, a year of scarcity, apples, instead of being converted into cider, were sold to the poor, and the laborers asserted that they could stand their work on baked apples, without meat; whereas, a potato diet required either meat or fish.

The French and Germans use apples extensively; indeed, it is rare that they sit down, in the rural districts, without them in some shape or other, even at the best tables. The laborers and mechanics depend on them to a very great extent, as an article of food, and frequently dine on sliced apples and bread. Stewed with rice, red cabbage, carrots, or by themselves, with a little sugar and milk, they make both a pleasant and nutritious diet.—*American Agriculturist.*

Gas Tar.—This substance is probably one of the best, if not the best paints in use. It is also very cheap, about $3,00 per barrel—and comes readily mixed and of proper consistence to be spread on with the brush without further trouble.

We have used it for the last four years, and although its color, jet black, is against it for buildings, yet upon plows, wagons, and farm implements generally, as a preservative, it has no rival. Three coats should be put on, and it should not be put upon wood that is not thoroughly seasoned. It is used by the government very extensively in the ordinance department.

For roofs we should prefer it to the much praised fire-proof paint, as being not only a great deal cheaper, but equally safe. For that purpose, two coats should be put on cold,

and the third hot, and sanded. By that means a roof as durable as metal can be made, and at a very slight expense beyond labor.

When shingles are scarce, a superior roof may be made with canvass, by applying this tar in the way recommended. There are roofs in Philadelphia, which were covered with canvass, coated with gas tar, that have stood fifteen years without any repair, and are now perfectly sound and good.

A year or two ago we made some experiments with the tar upon insects. We found it sure and certain death in all instances.—There were some ant-hills near the apple trees, which were rather annoying. Upon these hilts we poured a gill or so of the tar, and the third day they had all disappeared, having abandoned their location.—*Wool Gr.*

## Very Important to Farmers.

Turnips may be liberally fed to milch cows without imparting any unpleasant flavor to the milk or butter, by the following process: Place the whole turnips into a steam box, with chopped hay, straw, or corn fodder, and steam until they are soft. There should be some aperatures in the top of the box, in order that the steam may escape whilst they are cooking. As soon as they are soft the "escapes" should be closed, and the steaming process continued until the material with which they are steamed is perfectly saturated with water and the flavor of the turnips.

By this process, all the strong, unpleasant flavor of turnip is removed and a palatable one imparted. In connection with this experiment, I made the following invaluable one in testing the comparative value of cold and warm food, and drink for milch cows. The experiment was conducted thus: a herd of nine cows in a stable were fed with food, prepared as above, and allowed to cool before it was fed. The cows were turned out into the yard to drink cold water, where they remained some two or three hours, morning and evening, in the cold air (the weather being very cold.) The food was given in the stablees, and the cows remained in all night. The milk was carefully measured for one week, and the amount of feed given, noted. The succeeding week the same amount of feed, prepared in the same manner, was given warm, the stable temperature was kept above freezing, and the chill taken off the water, the cows being constantly kept in the stables and the water carried to them. The result was, that there was an average gain or increase, in the amount of milk secreted, of about one pint per diem, for each cow, or nine pints, at five cents per quart, or two and a half cents per day. This will leave a net profit, in favor of the warm stable, food, and drink, of about thirteen cents per day of the nine cows, or about $4 per month, which is the usual wages paid a common laborer in winter, in this region. Besides the above advantage, the cows were much more comfortable, and the labor of turning them out into the yard and putting them up again, was more than that of carrying the water to them, as they required but little, being fed with moist steamed food, about one third of which was turnips.

I have also fed my swine with warm swill during the past winter, in which I have found a decided advantage.—*Amer. Agri'st.*

ANOTHER WHITEWASH.—The Editor of the *Horticulturist*, in answer to the queries of a correspondent, gives the following receipt for a whitewash: We have published a good many receipts for this purpose, but believe we have never published one exactly like this. He recommends it as most excellent, as a cheap and durable wash for wooden fences and buildings. He thinks it owes its durability to the white vitriol which it contains.

Take a barrel and slake a bushel of freshly burned lime in it, by covering the lime with boiling water. After it is slaked, add cold water enough to bring it to the consistency of good whitewash. Then dissolve in water, and add one pound of white vitriol (sulphate of zinc) and one quart of fine salt. To give this wash a cream color, add one half a pound of yellow ochre, in powder. To give it a *fawn* color, add one fourth of a pound of Indian red. To make a handsome gray stone color, add one half a pound of French blue, and one fourth pound of Indian red; a drab will be made by adding one half a pound of burnt Sienna, and one fourth pound of Venetian red. For brick or stone, instead of one bushel of lime, use half bushel of lime and half bushof hydraulic cement.

These washes are very useful in preserving buildings, fences, &c., to which they are applied, and although it may be renewed much oftener than oil paints, they give a very neat appearance to farms where they are applied to the buildings, gates, &c. As their cost is trifling, it is strange that they are not used more often than they are.

At the annual Scientific Convention, just held at Harvard University, Cambridge, Mass., a communication was received from our fellow-townsman, I. A. LAPHAM, a man of much research, and possessing a rich fund of knowledge, in regard to natural science —of which the following notice is given in the Rochester (N. Y.) *Democrat.*

MEDICAL GEOLOGY.—A brief communication with this curious title was presented in the Geological section of the Convention this morning by Dr. Jackson, from the author, I. A. Lapham, Esq., of Milwaukee. The subject has previously been brought before the public by Dr. J. and is undoubtedly of much importance. Mr. Lapham observes that the suggestion of Dr. Jackson that there is a greater amount of Cholera in *limestone* districts than in those based on granite and other primary rocks, has received melancholy proof and confirmation at Sandusky City, Ohio. There are in that region places where the rocks are entirely bare of soil or drift of any kind, for a considerable distance. They appear to have been points over which the currents of the ancient ocean swept with considerable force; and upon which, consequently, no loose materials, as clay, sand, gravel, or boulders, deposited. Several such places are to be found in the region of the upper Lakes. Sandusky City is one of them.

The Corniferous Limestone rock here forms the surface of the ground upon which the city is built. There is not soil enough upon it to support shade-trees on the streets and public ground. Cases, indeed, have been known, where the inhabitants have been compelled to send into the interior for earth with which to make a flower-garden. As will be recollected, the Cholera commenced here suddenly, and with great severity, on the 24th of July—thirty-six cases occuring on that day. A great panic immediately prevailed, and a large proportion of the inhabitants fled, and business was almost entirely suspended. From that time till the early part of the present month, the disease continued with but slight abatement, the number of interment varying from twelve to thirty-three daily; in a population of only about 2,500—or about equal to six thousand interments per day in New York.

Mr. Lapham was hence induced, in view of the great importance of this new branch of medico-geological inquiry, to forward his communication to the Association, in the hope that the attention of men of Science may be drawn to the subject.

BEAUTIFUL EXTRACT.—Labor! Why man of idleness, labor rocked you in the cradle, and has nourished your pampered life; without it, the woven silks or wool upon your back would be in the silk-worm's nest, and the fleeces in the shepherd's fold. For the meanest thing that ministers to human want, save the air of heaven, man is indebted to toil; and even the air, by God's wise ordination, is breathed with labor. It is only the drones who toil not, who infest the hive of activity like masses of corruption and decay. The lords of the earth are the working men, who can build or cast down at their will, and who retort the sneer of the "soft-handed," by pointing to their trophies, wherever art, science, civilization, and humanity are known. Work on, man of toil! Thy royalty is yet to be acknowledged as labor rises onward to the highest throne of power. Work on, and in the language of a poet, be

"A glorious man! and thy renown shall be
Borne by the wind and waters through all time;
While there's a knell to carve it on the sea
From clime to clime,
Or GOD ordains that idleness is a crime!"

## The Farmer's Boy.

I should like to guide a plow,
Cut a furrow clean and straight;
Run a-field and fetch the cow;
Eat my luncheon on a gate.

Drive the team a-down the lane,
Happy as I trudge along;
Shout the rooks from off the grain;
Whistle back the blackbird's song.

Would I mind the frost or snow?
Not a bit if warmly clad;
Would I loiter as I go,
Like an idle, louty lad?

No; I'd rise with early morn,
Busy on throughout the day;
Idle hands but pluck a thorn,—
Honest work's as good as play.

When I lay me down at night,
Oh, how soundly shall I sleep;
Whether it is dark or light,
Safely me my God will keep;—

Keep me if I seek his love,
Rest upon his promised aid;
While I trust in One above,
If I rest or if I rove,
What shall make my heart afraid?

From the Ohio Cultivator.

## How to Raise Peaches in Wisconsin.

The peach is said to be capable of being innoculated into any stock which produces a fruit with a shell or pit. For instance it will grow upon the black-walnut or butternut, or any other stock that bears the like fruit.

It is well known that the black-walnut puts forth its leaves and blossoms late, and therefore is less likely to be injured by early frosts. This is supposed to be, because the black-walnut is backward in producing sap, so that the young shoots are not in a condition to be injured until the warm weather has become permanently settled. And, therefore, after it commences its annual growth, there is no cold to injure it. It is also a theory with orchardists, that, if the peach can be kept back, so that the roots will not supply the trunk and branches, until the cold nights are over, there is no danger of its being killed down and the fruit destroyed.—Now if the peach will flourish upon the black-walnut stock, nature will perform what is difficult to be brought about by art, for the roots of the black-walnut will not supply the trunk and branches of the peach which is innoculated upon it, till the season is so far advanced as to render it secure from injury by the cold and frost.

I am informed the experiment has been successfully made, that the fruit is found to be as fair and the tree as thrifty as are the natural stock. The only material difference that can be observed is the fruit ripens a little later. But all danger of the tree or fruit failing is entirely prevented. The process is, take the black-walnuts and plant them in the fall in drills, the second year at the proper time innoculate the young shoots as you would do in any other case, and you will have a thrifty, hardy tree. If this is so, it is well worth knowing, and it is hoped that those who are fond of cultivating fruit will make the experiment. M. B. B.

### AGRICULTURAL SCIENCES IN COLLEGES.

We notice, with no little pleasure, the gradual, but certain advancement which the practical sciences are making in our time-honored seats of learning. Yale College, at New Haven, has already an endowed and thoroughly-established professorship, which is ably filled by Frof. J. P. Norton. Amherst College, in Massachusetts, has a practical farmer and geologist in its accomplished President Hitchcock; and it has a regular course of lectures annually on agricultural chemistry, by Prof. Shepherd. Other respectable institutions are following in the same commendable track.

We are happy to and that the Trustees and Faculty of Union College, in Schenectady, N. Y., under its zealous and enlightened President, Rev. Dr. Nott, has taken the initiatory steps by the adoption of the following resolution:—"Such a change is contemplated in the course of studies in Union College as to comprehend the more useful applications of science to the arts, such as civil and mechanical engineering, agriculture, agricultural and manufacturing chemistry, &c., and also French and other modern languages. Most of these subjects have heretofore been taught to a greater or less extent, but such a change in the statutes is now contemplated, as to allow applicants the privilege of pursuing such branches of study, and *such only*, as they may desire to pursue; and to give to each student such a diploma as will express his actual attainments.

"The scheme embraces a professorship of moral philosophy and rhetoric; of ancient languages and literature; of mathematics, pure and applied; of natural philosophy, practical and theoretical; of natural history and chemistry; of French and other modern languages and literature; of agricultural chemistry, and chemistry applied to the arts; of civil, topographical and mechanical engineering; of ancient and modern history; of law and civil polity; and of anatomy and physiology."

If our agricultural journals have contributed to the advancement of these movements, as we fully believe they have done, they have fulfilled one great object of their existence. Public opinion is pushing forward these institutions to similar conclusions throughout the country; and we trust it will not be satisfied till we have elaborate professorships, ably filled and amply endowed, and connected with experimental farms throughout every leading state in the Union. *New England Farmer.*

WORKING WOMEN.—Women, so amiable in themselves, are never so amiable as when they are useful; and for beauty, though men may fall in love with girls at play, there is nothing to make them stand to their love like seeing them at work.—*Cobbet.*

He who knows himself best esteems himself least.

## Spirit of the Agricultural Press.

Peach Trees.—Mr. Hoffner, a distinguished horticulturist of this country, was informed during a recent visit to Lexington, Ky., by some of the horticulturists of that city, that they had found an effectural preventive of the peach worm. It consists of the simple application of horse stable manure, in progress of decomposition, to the roots of trees, in spring and fall seasons—the earth to be dug away to the depth of about three inches, and the manure to be about six inches above the surface. This has been tested by J. O. Harrison, M. E. Johnson, Esqrs., and others, sufficiently to remove all doubts of its efficacy.—*Cin. Times.*

Transplanting Trees.—As the Fall season for transplanting shade trees is near at hand, some hints in relation to the subject may not be inappropriate. It has generally been supposed that it was necessary to transplant small trees in order to insure their growing. But the Utica Gazette states that an experiment was made last winter by Messrs. T. Pomeroy, Jr., and W. H. Dutton, of that city, in transplanting large shade trees to decorate their residences, which has proved so successful as to deserve "making a note of" for the benefit of persons of taste elsewhere. The trees, comprising maples, elms, beach &c., were some thirty feet in height, and were transplanted without being shorn of any of their branches. The process of removal was as follows:—In the Fall, before the Frost, a trench was dug around the trees selected, from ten to fifteen feet in diameter, and the roots severed. In the winter, when the ground had become solid from freezing, the trees were pulled up by the aid of oxen and levers, with the mass of earth firmly attached to the roots. They were then transported erect on a long sled, built for the purpose, and set out. They put out their foliage last spring, as if wholly unconscious that they were not still in their native soil, and the enterprising gentlemen who took this unusual course, are rewarded with shade trees which by the old practice it would have taken twenty years to produce. If larger trees are desired, they can be transplanted in this mode of any size, with the certainty of a similar result. We have seen the experiment made at the east with entire success, with trees eighteen inches in diameter, Whole parks are so filled with majestic forest trees in England.—*Buffalo Express.*

Instinct of Plants.—Hoare, in his treatise on the vine, gives a striking exemplification of the instinct of plants. A bone was placed in the strong, ry clay of a vine border. The vine sent out a leading, or tap root, directly through the clay to the bone. In its passage through the clay the main root threw out fibres, but when it reached the bone it entirely covered it by degrees with the most delicate and minute fibres, like lace, each one sucking at a pore in the bone: like a litter of pigs at their dam as she lies down on the sunny side of the farmyard. On this luscious morsel of a marrow bone would the vine continue to feed as long as any nutriment remained to be extracted. What wonderful analogies there are running through the various forms of animal and vegetable creation, to stimulate curiosity, to gratify research, and finally, to lead our contemplations from nature, in a feeling of reverence, "up to nature's God."

As to the vine spoken of by Hoare, it is worthy of remark, that the root went no further than the bone.

How to feed Salt to Bees.—After you make cheese, take the whey, and mix it with bran thick enough to allow the bees to stand on it without clotting their wings; place it in a trough or board six or eight rods from the hive; or take an empty salt barrel, and put into it a bushel of bran or two, pour in sour milk or water, make it firm enough so as the bees will not drown. From this they will extract the salt which will ooze from the barrel. As they empty the barrel of its liquid, renew it again. This will be of great service in dry weather to the bees.—*Michigan Farmer.*

Monster Apple-Trees.—There is an apple-tree on the estate of Joseph Briggs, on Federal Hill, in the town of Dedham, supposed to be a hundred years old, which measures thirteen feet and a half in circumference, one foot from the ground. Its branches cover an area of about sixty feet in diameter.—This tree is second only to that in Duxbury, which is sixteen feet in circumference a foot or two above the surface of the ground, is over one hundred years old, and bore in one year fruit which made ten barrels of cider, in addition to thirty barrels of apples put in the cellar.—*Boston Traveller.*

To Cure a Stifled Horse.—J. B. Goddard, of Norwich, Connecticut, writes to the American Agriculturist, as follows:—

Take one gallon of urine, and put therein a small handful of junk tobacco; boil down to one quart; then add two ounces of oil of spike, one ounce of oil of amber, two spoonfuls of spirits of turpentine, and two spoonfuls of honey. Put it into a jug, and cork it tight for use. Process of application: Rub the stifle-bone hard with the mixture fifteen or 20 minutes; then dry it in thoroughly with a red-hot fire shovel; then ride the horse forth and back one hundred yards Repeat the above two or three times, and the cure will be effected.

How to Plant Chesnuts.—*Good advice to our Farmers.*—The plan of raising the chesnuts is this: the nuts must not be suffered to become stock dry. Plant them in the spring of the year. The first winter protect them from the froist, or they are apt to be killed by the freezing. The next spring transplant in the following manner:—Select a dry soil, dig a hole eighteen inches deep, three feet wide; fill it up with small loose stones and clay to within six inches of the surface, set your tree on that; take care of it, and it will grow well, and in four years bear nuts. The chesnut should be more attended to than it is—it is valuable food, and very nourishing. In Italy the chesnuts grow to the size of small apples, and are used as food by the peasantry.—*Scientific American.*

Mildew on Goosberries.—To keep off mildew train your bushes so as to admit a free circulation of air through them; manure about the roots; and forget not to sprinkle them freely with soap-suds before blossoming. This is known by several year's experience.

He who trespasses on the kindly disposition of the soil to produce crops without making adequate returns to it, is soon brought to judgment.

Some descentant of Solomon has wisely remarked, that those who go to law for damages are sure to get them.

# EDITOR'S TABLE.

We hereby acknowledge the receipt from several friends, of some very fine specimens of Wisconein fruit—peaches and apples. In our next No. we intend presenting *cuts* of them, together with some remarks. We thank our friends for this remembrance of us, and their just appreciation of our *taste*.

WHITE FLINT WHEAT.—This fine grain is rapidly coming into favor among our farmers, and is, we believe, deserving of the place they are giving it. It is hardy, comes forward early, is less liable to rust than other varieties, and yields abundantly. It has a fine, plump, white berry, and weighs ordinarily sixty-five pounds to the bushel. Of course it will bring the very highest price in market. Our Agricultural brethren, from their past two years experience, will see the importance of securing other and better varieties than those now cultivated generally throughout the State.

AGRICULTURAL SOCIETIES.—The time has now come when some movement should be made with reference to the organization of County or auxilliary Agricultural Societies. Let not so important a matter be neglected any longer; but let meetings soon be called in every county, and steps taken to effect an organization. Where shall the good work be first commenced?

AN AGRICULTURAL DEPARTMENT IN OUR STATE UNIVERSITY.—We trust that measures will be taken to bring this subject, which we deem of very great importance, before our next Legislature. That it will be looked upon favorably we cannot doubt; and when properly presented cannot fail to elicit the requisite action for securing an object so desirable.

THE HAWTHORN.—We learn from our friend "*Young John Bull*," who resides only a few miles from this city, that he has ordered ten bushels of English Hawthorn berries from his native country, England. That this species of thorn will answer a good purpose here, we have no doubt. He means at least to give it a trial, along with the hawthorn found here, the Osage Orage, etc. Others of our farmers would do well to imitate his example, and thus secure to themselves, at comparatively small cost, permanent living fences.

☞ From a recent personal interview with Mr. DRURY, of Fond du Lac, we learned that his promised Journal of a Tour Through Northern Wisconsin, will be sent us in season for our next No. We anticipate much pleasure for ourselves and readers from its perusal.

N. Y. STATE AGRICULTURAL FAIR.—This annual gathering or festival of farmers, is said to have been most magnificent, grand, and interesting, because of its arrangements, its displays, its fetes, and its immense assemblage. Together with fat oxen, improved Merinos and Saxons, and most approved breeds of swine. There were *lions* there—though they were not on the list of animals. HENRY CLAY, HORACE GREELY, GEN. WORTH, MRS. BUTLER, TOM HYER, etc., were present, and attracted general notice and attention—Horace, in particular, is said to have been as unique and original as ever. The Annual Address was delivered by Prof. JOHNSTONE, of England, and is highly spoken of. A summary of the proceedings and a synopsis of the Address will be given in our next number.

FOND DU LAC COUNTY AHEAD.—We have just learned that an Auxilliary Agricultural Society, is about to be formed in Fond du Lac County. Of course they have the material to do it with. We had hoped all along that Racine would be the first to move, but we are doomed to be disappointed.—Shall we not be the first to follow suit?

SALE OF SHEEP.—Mr. C. M. GOODSELL, of Geneva, Walworth Co., who is well known as having been somewhat extensively engaged in the improvement and growing of sheep, (a portrait of one of which appeared in the March No. of the Farmer,) has sold his flock of sheep to J. & R. STEWART, of Hebron, McHenry Co., Ill. We learn the Messrs. Stewarts are extensively engaged in the raising of sheep.

Mr. Goodsell's flock at the last shearing averaged 4¾ lbs. per head; full bloods 5½ lbs. Several ¼ and ⅜ blood yearling bucks sheared from 6 to 7 lbs. each, of wool worth 28 cents per pound.

WHITE FLINT WHEAT.—We learn from Walworth Co., that this kind of winter wheat sown early last fall, say, by the 10th Sept., escaped almost entirely the rust and insect, which have proved so destructive to the wheat crop generally the past season. A large quantity of the *White Flint Wheat* has been raised the past season in Walworth County, in and about Geneva, also some in Rock County.

A NEW KIND OF SPRING WHEAT.—Picking up a Sheboygan paper at Jonesville, we noticed an account of a new kind of spring wheat, which has been introduced into that neighborhood. The heads are represented as very large, and the kernel as one third larger than the kernels of ordinary wheat; and the straw, instead of being a hollow tube, is filled with pith. The individual who introduced it there, procured it from a man in the State of New York, who extracted the seed from the crop of a wild goose.—*Mich. Farmer.*

WISCONSIN WHEAT.—The Grant County *Herald* (Lancaster,) of the 4th, tells of 97 heads of bald wheat, all grown from *one kernel*—the heads averaging more than five inches, each well filled.

We have received a communication from Mr. PALMER GARDNER, of Burlington, with a drawing of his double furrowed Plow. The sketch is rather too imperfect to engrave from. Please send us a model, or the plow itself.

A WISCONSIN STAPLE.—We received from the hand of our friend Elmore, a beautiful sample of Wisconsin flax, raised by William M. Frazier, Esq., of Mukwanago, Waukesha Co. It will measure full three feet in length after it has been dressed—is of fine fibre, strong, white and silky. Mr. F. has raised flax in Scotland and Germany, and he says he never saw any superior to this. It is his intention to go into the manufacture of linen extensively.—*Wisconsin Democrat.*

☞ The article which we publish this week, No. 2 of the History of Wisconsin, is from the "*Old Oaken Bucket*," whose editor we hope, will continue the publication.

Would it not be well for each editor to collect and publish what information he can concerning the history of his county, which can now be gathered up, but which will in a short time be lost. This, if it can be published, may be preserved by our State Historical Society, and sometime be valuable in compiling a history of our State.—*Fond du Lac Journal.*

We would inform our friend of the *Journal* that the article No. 2, referred to above, is an extract from a History of Wisconsin, now in course of preparation by A. CONSTANTINE BARRY, of this City, and which we propose to publish early in January next in connection with a State Register; the material for which we have been engaged in collecting, compiling, &c., for some months past. We have spared no pains in collecting information, both historical and statistical, from every known reliable source. There are many facts and incidents connected with the settlement, growth, &c., of our State of which no record has been made, and which form a material part of its history, will soon pass away with those in whose memories they are now retained, unless gathered up and preserved in some form; information which is not only now important to be known, but which will be more valued and valuable in after years.

Any information that our editorial brethren can collect, will be most thankfully received.

ACKNOWLEDGEMENTS.—We have received several communications, also samples of Peaches, Pears, and Apples, but too late for notice in the present No. of the Farmer.

Engravings illustrating Whiting's Corn and Cob Mill, noticed in the Sept. No. of the Farmer, will appear in the Nov. No., with a more full description.

COAL IN DANE COUNTY.—A specimen of coal, resembling in appearance the softer kinds of anthracite, has just been left on our table by Mr. D. M. Swift, from Dane County. It was dug from a hill-side on the farm of Mr. Frier, of Deerfield, and appearances indicate a large quantity. It has been tried by blacksmiths and others, and found to burn extremely well. This may prove a matter of much importance. The specimen may be seen at our office.—*Wisconsin.*

The Green Bay *Advocate* says:—

"Appleton is the name of a new place just laid out near the Grand Chute, on Fox River, about 25 miles above this place—the seat of the proposed Lawrence Institute. Besides the operations connected with the building of the Institute—already begun—preparations are making for the building of a hotel, a store, and other places of business."

The following new Post Offices have recently been established in this State:

| | | |
|---|---|---|
| Baker's Corners, | Walworth | County. |
| Fayette, | Lafayette | do |
| Willet, | Green | do |
| Elk, | Crawford | do |
| Kewaukam, | Washington | do |

Rathburn, on the Waupon Road, Rev. J. E. Rathburn, P. M.

Beverly, Dane Co., name of P. M. not known to us.

Cedar Grove, Sheboygan Co., J Burr, P. M.

Ellenboro, John H. Barret, P. M.

Menton, Sheboygan Co., John D. Parrish, P. M.

☞ A Steamboat is now in process of construction at Neenah, Wis., to navigate Lake Winnebago.

## Patent Office Circular.

A Circular has been issued from the Patent Office by Commissioner EWBANK, addressed to leading and prominent Agriculturists in different parts of the country. The object sought will be better explained by the following from the Circular itself. We trust our Wisconsin farmers will not be backward in responding to the call:—

"The Commissioner of Patents, in execution of acts of Congress, desires to procure information from Planters, Farmers, and others, on the following, and any other, points that may occur to you connected with Agriculture.

WHEAT.—Your experience as to varieties—difference in weight, and of time in ripening—their enemies and diseases—soil and manures best adapted to.

OATS.—What varieties have you tried, and with what results, particularly as to time of ripening—what their estimated value as compared with corn as food—is the cultivation of the oat becoming more or less popular, and for what reason?

RYE.—Have you knowledge of any new and valuable variety—to what uses is it applied—have crops diminished of late years, without any apparently corresponding diminution in the fertility of the soil, and to what influence is it supposed to be attributable?

BARLEY.—Have any new varieties been tried, and with what results—to what uses is this grain applied in your State—if not cultivated, is it forbidden by your soil and climate?

MAIZE; (INDIAN CORN).—What varieties most esteemed, and for what reasons—what the difference in time of ripening—is it liable to change of character and qualities according to soil and climate, and other influences, and your observations on that point—give the estimated value of the shuck as compared with the blade, and of both as compared with good hay, weight for weight—what is the value of green corn for soiling cattle, and especially for producing milk—your experience as to feeding grain, whole or ground, cooked or raw.

RICE.—Variety cultivated—describe any new and valuable process for its cultivation or preparation for market.

(NOTE:)—As to all these grains, please state the cost of production and usual weight, and the probable *average per acre*, and actual *aggregate product*, if known, of each in your State—whether the average product per acre has increased or diminished—whether the weight per bushel of the various grains is fixed by law in your State, and what weight is prescribed for each.

HAY.—State the comparative value as food for stock, of clover, timothy, and mixed hay—the grass seeds preferred in laying down meadows—the average yield per acre: describe any new process in curing—have meadows been irrigated in your State, and with what effect?

PEAS.—For what purposes cultivated in your State—for food, or for improving the soil—estimated value as food for stock compared with Indian corn—the most esteemed variety for field culture—average product per acre—value of haulm or vines compared with other fodder—average price per bushel in the last year.

ROOT CROPS.—Irish and sweet potatoe, turnips, carrots, beets, mangold wurtzel, artichoke, and other varieties—comparative value—cost of production—weight per bushel—and the average per acre, and aggregate product for your State.

COTTON.—Average yield per acre and per hand in your State—aggregate yield of the whole State for 1849—describe new varieties and processes of cultivation—manures best adapted to—cost, per pound or bale, of production—freight, charges, commissions, &c., paid by the planter.

SUGAR.—Whether of cane or maple—the product per acre—describe any new process of cultivation or manufacture—variety of cane cultivated—its enemies and diseases—cost of making sugar—freight, charges, commissions, &c., paid by the planter.

HEMP.—On this head give any information that you may deem valuable and new, as to varieties, processes of cultivation, and preparation for market—soil and manures best adapted to—cost of production.

BUTTER, (DAIRY HUSBANDRY.)—Quantity made in your State—average annual produce per cow—are cellars or spring houses preferred?

CHEESE.—Same questions.

HORSES AND MULES, (CATTLE.)—Number raised in your State—average value of each—comparative value for farming purposes—where is your market for them?

HORNED CATTLE.—Number in your State—average valur of, at 3 years old—where driven to market—cost of keep pee head per year—which of improved races is preferred?

SHEEP HUSBANDRY.—What the prevailing races—what the condition of this branch of industry—amount of wool clipped in the year, and average weight of fleeces of different races—cost of keeping sheep through the year per head—where your markets—what your system of selling—have you wool depots, and are they found advantageous for wool grower and manufacturer—what number killed by dogs in your State?

HOGS.—Average weight at a given age—average weight consumed per head—proportion of live to nett weight, and cost of production per pound.

RAIN.—Time and degree of highest and lowest range of thermometer, and the mean temperature of the year; also inches of rain water in each month, and aggregate for the year.

LABOR.—Cost of, with and without boarding, and cost of boarding.

TAR AND TURPENTINE.—Quantity and value of, produced per hand.

PLASTER, and other fertilizers.

LIME.—If used as an improver in your State, how much is thought to be best per acre, and how often applied?

ORCHARDS, FRUIT, TRANSPLANTING OF TREES, &C.—Information on these and kindred matters, will be of universal interest.

ON THE CULTIVALION OF THE VINE.—On grapes, and American wines, communications are particularly solicited.

P. S.—Please answer as soon as convenient after you procure the information, and, in the mean time, please name any one to whom this circular may be sent in the hope of fuller information. If not room on the circular, please reply on a separate paper, referring distinctly to the queries.

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

VOL. 1. RACINE, WIS., NOV. 1, 1849. NO. 11.

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For the Wisconsin Farmer

## A Word about Peach Trees.

MR. EDITOR:—I have been much amused and instructed (?) by an article in your "Farmer" for October, headed, "How to Raise Peaches in Wisconsin." The writer of that article premises that the peach may be grown upon any stock which produces a fruit with a "shell or pit." "For instance, the black walnut or butternut"! This is certainly the very latest discovery! The peach thriving upon the black walnut! What wonder in pomology shall we hear of next? Did not your Correspondent state that he had been *informed*, that the experiment had actually been successfully made, I, for one, should have great misgivings as to its practicability. If the strength of his proposition rested upon his introductory, "*is said*," and the experiment had *not* been successfully made, (?) what person of any experience in horticultural matters, would view the subject but as idle chimera? To effect a durable union between two trees, a close affinity must exist between them; and this affinity is not, of necessity, implied by the production of a fruit of a similar appearance;—and, moreover, two fruits can scarcely be mentioned which resemble each other *less* than the peach stone and walnut.—Now, the peach, contrary to the premises of "M. B. B.," will *not* succeed upon *any* tree which produces a fruit with a shell or pit—not even will it upon the cherry, a tree apparently much nearer allied to it than is the black walnut. Even the wild and the cultivated cherry, two trees which would seem to be closely allied, will not amalgamate for any length of time.—I have engrafted the cultivated cherry into the wild, and have known it to be done by others, but after one season's growth of the scion it seldom fails to die. This may not seem exactly relevant to the case: I mention it to show that the supposition is erroneous, that a fruit with a 'shell or pit' will necessarily succeed upon any *other tree* bearing a similar fruit. Now, as your correspondent has tried no such experiment himself, and advises in the matter, only from what he has *been told*, I cannot but fear, from the improbability of the subject, that he may himself have been the subject of a hoax. He advises those who are fond of cultivating fruit, to make the experiment. I, as one of that portion of the community, would express my thanks for the invitation, although I am not fond of two or three years of experimental labor, where I have no faith in the result. Will "M. B. B." give us the name of the successful experimenter, or will he tell us where, if at all, such trees may be *seen growing?*—This kind of testimony will be conclusive and to the point—and if he can produce such, and only if he can, he is warranted in advising such experiments. I will give "M. B. B." directions, the value of which have been tested, "how to raise Peaches in Wisconsin."

Cultivate your trees upon a natural foundation, and plant them *on grounds sloping to the N. or N. W.* I have an orchard with such an aspect which did not lose a bud last winter, undoubtedly as disastrous a winter for the peach tree as we shall ever experience in Wisconsin. If "M. B. B.," or any other person, is desirous to have a more hardy foundation for the peach than its own roots afford, they need look no further than to the wild plum, which grows so abundantly in the woods and openings throughout the State.

The union in this case is perfect—the peach is rendered very hardy—and the only objection

to this practice is the dwarfish habit which it gives the tree. Will "M. B. B." oblige me by an answer to my queries?

ANDREA.

DELAFIELD, WIS., *Oct.* 20, 1849.

### The Nutritive Value of Corn Cobs.

It is well known that the manure of an animal varies in quality with the food which it eats; and that generally manure is richer in nitrogen bodies, and less rich in non-nitrogenized matter than the food consumed. Probably a greater proportion of 100 pounds of nitrogen bodies would be assimilated by the system, if it were mixed with 500 pounds of non-nitrogenized matter, and still more if mixed with 1000 pounds, than if taken into the system undiluted or alone. It should be borne in mind that it is as essential for food to contain bodies destitute of nitrogen, (such as starch, sugar, oil, &c.,) or those which go to support animal heat and respiration in the body, as it is for it to have nitrogen compounds to nourish or supply the waste of the living tissues. Hence, food suited best to sustain animal life, is that which is made up of these two classes of bodies, mixed in the proper proportion. And a deficiency in the one is equally as deleterious to the healthy existence of the animal as a deficiency in the other; therefore we can hardly say that one of these classes is in reality more essential to the maintenance of life than the other. They both seem to perform equally important offices. If this view be taken the cob cannot be regarded as deficient in those bodies which contribute to support respiration and nutrition.

The table below shows about the amount of the several proximate organic bodies thrown away in rejecting the cob, calculated from the analysis of the small white flint variety. 1000 pounds of ears contain not far from 200 pounds of cob and 800 pounds of grain. These contain the following bodies in the following proportions, expressed in pounds and decimals of a pound:

| | 200 lbs. *Cobs.* | 800 lbs. *Grain.* | 1000 lbs. *Ears.* |
|---|---|---|---|
| Sugar and extract, | 13.581 | 115.320 | 128.902 |
| Starch, | 0.003 | 487.384 | 487.387 |
| Fiber, | 127.687 | 7.712 | 135.390 |
| Oil, | | 39.824 | 3.9824 |
| Zein, | | 31.856 | 31.856 |
| Matter separated by potash from fibre, | 45.404 | 51.856 | 97.360 |
| Albumen, | 1.518 | 37.136 | 38.654 |
| Casein, | 0.288 | 0.688 | 0.976 |
| Dextrine or gum, | 2.310 | 28.224 | 30.534 |
| Resin, | 1.806 | | 1.806 |
| Glutinous matter, | 7.402 | | 7.402 |
| | 200 lbs. | 800 lbs. | 1000 lbs. |

In the above table, the inorganic matter is not separately considered, it being distributed among the several organic bodies. By rejecting the cobs of 1000 pounds of dry ears, about 200 pounds of organic matter is lost, which consists of 23½ pounds of sugar and extract, 227¼ pounds of fiber, 45½ pounds of matter separated from fiber by a weak solution of potash, 1½ pounds of albumen, 0.288 of a pound of casein, 2.31 pounds of gum dextrine, 1.8 pounds of resin, and 7.4 pounds of glutinous matter. Hence the cob, although not rich in nutritive matter, can by no means be said to be destitute of those proximate principles which go to support respiration and sustain animal heat, and those which are capable of being transformed into nerve, muscle, &c., and the phosphates which contribute so largely to the formation of bone.—*N. Y. State Transactions for* 1849.

### Oxen vs. Horses.

EDWARD STABLER, Esq., of Montgomery co., Maryland, writes to the editor of the *Plow, Loom and Anvil*, that in 1822 or '23 he commenced the substitution of oxen for horses on his farm. He began in mid-summer to break up a field for wheat. For a day or two the oxen suffered greatly with the heat, in the middle of the day, but by rising early, and resting two or three hours at noon, and feeding on dry food, he was able to plow nearly as much with a yoke of oxen as with a pair of horses, and the work was quite as well done. The horses consumed about one bushel of grain per day and the oxen none. He found the result, after a thorough trial, so much in favor of oxen, that he has ever since continued their use. For many years there was not a furrow plowed on his farm except by oxen. He observes that oxen, if properly broken, quite as readily, if not more so, take to and keep the furrow, as horses. His rule is to keep two yoke of oxen on the farm to one pair of horses. He well remarks, that "to judge of the capabilities of the ox, by the badly-used, houseless, over-tasked, and half-fed animals we sometimes see in the yoke, is doing him great injustice. Treat the horse in the same unfeeling manner, and where would be his high mettle and noble spirit? He would speedily arrive at a premature old age, valueless to his owner, and a cast-off to feed the carrion crows That the ox can better stand this harsh usage, is certainly no valid or sufficient reason that he should be subjected to it. Use him with equal care and humanity, and he will just as certainly, and with more profit, repay it to his owner."

RAISING ONIONS.—S. Williams, of Waterloo, N. Y., states in the Genesee Farmer, that the best way to obtain early onions, is to "plant the black seed after the summer drouths are over, take them up in November and put them in the cellar—and in April set them out in beds.—They will soon mature, and are much better than what are called top-onions. If you have a few small onions in the ground all winter, they will come forward very early in the spring, and may be eaten as a salad, tops and all."

WHO WILL IMPORT SOME HUNGARIAN CATTLE?—Flieschman, in his report to the Commissioner of Patents, in 1847, makes mention of a breed of large, stately cattle in Hungary, which, from his description, must be among cattle what the children of Anak formerly were among men.—Other writers have lately corroborated his statement. As Hungary is working out her independence against the combined despots of Europe, and as some of the Yankees may possibly be over there soon, or ought to be, sympathizing with her in a practical manner, we hope they will bring over some of these stately cattle.

"Among all the horned races of Europe," says he, "there are none which, with an equally colossal frame, approach so near the speed of the horse, as do the Hungarian oxen. It is a race of cattle, which, by dint of their high, stately growth, their long horns, (nearly six feet in length,) their proud and bold look, their broad breast, and handsome, white color, changing slightly to blue, and lastly the beautful proportion of all their limbs, may fairly be pronounced to be one of the most useful and handsome productions of generating nature."—*Maine Far.*

SUBSOIL PLOWING.—Ex-Governor HILL states in the *Visitor*, that he has found great benefit from subsoil plowing on the "driest plains" near Concord, N. H. He states that in a field of potatoes on these plains, the past season, he found the length of the potatoe vines a "sure index of the depth of the plowing."—Wherever the ground was cheated of the subsoil plow, upon a balk, or in the field, the vines were as much shorter, as the soil was stirred a less depth." He gives the result of an experiment in subsoiling made several years since. The ground was plowed with a surface plow, eight inches deep, and a subsoil plow run in each furrow eight inches deep. He left two strips, a yard wide, not subsoiled. He had taken six crops from the field—three of grass, one of oats, one of corn—and the inferiority of each crop on the portions not subsoiled was apparent, and could be seen at the distance of forty to fifty rods. The subsoiled part gave from two to three tons of hay to the acre.

IRON FOR APPLE TREES.—A correspondent of the *Albany Cultivator*, writing from Fredericksburg. Va., says, "A friend who has a large orchard of 'Rawle's Jannett apple,' has ten trees upon one corner of the orchard, which always produces fruit a third larger, and flavor so much superior, that it was supposed by all who saw and ate the apple, that they were a superior variety of the Jannett. This spring I examined the soil, and found that a vein of iron ore passed just under the ten trees, so near the surface that it had been ploughed and worked up with the top soil. A variety of the large Blue plum growing upon the same ground, is also very fine; while grafts taken from the same plum-trees, and worked upon stocks grown on different soil, prove worthless."—*Maine Farmer.*

IDENTITY OF GLANDERS IN MAN AND HORSE.—When the Eleventh Hussars were last quartered in Dublin, our surgeon, in conjunction with some of the most eminent medical men in that city, attended a policeman at one of the hospitals, who died of the glanders. The unfortunate man, it is supposed, took the infection from drinking out of a bucket which had been used by a glandered horse. Three days before this man died, a horse was purchased, and was inoculated with the matter from the man. The horse showed all the symptoms of acute glanders, of which he died. The man also died. Drawings were taken by an eminent artist of portions of the lungs of the man, and also of those of the horse, which showed the most perfect similarity in the tubercles.—Drawings were also made of the Schneiderian membrane of the man and the horse, showing the identity of the ulceration. The man was also shown as he lay dead, with the appearance of the pustules over the body; these pustules appeared to have a very marked difference from those in other diseases, having a white arcole instead of a red.

This case excited great attention at the time, and our surgeon was requested to attend at Chatham with the drawings, which were carefully copied and deposited in the Medical Museum.—*The London Veterinarian.*

A MOTHER'S VOICE.—The Editor of the Cincinnati Atlas concludes a notice of a visit to the Asylum for the Deaf and Dumb, at Columbus, Ohio, by relating the following:—

"Of one, an intelligent and modest young lady, who had become deaf from sickness when two years and a half old, we inquired whether she could recollect any thing of sounds or words. She answered that she could not. It occurred to us that there might have been at least one sound which might be remembered even from that tender age, and we ventured to inquire whether she had no recollection of her mother's voice. It will be long before we forget the sweet, peculiar smile which shone upon her features, as, by a quick inclination of her head, she answered, yes. What a world of thought and feeling clustered around such a fact! In all her memory there is but one sound, and that is her mother's voice. For years she has dwelt in a silence unbroken from without, but those gentle tones of love still linger in her heart.—There they can never die; and if her life should be prolonged to three score years and ten, o'er the long silent track of her life the memory of that voice will come, in loveliness and beauty, reviving the soul of weary old age with the fresh, lovely sounds of her cradle hours."

AMOUNT OF MINERAL MATTER ASSIMILATED BY VARIOS CROPS.—It is found, on analysis, that an acre of wheat, being an average crop, carries off with it no less than two hundred and ten pounds of inorganic elements, viz.: thirty pounds in the grain, and one hundred and eighty pounds in the straw—a striking proof of the importance of consuming the straw upon the land. Barley takes two hundred and thirteen pounds—fifty-three in the grain, and one hundred and sixty in the straw. Oats take three hundred and twenty-six pounds—thirty-two in the grain, thirty in the husks, fifty-four in the chaff, and two hundred in the straw. A crop of turnips, of twenty tons per acre, when removed off the land, carries off six hundred and fifty pounds of mineral matter. Potatoes, including the tops, take off five hundred and eighty pounds, the tops containing about four hundred pounds. Cabbage carries off nearly one thousand pounds.—*Huxtable.*

BEST FOOD FOR FOWLS AND PIGEONS.—Reaumur's experiments on food of poultry are well known. Fowls and pigeons are differently formed in the crop; the one, therefore, requires to be fed chiefly on grain and green food; the flesh of the other, too heating as a general diet, feeds on pulse. The most simple answer is, barley for fowls, and peas and beans for pigeons. But fowls require more variety, as pointed out in former numbers of this journal, and many little delicacies, occasionally oats or buckwheat mixed with the barley; also, in moulting time, a portion of wheat, malt and hemp seed. They should generally be fed three times a day, before sunset; the mid-day meal, sometimes, may be boiled potatoes, mashed up with a little dry barley meal, or rice, not overdone and boiled dry, to be given when cold, never hot. An onion, chopped fine and mixed with the above, is said to be good, or green chives. Two cocks, with eight hens each, will consume in this way, from a peck to a peck and a half of barley per week. A pigeon will consume from a pint to a quart per week; much depends upon town or country keep.—*Agricultural Gazette.*

PEAS.—After gathering, expose them to the mid-day sun, in October, for several days; the bugs will come out, and the crop raised the following year from the seed thus purified—unless the patch be too near those not thus prepared—will be full of bugs. I have tried it with success. Perhaps it would be best to sow none but seed two years old. I think a general practice of this kind would measurably extirpate the pea-bug.—*Valley Farmer.*

TABLE GRAPES AT CINCINNATI.—The report of the Hamilton County Agricultural Society in Ohio, states that not less than 500 bushels of Catawba and Isabella grapes were sold at Cincinnati during the past season, for "table use." The price was three to four dollars per bushel.

SEX OF EGGS.—It is stated by a correspondent in the London Agricultural Gazette, that it is already well known to every housewife in the north of Scotland, and acted upon by them with unerring success, that before they set the clucking hens. the eggs to be placed under them for incubation are carefully examined in the following manner: The eggs are, one by one poised in the fingers of the left hand, with the broad end uppermost, and in that position held close to the light of a candle, or before a bright sun; the little finger of the right hand is then placed behind the egg, near the top, faintly to shade the light When thus placed, and the egg turned gently around, (as a top would spin,) a hollow or vacuum, about half an inch in diameter, will be distinctly seen, inside the egg. Now, if this hollow be distinctly on the top, the egg will produce a cock; if on the side, it will produce a hen. If the egg has no such vacuum, or hollow, neither on the top nor side, (as is the case with all hens' eggs where no cock is kept to fecundate, or impregnate them,) no one in the secret would place any such under the hen, for incubation nor in the hope of its hatching.

RAISING FRUIT IN RUSSIA.—In the intensely cold climate of St. Petersburg, where nearly all our common fruit trees perish under ordinary circumstances, fine crops of apples, plums, and cherries have been obtained, by training the branches on a trellis only about a foot from the ground. The heavy snows entirely cover them, and completely protect them. Large crops of apples have thus been obtained for successive years, even after winters which have destroyed other trees when double matted. The Green Gage and Orleans plum have ripened before mid-autumn. Morello cherries have borne good crops. When the fruit ripens, it does not bruise in falling.

HESSIAN FLY AND GOOD WHEAT.—J. Oglesby, in the Pennsylvania Cultivator, states that he had a nine acre lot, from which he obtained 60 bushels of oats, the rest of the crop being briars, sumac, sassafras, Canada thistles, poke, elder, and nearly all other kinds of weeds.—When the oats were harvested, the bushes were grubbed, and the weeds cut with a scythe.—When perfectly dry, they were burned in a strong wind, as they lay over the ground. The nine acres then received 700 bushels of lime—the land was well plowed—and the next year it yielded 390 bushels of good wheat, untouched by the Hessian Fly, the fire having destroyed them.

PRESERVING APPLES.—It is asserted that plaster or gypsum, from its soft texture, and the compact, air-tight bed which it forms, is one of the best substances to envelope fruit for preserving. The saw-dust of the maple, which imparts no bad flavor, after being thoroughly dried by fire heat, has been found excellent for imbedding rare fruit, when kept in a dry cool place.

From the N. Y. American Agriculturist.

## N. Y. State Agricultural Society.

### NINTH ANNUAL SHOW AND FAIR.

This was held at Syracuse, on the 11th, 12th and 13th days of September. The ground occupied by the society was on an elevated point, overlooking the city and adjacent country, and about a mile northwardly from the central portion of it. The enclosure was ample for everything contained within it, but the inequalities of its surface made it somewhat inconvenient for many of the animals, and especially such of the horses as were required to exhibit their best paces. The same desirable arrangement of shade for the cattle was secured, as the year previous, at Buffalo, and which, we hope, will never hereafter be omitted. The necessity for it was never more urgent, for the whole week was one of unmitigated drought and scorching sun, almost unparalleled at this season of the year. It was from this cause, and the immense clouds of dust that enveloped every avenue, the ceaseless tide of visitors thronging every part of the place, equally without as within the enclosure, and the numberless animals and articles exhibited, each claiming its share of attention, that exposure, toil and weariness were intimately allied to the gratification which any intelligent visitor could not fail to receive.—The railroads, canals, and principal wagon roads leading to the place, were each loaded to repletion, and every train and vehicle was seriously incommoded by its fellow.

The crowd, inconvenience, and bustle necessary to these annual gatherings, is greatly augmented by the assemblage of every variety of gaudy show, or worthless vagabondism that the occasion will tolerate. As if it were not enough, that all the farmers of the state are solicited to bring their best specimens of animals, crops, &c., and examine the comparative merits of each, every other conceivable object calculated to attract attention, from president down to organ grinders were there, to swell the mob beyond all reasonable sufferance. We had regiments of tawdry militia, who might have been usefully employed in preserving order, instead of creating confusion; companies of holiday firemen, who could have made themselves useful, by allaying the dust rather than by exciting it; a circus drawing 10,000 spectators to its fooleries; Fanny Kemble, with her Lears and Macbeths; the most notorious pugilists, that were opportunely kicked out of town by the municipal authorities before the rowdies had secured the preponderance; and conjurors and mountebanks of every descending grade. General Taylor, by a merciful dispensation of Providence, and equally for his own as others comfort, was not there; for, instead of the 100,000 said to have been congregated there on a single day, we might have witnessed another 50,000 in addition. We had other great men there, however, and many more who yet hoped to be; and to cap the climax, we were honored with a convention made up of the file leaders and their assistants, from the converging wings of a great political party. Some future Bunyan can draw a more intensely-graphic picture of Vanity Fair, from actual reality, as here exhibited, than the most excited imagination has hitherto done.

Now, we put it to the good sense of the farmers of New York, whether they shall encourage, hereafter, by all reasonable means, or endeavor to repress the tendency to associate pell mell, this incongruous mass of utility and nonsense, things befitting the occasion, and things utterly subversive of it. We care not how large the concourse may be, of the sincere admirers of agricultural objects, nor what may be the inconvenience following from it.—All this we are willing to accept as the necessary part of the occasion. But we heartily deprecate the factitious influences brought into requisition by the publicans, the porters, and the purveyors of every sort, to stifle and suffocate the legitimate visitors on these occasions, by these spurious broods of auxiliaries, led thither for the purposes of notoriety and excitement by one party, and the hope of extortion and plunder by the other. These are faults of human nature, excessively aggravated by the energy of American character; and it is against the tendencies of these traits, that we would urge every possible precaution for the future.

The weather, as is common to the season of the year, was unclouded and dry. The excessive dust excited on these occasions within and near the show grounds, ought, hereafter, to be thoroughly saturated with watering carts.—This should be made a binding condition on the part of any town soliciting the presence of future shows, and one, we hope, the officers of the society will not fail to insist upon.

We noticed an economical arrangement for most of the necessary halls, offices, &c., for the accommodation of the various objects connected with the show. These have heretofore been almost exclusively constructed, at a large cost, of timber and boards; but in the present case they were amply provided for by immense awnings. These are more graceful than any hastily-erected wood structures are likely to be, as they can be closed or have free ventilation as required, and the annual cost can scarcely be one-tenth of the frame buildings.

HORSES.—There was a very large show of these, embracing quite a variety of different specimens of blood, road, and work horses, many of which possessed great excellence.—We did not, however, see any of the Normans nor Cleveland Bays, which were in considerable force at Buffalo last year. It is one of the great advantages in the annually-changing position of these shows, that they call out new specimens and varieties of animals and crops, which any stationary place would fail to ex-

hibit. Thus we had a comparatively new exhibit of horses, quite unlike any shown last year—in some respects superior, and in others decidedly inferior. The same is true of

CATTLE.—In this department there was double the number of good *Devon* bulls exhibited, we ever recollect to have before seen together. The location better suited the exhibition of Devons, than any other point in the state, as they have been bred in the surrounding counties, particularly in Otsego, in considerable numbers, for many years. Two cows, shown in this class by A. Stevens, were of large size, surpassing beauty, and perfection of form. Many others of the Devons were almost equally meritorious in appearance. We are glad to see this favorite breed spreading over the fine feeding grounds of every part of this state.

The *Short Horns* were not behind the Devons in quantity nor merits, but they did not bear that excess in numbers they have generally done. The bull and two heifers, recently imported by Col. Sherwood and Mr. Stevens, were on the ground; and though in only indifferent condition, they received, as they richly deserved, the highest premiums, for their unmistakably high-bred qualities. There were many other very choice animals in this class upon the ground, one of which, belonging to Mr. Bell, of Westchester, was cheaply purchased at $400.

The *Herefords* were exhibited by their veteran importer, Mr. Sotham, of Black Rock, Erie county, and by the Messrs. Bingham, of Vermont. The last were descendants of the importation of Messrs. Corning and Sotham, and equally with them, showed great merits of blood and breeding. Most of the latter were offered for sale, and they ought to command the favorable attention of graziers throughout the country.

Of *Ayrshires* there were not a large number on the ground. They were principally from the herd of E. P. Prentice, of Albany, and possessed great merit; we saw a few others, without being able to learn their ownership.

NATIVE AND GRADE CATTLE.—Of the former very few were shown, and most of these, we should think, were brought forward by some of the most inveterate sticklers for blood, to show off, by contrast, the wide disparity between the improved stock and the unadulterated native. They were incontestibly, lean specimens of a leaner species.

Some of the *grades* were magnificent, especially among the milking stock, fat and working cattle. These were mostly crosses with the short horns, and evinced the rapid improvement these invaluable animals are capable of producing, when judiciously crossed with good subjects. The numbers did not compare with magnificent teams heretofore driven in by the stock raisers and graziers of western New York, and as shown at Auburn, Rochester, and Buffalo. But they were good according to their numbers, and sufficed to convince any one, who needs convincing at this late day, the decided improvement any breeder has in his power to engraft upon his unimproved herds. A few choice cows were shown by L. G. Morris, of Westchester, a cross of the shorthorns and Dutch cows. These are famous milkers, as described in another article in our present number, and deservedly received some of the best premiums.

FAT BULLOCKS.—Some immense specimens of these were on the ground, and though few comparatively in this class were exhibited, they were mostly good animals. But we saw none that possessed much merit, that did not apparently derive their principal excellence from some of the improved breeds.

SHEEP.—In one respect, the exhibition in this department far excelled anything ever before offered. The distinguishing peculiarity consisted in the numerous splendid specimens of the French Merinos, recently imported by Mr. Taintor, of Hartford, and now owned by the Messrs. Bingham, of Vermont. There were about fifty in all, as we estimated, mostly grown ewes and lambs; and with their massive fleeces, shearing from six to sixteen pounds each, covering carcasses of great size and perfection, they seemed to embody the perfection of the medium-wooled species. Large prices have been paid for such of these as the owners could be induced to sell, and we trust this importation will be the means of extensive improvement in this valuable race. There was, in addition to these tolerably full representations from other flocks of Merinos, Saxons, Bakewells, and South Downs, many of which were excellent specimens of their respective classes.

After this commendation of these large improved breeds of sheep, we wish it understood, that we do not underrate the value of those of a medium size; on the contrary, we advise all those to retain their present stock, if they possess good constitutions, and are of fine points, at least, till they are prepared with a superabundance of feed, and have in the way of barns and sheds, all necessary accommodation for larger and finer bred animals.

THE SWINE did not exhibit so great an array of numbers, but some of the leading breeds, the Berkshires, Leicesters, and their crosses, showed great excellence in their flesh.

Of POULTRY, there was a more meagre show than we have ever before seen. Some very pretty specimens of what were labelled Java Bantams, clean-legged, plump-bodied, well-shapen, little bipeds of assorted colors, white, speckled, and grey, made up all there was of interest on the premises, in this department. Some half dozen Bremen geese, and a less number of common-looking dung hill fowls, comprised all the balance.

In DAIRY PRODUCTS there were several choice specimens, embracing some variety, especially in the style and character of the cheese. But the quantity was not so large as we had expected to witness, in the long-practiced and

successful English making cheese districts of Oneida, Herkimer, Montgomery, and other neighboring counties.

The Domestic Fabrics—Homemades.—The handiwork of the farmers' help meets were few and comparatively unimportant. We miss the long files of substantial flannels, the nicely-spun yarns, the huge bundles of soft, woolen socks and mittens, the glowing comforters, tempting almost as the fair hands that knit them, and make one almost wish for a frosty day for the pleasure of wearing, and the daintily-made coverlids—spreads and counterpanes are the modern terms, we believe. Few of all these we saw, and their absence elicited rather melancholy musings, as we thought of the stores of the substantial realities, that make the farmer's home comfortable, healthful, and happy, and good old patriotic revolutionary mothers would have proudly set forth on any similar occasion, had agricultural shows been the fashion sixty years ago. We have changed all this, says the modern belles. Ah! but have you changed it for the better? Machinery has been made to do a large part of this department of woman's work, but in mitigating their labors and diminishing their cares, we hope it may not have lessened the stock of those genuine homely virtues, that afford the surest pledge of manly heroism and self-denying, laborious patriotism from the other sex, when these may be demanded. In our next number, however, we shall give a list of articles exhibited by one old-feshioned matron, just to show what can still be done in the country.

Silk.—We saw no silk, cocoons, raw, sewing, nor manufactured, though a few hanks of these are said to have made their appearance there. Well, we hope our farmers' wives and children are more profitably employed than in rearing the silkworm and manufacturing his web, but we very much doubt if they all are It is beyond all question, that this branch of our domestic industry will pay those liberally who go into it intelligently and perseveringly. Certain it is, that there is a large amount of comparatively idle population, hanging about our large towns and cities, mostly of foreign pauper emigrants, who might be successfully employed in cultivating the mulberry, rearing the worms, and manufacturing some of the plainest articles from the cocoons. Under intelligent, judicious management, this business might be made to sell, with vast advantage to the industrial wealth of the nation, and the moral and domestic well-being of those concerned in it. An augmenting population is annually thrown upon our shores, much of which is better fitted for this employment than any other. Such are the Protestant Portuguese refugees, some 1,500 of whom have recently come among us, asking employment, that they may earn an honest support. We commend this subject, in all its bearings, in a national and patriotic view, to the careful consideration of our statesmen and philanthropists.

Farm Implements were shown in great abundance and of superior quality, though we did not observe anything decidely new, either in construction or principle. The mechanical has well aided the agricultural interests of this country, by the numerous choice implements it has furnished, combining ease and perfection of working, with strength and durability of material, and finished fully equal to the just wants of the farmer. Success in our agriculture has, perhaps, been more efficiently secured by the introduction of improved implements, than by any other single means; and the farmer who expects success in his operations, without a full supply of all needful tools of the latest and best improvements, may look for disappointment, if not ruin.

There were several specimens of draining tiles, both tubes and oval. The former are made in this country by machines, recently imported from England, and may now be considered within the reach of every American farmer. The advantage of the introduction of *underdrains* are so manifest, wherever they are absolutely required, that any really intelligent man would prefer giving away one half of his highly cultivated clays, to secure thorough underdrainage of the remainder, if he could accomplish it on no better terms.

Other Manufactures were displayed in considerable quantities and variety, and did credit to the artisans by whom they were presented.

Floral Hill was a point of great attraction, containing, as it did, the flowers and fruits, with successful and large delegations of the fair donors and architects of this rural structure, and its attractive furnishings.

Pomological Fruit Convention.—This association commenced its operations in the large market Hall, on Friday, the day succeeding the close of the fair. We noticed only the commencement of its proceedings; but were agreeably disappointed in observing so large a number present, from almost every section of this country and Canada. There was a large assortment of several varieties of choice fruit presented from northern and middle Illinois, showing conclusively, that industry and enterprise have been busy in that far-off region.—Ohio, Pennsylvania, and even Missouri and Canada, furnished fine specimens from their orchards and fruit gardens. The present season, however, has been so unpropitious to the growth and perfection of many species of fruits, that the show was altogether less extensive than last year.

Good fruit and its cultivation are certainly enlisting a liberal share of enlightened public attention, in this country, and we rejoice in recording it. While it is one of our greatest luxuries, and where freely and judiciously used, one of the surest guarantees of health; and so far, at least, as aliment is concerned, it has become an important branch of our productive horticulture. Thousands are now constantly

and profitably employed in rearing the choicest fruits for market, while millions devote their leisure in restoring that abundance and perfection, which must have constituted one of the greatest of the physical charms of Eden. The time selected for this convention, seems inappropriate, for this reason: that the fruits exhibited should be as recently gathered as possible; and as most of the delegates leave home to attend the agricultural show, and when from a distance, necessarily have to superintend its selection, packing, and transportation, most of it loses that freshness and character essential to an accurate estimate of its merits.

As utility and permanent, wide-spread information is the object of this convention, we should much prefer that its members have the exclusive investigation of the specimens brought forward, and that they have them, too, in full perfection. For the distant view which spectators are required to take of the state specimens, a good assortment of such fruits as any well-cultivated neighborhood affords, will suffice for that object. We think this department, to which the enterprise of its votaries seems determined to do full justice, at the annual gatherings, should be made distinct hereafter. Let the fruit amateurs take it exclusively in hand, and bestow the premiums that may be offered by the parent society, through their own officers, and under their own organization. Justice will be thus better secured, and the public will have more confidence in the awards. The parent society has enough to do with its cattle, sheep, horses, swine, poultry, implements, seeds, crops, essays, and transactions. Let them yield up this part of its duties to those willing and competent to do it justice.

The Address of Professor Johnston was listened to with undivided attention.

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Interesting Fact in Grafting.—Du Hamel, the celebrated French pomologist and horticulturist, ingrafted a young lemon, of the size of a pea, upon the branch of an orange tree.—It grew there, ripened, and had all the qualities of the lemon, without partaking of any of the properties of the orange. It is evident, in this instance, that the stalk of the lemon changed the color, taste, and smell of the juices of the orange tree. And from this experiment, we have reason to conclude, that all the different figures, colors, tastes, and smells, which we find in different plants, are found in the plants themselves.

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To Keep a Stove Bright by Two Applications a Year.—Make a weak alum water, and mix British lustre with it, perhaps two teaspoonfuls to a gill of alum water; let the stove be cold; brush it with the mixture; then take a dry brush and rub it till it is perfectly dry.—Should any part, before polishing, become so dry as to look grey, moisten with a wet brush and proceed as before.

## The Horse Known by his Ears.

The size, position, and motion of the ears of a horse are important points. Those rather small than large, placed not too far apart, erect and quick in motion, indicate both breeding and spirit; and if a horse is in the frequent habit of carrying one ear forward, and the other backward, and especially if he does so on a journey, he will generall possess both spirit and continuance. The stretching of the ears in contrary directions shows that he is attentive to everything that is passing around him, and while he is doing this, he cannot be much fatigued, nor likely soon to become so.

It has been remarked that few horses sleep without pointing one ear forward and the other backward, in order that they may receive notice of the approach of objects in any direction. When horses or mules march in company, at night, those in front direct their ears forward; those in the rear direct them backward; and those in the middle of the train turn them laterally or crosswise—the whole seemingly thus to be actuated by one feeling which watches their general safety.

The ear of the horse is one of the most beautiful parts about him, and by few things is the temper more surely indicated than by its motion. The ear is more intelligible even than the eye; and the person accustomed to the horse, can tell, by the expressive motion of that organ, almost all that he thinks or means. When a horse lays his ears flat back on his neck, he most assuredly is meditating mischief, and the bystander should be aware of his heels or his teeth. In play, the ears will be laid back, but not so decidedly nor so long. A quick change in their position, and more particularly the expression of the eye at the time, will distinguish between playfulness and vice.

The hearing of the horse is remarkably acute. A thousand vibrations of the air, too slight to make any impression on the human ear, are readily perceived by him. It is well known to every hunting man, that the cry of hounds will be recognized by the horse, and his ears will be erect, and he will be all spirit and impatience, a considerable time before the rider is conscious of the least sound.—*The Horse and His Rider.*

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Literary Prizes—The Belgian government has offered a prize of 5,000 francs, and another of 1,000 francs, with a gold medal. The first for the best work on general agriculture, and the second for the best treatise on the disease of potatoes. Foreigners are invited to compete, and manuscripts are to be sent to the Minister for the interior before the 1st of January next year.

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The Potato Disease.—The old potato disease has re-appeared in Ireland, where the fields present evident marks of its devastation.

From the Main Farmer.

## Transplanting Trees.

Autumn is considered by some as the best season for transplanting both fruit and ornamental trees, while others prefer the spring for both. Our success has been good in fall planting, with hardy kinds and upon dry soils, being less affected by drouth the following season than those set in the spring. Upon wet soils, or such as incline to heave bad with frost, the spring is decidedly preferable. It is, however, of advantage to dig the holes in the fall when transplanting is deferred until spring, as the earth thrown out becomes more finely pulverized by freezing and the action of the atmosphere, besides it is a more leisure season, and time can be spared to dig large holes, and haul a few bushels of compost or rich earth and leave at each hole, ready for use. A peck of leached ashes, with half the quantity of air-slacked lime, would be a valuable addition. A little pains taken in this way in planting trees, in nine cases out of ten would be worth 20 per cent. to insure a vigorous growth and early productiveness. A good supply of straw, or what is better, leaves and scurf from the woods, should be procured for littering cattle, horses, and swine, and used in the spring plentifully around each tree for mulching.

Many are not aware of the benefit to be derived from what some would consider needless cost in planting trees, and then taking care of them. A gentleman residing in the town of Warren, has an apple tree which was set in the mouth of an old well which had been filled up with old rubbish of one kind and another. The tree had grown very luxuriantly, with a low, wide-spreading head, and last fall he picked twenty-one bushels of choice apples from it, ten of them standing upon the ground.

He gave it as his opinion that if a person had but three trees to plant, it would pay for spending three days to accomplish it. This is far different from the course pursued by very many, and much to their loss, in digging a small hole, crowding in the roots and burying them as if the principal object was to exclude the sun's rays; occupying not more than one-fourth of an hour instead of a day. The pressure of business in the spring, prevents many from devoting so much time to this part of husbandry as they would be glad to do, and as would be profitable; and for this reason let me again urge the importance of making every preparation that can be, in the fall. Where fall planting is not preferred, trees may be removed and laid in, by covering the roots with earth, in a dry place, and the bodies with a few hemlock boughs, so as to insure equally as good success as when removed in the spring. This is quite an advantage for more reasons than a leisure season. In the fall, the roads are good compared with spring—the bark of the tree is much more firm and not so easily chafed, and the trees are ready to set as soon as the frost is out of the ground, which is quite preferable, especially should dry weather succeed.

D. TABER.

VASSALBORO', *Sept. 9th*, 1849.

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THE LATE MR. COLMAN.—A correspondent of the Express gives the following account of the obsequies of our countryman, the Rev. Henry Colman, who died recently in England, amidst the rural scenes which he so often courted, and which he so much enjoyed. He was

"By strangers honored, and by strangers mourned,"

but, among strangers, friendly hands tended him in his sickness, and warm tears from friendly eyes moistened his grave:

He died at Islington, and the obsequies there were marked with all the pomp and show which characterize the ceremonies of an English funeral. There were the hired mourners acting as ushers, with their long black rods tied with bunches of black silk at the end, and men with silk bands around their hats and across their shoulders. The principal mourners wore loose black cloaks tied closely around the throat and extending to the knees, while their hats were hung with crape, the ends of which extended over their shoulders. Cake and wine were distributed freely in the rooms adjoining the dead. The hearse was covered with black velvet and plumes, and drawn by four horses, each also carrying a black plume upon his head. All this was conceived and executed, as a friend writes, from a marked respect for a distinguished American citizen. The gift of the grave was from Lady Byron, who has also taken it upon herself to erect a monument to the memory of the deceased.

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HOW TO MAKE A HORSE SURE-FOOTED.—A singular account of the manners of the ancients in the manner of breaking in their horses, rendering them sure-footed when galloping over the most irregular and dangerous grounds, is related by Vegetitus. The Parthian horses were lighter and hardier than those of the Cappadocians or Medes, and were the best war horses. A spot of dry level ground was selected, on which various troughs or boxes, filled with chalk or clay, were placed at irregular distances, and with much irregularity of surface and of height. Here the horses were taken for exercise, and they had many a fall as they galloped this strangely uneven course; but they gradually learned to lift their feet higher, and to bend their knees better, and to step sometimes shorter and sometimes longer, as the ground required, until they could carry their riders with ease and safety over the most irregular and dangerous places. Then it was that the Parthians could fully put into practice their favorite manœuvre, and turn upon and destroy their unsuspecting foes. They were as formidable in flight as in attack, and would often turn on the back of the animal and pour on their pursuers a cloud of arrows that at once changed the fortunes of a day.—*Scientific American.*

**First Steam Trip up the Columbia River.**

A correspondent of the New York *Observer*, who writes from Portland, Oregon, May 21, gives a description of a trip up Columbia river in the steamer Massachusetts, and of the country around, which we copy below :—

The steamer "Massachusetts" left Astoria on the 10th inst., piloted by a man who has long been familiar with the navigation of the river. He had warned us that with a v esselof her size we might occasionally get aground. We had proceeded only seven or eight miles, when our vessel was fast upon a sand-pit, where we lay for about 36 hours. We did not consider ourselves in much danger, for we were assured that at high tide, with the aid of "kedging," we should get off. This was done, and early on the morning of the 12th inst., we found ourselves "steaming" along the banks of the river, within a stone's throw of the land.

It was a beautiful morning; the water was smooth, the land covered with dense forests, numerous birds enlivening the solitude, all combined to make a deep and pleasing impression upon the minds of all on board.—Our deck was covered with the numerous passengers, so many of whom had not been at one time on deck since leaving the Islands. As our noble vessel was the first American steamer that had ever ploughed the waters of this queen river of the West, I could not but contrast the known past with the probable future. Hitherto, with the exception of an occasional English and American trading vessel, no other craft had been seen upon the river but the light canoe of the roving Indian. A new era is now commencing on this river and its tributaries,—that of steam navigation. It needs no sage prediction of the wise, to feretell that ere many years shall pass, steamers of every description will ply upon their waters. It is undoubtedly a noble stream for steam navigation.—Vessels drawing 10, 12, and even 15 or 18 feet of water, may safely ascend and descend the Columbia. On our passage to Fort Vancouver, our vessel got upon the sand but once more, and we were only detained but a short time.

The passage from Astoria to Fort Vancouver, a distance of ninety miles, our vessel made in less than 18 hours, of steaming or sailing. In smaller rigged steam-vessels, it might be made in a much shorter time.

Many portions of the river scenery are exceedingly beautiful, somewhat resembling that upon the Connecticut and Hudson rivers. Every few miles a log house presented itself to view, with a small piece of the forest cleared around it. The inhabitants would come out to give us a cordial welcome. At one point a settler gave us a tune upon his flute.

We arrived safely at Fort Vancouver, the head-quarters of the Hudson Bay Company's trading operations in Oregon. On coming to anchor on Sabbath morning, the 13th inst., off the fort, our pilot inquired of those standing upon the bank, where were the gentlemen of the fort, the pleasing report was returned, "At Church" The Hudson Bay Company's store-houses, the dwellings of the officers of the Company, and numerous other buildings belonging to the establishment, are situated upon an extensive plain upon the north side of the Columbia. This plain is very even, and extends several miles along the river. As our officers of the United States army looked upon this beautiful plain and the fortified appearance of the place, their involuntary expression was, "We hope the government has bought out the Hudson Bay Company; what a fine parade ground, and what excellent barracks those storehouses would make for our soldiers. Every thing is exactly fitted for a military post." Perhaps ere this, an arrangement has been made for the transfer of this property to the government of the United States, for we have been informed that the government has consented to pay the *one million* asked by the Company for their lands and improvements in Oregon, but demand the clause in the treaty to be struck out referring to the navigation of the Columbia river by English vessels. This appears most certainly to be a reasonable demand, inasmuch as it was inserted merely to favor the Hudson Bay Company.

It will doubtless be very desirable for the interests of Oregon to have our government purchase the Hudson Bay Company's establishment, and there are *very cogent* reasons why it will be for the interest of the Company to sell out. The principles upon which that Company manage their affairs, and employ their numerous agents and "servants," by no means harmonize with our free and republican views. At present, it is an "imperium in imperio," but the two governments do not work harmoniously. Hither. to the Company had the power to compel those under their authority or in their em.

ploy to render obedience, or observe their contracts; but now these "servants" are leaving the Company's employment, and will not return, and the agents of the Company can only appeal to the laws of the territory for redress, and Governor Lane has informed them that the courts are open! This is an entirely new order of things, and it will readily appear that the two systems will not work well.

The agents of the Hudson Bay Company very readily offered any aid in their power for the convenience of the troops landing from the "Massachusetts." Two days following our arrival, the soldiers were all landed and encamped near the bank of the river, in the open plain. The camp presented a fine appearance.

### Milk-Houses.

A correspondent of the *N. E. Farmer* gives the following plan for a milk-house:

It is of brick, ten feet by eighteen, two stories high, built upon the same level as the dwelling, and near by. The two sides and one end are banked up with earth, and sodded from the top of the first story back on a gradual slope.

A small entry is made at one end, so as to give double doors, and a double glass window is arranged at the other end, so as to open and give ventilation.

A ventilator, about one foot square, should go from the centre of the ceiling out through the roof.

The joists are plastered, and support a false floor, composed of boards, and four inches of clay between that and the floor of the room above, which room is used for a smoke-house, the smoke being conducted from the outside.

The floor of the milk-room is of brick—stone would be better. This room is cool in summer, and warm enough for a cellar in latitude 41½° in winter.

This is a very cheap and very good plan to make a milk-house in any country.

A Substitute for Tea.—Dr. Graham, an old and experienced physician in London, says, "I may state on very respectable authority, that the first leaves of whortleberry, properly gathered and dried in the shade, cannot be distinguished from real China teas."

The steam engines at work in London are equal to the united force of 1,900,000 men, and are managed by only 36,000 men.

Camomile.—A few roots of this plant should have a place in every garden. Not only are its medical qualities highly valuable, but its presence among vegetables is supposed to be an Ægis of protection against many diseases to which they are subject.—It should be translated into warm and rich soil, early in the spring, and be assisted, during its early development, by copious manuring and frequent pressure. When plants, late in the season, exhibit symptoms of decay or general debility, the planting of a small root of camomile in their vicinage is frequently the most speedy and efficacious remedy that can be applied. The odor, or aroma, diffused by this plant, is also known to be highly repellant to many kinds of aligerous insects, and its presence among those species of plants and vegetables infested by such enemies, will protect them more effectually than almost any other agent known, and at comparatively small expense.—*New England Farmer.*

From the Maine Farmer.

Friend Homes:—Some days since, I had the pleasure of a few hours, ride in the cars, with that Prince of Agriculturists, the Hon. H. L. Ellsworth, of Fayette, Indiana. I was not only amused, much instructed by his conversation' and the information imparted one piece of which, I give you for the benefit of your friend, "a Down East Farmer." and others who may wish to adopt the most economical method of plowing. Mr. Ellsworth by attaching the plow-beam to an axle of a pair of low wheels, in such a manner as to keep the colter perpendicular, is enabled to entirely dispense with the service of a plowman. And as one of the wheels or one of the cattle may be made to go in the furrow, a mere lad can drive the team—a saving of labor of great importance to a man who frequently has ten plows, or more, in the field. If one plow can be connected with the axle, why not two? Enlarge the team and save the labor of another teamster.

This is the gentleman who this year, raised a thousand acres of corn, which will average quite fifty bushels per acre. He has now in the field' twelve hundred hogs, eating it up, fattening themselves, and preparing the land for wheat. The next season, he will put one hundred acres into flax seed. His crop this year produced him seventeen bushels of seed per acre. It would seem that his method of plowing might be adopted on much of the lands in Maine. Viator.

# HORTICULTURE.

F. K. PHŒNIX, Editor.

## Causes of Failures in Planting Fruit Trees.

That people in planting fruit trees at the West have often failed, wholly or in part, to make them live and do well, no one at all acquainted with the facts will deny.

These failures are owing in part to certain peculiarities of our soil and climate, which we must strive to acquaint ourselves with if we would avoid their effects. Even the skill and success we may have had in planting and managing trees at the East, will not otherwise avail. We propose in this article to group together some of the most common causes of these failures, that they may be seen at a glance, together with their appropriate remedies. Let us commence with the selection of

*The Soil and Site*—This has much to do with the loss of the more tender sorts during the winter—of which we have previously and more fully treated in the Farmer. A stiff clay soil or "hardpan," sometimes causes the loss of trees here, but not so often as at the East.

The remedy in such cases would be the substitution of another soil and site if practicable—if not, then throwing the land in ridges and planting on them.

*Getting poor Trees.*—This, with western people, has been a most fruitful source of failure and vexation. Every fall and spring the country is flooded with trees from the East or South, many of which have been so wretchedly managed—mixed, dried or frozen—that for them to live is out of the question! If they do, the fruit is often anything but what is expected or desired. The remedy for all this is obvious; buy trees as you would a horse *if you were not a judge of the animal*—not of an irresponsible jockey or stranger, but of a man on whom you can depend, whose character and interest are at stake in the business.

*Tender Root-grafted Trees.*—Root grafting is now by far the most prevailing and popular method of propagating apple trees. *It should, however, be generally known that some sorts so worked are, generally speaking, worthless for planting out at the best, as our winters almost inevitably destroy them.* Many of these, as the Greening, Baldwin, Roxbury Russet, &c., are the most common and popular sorts, and hence are root-grafted in immense quantities, especially by Eastern nurserymen, where these sorts are not so tender on the root. Consequently many trees of these kinds find their way here with the rest and are planted out, and killed off the first hard winter! True, under very favorable circumstances we have known them to do well, but very rarely. *We* should then never graft trees of those sorts in the root, nor plant those that are. If we want to plant those tender kinds we must get trees grafted *in the stock at least* 2 or 3 feet from the ground—or else plant seedlings and graft in the tops. By and by we intend to give a list of those varieties.

*Errors in Planting*—The roots of trees are often seriously injured at the time of planting, or when the trees are obtained, by exposure to the sun and wind or frost. They should by all means be kept *moist and fresh.* When planted they are often most *unnaturally* doubled up and crammed into a very port hole for littleness, or planted so deeply that they are entirely stinted for years, if not killed off at once! These last are most common and ruinous errors—especially injurious is deep planting to root-grafted trees. In planting let the roots be spread out *naturally,* and the tree set *only an inch* or so deeper than it stood in the nursery.

*Unfavorable weather* after planting, (as this season, for instance, which has been very dry,) may occasion a partial failure, and often does *under common management.* Mulching trees after planting will almost invariably preserve them from the drouth.

*Bad After-culture.*—Orchards are sometimes planted in the sod, or seeded down after planting—one of the very best ways in the world to kill them off, lingeringly by inches! Why don't such people plant their corn on grass land?!

Trees are often ruined by neglecting them the first year or two after planting, when of all times they most need care and attention. In ploughing or dragging they are run over—in the summer the worms are allowed to strip them, and in the winter the cattle and sheep to browse them, or the mice and rabbits to girdle them—and then if they don't grow, the poor nurseryman who sold them, or the country is blamed as the cause! How beautifully consistent and reasonable is such a course!!—Plow and hoe out your trees as you would corn,

and if, after being well put out and carefully tended they do not grow well the second year, give them a moderate supply of old, well-rotted manure. They may, however, be too highly manured, as in gardens, or *cultivated too late* so as to be injured by the

*Severe, Winters* we sometimes have. These, while our climate remains as it is, will injure trees more or less here as every where else in temperate latitudes, especially the more tender sorts, as English cherries, peaches and quinces, and tender sorts of root-grafted apple trees, as mentioned above. The extent of this injury varies according to circumstances—of which, with the bad means of prevention, we have more fully treated in previous numbers of the Farmer.

To sum up conversely, we would say, that when a person gets good, hardy trees, puts them out right, on proper soil, and takes good care of them afterwards, there can bo no serious failure—success must crown his efforts.

## Horticultural Items.

*Rabbits.*—To guard trees against these pests, they should be wound with straw or rags, up as high as they can reach.

*Summer of* 1849 has been very dry at the West, so far as we have heard, and the fall thus far, (Oct. 1st,) also. No hard frost as yet.—Newly planted trees have suffered much from the drouth. Potatoes are unusually good as yet—perfectly sound and of superior flavor.

*Fruit in Wisconsin.*—We have observed peaches in several places this season—*generally on trees growing in grass land.* Of apples, there is a "smart sprinkling." One gentleman, by the name of Vaughn, living near Spring Prairie, Walworth Co., raised this season some 30 bushels, as he informs us, which brought him one dollar and a half per bushel. Very many orchards amongst us are beginning to bear, and we may reasonably hope to raise our own fruit in time! We raised a few bushels of apples, of 30 varieties; several sorts of plums, pears, grapes, &c., &c., all of which were of excellent quality.

*N. Y. State Fair—The N. A. Pomological Convention and its Rival.*—The Fair held in September, at Syracuse, is said to have excelled all that have preceded it, except in the way of fruits, of which the show was poor, owing to the general failure of the crop. The Pomological Convention met after the Fair, according to previous notice, and at first was quite interesting, as we were informed by a friend who was present. Owing, however, to some unfavorable circumstances its session was of short duration, and at its close the Convention was resolved into its original elements. It is, however, understood to have "died in peace" with the world in general and the "Congress of American Fruit Growers" in particular. The annual session of this latter body is to be held this month, (October,) at New York city, and is expected to be very interesting.

*Strawberries.*—This delicious fruit is receiving increased attention throughout the Union, especially as a market fruit. Several new varieties of great merit, have been lately originated. The latest are those raised by Messrs. Ellwanger and Barry, of Rochester, N. Y., and first brought into notice this season.—They are said to be very promising. Mr. Barry, of the Genesee Farmer, recommends Burr's New Pine, Boston Pine, Hovey's Seedling, Large Early Scarlet, Rival Hudson, and Bishop's Orange, as the best varieties.

*Protecting the Trunks of Fruit Trees.—Mulching.*—A late article in the Horticulturist strongly recommends the practice of giving fruit trees, and especially tender sorts, low heads—allowing them to branch much nearer the ground than is customary.

This we have always urged upon cultivators of fruit trees at the West—particularly with English Cherries, Quinces and Peaches.—Mulching the ground under the trees, whether large or small, is also strongly recommended in the article above alluded to, and doubtlesss with great propriety. If this practice be useful at the East, it must be doubly so here, where the rays of the sun are so much more powerful.

PULSE OF VARIOUS ANIMALS.—The pulse of several of our domestic animals, as given by Vatel in his "Veterinary Pathology, is nearly as follows:—Horse, from 32 to 38 pulsations per minute; ox or cow, 35 to 42; ass 48 to 54; sheep, 70 to 79; goat, 72 to 76; dog, 90 to 100; cat 110 to 120; rabbit, 120; Guinea pig, 140; duck, 136; hen, 140.

Young farmers, consider your calling both elevated and important—never be afraid of the frock and the apron. Put off no business for the morrow than can be done to-day.

## The Value of Corn-stalks as Fodder.

The question is often asked, if corn-stalks are of much value as fodder. We answer, without fear of contradiction, that if well-saved and properly used, they are fully equal to the same weight of hay.

Last year we fed three yoke of oxen on corn-stalks, with the addition of no more feed than we should have used with the best English hay. Our mode of preparing them was as follows:

The stalks were cut with the ordinary cylindrical machine, in pieces of half an inch in length, and placed in a hogshead. Three gallons of boiling water, containing one gill of salt, was thrown upon them, and the top of the cask covered with a blanket. The steam arising from the hot water swelled and softened the corn-stalks to their original size; and when cold, a little ground feed was thrown upon them, and thus fed to the cattle.

The oxen worked hard all winter, each yoke bringing three loads per day, of more than a ton each, from a distance of three miles, and in the spring they were as well conditioned as in the fall.

When corn is raised to be pulled while green for boiling, the stalks will contain much more saccharine matter than when suffered to ripen. The stalks should be permitted to grow after the corn has been pulled.

Corn-stalks may be grown for fodder with much greater strength than hay, and entirely capable of supplying food for animals, without the addition of grain of any kind: and for milch cows it would be equal, if not superior, to any other food. We refer to the method adopted by Mr. Webb, of Delaware, for the purpose of making sugar.

As soon as the ears appear, pinch them off, and repeat this treatment twice: the consequence will be, that the juice of stalks thus treated will contain as much saccharine matter, as that of the sugar cane; indeed, we know of one experiment being made, which gave the juice of eleven degrees Beaume, while the juice of the sugar cane, as grown in Louisiana, is but nine degrees Baume. This mode of growth, however, will only answer in such districts as, from want of market, find it unprofitable to raise corn for the ears. When this mode is adopted, the planting should be early, for the stalks will necessarily require a hot sun to cure them. If cut too late, the sugar contained in the juice will be acid before they are dry.—*Working Farmer,*

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Rocks, Stones, Clay, &c.—The use of stone and rock upon sandy land is not sufficiently appreciated by farmers. Stone in dry weather protects land from drought, by condensing the atmosphere upon their surfaces, in consequence of being of a lower temperature. Rocky, mountainous lands never suffer from drought, and stony lands suffer less from drought than lands free from stone; the difference will plainly be seen in the increase. Clay is very useful on sandy land—it retains the moisture,—and sand on clayey land adds to its warmth and fertility. Farmers would be great gainers in the increase of the products of their lands, by carting clay upon sandy land and ploughing it in, and *vice versa*. Salt, mixed with clay, and thrown upon dry soil, attracts moisture, and will be found to a certain extent very useful. In many sections of the United States dry lands are found with swamps and bog meadows interspersed; these swamps and meadows have been accumulating the wash of these lands for ages, retaining it in a cold, wet state. If this is taken out, dried and mixed with clay, salt and lime, in suitable proportions, and thrown upon the surrounding dry land, it will be found a most useful and valuable manure. I have examined some of this description of swamps and meadows, and have found them underlaid with beds of clean gravel and sand.—Stones around the roots of fruit trees are found very useful and valuable on many farming lands, and in gardens. They destroy great quantities of vermin that prey upon vegetation. Birds also do great good, and legislative enactments should be made to protect them from being destroyed. The intelligent farmer will, on a little examination and enquiry, be convinced of the correctness of the facts and opinions set forth and expressed in this brief paragraph.—*Exchange.*

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Query in Regard to the Potato Disease.—As a mere guess at a remedy for the potato disease. It may be worth the inquiry of geologists and chemists whether the native soil of the potato, in South America, contains any elements which are wanting, or deficient in that of Europe. Those who have been in volcanic districts are aware how every fissure and cranny of the earth is at least occasionally charged with gases of mixed composition, but especially sulphurous, which may be smelt, in still weather, by those walking on the surface, and which may have some influence on the vegetation of those regions. Mexico and the Andes are doubtless similarly circumstanced, and the peculiar constitution of plants, native to that range, may possibly have some dependence on those conditions of growth. Are the potatoes in the kingdom of Naples attacked by the disease? Because, if they are, the presence of sulphur in the soil is no preventive against the potato plague.—*Agricultural Gazette.*

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The remains of an elephant were found, a short time since, in the construction of the Rutland and Burlington Railroad, upon the slope of Mt. Holly, one of the highest mountains in Vermont. Prof. Agassiz states that this is the first true elephant found in a fossil condition in the northern States. He says it is certainly not the same kind of Elephant which has been found in the Kentucky cave, and that it is a question whether it is identical with the fossil European elephant or not.—*Reveille.*

RIPE FRUIT AND DYSENTERY.—There is a pernicious prejudice with which people are too generally imbued; it is, that fruits are injurious in the dysentery—that they produce and increase it. There is not, perhaps, a more false prejudice. Bad fruit, and that which is imperfectly ripened, may occasion cholics, and sometimes diarrhœa—but *never* epidemic dysentery. Ripe fruits of all kinds, especially in the summer, are the true preservatives against this malady. The grossest injury they can do, is in dissolving the humors, and particularly the bile, of which they are true solvents, and occasion a diarrhœa. But even this diarrhœa is a protection against the dysentery. Whenever the dysentery has prevailed, I have eaten less animal food and more fruit, and have never had the slightest attack. I have seen eleven patients in one house; nine were obedient to the direction given, and ate fruit; they recovered. The grandmother, and a child she was more partial to, died. She prescribed for the child burnt brandy and oil, powerful aromatics, and forbade the use of fruit. She followed the same course herself, and met the like fate. A minister, attacked with dysentery, ate three pounds of red currants between seven o'clock in the morning and nine in the evening: next day he was entirely cured.—*Tissot.*

EXPLORATION.—MR. CHAS. WHITTLESEY has been here for the past two or three days, for the purpose of engaging a corps of voyagers to accompany him on a geological and mineralogical exploring expedition in the region north and west of this place, lying between the Menomonee and Wolf Rivers. Mr. W. is engaged by the Government, and his report will be looked for with a good deal of interest, as he has the experience and ability requisite for the service, and the region through which he will pass is supposed to abound in mineral and interesting geological formations. MR. FOSTER, who passed through from Lake Superior to Green Bay, following down the Menomonee, in 1818, discovered in his hurried passage extensive iron deposites, beautiful flesh-colored limestone nearly approaching to marble, and other interesting features in the Menomonee country. The worn-out condition of his men prevented his enlarging upon these discoveries. Mr. W. will commence near where Mr. Foster passed and going westward will come down the Wolf, making such extensive observations as the lateness of the season will allow.—*Green Bay Advocate.*

IMPROVEMENT OF APPLES FROM THE CRAB APPLE. It has been stated by writers, and generally believed, that our immense variety of apples all originated from the crab apple. A paragraph in the last American Farmer, quoted from the Alabama Planter, corroborates this statement as follows: · "Our friend James Magoffin, Esq., of St. Stephens, has for a series of years bestowed considerable attention upon the, apple and among the many fine sorts he now cultivates, has obtained, by successive plantings of the seed of the native crab apple, one of the best fall and winter apples in the Union."

From this fact we may learn the good results of experimenting with fruits in order to improve their qualities. If a man could live long enough to pursue these researches, he would find astonishing results from his experiments. Van Meres, Knight and some others, were successful during their day, in improving and procuring new fruits from poor and apparently worthless parents.

IMPORTANT DISCOVERY.—A surgeon of Gottingen has discovered a complete antidote to arsenic. It is peroxyde, or the red oxyde of iron, twelve parts of which neutralize one of oxide of arsenic. Experiments with this antidote have been tried upon rabbits and other animals with complete success. One advantage of it is that no injury can be done by too large a dose. In cases where too large quantities of arsenic have been taken, it has· been found useful first to encourage vomiting.

BAROMETER.—Take a pair of scales, in one put a brass pound weight, in the other a pound of dry salt; let there be a sheaf or board under the scales to prevent their sinking too low, and when it is inclined to rain, the scale with the salt will sink the lowest. When inclined to dry, the scale with the brass weight will weigh up the salt.—*Literary Gazette.*

TO REMOVE STAINS AND MARKS FROM BOOKS.—A solution of an oxalic acid, nitric acid, or tartaric acid, is attended with the least risk, and may be applied upon the paper and prints without fear of damage. These acids taking out the writing ink, and not touching the printing, can be used for restoring books, where the margins have been written upon without attacking the text.

A tattler is a most contemptible character uniting in person either excessive ignorance, folly and vanity, or the extremes of meanness, mischief and malignity.

WALWORTH Co., Sept., 1849.

*The Wheat Crop of* 1849 *in this section—Wheat Growing at the West—White Flint Wheat—Quality and Price of Western Wheat as compared with Eastern—Early sowing recommended—Other Branches of Agriculture—Esterly's Harvester—Fires should be Kept Out of Young Timber:*

MR. EDITOR:—The yield of wheat with us this season, proves very light on threshing, but little if any over one half an average crop. For several seasons in succession the wheat crop has fallen miserably short either in quality or quantity causing great loss and embarrassment to our farmers. Winter wheat has been most gloriously uncertain for a long time, and its cultivation with us was to a considerable extent abandoned for that of spring wheat, which seemed for a time decidedly the most profitable.—Lately however the spring wheat has been very uncertain—proving itself when leaned on a broken staff. The loss of our spring wheat has been mostly occasioned by the rust, while winter wheat has had in addition to the rust, unfavorable winters and springs to contend with.—Were it not for these disadvantages the West would be unequalled as a wheat growing section.

In view of these obstacles, it becomes us to carefully consider the best means of overcoming them, and whether there are not other branches of agriculture more profitable than wheat raising. Although I do not feel competent to a discussion of these very important questions, yet I may call the attention of our enlightened agriculturists to the subject, hoping it will receive at their hands a thorough investigation. As to the first query, it does seem to me as if much might be done by way of making the wheat crop more certain. In the first place it should be sowed, as far as possible on new land, for on such land it is generally known to be the surest and best, as we cannot always get new land to put it on, we must get that which is nearest like it or the next best for wheat. Have any of our farmers tried timothy sod for wheat—if so has it not proved as good as new breaking?—Wheat I think should be sowed early whether winter or spring, and on those soils that are best adapted for it. The drill would doubtless be of great service in sowing wheat, particularly winter wheat. This implement is coming into general use, and favor in Western N. Y. wherever introduced. It is claimed by those who have tried them, that wheat sowed with them is far less liable to winter-kill, and that it also requires less seed, and that the produce per acre is greater.

Have any of our farmers tried them; and if so, will they not report for your columns the result of their experiments? It is strange that the manufacturers of them do not introduce them at the West. Our broad prairies, it seems to me, offer far greater facilities for their employment, than the hilly, stumpy, stoney fields of "Down East."

In regard to protecting winter wheat through the winters and springs, I observed a very interesting statement in the Prairie Farmer, by a gentleman in Iowa. It seems that in sowing his winter wheat he sowed a mixture of one bushel of oats to two of wheat to the acre—about the last of August. In the fall, he states that the wheat seemed quite smothered by the luxuriant growth of oats; but when the frost came it killed the oats, which fell down and completely covered the wheat, forming a most perfect protection from the frost and wind.—This field was by the side of another, sowed under precisely the same circumstances, save that oats were not sown with the wheat. In the spring, on the field where the oats were sown, the wheat came out splendidly, whilst in the other it was mostly destroyed, and at harvest quite ruined by the rust, whilst the other yielded well. Now, is not this experiment well worthy of trial? It strikes at the very root of the great evil—*winter or spring killing*,—by which either the field is filled with chess, (if there were any seed in the ground,) or the plants are left so scattering that the growth becomes very luxuriant and late, and is almost inevitably ruined by the rust. Hence, the great desideratum is to have the wheat winter well and ripen early. To promote this object the hardiest varieties only should be sown. There has been much said about here this fall, of the White Flint Wheat, of which there were some splendid specimens grown, notwithstanding the almost total failure of other winter wheat.—One farmer in this vicinity had over 300 bushels, which was most greedily pounced upon for seed, by our farmers, at one dollar per bushel. The Soules wheat I have heard highly commended, though it seems but little known as

yet. If varieties of winter wheat can be obtained that will endure our hard winters and rusty summers, we shall grow winter wheat in preference to spring wheat, which is always so much inferior in the market. This brings me to another branch of this subject—the inferior quality and consequent low price of Western wheat, as compared with Eastern. Now, I wish to ask my brother farmers if this state of things cannot be remedied, at least to a great extent? Had we not better sow less ground, and by taking pains to raise a better quality of wheat, retrieve our lost reputation, which we all feel to be a perfect incubus upon the whole business of wheat raising. Western wheat buyers cannot pay as much in proportion, even for the same quality of wheat, as Eastern, unless it be for milling. I have not the figures to present, but if any one will refer to notices in the Buffalo papers of the wheat market there, they will soon see the difference. Did any of your readers ever try to make a winter wheat out of our hedge-row spring wheat? It might make an excellent winter wheat, at least one that would be almost proof against rust. At any rate, the experiment is worthy of trial.

In favor of early sowing spring wheat, let me mention a circumstance: A few weeks since I was some 8 miles south of here, and inquiring of a farmer about their yield of wheat when thrashed. He said it was good, at least an average crop. I then told him how it was here, and asked him if he could tell what made the difference. He said he could not, unless it were the comparative earliness of their sowing; that when they had about finished last spring, we had hardly commenced. He said they plowed in the fall just as much as they possibly could, and if they could not finish then, they commenced in the spring *as soon as the frost was out deep enough for a plow to run—they will have it in early, any how.* Unless we can contrive some way to make the wheat crop surer than it has been for the past few years, we must give it up, in part, at least, and turn our attention to something else, or go on with it until it ruins us. Would it not be better for us, any way, to pay more attention to raising improved stock *of all kinds*—horses, cattle, hogs, and sheep? Will not our farmers do better under such a regimen than the present one?

Fruit growing also promises well here—surely, the market for fruit could not be better.—The only difficulty seems to be to get the trees well started at first. If, however, they are rightly managed the first two or three years, and *especially when first set*, there is no trouble in raising them. Somebody, I cannot help thinking, will make money at growing fruit here.

In travelling about I am pleased to hear of the general satisfaction given to Esterly's Harvester, the past season. They have won many friends, and bid fair to supersede every other harvesting machine. The greatest obstacle in the way seems to be their high price, which, however, may be low enough considering the cost. Still, it puts them beyond the reach of many who would otherwise gladly purchase.—In such cases a few neighbors might "club together" and buy one. The grand distinctive feature of the machine, which is to harvest *the heads alone*, leaving the straw on the field, where it is wasted, must commend it to the attention of our farmers, on whom the care of that comparative worthless portion of the crop has hitherto pressed like a millstone.

This is the season for the fires to run, which do more damage annually to the State, than any other one agent I know of—always excepting a liquid fire-water, which consumes not decayed grass, but God's image, and at all seasons!—Pardon the digression—I wish every man would treat this destroying agent as a chivalrous Southern Senator in Congress, in his hatred of Northern manufactures, declared he would do to that inoffensive wool-bearing animal, the sheep—"go a mile out of his way any time to kick one"! Could the fires be kept from our timber lands and openings for 20 years, timber for many uses would be as abundant and cheap as could be desired. As it now is, many parts of the West are suffering severely for the want of it, and must still more for many years to come. If then we have any regard for the future welfare of ourselves, our posterity, and the country at large, we should strive to provide a supply of that indispensable element of prosperity—or rather allow kind nature to do it.

A little care will suffice to keep a portion of every man's farm from the ravages of this devouring element. Close pasturing will doubtless be one of the easiest methods of keeping out the fires in the fall, when there is the most danger. I know of groves that are now full of trees large enough for fence poles, where 12

years ago there was hardly a bush over 6 feet high. Respectfully,

OBSERVER.

For the Wisconsin Farmer.

FRIEND MILLER: I noticed an article in the last Wisconsin Farmer, giving remedies for the Slug and the like insects upon cherry trees, &c. Some years since my cherry trees were infested with the slug, as it is commonly called. —a dark brown, snail-like animal that adhered to the leaves and devoured all the tender parts of the leaf, and in many instances destroyed the trees. Having heard that sulphur was a remedy against the caterpillar upon fruit trees, I tried it in that case and found it effectual. I bored into the body or trunk of the tree a hole about one and a half or two inches deep, inclining downwards, and by means of a quill, cut off at the end so as to charge it, I filled the hole with sulphur, and corked it with pine or other soft wood, and watched the result. In a short time I perceived the slugs were restless, and began to turn to a yellowish color, and finally crawled to the edge of the leaf and descended to the ground by a fine web, like the spider's web, which they attached to the leaf and suspended themselves by it. It might be well to spread sheets beneat the trees, in order to gather them up and convey them to a distance from the trees, to prevent their reproduction by perfectly destroying them. If sulphur is a remedy, it is much easier to apply it, and more certain and efficacious than any remedy I have heard mentioned, as it enters into the sap and is conveyed by it into every part of the tree. It saved my trees, while my neighbors lost theirs. I hope it will be tried and the result sent to your valuable paper, and the public benefitted.

Yours, truly, M. B. B.

HONEY is, according to Mr. Milton, who has lately published a treatise on bees in England, a universal specific; and among its other valuable properties, he declares that it prevents consumption, and states that that destroyer of human life is not known in countries where honey is regularly taken as an article of food. Those who have less faith in the specific, may perhaps attribute the cause to difference of climate rather than to honey. The Italian singers, it is also affirmed, are greatly indebted to honey; but their practice is to sharpen it with a few drops of acid, though they sometimes take it in a pure state.—*Albany Cultivator.*

From the New England Farmer.

## Take Care of your Horses.

MR. EDITOR: Horses should never be allowed to stand in the stable with their harness on, especially when they have been heated by hard driving, and consequently are in a high state of perspiration. A horse should be divested of his harness as soon as he is led to his stall for his feed. A man can judge from his own feelings how much more comfortable a horse must feel when entirely unburdened. Who has not experienced the contrast on his own person, after having walked a mile or two in a warm day, with a coat on, when divesting himself of it, and vest even? How much more comfortable a person will feel when thus unencumbered, than he will if he suffers himself to sit down with the same quantity of clothes on he had been travelling in! So with the horse; he will feed more readily, and will be less liable to be fretted by the harness.

A horse that has been galled or chafed by any part of the harness, (which is quite often the case in warm weather,) should have his harness removed as soon as possible, to prevent irritation. The horse is an animal that should be carefully watched by his master or keeper, to see that he is always in a proper condition to work. How often have I seen the noble horse hauling heavy loads, when his shoulders and sides were badly lacerated by the galling of the harness! And not unfrequently have I seen the lash applied to the willing animal, becanse he refused to draw —all in consequence of sores on the shoulders or other parts of the body.

None but an unmerciful man would beat his horse when in this condition. When horses have become fretted by the harness, timely aid and the proper remedies should be applied. A horse should be used as little as possible when he has a galled shoulder. But if he must of necessity be used, bandages should be fitted around the collar, both above and below the wound, that the collar may not irritate it. A few days (if the proper remedies are used) need not elapse before a cure may be effected. There are different remedies that will prove effectual, providing the galled parts can be kept from being chafed, from day to day. I have had good success by washing the parts affected in nothing but cold water. Different individuals, however, have different remedies. "A merciful man will be merciful to his beast;" and he who cannot be merciful to his beast, ought not to be the owner of one.

A. TODD.

FUEL IN PARIS.—There are wood and coal shops in every street, and at almost every corner, where you can buy any sort of fuel you choose to order; and as it is always sold by the pound, there is no dispute or uncertainty as to the quantity, and the price appears to be uniform throughout the city.—The most rigid economy prevails as to the use of fuel. I never saw any thing like it, and I myself have learnt many a useful lesson. The French often submit patiently to a degree of cold, which, with our habits, we should think scarcely endurable. In this respect, I think they show their wisdom, and I believe have fewer colds and catarrhs, than prevail with us. They never make a fire unless absolutely necessary. Their fuel, in the next place, is always perfectly dry, and is presented in the most convenient forms. They use much charcoal for cooking, in which there is great economy. They have none of the detestable cooking stoves which are used with us, filling the house with odors of the most disagreeable kind; but they have ranges of little furnaces, where they cook entirely with charcoal, and so placed that all the odor of the food is carried off. They have every contrivance for making a fire instantly, and are never at a loss for heat, so numerous and complete are their appliances.

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SIMILITUDES FROM THE VEGETABLE WORLD.—The fragrant white clover thrives though trampled under foot; it furnishes the bees with stores of pure honey without asking or receiving the credit of it.—Meakness and disenterestedness.

The vine clinging to the elm acknowledges its weakness and at the same time makes itself strong.—Faith.

The morning glory makes a fair show at sunrise, but withers as soon as it becomes hot.

Excitement without principle.

To cut off the top of the dock does no good its root must be eradicated.—Sin is the dock root.

The thistle has a beautiful blossom but it is so armed with spines that every body abhors it.—Beauty and bad temper.

The elder bush produces delicate and fragrant blossoms: but the farmer abhors it, because if he gives it a foot it will take a rod.—Obtrusiveness.

If the grass hoppers eat the silk of the corn there will be no harvest.—Irreligious principles in childhood.

If you go into a field of beggar ticks in Autumn' when you come home your clothes will reveal the fact.—Vulgar companions.

Cranberries hide themselves beneath the moss; he who will find them must look for them.—Modest worth.

"You see how such of the trees as bow their branches to the winter torrents escape unhurt; but such as resist perish root and branch."—SOPHOCLES.

Yielding to the opinions of others.

The blossoms of the barberry blast grain in their vicinity.—Bad examples.

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AN AMERICAN STATESMAN.—The true American statesman is *patriotic*. He loves his country—his *whole* country. He is jealous of her honor and proud of her fame. In the hour of her prosperity he rejoices, in the hour of her peril, he flies to her rescue. He loves the glorious *Union*, and seeks to strenghten its bonds. He frowns upon every attempt, in whatever quarter originating, to breath jealousy and discord among the members of our national family. He knows not east nor west, nor north nor south, only as being parts of one grand, united inseparable whole. Such men have lived in this country. Such now sleep in their country's bosom. Washington Franklin, Jefferson, Jay, William Wirt, Roger Sherman, Patrick Henry! These and their compeers were the very soul of this nation—the great heart whose every beat sent its streams of patriotic life-blood through every vein and artery of the republic. The debt we owe them can never be repaid. They have directed their country to glory, and their countrymen to hope. They have been our teachers to instruct—our counsellors to guide—our guardians to defend. And their bright example and holy precepts still constitute the "cloud by day and the pillar by night," to guide the millions of this favored land to usefulness, to knowledge, and to truth.

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GUTTA PERCHA SOLUTIONS.—Gutta Percha readily dissolves in a solution of chloroform without the aid of heat. The solution thus formed makes an excellent varnish, for if it is brushed on any object, the chloroform evaporates with great rapidity and leaves a thin skin of the gutta percha, which thus acts as a preservative against water and air. It is therefore excellent as a plaster for cuts. The solution is excellent to preserve fruit in a collection of natural history. Heretofore wax has been used for this purpose, but is not so good. This solution is the best and most delicate varnish for paintings and drawings on paper.—*Scientific American.*

Poison Wheat.—It is stated in some of our exchanges that several persons had died of eating bread made from wheat that had been struck with the rust. And that animals also that had eaten the wheat had died. This, if true, is cause for alarm and extreme caution.

There is a mistake, however, we believe, in calling the poisonous article rusty wheat.—Wheat struck with rust ordinarily makes very good bread. It is a condition of the wheat different from rust that renders it poisonous. It is by some persons explained to be this. The berry remains soft as when in the milk, and does not become hard. This has been supposed to be owing to the rain at the period of transition from the flower to the berry. If this be the true cause it will not be improbable that a large portion of the wheat of the present crop may be infected with the disease as there has been an unusually abundant supply of rain since May. It would be a good and reasonable caution, if it could be done, to have all wheat inspected as it comes to market, and before going into the mill. What has thus been affected before the present year, and is known among farmers as 'sick wheat.'—*Detroit Free Press.*

From the Michigan Farmer.

**State Society's Fair.**

The long anticipated first Annual Fair of the Michigan State Agricultural Society has been realized. Although some sad spirits predicted a failure, we were sanguine of success. But sanguine as we were we found ourselves somewhat unprepared to meet the avalanche of exhibitors and visitors that poured into our city. Being crowded with business at the present, we have not time for lengthened remarks, but for the benefit of those who predicted a failure, we will state that several gentlemen connected with the N. Y. State Agricultural Society, who were present at our Fair, told us that it excelled in every respect their fourth, and in some respects, such as Floral Hall, the ladies' fancy work, and the rotunda of fine arts, excelled any Fair they had ever held.

The collection of fruits was much larger and better than we expected to see; not because Michigan cannot produce as good fruit as any other state, but on account of the same untoward circumstances that cut short the fruit crop this season in almost every state in the Union. We doubt if the State of New York ever produced so handsome a specimen of that delicious fruit, the Stevens Genesee Pear, as those exhibited by Mr. Clark, of Oakland county.

We noticed several new seedling peaches upon the tables, but not having an opportunity to taste, or examine them closely, we cannot speak of their merits so fully as we would like to; but relying upon the correct judgment of our tasty friend, Judge C., we pronounce the Davy Peach, raised by Mr. Davy, in the town of Warren, Macomb county, to be the best seedling peach offered. The moss baskets, floral designs, bouquets, &c., spoke so loudly for themselves that it is unnecessary for us to undertake to describe them.

Comparative Growth of Peas.—Mr. Thomas Mecham, of Philadelphia, made an experiment with several kinds of peas, and noted the periods of their harvesting. They were all sowed on the 3d of April, in the same soil and situation, and grew, in every respect, under equal circumstances. The time when each produced pods, fit for use, stands opposite their respective names.

| | | |
|---|---|---|
| Prince Albert, | June | 10th. |
| Bishop's dwarf, | " | 17th. |
| Thompson's dwarf, | " | 17th. |
| Early May, | " | 21st. |
| Early June, | " | 21st. |
| Early frame, | " | 21st. |
| Early Charlton, | " | 21st. |
| Royal dwarf marrow, | " | 25th. |
| White marrow, | " | 25th. |
| Black-eyed marrow, | " | 28th. |
| Blue Prussian, | " | 30th. |
| Blue Imperial, | " | 30th. |
| Banksian marrow, | July | 2d. |
| New mammoth, | " | 2d. |
| Dwarf sugar, | " | 2d. |

The Sun Flower.—Will some of our correspondents furnish us with information as to the value of sun flower seed oil as a substitute for linseed oil? Also, the mode of cultivation, yield per acre, quantity of oil obtained from a bushel of seed, value of the stalks and leaves for fodder or fuel, &c. The increasing demand and high price of linseed oil, at the present time have induced people to inquire for some substitute.—*Valley Farmer.*

## My Country.

I love my country's pine-clad hills,
Her thousand bright and gushing rills,
Her sunshine and her storm;
Her rough and rugged rocks, that rear
Their hoary heads high in the air,
In wild fantastic form.

I love her rivers deep and wide,
And those bright streams that seaward glide,
To seek the ocean's breast;
Her smiling fields, her fertile vales,
Her shady dells, her pleasant dales,
Her haunts of peaceful rest.

I love the forest dark and lone,
For there the wild bird's merry tone
Is heard from morn till night;
And there are lovelier flowers, I ween,
Than e'er in eastern lands were seen,
In varied colors bright.

Her forests and her valleys fair,
Her flowers that scent the morning air,
Have all their charms for me;
But more I love my country's name,
Those words that echo deathless fame,
And sound from sea to sea.

*New England Farmer.*

BROWN'S EARLY CORN.—This variety of corn has the property of early maturity. I planted it the 27th of May last, nearly two weeks later than the usual time of planting corn in this vicinity, and it was cut up quite two weeks before other kinds were ripe. It has the advantage of producing a fair-sized ear, with large grains, on a small stalk, so that it cannot possibly exhaust the land so much as other varieties, while it furnishes about all that is desirable to raise for fodder: for, when cut up and husked, the stalks are nearly as good as topped corn.

Several persons have planted this corn, and do not like it. In most cases that have come under our observation, it has been planted under such disadvantages, that no corn could be expected to produce a crop; some planting either too late, or in cold, wet situations, while others, again, have planted it on dry soils and so far apart, in the rows, that it was injured by the droughts of the season.

To raise this corn advantageously, it should be planted on good soil, and it would be better if it could be started early, by stimulating manure, as guano, poudrette, or any other rich compost. It should be planted three by two and a half feet apart, at least: even three by two feet will answer. By pursuing this course, I have no doubt but that as large a crop of good corn could be raised, as with any other variety, if not more.

There is another advantage which this corn has. By its early habit, it can be harvested, so as to enable it to be used for early feeding, which often is very desirable, as well as for grinding for new meal. H. A. F.

POUGHKEEPSIE, Sept., 1849.

[*N. Y. American Agriculturist.*

## The Plow and the Sickle.

BY HON. TRISTAM BURGESS, OF RHODE ISLAND.

*Sung at the Norfolk County Cattle Show.*

With the Pioneer Axe, what a conquest is made;
What a field from the forest is won!
What regions reduced from the wilderness shade,
Are now warmed in the beams of the sun.

From the rock where our fathers in exile first landed,
There clearing, from river to river, has spread;
And mountains and plains, by their sons are commanded,
Till now on the beach of Pacific they tread.

What farm for a nation to cultivate now!
And gather the wonderful harvest it yields.
'Tis an Empire, reduced to the Sickle and Plough.
An empire of gardens, and orchards, and fields.

Hail, Nation of Farmers! rejoice in your toil,
And shout when your harvest is o'er;
Receive the oppressed to your land with a smile,
But frown every foe from your iron-bound shore.

And He who, by deeds, has now reached a high station,
And is called to preside o'er the Commonwealth now,
Must relinquish his farm to save our young nation,
As for Rome, Cincinnatus relinquished his plow.

The Plow and the Sickle shall shine bright in glory,
When the Sword and the Sceptre shall crumble in rust.
And the farmer shall live, both in song and in story,
When warriors and kings are forgotten in dust.

### Cultivate Energy.

Many of the physical evils—the want of vigor, the inaction of system, the languor and hysterical affections—may often be traced to the want of a well trained mental power, and well exercised mental control, and to an absence of fixed habits of employment. Real cultivation of the intellect—earnest exercise of the mental power, the enlargement of mind by the acquirement of knowledge, and the strengthening of its capabilities for effort, the firmness of the endurance of inevitable evils, and for energy in combatting such as may be overcome, are ends which education has to attain. Weakness, if met by indulgence, will not only remain weakness, but become infirmity. The power of the mind over the body is immense.—Let the power be called forth—let it be trained and exercised—and vigor, both of body and of mind, will be the result.—There is a homely, unpolished saying, that "It is better to wear out than to rust out;" but it tells us a plain truth—rust consumes faster than use. Better, a million times better, to work hard, even to the shortening of existence, than to eat and sleep away the precious gift of life, giving no other cognizance of its possession. By works of industry, of whatever kind it may be, we gain a practical knowledge of the value of life, of its high intentions, and of its manifold duties. Active, earnest industry is a living hymn of praise—a never failing source of happiness; it is obedience, for it is God's great law of moral existence.

"The mere money which endows a school or college, is not the only or the highest contribution to the cause of education or improvement. It may have been acquired by dishonorable trade or accursed traffic. It may have been amassed by sordid hoardings, or wrung from oppressed dependents. It may carry with it to the minds of those for whom it provides, the pernicious idea that a pecuniary bequest may purchase oblivion for a life of injustice or avarice, or secure for the vile and the infamous that ever fresh and fragrant renown which belongs to the memory of the just. The noblest contribution which any man can make for the benefit of posterity, is that of a good character. The richest bequest which any man can leave to the youth of his native land, is that of a shining, spotless example."

MADISON.—Over fifty new buildings have gone up during the present season. Many of them are substantial brick edifices. The multitude of new comers is past all precedent. Such a thing as a house "to let" is out of the question—the supply being no where near the demand. Large preparations are also already being made for building next year. The difficulty of procuring material, so long a draw-back on the place, is about to be obviated. In addition to the steam mill of S. MILLS, Esq., which has been kept constantly running, a new one of the same kind, owned by Hon. T. T. WHITTLESEY, and situated west of the 4th lake, will be in operation in a week or two; and the saw-mill of L. J. FARWELL, Esq., at the outlet of the lake, is also advancing rapidly towards completion.—These three mills in connection with the others already in operation, will doubtless furnish lumber sufficient to keep somewhere near the demand. Preparations are also being made to furnish sufficient quantities of brick to meet the wants of the community, so that although the growth of the place has been large this year, it promises to be much larger next.—*Argus.*

VALUE OF ANNEALED WIRE FOR FENCES.—In conversation with Mr. GRANT, of fanning-mill notoriety, he remarked that annealed wire never rusts. He stated that he had now a wire screen to a cellar window, which has been very much exposed, on the north side of the house, for thirteen years, and until the chesnut frame is quite rotten, while the wire, although of No. 16, and never painted, is still sound and good.—He remarks the same fact in regard to wire used for fanning-mill sieves. We also have some experience to the same point.

In putting up some wire around a poultry yard, to prevent the fowls from flying over the pickets, (which, by-the-by, were only 4½ feet high, with two wires above, and answered a good purpose,) we used bright wire. This rusted off, and failed entirely in one season. We then used annealed wire, which, although much finer, is still sound and good, after three years use.

Mr. Grant's opinion, corroborated by our own experience, is, that annealed wire exposed to the atmosphere, does not rust, at least not enough to destroy it, and that it is a better preventive than galvanizing, or any other process.

This important fact should be borne in mind by all who are intending to build wire fences. We would remind our friends, that we furnish wire for fences, already annealed, as cheap as a good article can be purchased in the city.—*N. Y. American Agriculturist.*

LARGE CROP OF BEETS.—We have received a bushel of nice and large Blood Beets, as a specimen of the crop raised by Mr. Turner, of the Insane Hospital in this town. Mr. Turner raised this season one hundred and sixty bushels of these beets on fifty-six rods of land.—*Maine Farmer.*

A DARK DAY.—*Singular Phenomenon.*—A very unusual phenomenon was exhibited on Sunday last. The sun rose in a cloudless sky, though struggling through a thick haze, the usual accompaniment of Indian summer. Towards 10 o'clock the haze or smoke increased in density, the sun disappeared and everything wore a sombre aspect. At half past eleven the darkness had so increased that a person could not see to read in a well lighted room; and thinking that Luna had suddenly possessed the impudence to stand before his Imperial Majesty, Old Sol, we searched our almanac through for the record of a Solar eclipse, but in vain. At a quarter before twelve the whole heaven appeared as dark as midnight, except at the north west, where, for the space of 30 degrees in the horizon, extending to a point in the zenith, was the appearance of a lurid flame, casting a dull golden tint upon every object. At 12 the heavens brightened somewhat; but at a quarter before one, the haze grew more dense; the outlines of the bluffs immediately in the rear of the town could not be seen, and in a few minutes more the darkness of night overspread the whole heavens, and a solemn gloom alone was visible. Lights were brought into requisition in every part of the village. This darkness was of short duration; a slight fall of rain succeeded, the heavens cleared away, and by four o'clock, all was natural and straight again.

The only explanation we are able to suggest for this darkness in mid-day is a very rare atmosphere, together with clouds of smoke from the burning prairies, resting upon us. A similar phenomena we once before witnessed in New York, we think in the fall of 1833. —*Prairie du Chien Patriot, Nov. 3.*

It is rumored that a project is in contemplation by the British government to buy up the mortgages held on Irish estates, and offer the land on tempting terms to new occupants or capitalists. The city of London has estimated that it will advance £2,000,000 for the carrying out of the scheme, on good security.

Let young people remember, that their good temper will gain them more esteem and happiness than the genius and talents of all the bad men that ever existed.

# EDITOR'S TABLE.

## Educational Department in the Farmer.

We are now making arrangements for adding an Educational Department to the Farmer, at the commencement of the next volume. As a smaller sized type is to be used in the printing of this Journal, we can devote from four to six pages to such a department, and not materially abridge the amount of Agricultural matter now given. If demanded, additional pages will be furnished. In making this new arrangement, we are confident we but consult the wishes of the great mass of our readers; and though it puts us to considerable additional expense, yet we trust to a greatly enlarged circulation to reimburse us in our increased outlay of means. No effort will be spared in sustaining for the Farmer the excellent reputation it has acquired, and in rendering broader the sphere of its usefulness. The best talent in the State will be engaged to furnish articles regularly for the several departments, so that, in all respects, the Wisconsin Farmer shall be *the* paper for the Farmers of Wisconsin.

The *North Western Educator*, by J. L. Enos, the publication of which, was removed from Chicago to this city, a few months since, we are informed has been discontinued.

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Wisconsin Fruit—Acknowledgement.—Whatever may have been the feare entertained and expressed, here andelsewhere, that our soil and climate were not adapted to fruit growing, and that fruit in its commonest varieties could not be successfully cultivated, they are now being proved groundless, and the results of what were deemed a *fruitless* experiment, are conclusive as to the fact, that as good and fine fruit, both in quality and quantity, can be grown in Wisconsin as in any other State. We say not this as an idle boast, but with an impression of its truth because of what our own eyes have seen, and with some of the palpable, tangible evidences before us as we write. True, perhaps, that in some sections, especially on our prairies and more exposed localities, great care, much labor, skilful culture, may be requisite; but with these there can be no question but that fruit of most kinds may be raised, and in quantities to reward the culturist. Hitherto our farmers, with here and there an exception, have neglected almost entirely this branch of their calling, and they have been content, in the midst of wheat growing; to suffer the raising of fruit to remain with them an untried experiment. But the practicability of the thing has been fully and fairly tested, and those who early turned their attention to horticulture, in connection with farming, are now receiving their reward in plenty of fine, delicious fruit.

We wish it to be understood, especially by our own farmers, whose attention we would earnestly invite, that fruit can be grown in the West as well as in the East; and that, when they shall give time, care, and labor to its culture, we shall not be to the trouble and expense of satisfying ourselves from abroad. The finest specimens of fruit we saw at the recent Annual Fair of Mechanic's Institute, in the city of New York, was from the garden of Dr. Kennicott, near Chicago. And if we mistake not, the premium on apples was awarded him at the N. Y. State Fair.

But as fine fruit as we ever saw we have seen here—the growth of our own State. Specimens of the peach sent us we noticed in our last No. We were recently shown, and had our taste gratified in eating from a basket of most delicious pears, and of rare and most approved varieties, from the garden of our fellow townsman, W. J. Hunt, Esq. We have now before us, while we write, two baskets of apples—a superior article—presents from our friends Bell, of Gardiner's Prairie, and Beattie, of Raymond, in this county. In size, quality, flavor, etc., they can hardly be surpassed in any country, or any section of country beneath the sun. From the first we have the "English Autumn Bergemot," "Golden Russet," (winter and spring,) "Winne" late fall, "Colvert," fall, "Pomme Roy," winter, "Winter Sweet Russet," and "Pomme Grise," (from Canada). We are extremely thankful to Bro. Bell for his remembrance of us, and take pleasure in calling the attention of our readers to his Nursery and Garden, where they can be supplied with any thing in his line.

The apples sent us by Mr. Beattie are from the farm of Peter G. Morier, in Raymond, now in charge of Mr. B. This farm ranks among the first in the whole country, and is, we understand, for sale. There is upon it, in good condition, and of choice selections, 168 Apple trees, 24 Plum, 12 Cherry, and a considerable number of Peach and Quince trees.—There were raised on this farm the past season, 60 bushels of apples.

Of some of these apples we had commenced preparing *Cuts* for this No. of the Farmer, but the amount of business on our hands has prevented our completing them. We will have them ready for our next No.

We trust our farmers will derive encouragement from the success of these men. What others have accomplished they may accomplish. And where is the farmer who would not be proud and well-pleased with a sufficiency of fine, delicious fruit, grown upon his own farm, the product of his own careful and intelligent culture? With the same pains, the same effort, he may reap the same reward.

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Pork and Beef in Ohio.—The Cincinnati Gazette says that in ninety-nine counties in Ohio, the total number of hogs in 1848 was 1,336,367, and is 1,410,377 in 1849. In the same, the number of Beef cattle was 637,284 in 1848, and is 688,248 in 1849.

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The only way to be permanently safe is to be habitually honest.

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Love of Fame.—The love of fame not regulated by principle, is more dangerous to the welfare of society than the love of money.

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Guard against Fires.—This advice is for the Western prairies, where, at this season, much fencing, hay, and grain is consumed by the sweeping fires, every year.

LYNCHES DEAD SEA EXPEDITION—Narrative of the United State's Expedition to the River Jordan and the Dead Sea, by W. F. LYNCH, U. S. N., Commander of the Expedition, with maps and numerous illustrations. Philadelphia: Lea & Blanchard. 1849. 8vo. pp. 308.

Such is the title of a volume recently issued from the press, and which we have read with pleasure and profit. It is the personal narrative of Lieut. LYNCH, the record of his own observations and those of other members of the Expedition, the story of a long, tedious, but interesting journey to the Holy Land, and of discoveries in the valley of the sacred Jordan and the Dead Sea. The scientific facts and results which belong more especially to the official Report, to be published by Congress, are omitted. They are quite important as the complement of this volume. We recommend the work as eminently worthy of perusal, and especially by the unbeliever and those who are skeptical with reference to the Mosaic account of the destruction of "the cities of the plain."

For sale by. M. Miller, Racine.

WISCONSIN AUTUMN.—While in the Eastern States generally, and in some of the Western, there have been rain and snow, with all the usual indications of the near approach of winter, we have been enjoying for several weeks, and are now, the finest, most delightful autumnal weather we ever experienced. We have still the blue haze, the mild atmosphere, the clear sky, the warm sunshine, and all the accompaniments of Indian Summer. If we possessed genius such an autumn would inspire us to song—but we have not the gift, and can aspire only to dull and limping prose.

Albany, Nov. 10th.

The Hudson river has risen 17 feet since last evening. A large quantity of Flour and Provisions are under water, and several canal boats, loaded with Provisions, broke from their moorings and drifted down stream.

### The Poetry of Heaven.

"Ye stars! whichare the poetry of Heaven."

Among the thousand apostrophes that have been written—and apostrophic is a fair test of poetic ability—none can compare with that written by Byron, commencing with the line just quoted. But, it may be asked, how so? or how can the

They are the same to us as they were to the Psalmist of Israel, when at eventide he exclaimed: "When I consider the heavens, the work of thy fingers—the moon and stars which thou hast ordained—Lord! what is man, that thou art mindful of him? or the son of man, that thou visitest him?" And finally, the stars, the unchanging stars—and, oh, how touching the thought! appear to us in the same placid magnificence as they did to the Redeemer of the world, when, "having sent the multitude away, he went up into the mountain apart, and continued all night with God in prayer."—*Western Christian Advocate.*

When pride leads the van, beggary brings up the rear.

## COMMERCIAL.

WISCONSIN FARMER OFFICE.
Racine, November 14, 1849.

Receipts of Wheat larger during the past week, on a dull and declining market. We quote Winter 60@75; Spring 50@60.

There are quantities of produce in store, awaiting shipment and vessels to take it, but Insurance Companies refuse to take risks as late as usual, although the season is unusually fine for navigation, and Shippers prefer to hold until spring to being their own insurers.

We notice a new feature in our market—the purchase and shipment of Barley to the St. Louis and Detroit markets.

There have been some shipments of Wheat in bags, by the Mail Boats, for flouring in Michigan. Business generally active.

EXPORTS DURING THE WEEK:

Per Schooner *Eagle*, from Norton & Durand, 2000 bushels wheat; from Robert Cather, 5000 bu. wheat.

Per Schooner *Westchester*, from Henry L. Marsh, 7000 bu. wheat; from Robert Cather, 2000 bu. wheat.

Per Brig *Saginaw*, from Norton & Durand, 4000 bu. wheat; from Basset, Topham & Co., 1100 brls. beef, and 800 brls. flour

Per Steamer *Keystone State*, from Bassett, Topham & Co., 1000 brls. flour; from Murfey & Dutton, 350 brls. flour.

Per Steamers *Ward* and *Pacific*, from Riley & Farnsworth, 4000 bu. barley.

IMPORTS DURING THE WEEK.

Per Schooner *Robert Emmett*—Stores and 50 tons merchandize.

Schooner *Cramer*, 80,000 ft. of lumber for N. Pendleton & Co.

Brig *Ontario*, 70,000 ft. lumber for N. Pendleton & Co.

# THE WISCONSIN FARMER,

AND

# NORTHWESTERN CULTIVATOR.

VOL. 1. RACINE, WIS., DEC., 1849. NO. 12.

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☞ The Farmer is subject to newspaper postage only.


For the Wisconsin Farmer.

## Chess.

A CUD FOR NON-TRANSMUTATIONISTS.

MR. EDITOR: I noticed in a late number of the "Farmer" an article headed, "*Chess—How is it Produced?*" I eagerly perused it, hoping to receive light upon the subject. I found that conflicting arguments were adduced, and nothing particularly decisive in relation to the subject, farther than what I had before heard.

Hoping to hear something further in relation to this "unsound and unprofitable doctrine," I thought I would send you a few remarks, together with a statement of facts which came under my own observation.

During the last wheat harvest, while engaged in stacking wheat, I shelled from a *single head*, growing upon a *single stalk*, both WHEAT and CHESS, the wheat being perfectly full and plump.

Now, if this prove the doctrine of transmutation, which it certainly does—if wheat and chess are both produced upon the same stalk, and growing from the same common root, I see no reason why those "most able and really scientific agricultural writers" should still remain inflexible, disregarding the unequivocal testimony of so many living witnesses, and *still* call for *proof*, when so many undeniable statements have heretofore been given upon this subject, seeming to doubt the veracity of all who have written upon the subject. There seems to be a lack of confidence in the statements of others, and nothing, but to have it shown to them, "will be a settler to their views" on the subject.

Now, whether it be a physical, mathematical and philosophical impossibility, or not, had the "learned and talented Editor of the *Genesee Farmer*" been in Wisconsin, I could have given him an opportunity to have paid his premium, and "crept into a knot hole."

I have also seen fields of chess, where wheat has been sown, and where I *know* that one quarter of the chess was not sown, and that it must have been produced by the transmutation of the wheat, unless the statement be true, that the soil is full of chess seed, and that cultivation causes it to germinate, which idea I think to be perfectly absurd.

I think that those who oppose this doctrino would do well to be a little cautious in condemning it, as entirely contrary to the laws of nature—for her established laws cannot be broken—and we do *know* that chess is produced by the transmutation of wheat.

Yours, &c.,

ALFRED HITCHCOCK.

SUMMIT, *Oct. 11th*, 1349.

For the Wisconsin Farmer.

MR. EDITOR:—"*Let truth prevail though the sky should fall*"—such is my motto. The truth of every system, theory, or doctrine, injurious in its tendency to the welfare, interest, or advancement of the human family, should be thoroughly proven before it is received and promulgated as truth. Such a theory is evidently that of the transmutation of wheat to chess, to which I am sorry to see that you have given your countenance in your leading editorial of last month.

I say not that such transmutation is a "physical, mathematical, or philosophical impossibility,"—it may be possible (for what I know), that, under certain circumstances, wheat should turn to chess, or pumpkins to peaches. I plead not "the Ipse dixit of learned authorities, or of scientific agricultural writers"—and I, too,

"hold to progress, and that we have not yet reached the ultimatum of truth in agricultural matters,"—but I do ask for proof—proof the very best the case admits of—which in this case would be proof beyond cavil, doubt or question, of a transmutation such as the whole records of vegetable history furnishes not one incontestibly proven instance.

No man of sound mind will, I think, on reflection, believe an unprofitable, or improbable theory until compelled so to do by evidence.

If the fact of such transmutation is of so common, nay, of such every day and constant occurrence, and if the causes and circumstances which produce it are so well known, and so continually acting, why is it, I would ask, that no such evidence has ever yet been furnished by the ardent supporters of that theory? Why is it (and I should like an answer to this question) that no one of those firm believers has ever been able to produce such legal evidence of having raised a single grain of chess from all the wheat they have ever sown, as would enable the producer to obtain the standing reward long, and still offered by the Editor of the Cultivator, for the production of a single grain of chess from wheat sown? This fact speaks volumes, and appears to me to render arguments, except for argument's sake, superfluous.

Let then the believer in the doctrine of Transmutation make experiments in such a manner as to be secure from error or imposition, and my word for it, he who thus experiments, independently of the assertions or theories of others, will be able to settle the dispute, convince the world, and claim the reward offered, or he will become convinced, satisfied and assured that though fleas may, under "*certain circumstances*," turn to lobsters, he cannot turn wheat to chess.

C. W. Whittelsey.

Sheboygan, *Sept.* 7, 1849.

☞We can assure our Sheboygan Correspondent, that we ever have been a firm believer in the transmutation of wheat to chess, and that the more we investigate the matter, the more firmly do we become convinced of the correctness of our position; and we cannot but think that our friend Whittelsey will ere long not only believe it more possible for "wheat to turn to chess, than pumpkins to peaches." But that wheat *does* turn to chess. Mr. W., like all others who oppose the doctrine of transmutation, calls for "proof, proof positive"—such as would obtain the standing reward offered by the Editor of the Cultivator. From the remarks made in reply to the Michigan Farmer, not long since, by the editor of the Cultivator, we almost doubt whether he would yield the point were he to plant the wheat with his own hand, and trace with his own eye, the growth of chess from *its* sprout to the kernel.

We invite the attention of all non-transmutationists to the communication of Mr. Hitchcock, found in a preceding column. The discovery of Mr. H. certaintly proves one of two things: either that wheat turns to chess, or chess to wheat, which, we think, (if it does not prove conclusively,) is better evidence of the former position than the latter, and wholly explodes the theory, that chess is produced only by its own seed, and which may even have laid dormant for centuries.

We invite the attention of our readers to this subject, and to communicate the result of their investigation. It is a matter of vast importance to the wheat-grower. When the cause is known a remedy may be applied. We are firm in the belief, that with some experimenting the cause may be traced out.

Great Tunnel.—The "big hole" through the rocks at New Hamburg, on the Hudson River Railroad, is 830 feet long, through solid rock. At one end of the Tunnel is a cut, 500 feet long, 30 wide, and 50 deep, and all through solid rock; at the other end, the cut is 200 feet long, and 70 deep,—making the entire cutting through the rock, including the Tunnel, 1530 feet. "Daylight" is let in by two shafts, 19 feet high, and 24 wide

In making this "hole," 400 men are employed, nine blacksmith shops, with two fires each, in steady operation, to repair and temper the tools; and 6000 kegs of powder have been used in the last 14 months.

A Buried City.—Mr. E. G. Squier, our Charge d' Affaires to Central America, in a paper sent by him to the Ethnological Society of New York, states that he had discovered a city about one hundred and fifty miles from Leon, that was buried beneath a forest far surpassing in architectural beauty the ruins of Palenque.

☞A cotemporary suggests that Capt. Kidd planted his money in California; and the soil in the mines being very fertile, it took a spread.

THE FARMER IS NOT PROPERLY ESTIMATED—*Whose Fault is it?*—It is a lamentable fact, that the farmer does not occupy that elevated position in society that his occupation justly entitles him to. He is looked upon as a being quite below the lawyer, physician, divine, artist, merchant, or even merchant's clerk. To be a *farmer*, is to be a nobody, a mere clod-hopper, a digger of bogs, and ditches, and dung heaps, and free to wallow in the "free soil" he cultivates, provided he never seeks to elevate himself above that position, to what the world is pleased to term "good society." Hence comes the desire of "the boys" to escape, not so much the drudgery of their employment, as from the idea that they are looked upon and estimated as mere drudges.

What blindness, folly, and false philosophy is this! The result of these false premises, is, that the "professions" are crowded to the starvation point; clerks not only go begging, but become beggars, or worse; merchants are multiplied, and good, old-fashioned labor is going out of fashion.

While we would give all due honor to the professions, the farmer, who is the *producer* of all, both in food and raiment, that adds to the comfort and sustenance of the human family, need not feel that he is *below* occupations that gain their support from the folly, pride, misery, or wickedness of their follow creatures.

If the aspiration of farmers were half so strong to elevate their sons as farmers, as it is to make them merchants, or professional men, and, perchance, loafers, we should soon be taught to look to the agricultural class for the best bred, as well as best fed men in America. —*Barnum's Address.*

PLENTY OF ROOM.—According to the estimates of the General Land Office, the whole United States empire measures about two thousand million acres. If one half should be waste lands and forests, there would still be a thousand million acres. Intelligent agriculturists believe that each acre, under good management, will easily support its man, and if so, then the United States would support the whole of the present population of the globe.

IMPORTATION OF DANISH CATTLE INTO ENGLAND.—The steamship Neptune, arrived from Bremen, has brought 171 oxen and cows, in addition to a general cargo of provisions; the steamship Wilberforce, from Tonningen 201 oxen and cows, forming the entire cargo; the Free Trade from Tonningen, 161 oxen and cows, and 43 sheep; the Eider, from Tonningen, 175 oxen and cows, 25 sheep and 20 lambs, and the large steamship Trident, arrived from Tonningen, has brought 284 head of horned cattle, comprised the entire cargo, consigned to order; the whole, with the exception of one arrived from Bremen, being the produce of Denmark.—*Agricultural Gazette.*

**He is rich who has God for his friend.**

VALUABLE TABLE.—The following table will assist the agriculturist in calculating the number of plants or trees which may be planted on a given piece of ground at any distance apart. It may also assist him in the distribution of manures, division of beds, &c. An acre of ground contains 53,550 square feet. An acre will contain at these distances apart:

| Feet apart. | Plants. | Feet apart. | Plants. |
|---|---|---|---|
| 1 | 43,560 | 12 | 302 |
| 1½ | 19,360 | 13 | 193 |
| 2 | 10,890 | 18 | 114 |
| 2½ | 6,920 | 20 | 108 |
| 3 | 4,840 | 21 | 98 |
| 4 | 2,722 | 24 | 75 |
| 5 | 1,742 | 25 | 69, |
| 6 | 1,210 | 27 | 59 |
| 9 | 597 | 39 | 48 |
| 10 | 135 | 40 | 27 |

A NEW PREMIUM FOR HOUSEHOLD PRODUCTS.—We notice that the Agricultural Society of Keene, N. H., have awarded a premium to a Mrs. Livermore, a clergyman's lady, for the best homemade bread. We like this idea well, and hope to see it acted upon by other societies. Let the staff of life be taken in hand, and let the premiums offered be appropriate and worthy the object of a good loaf of bread.

The truth is, the premium lists of our agricultural societies do need revising, altering and amending, exceedingly. We shall take an early opportunity to offer a few hints upon this matter. Among the rest we shall certainly remember good bread. For we maintain that good bread is intimately related to good morals, as well as happiness, and certainly to good health. Ladies, if you would "keep all quiet at home" and keep your husbands there, keep them well supplied with good bread, and let it be the handiwork of your own hands, sweetened with smiles and lightened with love; and my word for it, your household shall not only be blessed, but it shall bless you.—*N. Y. Agriculturist.*

A CHEAP FILTERER FOR WATER.—A very simple means exists, by which any poor family may *filter* all the water required, viz:—by using a large pan or tub as the tank, and filtering the water, (by ascension,) through a sponge stuffed into the hole in the bottom of flower-pots, using two pots, the lower one being half filled with charcoal, and loosely covered with thin flannel, the upper one placed in it so as to sink the flannel with it, and then secured by a string; nothing can be more simple nor more easily cleansed.—*The Builder.*

☞ Enclose new flannel in a bag: put it into a boiler with cold water; heat and boil it.—It will never shrink any more after this operation, and should then be made up into garments. —*Maine Farmer.*

WHAT A FARMER SHOULD BE.—A farmer should be well instructed in chemistry generally, more particularly as applied to agriculture; he should be well versed in mineralogy, geology, botany, and in the physiology of seeds, plants, trees, and animals, including the specimen of himana; he should learn geometry, mensuration, &c.; he should study political economy so far as to have a clear conception of the sources of wealth and prosperity.

In our Republican Government he should be instructed in his constitutional rights, and taught to vindicate them by a terse and condensed elocution. It will be a happy event for our country when our farmers, so educated shall have the ascendency in our halls of legislation, and thereby put a stop to the fallacious special pleadings of demagogues, who have already reduced our country, possessing all the means of prosperity in a pre-eminent degree, to a most pitiable condition, by their miserable legislation.—*North American Farmer.*

KEEPING HENS.—Mr. J. M. Mason, of Orwel, Vt., usually winters two hundred hens.—His practice is, to buy pullets in the winter. They cost about twelve and a half cents each. They are fed in a great degree on *mutton*. Mr. M. buys sheep in the fall at low prices—about what their pelts and tallow are worth. The carcasses are boiled, the tallow saved, and the flesh and bones, after being allowed to freeze, are kept till spring—a suitable portion being fed to the hens daily. They are allowed, in addition to the meat, a little corn, oats, or buckwheat. They lay well through the winter—comfortable quarters being provided for them—and continue to produce eggs in abundance till June. It is found most profitable to sell the whole stock at this period, as they are generally fat, and will bring from twenty to twenty-five cents a-piece. If kept through the summer, they lay but little in the warm months, the eggs will keep but a short time, the fowls grow poor in moulting, and if kept another year will not lay as well as young ones. Mr. M. keeps hens only, and is inclined to think he obtains as many eggs, and that they keep better. As to varieties, he has tried several, and thinks the *top-knots* will generally lay rather more eggs the first season; but their carcasses are of less value than most other kinds.

THE GROWING WHEAT CROP.—A ride through the central and eastern portions of this county last week, gave us a favorable opinion of the growing wheat crop. Notwithstanding the severe drought of August and September, the crop, as a general thing, has a vigorous appearance, and has obtained sufficient root to protect it against an ordinary severe winter and spring. We think the quantity of ground sown in this county, is larger than it was last year.—*Watertown Chronicle.*

Change of weather finds discourses for fools.

MANAGEMENT OF HOGS.—For the last four or five years, I have fattened spring pigs, believing them to be the most profitable. The way I manage is this: I take pigs, about the middle of March, and when they are about one month old, I put them in a small lot contignous to the house, so that I can feed them regularly on milk and Indian meal. I put the sows in good pasture, and turn them in with the pigs three times a day, until some time in July, when I turn my sows and pigs into my orchard, where they get the most of their living until October; then I feed them on corn-meal and mush until some time in January. When I kill them, they average from 250 to 275 pounds; and I am almost convinced that they are more profitable than wintered hogs weighing 400 pounds; but I stand open to conviction. Perhaps some of your able correspondents may convince me otherwise.—*Dollar Newspaper.*

MR. ABRAHAM ROWE, of Kensington, has a cow he raised from an eastern breed, 6 years old, from which was made between the 20th of May and Oct. 20th, *one hundred and fifty-six pounds of butter*, averaging over one pound a day from pasture feed only. It being his only cow, furnished his family with their cream and milk beside. Farmers would seem to forget that it costs no more to keep a good cow than an ordinary one.

COCHITUATE WATER IN SOUTH BOSTON.—On the afternoon of Wednesday, of last week, the water from Lake Cochituate was introduced into the reservoir on Telegraph Hill, South Boston, with ceremonies appropriate to the occasion. The cost of the reservoir is estimated at $40,000, and it is capable of holding 7,515,900 wine gallons.

FLOURING MILLS.—There are sixteen mills at Oswego, N. Y., capable of making 9000 bbls. of flour per day. In 1848, the mills of that city turned out 600,000 bbls. of flour.

☞Tomato vines, it is said, taken up before frosted, put into pots, treated as house plants, and set out in the spring, will bear earlier and richer fruit for several successive years.

FEMALE DOCTORS.—Three ladies have made application to the Trustees of the Central Medical College, in the State of New York, for permission to attend the course of lectures this Winter. Miss Gleason of the Glenhaven Water Cure; Miss Davis, of Mount Morris, and Miss Mary Taylor of Buffalo.

CURE FOR CORNS.—Mr. W. Bradsley of Springfield, in this County, informs us that saleratus bound upon these troublesome visitors for a few weeks, with occasional changes, will effectually cure them. He has given it a fair trial, and would recommend it as an infallible remedy to those afflicted.—*Madison Argus.*

## Fattening Animals.

At this season, the attention of the farmer is often directed to the fattening of those animals which are intended for the butcher; and it is important for him to know how he may turn such articles of food as he may have on hand for this purpose to the best account. Several articles, such as pumpkins and apples, will not keep long, and are to be used in their season, if at all. The least nutritious articles, so far as it can be done conveniently, should be fed out at first; afterwards those that are more nutritive. Fattening animals should be kept quiet, and suffered to take no more exercise than is for their health. All exercise, more than this, calls for an expenditure of food, which does not avail anything in the process of fattening. They should be fed regularly, with suitable food, and that properly prepared; and as much should be given them as they are able to convert into flesh and fat, without waste. "In the animal economy, the accumulation of fat and extra flesh, is only a deposite of superfluous nutriment, which, not being required by the system at one time, is laid by for future emergencies; and it must be ovious that the larger the quantity of food which a fattening animal can be made to consume daily, with a good appetite, or to digest thoroughly, the greater will be the amount of flesh and fat gained in proportion to the whole quantity of food consumed."

Animals will not thrive with any amount of food where they are uneasy and discontented, even if they are so closely confined that they cannot wear off their flesh by exercise; it is, therefore, important that they be fed regularly, and that there should be nothing to disturb them, or excite fear or discontent.

Of the root crops, for nutritive properties, potatoes stand first; then carrots, ruta bagas, mangel-wurzels, which are all nearly as valuable as potatoes; while the English turnip is the least valuable and nutritious. Of grain, wheat stands first; then peas, Indian corn, barley, and last, oats. Much Indian corn is used in fattening animals—especially, swine. For these, there is undoubtedly a great gain in having it both ground and cooked. It is said that where swine are fed on mush or hasty-pudding, they are much more quiet, and consequently gain flesh much faster, than where the same ingredients are fed to them uncooked.

The following hints on this subject, from that valuable agricultural journal, the Albany Cultivator, will be found of interest:

"Substances in which the nutriment is much concentrated, should be fed with care. There is danger, especially when the animal is first put to feed, that more may be eaten at once than the digestive organs can manage. Meal of Indian corn is highly nutritive, and when properly fed causes animals to fatten faster than almost any other food. They will not, however, bear to be exclusively kept on this article for a great length of time. Meal made from the heaviest varieties of corn, especially that from the hard flinty kinds grown in the northern and eastern states, is quite too strong food for cattle, sheep, or horses, to be full-fed upon. Hence one of the advantages of having the cob ground with the corn, by which the nutriment is diffused through a greater bulk, lays lighter in the stomach, and is more thoroughly digested. The effect of pure corn meal on animals, we suppose to be similar to that sometimes produced on our own species by the use of fine wheaten flour—the subject becomes *dyspeptic*, and is forced to use bread which has the bran mixed with the flour. The mixture of the cob with the meal, answers the purpose of the bran—the health of the animal is preserved, and the process of digestion goes on uninterruptedly. In fact, the advantages of grinding the cob and corn together for feeding cattle may be said to be well established. For hogs, the benefit of the cob, is not, we think so evident; those animals appearing to be better adapted for taking their nourishment in a concentrated form, than those which ruminate, or chew the cud. Yet food sufficiently bulky to effect the distention of the bowels is necessary for hogs.

"Hay or straw, cut into lengths so short as to be readily mixed with meal, answers a good purpose in rendering the meal easy of digestion, and in enabling the animal to extract from it all the nutriment.

"The conclusion arrived at from the result of a series of experiments instituted by the Highland Society of Scotland, a few years ago, was, that the superiority of cooked over uncooked food for *cattle* is but trifling, and not sufficient to balance the cost; but for hogs, the extra cost of preparation was repaid.

"The appetite and health of animals are promoted by giving a variety of food. This fact has led to the preparations for fattening stock. For fattening hogs, we have used with advantage the following mixtures: 1. Two parts potatoes and two parts pumpkins; boil together until they can be easily mashed fine—then add one part meal, stirring and mixing intimately together. The heat of the potatoes and pumpkins will scald or cook the meal, and when cold the mixture will be a stiff pudding. 2. Two parts potatoes, and two of ripe, palatable apples, (either sweet or sour); boil till they can be mashed fine—then add one part meal, (either from corn, barley, or oats and peas, allowing the same weights,) and mix together while the potatoes and apples are hot.

"Hogs are more fond of food when it has slightly fermented (not become pungently sour), and they appear to fatten faster if it is fed to them in this state. We have never seen hogs thrive faster than when fed on these mixtures, with occasionally a little dairy slop, and we have always found the pork solid and of good quality." R.

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He is the best scholar who hath learned to live well.—*Spanish Proverb.*

## Convention of Domestic Fowl-Breeders.

To the kindness of a valued friend and warm supporter of the approaching exhibition of Poultry in Boston, we are indebted for the following statistics, which, although not yet completed, speak volumes in favor of a business that has hitherto been considered too insignificant to require much notice, even at the meetings of those to whom the importance of the Poultry department of the farm must have been known and felt, but who will, we presume, be astonished, as well as admonished, by the accounts here presented.

"The breeding and rearing of Poultry is not second in importance to scarce any other article of stock in New England. By reference to the Agricultural Statistics of the United States, published in 1840, it will be seen, that the value of Poultry in the State of New York, was two millions three hundred and seventy-three thousand and twenty-nine dollars! which was more than the value of all the swine in the same State; nearly equal to one-half the value of its sheep; the entire value of its neat cattle, and nearly five times the value of its horses and mules!

The amount of sales of Poultry at the Quincy Market, for the year 1848, was six hundred seventy-four thousand four hundred and twenty-three dollars; the average sales of one dealer alone, amounting to twelve hundred dollars per week for the whole year. The amount of sales for the whole city of Boston for the same year, was over one million of dollars. The amount of sales of eggs in and around the Quincy Market for 1848, was one million one hundred and twenty-nine thousand seven hundred and thirty-five dozen, which, at 18 cents per dozen, makes the amount paid for eggs to be two hundred and three thousand three hundred and fifty-two dollars and 30 cents; while the amount of sales of eggs for the whole city of Boston for the same year, was a fraction short of one million of dollars; the daily consumption of eggs at one of its hotels being 75 dozen, and on Sunday, one hundred and fifty dozen. One dealer in the egg-trade at Philadelphia sends to the New York market daily, nearly one hundred barrels of eggs, while the value of eggs shipped from Dublin to Liverpool and London, was more than five millions of dollars for the year 1848."—*Boston Cultivator.*

Exhibition of Fowls.—Thursday was a great crowing day for the Cockerels of New England. The public garden near the Common was the place where all who had favorite fowls were invited to attend, and where no less than 180 lots were arranged in coops, under a canopy prepared for the occasion.

Much interest was manifested by numerous spectators, in a show of a kind that is unusual in this part of the world. Some of the coops were calculated to exhibit their inmates to great advantage, the entire walls thereof being composed of small wire.

The Cochin China breed of fowls, introduced here by Dr. Bennett, of Plymouth, and others, took the lead—at least so far as weight and portly appearance are concerned. But there were beautiful lots of other fowls that looked quite too innocent to be suspected of scratching in a garden bed. Here were wagtail and bobtail, pintail, croptail, and fantail—black, white, and mixed, bald pate, cropple-crown, and crownless.

The Dorkings stretched themselves and looked high on crowing. Some wild geese from Mr. Webster's farm looked sleek. The Pheasants were pretty. Swans and Pigeons and China Geese swelled the list—and the Ducks looked as if they were just from clean water.

Col. Jaques, of Charlestown, showed some of his Bremen geese—one, 23 years old, boasted of a numerous progeny. The Col. took the liberty of bringing to the field a pair of beautiful pigs, two or three months old, they were half Suffolk and half Mackay, and were the most beautiful specimens of live pork that we have ever seen—they are perfect beauties.

The show was continued yesterday, (Friday,) and a sale was to take place on the grounds.—Success to all who take care of the poultry.—*Mass. Ploughman.*

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Foreign Animals in the United States.—We learn from the Charleston (S. C.) Courier, that Dr. Davis, of that city, has recently brought into South Caralina, from the old world, specimens of the Thibet Shawl Goat and the Brahmin Cattle. Whether the Cashmere Goat can be successfully acclimated in the Southern States, remains to be seen. The Brahmin cattle are said to make fine beef, and are used for carriage and saddle purposes. They pace and canter well, and frequently travel sixty miles in a day. They have a fatty protuberance above the withers, which prevents the saddle slipping forward, and when killed, this hump is a great dainty for the epicure. They are beautifully limbed, with a development of muscle similar to our quarter race horse.—*Boston Courier.*

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To Cure a Stifled Horse.—J. B. Goddard, of Norwich, Connecticut, writes to the American Agriculturist as follows:—

Take one gallon of urine, and put therein a small handful of junk tobacco; boil down to one quart; then add two ounces of oil spike, one ounce of oil of amber, two spoonfuls of spirits of turpentine, and two spoonfuls of honey. Put it into a jug, and cork it tight for use. Process of application: Rub the stifle-bone hard with the mixture fifteen or twenty minutes; then dry it in thoroughly with a red-hot fire shovel; then ride the horse forth and back, one hundred yards. Repeat the above two or three times, and the cure will be effected.

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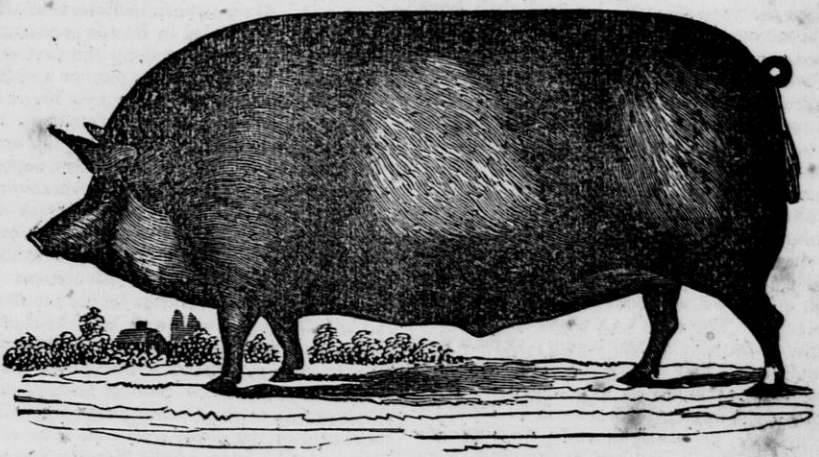
☞ Manufactures have made no inconsiderable progress at the South. Georgia has 45 cotton factories, South Carolina 45, Virginia 40, North Carolina 35, and Alabama 20.

## Portrait of an Improved Berkshire Hog—American Breed.



The above is a picture of a Berkshire Hog, of the improved American Breed. There has been much difference of opinion among breeders about the Berkshires. They have been extravagantly lauded to the skies, at one time, and abused and unduly depreciated at another. The conclusions arrived at, and generally acceded to now in regard to them, are briefly these: They are very *prolific*. They are good nurses. They fatten easily—and return the greatest weight of pork for the quantity of food consumed. They will not, as a general thing, attain to as great weights as some other breeds. They are better calculated for killing for family use, on account of the greater preponderance of *lean*, in proportion to weight, than in other breeds; but from their lacking depth of fat, they do not answer so well for salting down for sale. The meat of the Berkshire is of superior quality and flavor, being tender, juicy, and rich. They are easily, in one season, made to weigh from 150 to 250 pounds. For "roast pig" purposes, they are unequalled. They are gentle in their dispositions, and are not so troublesome as other swine. Their color varies; though generally it is a reddish color, with brown or *black* spots.—Their appearance in other respects, is that of a firm-built, broad-sided, thick and round-bodied, short-legged, small-boned hog. The head is well placed, cheeks full, and the ears large and generally standing forward, but sometimes pendant over the eyes. The best of this breed are without bristles, having substituted a long, curly, and rough-looking hair. Such, briefly, is the Berkshire Hog.—*Pennsylvania Cultivator.*

WHAT WILL TURN UP NEXT?—Mr. Josiah Judevine has left at our office a specimen of the ruta baga, or Swedish turnip, which measures 3 feet in circumference, and weighs 10½ pounds. Beat this who can.—*North Bridgewater Reporter.*

AN ANCIENT ART RE-DISCOVERED.—At a meeting of the Asiatic Society, London, a human hand, and a piece of beef preserved by means of a preparation of vegetable tar, found on the borbers of the Red Sea, in the vicinity of Mocha, and a specimen of the tar was presented. Colonel Hold observed:

"During my residence as political agent, on the Red Sea, a conversation with some Bedouin Arabs, in the vicinity of Mocha, led me to suspect that the principal ingredient used by the ancient Egyptians in the formation of mummies, was nothing more than the vegetable tar of those countries, called by the Arabs Kratan.—My first trials were on fowls and legs of mutton; and which though in the month of July, and the thermometer ranging ninety-four in the shade, succeeded so much to my satisfaction, that I forwarded some to England: and have now the pleasure to send for the Society's inspection, a human hand, prepared four years since by my brother, Captain T. D. Hold.

The best informed among the Arabs, think that large quantities of myrrh, aloes, and frankincense were used, these specimens will, however, prove that such were by no means necessary, as the tar, applied alone, penetrates and discolors the bone. The tar is obtained from the branches of a small tree, exposed to a considerable degree of heat, and found in most parts of Syria and Arabia Felix.—*Amer. Art.*

RASPBERRIES.—Mr. Charles Downing, nurseryman, near Newburgh, relates that one of his neighbors this season, sold the product of three acres of raspberries for about $1500.—They were of the large, red Antwerp variety. To grow them in this latitude, Mr. D. says the canes must be laid down and slightly covered with earth, say one or two inches deep, before the ground freezes, and thus kept till the spring opens.

From the New England Farmer.

## Farming will Triumph.

When the year nineteen hundred shall have been borne on the rapid car of time, and proclaimed in our midst, what an advancement will have been made in the arts and sciences, and in the various departments of agriculture, if new inventions and improvements continue to be put forth to the world as they have been for the last half century! Who of us can imagine the improvements that will be made in the cause of agriculture during the next fifty years? Judging from the past, when the year nineteen hundred shall have dawned upon us, the profession of agriculture will be as much coveted and sought after, as it was once considered low and disgraceful. The time was when farming was thought (especially by the young) to be a very unpopular and low business. How many a young man has forsaken a comfortable home and farm, and apprenticed himself to some village grocer, because, forsooth, farming was degrading! But a new era is dawning, upon this western continent; people are beginning to open their eyes to their true interests, and to the interests of the whole country.

While great improvements have been made, and are still making, in the arts and sciences, the cause of Agriculture has not been left in the rear. With giant force she has *ploughed* her way through, and with eagle wings she is fast soaring towards the summit of her glory. There was a time when the farmer would rowg crops on his New England soil so long as his land would yield him an equivalent for his labors, without the use of manure or compost, and then "pull up stakes," and turn his face with the emigrant towards the western wilderness. A different state of things is being brought about. The soil is cared for, and every waste material is turned to account. Thus the land is enriched and kept in a productive state, and rewarding the husbandman with an abundant harvest for his labors. Farming is not now confined to the mere ignorant classes of society, as men of talents and wealth have become engaged in it, thus showing to the world that to be a tiller of the soil is no mean occupation.

Since the existence of the mumerous machinations of mankind to obtain m oney without a resort to manual labor, the honest yeoman, by pursuing his honorable occupation, in earning his bread by the sweat of his brow has won for himself unfading laurels, and is receiving the attention and respect of all classes of the community. The time will come, and that too before the nineteenth century shall have been numbered with the past, when farming will become the leading occupation of the day, and those who are now leaving the plough for the city will be as eager to return to the plough, and enjoy the comforts of the farmer's life in the country, as they were anxious to leave it. These are the writer's humble predictions.

SMITHFIELD, L. I. A. TODD.

THE OLDEST SON OF NEW HAMPSHIRE who attended the grand Festival on Wednesday, was our fellow citizen, Mr. Samuel Gregg, of 18 Leverett st. He was born in Peterboro', N. H., in 1772, and has resided in Boston constantly for the last half century. Among the first settlers in his native town were his mother and father. The latter, subsequently known as Major Samuel Gregg, was a native of Londonderry. Joining, at the early age of 17, the English army in the old French war, he was at the capture of Louisburg, and on the Plains of Abraham, with the brave General Wolfe, whose great victory there united the Canadas to the British empire. When the Revolution broke out, he refused to act under his commission of Lieutenant in the King's service, took up arms for his countrymen, and with his wife, who was born in Haverhill, Mass., staked all for the cause of Independence. The following, related a few hours since by their son, the present Samuel Gregg, and the oldest person at the Dinner yesterday, will give some idea of the necessities and toils of some of the first founders ef the Granite State:

"My parents planted themselves in Peterboro'," remarked Mr. G., "about 100 years ago, on the banks of the Contoocook. At that period there was *not a settler*, nor a *single improvement* between their house and Canada; and it was years afterward, before they had *one neighbor*—and for a long time but *one*—between them on the *North*, and the *boundaries* of that Province. On a cold winter's day, my mother threw on her cloak of scarlet cloth—such as the great-great grandmothers of the rising generation were then accustomed to wear—and with her husband, went out upon the ice down the Contoocook, to see the family of their *nearest* northern neighbor in Antrim, 12 miles off by land, and some 15 by the river. They arrived about noon, but found their neighbor, Mr. James Aiken, had gone with his wife to *make a call* on some of their relatives, *twenty-five* or *thirty* miles distant at the East. Miss Aiken, their little daughter, then about 12 years old, made a cup of tea for my mother. After which, the two disappointed travellers retraced their steps over the ice to their dwelling, which they reached in the evening. That night there fell a rain so heavy as to break up the frozen stream; and had they not returned as they did, they could not have reached home for less than *four* or *five weeks*, as there were *no roads*, and the snow was *three and four feet* deep in the woods.—In those days there was not *a cart*, nor a *vehicle on wheels*, nor a *highway* in the whole town of Peterboro'; and my ancestor was obliged to take his grain four miles to mill, and bring the meal back upon a rude car, composed of poles, fastened lengthwise to a cross-piece, the front being elevated by the oxen, and the rear drawn over the ground, somewhat like a sled."

The venerable Samuel Appleton, Esq., of this city, now in his 84th year, was unable to be present.—*Boston Traveller.*

## Feeding Poultry.

Professor Gregory, of Aberdeen, Scotland, in an epistle to one of his friends, remarks on this subject as follows :—

"As I suppose you keep poultry, I may tell you that it has been ascertained that if you mix with their food a sufficient quantity of egg-shells, or common chalk, which they will eat greedily, they will lay twice or thrice as many eggs as before. A well-fed fowl is disposed to lay a vast number of eggs, but cannot do so without the materials for the shells, however nourishing in other respects, may be her food. Indeed, a fowl fed on food and water, free from carbonate of lime, and not finding any in the soil, or in the shape of mortar, which they often eat off the walls, would lay no eggs at all with the best will in the world."

I have this season kept twenty-three hens and a cock, feeding them mostly on grain, green vegetables, sour milk, and meat; but as the year is not yet completed, during which my experiments with them are to extend, I forbear entering into a detailed statement of the profit at present, as it cannot be fully ascertained, or even approximated. I have found that by giving them meat regularly every day, —the offal from the shambles, or, when this cannot be obtained, fresh fish, an abundance of which can be supplied from ponds and streams, —they will lay continuously, if provided with ashes, lime, egg-shells, or sand, to supply material for the shells. Brickdust is an excellent substitute for the above; but it is more expensive, and will rarely be resorted to where lime can be obtained. In August I commence setting my hens, allowing thirteen eggs—which are as many as can be well covered or incubated by one fowl—to each hen. Care is had to secure a good nest, where the sitting process will be performed comfortably and without interruption. Some commence setting their fowls in July; and when the poultry is wanted for early use or marketing, this is no doubt a better month than August; but I prefer the profit on the eggs during the preceding months, as I have never failed to have enough poultry for my own use, and a considerable quantity for marketing, when no chickens have been hatched till the last week in August, or the first, or even the middle of the month following.

As soon as the broods are hatched, the hen is removed to a coop, conveniently situated for feeding, and carefully attended for three weeks, when she is permitted to range the fields with her brood—a shelter being prepared for them at night, to which they ordinarily resort voluntarily, and without any trouble or extra inducement being offered after the first night or two. In setttng my hens, I am guided by the suggestions of Columella, who wrote nearly three thousand years ago, and who appears better to have comprehended the legitimate laws of poultry-raising than most of our modern authors, who pretend to great skill and accuracy in the art. He remarks that all the long-shaped eggs, having concentric circles developed on the smaller ends, invariably produce male birds, and those which have not, females. This I have found to be strictly true. When I intend to produce fowls for market or for home consumptiou, I select the long eggs, as males are heavier and more hardy than females; but if my object is brood fowls, the shorter and smoother eggs are taken. On this subject I will write you again.

AGRICOLA.

LOWER DUBLIN, *October* 15, 1849.

—*Germantown Telegraph.*

TO RENDER WOOD DURABLE.—In preparing wood for the purpose of building, saw it into such lengths as the occasion demands: next plunge the planks or beams into a pond of lime water. The pond is made thirty or forty feet long, five or six feet deep, sixteen or eighteen feet wide; and the bottom and sides are rendered water tight. It is then filled with cold water. Before receiving the wood, a quantity of fresh-burned hot lime is thrown into the pond, which is well stirred with the water, to dissolve as much as possible of it. Into this impregnated solution of lime water, the wood, in the various shapes it has been sawn, is then thrown. As lime-water absorbs carbonic acid from the atmosphere, the lime previously held, dissolved in the water, becomes insoluble, and is slowly abstracted from the water, and deposited at the bottom in a solid state, as carbonate of lime, hence the necessity of now and then putting in fresh portions of recently calcined lime, that the water may be resaturated with the strongest solution of this alkaline earth.

The timber remains in the water from two to three weeks. The lime is absorbed by the pores of the wood and appears to destroy the albuminous and saccharine principles, or so changes them that the wood no longer affords the food on which worms subsist. The slight petrifaction which the wood undergoes, prevents air and moisture from penetrating it, and renders it almost indestructable. It should be thoroughly seasoned before it is used.

There are some rivers having the quality of turning *wood into stone*, such as a famous lake in Ireland. It is the presence of lime in the water that effects the change. If wood be saturated in alum and then dried at an intense heat, it is very durable, and more so if a little copperas has been used along with the alum.—*Scientific American.*

MUNIFICENT BEQUEST.—The late Mr. Theodore Lyman has bequeathed a legacy of $50,000 to the Reform School, at Westborough, Mass., of which he was the founder. He has also given $10,000 to the Boston Farm School, of which he has been an active officer for several years, and $10,000 to the Massachusetts Horticultural Society, in whose labors he always took a deep interest.

## Conversation with Mr. H. L. Ellsworth.

This gentleman, from whom we always learn something new, called to see us a few days ago. His residence is at Lafayette, Indiana, where he is farming upon a tolerable large scale. He has 1,200 acres of corn, this year, that will average sixty bushels to the acre. He grows but little wheat, for the reason that he finds corn to be the best crop. He had 100 acres of the former unharvested this year, which was killed by rust. He gets his corn grown for five cents a bushel, and it costs about as much more to harvest it.

Among other things, he described to us a very simple, effective, and certainly a very cheap machine to cut up corn, which he has just invented. He took two pieces of scantling, five or six feet long, and fastened them together by a rude hinge at the point, in the form of a V, with a hickory bow, having a spread just wide enough to run between two rows of corn. Upon each side affixed a portion of the point of an old scythe, projecting out just far enough to sweep a row of corn upon each side. The bow serves for a handle and spring to keep the sides apart, and yet allow them to yield. Another bow, upon the top of each side piece, prevents the corn from falling on the machine. A couple of short, wooden teeth, sloping back, set in the forward part, keeps it from rooting. He then hitches a stout hourse to the machine and lets him walk between the rows, when the corn falls "like grass before the scythe." He then skips one row and cuts the next two, so as to set up the four rows upon the one standing.

Mr. Ellsworth is now fattening cattle, with his great corn crop, for New York market.—And the manner of getting them here is to be after this manner: He has his own boat, upon which he tows them up the Wabash Canal, to Toledo, with his own horses, freighting back pine lumber, &c. The boat is to be open, but has an oil-cloth cover to use, when required.—The cattle will stand in two tiers, heads to centre, and as the boat cannot be wide enough, on account of locks, to allow them to stand at right angles with the sides, they will be arranged thus: ▷▷▷ At Toledo they will be shipped on steamboat to Buffalo, at a cost of $2.50 a head, and from there by canal or railroad to Albany. As soon, however, as the Erie Railroad is completed, that will be the route, as the directors have assured Mr. E. that they will pursue a very liberal policy in this matter towards him and all others disposed to undertake to send forward provisions for this great city from the west.

Our readers can judge something of the magnitude of Mr. Ellsworth's farming operations, when we tell them that he is now building 28 miles of new fence in one job.

Mr. E. tells us that there are now in operation at the far west, three manufactories of corn starch; and from a sample shown us, we judge it is fully equal to wheat starch, and can be made a great deal cheaper. He also mentioned the value of kiln, or rather steam-dried hommony, or grits of corn, for exportation. This article we know to be an excellent substitute for rice.—So is hulled wheat.

Mr. Ellsworth has adopted the plan ot working cows in the york, to a considerable extent. They make excellent workers, and he finds it does not hurt them for breeding any more than it does to work mares, if done in moderation.—He also sows rye for fall feeding, to a considerable extent, and finds that stock never get the scours from eating it; while wheat will give it to them directly. Grinding corn and cobs together, he thinks very highly of. For that purpose, he uses one of Bogardus's mills.

Such are a few of the facts one learns from an hour's chat with this enlightened 'agriculturist.' We hope to give our readers many such specimens of conversation, in the course of the next year, with some of the most enterprising and improving men in the country.—*N. Y. American Agriculturist.*

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NUTRIMENT IN DIFFERENT CROPS.—The different kinds of crop usually raised differ materially in the proportions which they contain of the different essential constituents now enumerated, as required for the support of animals; and the practical deductions to be derived from the chemistry of the subject, will at once be apparent from an examination of the following tables. If we suppose an acre of land to yield the following quantities of the usually cultivated crops, namely:

| | | | | |
|---|---|---|---|---|
| Of wheat, | 25 | bushels, | or | 1,500 lbs. |
| " barley, | 35 | do | or | 1,800 " |
| " oats, | 50 | do | or | 2,100 " |
| " peas, | 25 | do | or | 1,600 " |
| " beans, | 25 | do | or | 1,600 " |
| " Indian Corn, | 30 | do | or | 1,800 " |
| " potatoes, | 12 | tons, | or | 27,000 " |
| " turnips, | 30 | do | or | 67,000 " |
| " wheat straw, | 30 | do | or | 3,000 " |
| " meadow hay, | 1½ | do | or | 3,400 " |
| " clover hay, | 2 | do | or | 4,500 " |

The weight of dry starch, sugar and gum, of gluten and albumen, of oil or fat, and of saline matter, reaped in each crop, will be represented very nearly by the following numbers:

| | Woody Fibre. | Starch, Sugar, &c. | Gluten & Albumen. | Oil or Fat. | Saline Matter. |
|---|---|---|---|---|---|
| Wheat, | 220 | 825 lbs | 180 | 45 | 30 |
| Barley, | 270 | 1080 | 210 | 50 | 36 |
| Oats. | 420 | 1050 | 290? | 100 | 75 |
| Peas, | 130 | 800 | 380 | 35? | 45 |
| Beans, | 160 | 640 | 450 | 40 | 50 |
| Indian Corn, | 270 | 900 | 180 | 150 | 30 |
| Potatoes, | 1350 | 3240 | 600? | 90 | 24 |
| Turnips, | 2000 | 6700 | 800? | 335? | 600 |
| Wheatstraw, | 1500 | 900 | 40 | 60 | 15 |
| Meadow hay, | 1020 | 1760 | 249 | 110 | 220 |
| Clover hay, | 1120 | 1800 | 420 | 200 | 400 |

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A COTTON FACTORY is about to be established at Houston, Texas.

## Agricultural Science in Colleges.

We notice, with no little pleasure, the gradual, but certain advancement which the practical sciences are making in our time-honored seats of learning. Yale College, at New Haven, has already an endowed and thoroughly-established professorship, which is ably filled by Professor J. P. Norton. Amherst College, in Massachusetts, has a practical farmer and geologist in its accomplished President Hitchcock; and it has a regular course of lectures annually on agricultural chemistry, by Professor Shepherd. Other respectable institutions are following in the same commendable track.

We are happy to add that the Trustees and Faculty of Union College, in Schenectady, N. Y., under its zealous and enlightened President, Rev. Dr. Nott, has taken the initiatory steps by the adoption of the following resolution :—"Such a change is contemplated in the course of studies in Union College as to comprehend the more useful applications of science to the arts, such as civil and mechanical engineering, agriculture, agricultural and manufacturing chemistry, &c., and also French and other modern languages. Most of these subjects have heretofore been taught to a greater or less extent : but such a change in the statutes is now contemplated, as to allow applicants the privilege of pursuing such branches of study, and *such only*, as they may desire to pursue ; and to give to each student such a diploma as will express his actual attainments.

"The scheme embraces a professorship of moral philosophy and rhetoric ; of ancient languages and literature ; of mathematics, pure and applied ; of natural philosophy, practical and theoretical ; of natural history and chemistry ; of French and other modern languages and literature ; of agricultural chemistry, and chemistry applied to the arts ; of civil, topographical and mechanical engineering ; of ancient and modern history ; of law and civil polity ; and of anatomy and physiology.

If our agricultural journals have contributed to the advancement of these movements, as we fully believe they have done, they have fulfilled one great object of their existence. Public opinion is pushing forward these institutions to similar conclusions throughout the country ; and we trust it will not be satisfied till we have elaborate professorships, ably filled and amply endowed, and connected with experimental farms throughout every leading state in the Union.—*Ex. paper.*

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Arrival of Copper.—The steamer Benj. Franklin arrived yesterday from the Sault with fifteen tons of copper from the Cliff and Minesota mines. The masses were very fine specimens, being nearly pure copper cut from larger bodies. We venture to say no mines in the world can prodnce as rich specimens as those of our own State.—*Detroit Advertiser, Nov.* 2.

## United States Board of Agriculture.

It was a recommendation of Washington that there should be a Home department of Agriculture. "It will not be doubted," said that wise and sagacious man, "that with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population, and other circumstances of maturity, this truth becomes more apparent, and renders the cultivation of the soil more and more an object of public patronage. *Institutions for supporting it grow up, supported by the public purse, and to what object can it be dedicated with greater propriety ?*" Political preferment has always been in such demand that this recommendation of Washington has never been acted upon, and we have now men among the farmers of the country who affect to believe that the idea of supporting institutions for the promotion of agriculture by the public purse is a puerile idea, and one that ought not to receive the attention of the agricultural community.—While this idea is promulgated with zeal and industry, worthy of a better cause, among us, other nations are waking up to the importance of the subject, and are establishing schools and other institutions for the very purpose of giving their young men a more thorough knowledge of the application of science to agricultural pursuits, as at present done—and to qualify them to direct both the practical routine of the business skillfully, on the farm, and to enter with acuracy into future investigations and research, for the purpose of developing principles as yet not well understood.

We hope that the "sober second thought" of the people will prompt them to ask of our Congress to put the recommendation of Washington into practice, and that a Board of Agriculture may be established. Such a Board, duly organized and filled with competent men, would be fruitful in "national benefits," and be the means of disseminating a vast amount of knowledge throughout the Union—knowledge that would be of essential service in the peaceful but indispensable business which clothes, feeds and sustains us all.—*Maine Farmer.*

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Light from the Oyster.—Open an oyster, retain the liquor in the lower or deep shell, and, if viewed through a microscope, it will be found to contain multitudes of small oysters, covered with shells, and swimming nimbly about—one hundred and twenty of which, in a row, would extend but one inch. Besides these young oysters, the liquor contains a variety of animalculæ, and myriads of three distinct species of worms, which shine in the dark like glow-worms. Sometimes their light resembles a bluish star about the centre of the shell, which will be beautifully luminous in a dark room.

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Genius, like the sun upon the dial, gives to the human heart both its shadow and its light.

# HORTICULTURE.

F. K. PHŒNIX, Editor.

## House Plants.

Many of our Lady readers, doubtless, cultivate house plants, and many more would, doubtless, were it not for the want of time to take care of them, or conveniences for wintering them.

It is indeed poor encouragement, after tending them carefully all summer, and thinking what a fine display they will make in the winter, to have them all cut down just as we are beginning to enjoy them. Where a person has choice plants, without facilities for cultivating and preserving them successfully through the winter, it would be better to put them into the care of some neighbor more favorably circumstanced—or else head them in well, where practicable, and put them away until spring in a cool cellar, where they would not freeze.

If the cellar should be very dry, they might require watering slightly once or twice during the winter, but not as a general thing. In this way most of the common house-plants are kept with perfect safety, and will start very vigorously when brought out in the spring.

Plants are watered entirely too much in the winter, when they are least able to throw off the surplus moisture. *They should have an abundance of light and air, and the leaves should be thoroughly syringed or sprinkled every few days.* Water sparingly, unless the plant be growing vigorously, or be in blossom, in which case it will bear more. Callas and Hydrangeas, however, require more water than most other house-plants. The water used for watering should be about the temperature of the room.

## Pruning.

We are getting more and more *out* with trimming, as often practiced among us. Indeed, we sometimes fear we are getting almost fanatical in our opposition to it!

Pruning tender trees as peaches, English cherries, and quinces, at the West, we were always opposed to in toto, but for a long time supposed that for the hardier kinds, as the apple, pear and plum, it was necessary. After trying the Eastern mode of high trimming pretty faithfully, and seeing it tried pretty extensively, we are inclined of the two to prefer the opposite extreme of *not pruning at all!* Still, we would trim these hardier sorts—some in the Nursery—but *not to exceed three or four feet.* This would of course give us short bodies and low tops, which, with but one exception, have every thing in their favor. The exception we refer to is the difficulty of working near the bodies with a team, which, however, we conceive of but little moment, compared with the superior vigor and hardihood obtained by that mode. A tree with a low top will grow much faster than if trimmed high up. If our farmers are inclined to be skeptical on this point, they can satisfy themselves by making the trial. In the meantime, we would strongly recommend that the trees be suffered, at least, *to fork low,* and then trim the forks up higher afterwards, if needs be.

## Horticultural Items.

Transmitting Scions by Mail.—This, it is stated, may be safely done in the winter, or early part of spring, if the cut ends are dipped in melted wax, and then wrapped in oiled silk.—Thus prepared they may be sent thousands of miles with perfect safety, though several weeks in reaching their place of destination. If any of our friends wish scions from "*that* tree in the old orchard," the likes of which they never saw any where else, let them improve this winter in getting them on. They'll grow *just so* here, and no mistake. If no one else can make them grow, give us a chance to try them!

American Congress of Fruit Growers.—This body met in New York city, on the 22d of October, and continued two days in session.—There was effected at this meeting, a final and thorough blending of the quandam rival Associations—the Congress and the Pomological Convention, to which allusion was made last month. The union is known as the American Pomological Congress. We learn from the Eastern Periodicals, that the attendance and collection of fruits were large, and the proceedings throughout harmonious and interesting.—The meetings of the new Society are to be held biennially—the first in Cincinnati in 1850, and the next in Philadelphia in 1852.

The Autumn of '49.—This has certainly been the finest Autumn ever known among us—at least we think so—and we doubt not such is also the opinion of that venerable personage, "the oldest inhabitant"! At any rate, such continuedly delicious, lovely, glorious weather can't

be expected more than about once in a life-time —and then such a perfect contrast to last fall and to the weather "Down East"! Ought n't we to appreciate it, and to be thankful for it?

PLANTING TAMERACK.—We are very much pleased to notice that some of our farmers, in returning from Milwaukee, bring back with them more or less young Tamerack trees, for planting out. Our native Tamerack flourishes most abundantly on up land, and is one of the most useful, rapid-growing, and ornamental of all trees. The practice of planting it cannot be too highly commended, and as the trees are so easily obtained in the swamps, we earnestly hope it may become generally cultivated among us.

From the Buffalo Wool Grower.

## Horticulture.

FRIEND PETERS: Inducements of a pecuniary nature may lead men into the practical study of this science, when those of another character would fail to interest their minds in its success. To the lovers of nature money making is not of the first importance, indeed, in no profession which man has a heart in, a soul in, is mere pecuniary profits its chief consideration. Yet, that a mind which first studies Horticulture for its money profits, may learn to love it for itself, I can readily believe, and that there may be those who might be induced to look into this beautiful branch of business in consequence of the profits for the pockets, who may end in acknowledging it more profitable for the mind, I also believe to be within the reach of your valuable Journal. To such, the following items, gathered from various quarters, may not be uninteresting, and cannot be published too often, while the subject upon which we write receives, comparatively, so little attention as it hitherto has in this country.

On *one* acre of ground can be planted one hundred and seventy-six peach trees, at fifteen feet apart, which, yielding but one bushel each, at 18 shillings per bushel would amount to three hundred and ninety-six dollars. I give the average price in this market.

The same ground in quantity will grow one hundred and thirty-two pear trees, twenty feet apart, bearing one bushel each, at 20 shillings per bushel, giving $330.

The like amount of land will grow two hundred and twenty quince trees, twelve feet apart, bearing one bushel each, at ten shillings per bushel, giving $275.

From the same can be grown one hundred and thirty-two cherry trees, twenty feet apart, bearing one bushel each, at sixteen shillings per bushel, giving $264.

These prices are the lowest average in this section.

Mr. Jenny, near Boston, sold thirty-two hundred quarts of strawberries from less than three-quarters of an acre, at two shillings per quart—total sum eight hundred dollars. The vines were "Jersey Seedling."

Bissell & Co., near Rochester, according to the Genesee Farmer, gathered from less than three-quarters of an acre, thirty-six hundred quarts of strawberries, principally large early scarlet. These gentlemen are probably large growers of this fruit, for we find their sales in twenty days amounted to two hundred bushels.

C. H. Star, of Groton, Conn., obtained from half an acre, two thousand quarts of strawberries. Five thousand plants were set out, in rows three feet apart, eighteen inches in the drill. Hovey's Seedling, fertilized with staminates.

A Boston Gardiner produced eight thousand quarts of strawberries from one acre, which sold for sixteen hundred dollars.

B. H. Boswell, of Phila., contributes to Downing's Horticulturist, in the January number of 1848, the following items: C. A. Cable, of Cleveland, has one hundred cherry trees, twenty-two years old. In 1345 his crop sold for one thousand dollars. Trees twenty-five feet apart.

E. Swain, near Philadelphia, has seventy trees of the same kind. His receipts are, at the height of the season, $89 per day.

H. Pennell, near Philadelphia, obtained from twenty apple trees, three hundred bushels, which sold for two hundred and twenty-five dollars.—This same gentleman has a Fox grape vine which produces seventy-five bushels per season. Sells for one dollar per bushel.

James Laws, of Philadelphia, has a Washington plum tree which produces six bushels per year, and in that market would bring *ten* dollars per bushel.

Mr. L. has three-eighths of an acre of Catawba grapes, from which he realized three hundred dollars at eight cents per pound.

B. Darlington, of West Chester, Pa., has a single Catawba vine which produces ten bushels per year, worth $40 in market.

J. Steinmentz, of Philadelphia, has a blue gage plum tree which produces ten bushels per season, worth in market $3 per bushel.

Mr. Harvey, of Chaddsford, Pa., gathered thirteen quarts of gooseberries from *one* plant worth twelve cents per quart.

Judge Line, of Carlisle, Pa., has two apricot trees which have produced five bushels each—would have sold at *twelve* dollars per bushel in New York.

H. Hatch, of Camden, N. J., obtained from *four* Tewksbury winter blush apple trees in the fall of '46, one hundred and forty baskets of apples, and ninety of them sold for one dollar each in the spring of '47, and the crop would have brought one hundred and twenty-five dollars.

Mr. Downing states that a friend of his obtained forty-five dollars for the produce of a single lady apple tree; this same gentleman has sold apricots in New York at fourteen dollars per bushel, and has often been heard to say that his fruit trees around his dwellings, taking up but little room, pay a greater profit than his farm of two hundred acres. Another fruit grower in Mr. Downing's vicinity, has sent four hundred bushels of frost gage plums to market in a single season, and received twelve hundred dollars for them.

The product of an early golden apricot tree, raised by Dubois, of Fishkill, has run as high as *ninety* dollars, this one tree paying an interest on near thirteen hundred dollars. Mr. Dubois has also taken thirty-three dollars for the fruit of one frost gage plum tree in a single season.

A lady of Kensington, Pa., has received seventy dollars in a season from one apricot tree.

Raspberries on Long Island produced nine hundred dollars from *one* acre, the net profit was seven hundred and forty-three dollars.

Mr. Zieber, of Reading, Pa., sold the produce of a single Isabella grape vine for $63.

One acre of Rhode Island Greenings in Wayne county, in this State, produced 200 barrels of selected fruit in 1847.

John N. Gardner, of Nantucket, Mass., raised 320 bushels of cranberries on *one* acre. Sold them at four dollars the bushel, realizing $1,280 from this little piece of ground.

Mr. Boswell closes his communication with the assertion that in all the fruit departments except peaches, the demand exceeds the supply in the markets of New York and Philadelphia, and the enormous prices named herein are sustained.

We might refer to the Pelham farm in Ulster county, New York, where ten thousand barrels of apples were raised in 1847, commanding as high as six dollars per barrel in New York and in London, where thousands of barrels are sent, retailing as high as twenty-one dollars. We might refer, also, to the vineyard of Dr. Underhill, on the North River, from whose twenty acres of Isabellas and Catawbas are sent thousands of baskets to New York, and sold at nine dollars per 100 pounds, but we have produced items enough for this time.

Buffalo will be as sure a market for all these fruits, if she is not already, as either of the cities named, and she is demanding fruits from abroad yearly, at quite as high prices as those given in this article.

Does the mere money-making man ask any greater incentive to action?

During the present season we have paid Rochester three dollars and fifty cents per bushel for peaches—no better in beauty or flavor, and but little better in size, than the writer obtained from his own trees in this city this season, and could have sold at the same prices if he could have *multiplied* his crop.

A fruit dealer in this city was selling peaches at three shillings per dozen in September, which he paid a Monroe county farmer four dollars and fifty cents per bushel for. Selected fruit, of course, but the grower could well afford to put up fine peaches at such prices. Much doubt has existed with regard to the success in growing this fruit here, but from all information which can be obtained, the experiment has never been tried, and the opinion which prevails has nothing for a basis. In my article in your September number, I expressed some fears regarding my own trees, and really began to imbibe the opinion expressed by a large majority, but the ripening of the little fruit my young trees bore, and the great and healthy change in foliage, the fine growth, and well-ripened wood now so apparent, has had the effect to dismiss my doubts, and I feel confident of a crop the coming year.

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Ashes and Lime for Plum Trees.—*Friend Reed:* I have in my garden a plum tree, which, for three or four years past, has borne very full; but not until this year has one of the plums been sound.

They were all bored, or rotted, and fell from the tree before they were ripe. Two or three other plum trees, of a different kind, which have borne less, shared the same fate. Last year, a young tree, which stood near an ash-leach, and which had never borne before, produced a solitary plum, and that was sound. This suggested the idea, that its preservation was owing to the ashes which had been scattered around the roots of the tree. Following out the hint thus given, I last spring spread ashes and lime, with manure and salt, around all my trees. The result has been, that they have all borne this year more than usual, and most of the fruit has been sound. This result I ascribe, in part, to the ashes and lime. The same, I find, is recommended by "An Old Digger." And the conclusion is obvious, that alkali enough will destroy the young insects as they lie burrowed in the ground, or attempt to emerge from it in the spring. If in this way sound plums can be raised, it will be found a very easy way. Let some of your readers try the experiment and note the result. H. Goodwin.

S. Canaan, Ct., Oct., 1849.

—*Berkshire Culturist.*

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Observation on the Miller which annoys Bees.—Last season I allowed about six sunflowers to grow near my beehives; when in flower they attracted the miller, which fed on them late in the evening, appeared quite stupid, so much so that I could pick them off with my hand and deal with them as I would wish. I am now trying several experiments with my bees, the result of which I will make known through the Farmer.

—*Michigan Farmer.* Sinensis.

THE COMMON HEMLOCK FOR HEDGES.—Attention is now being directed to the common American hemlock as a substitute for the thorn and other deciduous shrubs, in hedges. It has been subjected to reiterated trials, it is said, in various localities where it is indigenous, and, in every instance, with the most entire and complete success. It has many things to recommend it: among the more prominent of which may be mentioned its great hardiness, and the slight injury, comparatively speaking, it receives from transplantation. It is also well adapted to almost every variety of soil, and will flourish with great luxuriance on ordinary lands without previous preparation or manure. Extensive lines of this beautiful hedge are to be seen in various sections of Western New York, where its cultivation has been attended, thus far, with the most astonishing success. As the tree is an evergreen, its appearance is necessarily, at all seasons, extremely ornamental, presenting in its full, dense foliage, a most refreshing contrast to the dreary monotony of the winter scene, and adding, by its many attractive beauties, to the leafy glories of the spring, and the affluent summer months.

It is asserted on reliable authority, that of all trees and shrubs yet applied for this purpose, it is the most certain of success; being less liable to injury from the ordinary evils which so frequently prove fatal to the thorn, the locust, and other cognate species of plants, and in no ways objectionable in consequence of root-sprouts, by which the above named productions foul the contiguous soil, and produce a suburban progeny, extremely detrimental to cultivation, whether directed to the production of root crops, grain or grass. We hope, ere long, to see this valuable, but hitherto neglected denizen of our forests, rendered extensively available for this most important use. It will come to our assistance in a "good time," if it comes now, when, from the increasing scarcity, and consequently increasing demand for fencing materials, the resources of the community are severely taxed to supply the costly demand.—*Selected.*

INDIAN FLAP JACKS.—Scald a quart of Indian meal; when lukewarm, stir in half a pint of flour, half a teacup of yeast, and a little salt. When light, fry them in just fat enough to prevent their sticking to the frying-pan.—Another method of making them very nice is, to turn boiling milk and water on the Indian meal, in proportion of a quart of the former to a pint of the latter; stir in three table spoonfuls of flour, three eggs well beaten, and a couple of teaspoonfuls of salt.

HOPE.—A bright and beautiful bird is Hope; it comes to us 'mid the darkness, and sings the sweetest song when our spirits are sadest; and when the lone soul is weary, and longs to pass away, it warbles its sunniest notes, and tightens again the slender fibres of our hearts, that grief has been tearing away.

INCOMBUSTIBLE PREPARATION FOR WOOD.—The following recipe for rendering wood incombustible, has been, we believe, tested in regard to its efficacy, and although personally we have not seen it proved, think we can recommend it as being of much utility, particularly when applied to the surface of wooden roofs, or other places particularly exposed to the action of fire.

It is very simple in its preparation, which requires the operator merely to take a quantity of water proportionate to the surface of the wood he may wish to cover, and add to it as much potash as can be dissolved therein. When the water will dissolve no more potash, stir into the solution, first, a quantity of flour-paste, of the consistency of common painter's size; second, a sufficiency of pure clay, to render it of the consistency of cream.

When the clay is well mixed, apply the preparation, as before directed, to the wood; it will secure it from the action of both fire and rain. In a most violent fire, wood thus saturated may be carbonated, but it will never blaze.

If desirable, a most agreeable color can be given to the preparation, by adding a small quantity of red or yellow ochre.

CULTIVATION OF THE CRANBERRY.—Having read some reports on the cultivation of the Cranberry, from practical men, I was induced to make a trial of it last spring myself. I took some cranberry sods direct from the swamp, just like taking them from the water, and set them in hills some four or five feet apart, on a swamp muck soil, which had been drained dry enough to grow good potatoes. I set some fifteen or twenty rods of ground, at several different times or dates. The first I set was in the second or third week in April, and the last in the last week in May. They have some scattering cranberries on them now, and have grown and spread over the ground far beyond what I anticipated; and if they grow as fast as they have done thus far, for a year to come, I think they will spread over the whole ground between the hills, for some of them have grown from three to three and a half feet in length already.

CLAREMONT, N. H. B. MEACHAM.

—*Selected.*

MONSTER APPLE TREES.—There is an apple tree on the estate of Joseph Briggs, on Federal Hill, in the town of Dedham, supposed to be a hundred years old, which measures thirteen feet and a half in circumference, one foot from the ground. Its branches cover an area of about sixty feet in diameter. This tree is second only to that in Duxbury, which is sixteen feet in circumference a foot or two above the surface of the ground, is over one hundred years old, and bore in one year fruit which made ten barrels of cider, in addition to thirty barrels of apples put in the cellar.—*Boston Traveller.*

The way to gain a good reputation, is to endeavor to be what you desire to appear.

From the Wisconsin Republican.

## The Willow River Country.

Through the politeness of O. S. WRIGHT, Esq., we are permitted to lay the following letter before our readers. The long residence and high standing of the writer in Wisconsin will commend it to the attention of our numerous readers:

WILLOW RIVER, Sept. 29, 1849.

O. S. WRIGHT:

*Sir*—In compliance with an agreement I now propose giving you a short description of this part of the country. There are four steamers engaged in the Upper Mississippi trade, from Saint Louis and Galena, to St. Paul, St. Peters, Stillwater and St. Croix. I took passage on board the steamer "Senator" at Galena, or rather at Dubuque.

In two days travel we were at the mouth of the St. Croix Lake. The Mississippi is from one to two miles wide and interspersed with numerous islands, containing from one to fifty acres of land. The banks of the Mississippi are from 30 to 300 feet high the entire length from Dubuque to St. Paul. Frequently pleasure parties take a trip from Rock Island, Galena and Dubuque, to visit Stillwater, St. Paul, and St. Anthony Falls. While at Galena I was invited by Mr. Worden, former Captain of the "Manchester," and now first Mate on the "Franklin No. 1," to "hold over" two or three days at Galena and join a pleasure party from Rock Island, but I was necessarily detained at Galena some days, and concluded that my truest policy was to take the first boat up. On board I found Judge Jackson, from Mineral Point, on his way to Willow River to hold his first Court at that place. I think I never enjoyed a ride equal to this. I could set delighted for hours viewing the scenery on the River. The St. Croix Lake, as it is called, extends from the Mississippi to Stillwater, a distance of 28 miles. It is simply a widening of the St. Croix river, about one mile in width. It is the handsomest body of water I ever saw. Stillwater is a very pleasant village, containing about 500 inhabitants—it has grown up mostly within two years. Immediately west of the village the cliffs rise about two hundred feet high, leaving but a small portion of ground to build upon, consequently the buildings are very compact; they are well finished, and all, or nearly all, painted, which gives the town a pleasant appearance. There are five stores, (some of them not very extensive,) two hotels, equal in size to the "Badger" at your place.—Most of the trade grows out of lumbering, which is carried on quite extensively. The country between this and St. Paul is openings and prairie, but not the first quality of lands for agricultural purposes. St. Paul is built upon a bluff, some 75 feet above the Mississippi, commanding a view of the river for a distance of some two miles. The face of the country north of the town is quite uneven, made up of openings and filled with numerous ponds or small Lakes. St. Paul has about 800 inhabitants.—It is well supplied with Taverns, Stores and Groceries—there are more goods now on hand than can be sold for a year to come. The Falls of St. Anthony are eight miles above St. Paul, being about an hour's ride over as fine a prairie road as I ever traveled. At a distance of more than half a mile above the Falls the stream becomes very rapid, and is divided by an Island upon a base of rock, and covered with trees.

This Island runs parallel to the eastern shore, at a distance from that shore of about fifteen rods, and extends below the Falls some distance. It is by extending a strong dam, fastened into the ledge at the bottom, with immense iron bolts from the foot of this Islaud to the east shore, that the hydraulic power of the river is controlled. A very large Saw-mill is in operation, capable of making some two million feet of lumber yearly, and another Mill is now being built.

The proprietors intend to build Mills enough to run eighteen or twenty saws, and still have water sufficient for other machinery. It is one of the most delightful sights for a town I ever saw, and eventually must become a place of considerable importance. It now contains about 150 to 200 inhabitants. Saint Peters, or "Mendota," as it is now called, is likewise about eight miles from St. Paul, and about the same distance from St. Anthony. A number of years ago the Government bought of the Indians six miles square of country, where St. Peters and Fort Snelling now stands, the remainder of the country on that side of the Mississippi is still owned by the Indians. The town has been built by the "American Fur Company." It is composed of some twenty buildings, (mostly stone,) owned, occupied, and under the control of said company. Fort Snelling is built on a small bluff, perhaps eighty feet above the river. I had the pleasure of examining the Fort and grounds minutely, and I must say that the location and buildings are as much superior to Mackinaw, as that Fort is superior to Fort Malden in Canada.

The lands on that side of the river are owned by the Sioux Indians, and will not be bought by the Government and brought into market in less than two years and upwards; but when they are, they will be entered at once, for no better lands can be found in the wide Universe than they are. All these Western towns are well supplied with Merchants and Lawyers. Willow River, the County-seat of Saint Croix County, is situated six miles below Stillwater, on the opposite side of Lake St. Croix. It numbers about thirty buildings. There is but little business done here, owing to the fact that the country is but sparsely settled as yet. It would have been settled, but the lands are not yet mostly in market. There are about forty Townships and fractional Townships that have been platted, but not offered at public sale, and a large porton of the country has already been surveyed,

but an effort will be made to bring them into market without delay, and if effected, next season they will be entered rapidly. / From all I can learn from inquiries, &c., the lands lying between Lake St. Croix and the Chippeway river, are as desirable as any lands within this State, and all that is necessary to insure the rapid settlement of this part of the State is to have the lands ready for private entries, which will doubless be the case next season.

Respectfully yours,

M. S. Gibson.

Potatoes.—From year to year we have carefully chronicled the appearance of the potatoe crop as it approached the season of maturity. We have this year made many inquiries of our farmers, and they uniformly state that the tubers of this crop are more numerous and agreeable than at any time since the peculiar decay, which has of late years proved so destructive, first began, and no more signs of unsoundness were exhibited than were known in the "palmiest" and mealiest days of this valuable esculent. For many years we have had extremely wet weather when the potato was in the most critical period of its growth. This had undoubtedly contributed very greatly to their decay, if it had not been the cause. This year the weather has not been particularly favorable the roots having never been more than sufficiently moistened. We apprehend this is the true reason of the change, although, from the universality of the former loss, it may be fully inferred that the disease had its origin in some unknown atmospheric phenomena. Hereafter, the year of the cholera will probably be remembered as the year when this crop recovered its ancient vigor and excellence.—*Buffalo Com. Adv.*

Cutting off the Stems of Potatoes.—Mr. C. Wood, of Wadsworth Common, England, says in a communication in the Agricultural Gazette,—

"I have followed the plan ever since 1845, with success. I had the tops cut off, last year, quite in a green state, long before the tubers could possibly be either ripe or have finished their growth: and, when taken up, they were fine in size, and of excellent quality. I have a few of them left yet, (July 10th,) in a perfectly sound state. The only difference in the plan pursued by Mr. Lomba and mine, consists in putting a layer of eath over the surface—a practice in which I can see no value. I usually remove the haum on the first appearance of the botrytes (disease) on the under sides of the leaves. I have already taken it off my early sorts, and I am satisfied, from experience, that if this is strictly attended to, no one need fear the disease, either in wet or dry, rich or poor soils."

Pride.—Pride emanates from a weak mind; you never see a man of strong intellect proud and haughty.

To make Linen, Cotton and Woolen Cloth Water-proof.—This quality is given to cloth by simply passing it through a hot solution of weak glue and alum. This is what is done by paper makers to make writing paper, the very thing which constitutes the difference between it and blotting paper, only on cloth, the nap, like the fur of a beaver, will preserve the cloth from being wet through, as the rain will not adhere but trickle off as it falls, and moisture will not adhere at all.

To apply it to cloth make up a weak solution of glue, and while it is hot add a piece of alum, about an ounce in two quarts, and then brush it over the surface of the cloth while it is hot, and it is afterwards dried. Cloth in pieces may be run through this solution, and then wrung out of it and dried. By adding a few pieces of soap to the glue, the cloth will feel much softer. Goods in pieces may be run through a tub of weak glue, soap and alum, and squeezed between rollers. This would be a cheap and expeditious mode if prepared woolen goods are prepared by brushing them with the above mixture; first in the inside, then with the grain or nap of the cloth, after which it is dried. It is best to dry this first in the air and then in a stove room, at a low heat, but allow the cloth to remain in for a considerable length of time to expel the moisiure completely. This kind of cloth is far better for the wearer, who may have it, than either oil cloth or india rubber water-proof. It is well known that oil cloth and india rubber cloth prevents the gases from escaping, which are thrown off from the body. It very often happens that persons who wear oil cloth coats get very faint and they cannot tell the reason. One reason is, that the gases cannot escape. This kind of cloth, which every person can make for himself, obviates these two evils, while it is sufficiently water-proof to keep out moisture and rain—it is quite impervious to water, but pervious to the air. Many fishermen know that by boiling their canvass pants, jackets, nets and sails in a pot with oak bark and fish skins, and afterwards drying them, they become water-proof. The composition mentioned above, is nearly the same nature as the fish glue and oak bark, and consequently the same effects are produced. The composition is stated to be improved by adding about one fourth the quantity of the sulphate of copper to the alum. Cloth made water-proof in this manner, will resist the effects of water even if it is somewhat warm, but it loses its water-proof property if boiled. Persons who are exposed to the weather will find it to their advantage, as a means of preserving health, to prepare their clothes in the way we have described.—*Scientific American.*

Onondaga Salt.—The activity in the salt manufacture has not been surpassed in any former year. The quantity manutactured since 1st of January, is given by the Syracuse paper at 1,171,136.16 bushels, or an increase of 401,488.38 bushels over the previous year.

THE IRON MOUNTAINS OF LAKE SUPERIOR—THE CLEVELAND IRON COMPANY.—The last Lake Superior News has the following in reference to these regions, and the Cleveland Iron-Mongers:

*A Trip to the Iron Region of Lake Superior.* It is with infinite pleasure that we are able to announce to our numerous readers, that at last we have had an excursion to the "Iron Region of Lake Superior," in a coasting boat. The country bordering on Carp river is, perhaps, the richest on the globe for its iron ore. The "Jackson Iron Company," whose location we had the pleasure of visiting, is situated some twelve miles from the lake shore, and about three miles from the iron mountains. One of these mountains belong to the above named company, and the other to the "Cleveland Iron Company."—These two mountains, as we were informed, are by far the richest and most valuable of any iron deposits that have been discovered, though it is said that more or less iron ore is found spread over some seventeen or eighteen townships between Lake Superior and Green Bay. This iron contains from 70 to 90 per cent of pure iron and metal made from it by the Jackson Company, has been submitted to the severest tests, and proves to be of the very best quality of iron that is made in any part of the world, having been drawn down to the size of No. 36 wire. The Jackson Iron Company (under the superintendence of P. M Everett, Esq., who we now understand leaves, and is succeeded by Czar Jones, Esq., of Jackson) has been making iron for some twelve or eighteen months. The Cleveland Iron Company as we are informed by a gentleman interested and in whose company we voyaged, will, the ensuing season proceed with energy to erect the necessary buildings, make improvements, and carry up machinery for a forge with the expectation of being in complete operation early in the winter of '50–'51. The "Marquette Iron Company" are also engaged in putting up machinery for the same purpose; to us this appears to be equal in point of value and importance to any part of our mineral region.—We will only add, God speed you, gentlemen—we most heartily wish you a rich reward!

EXTENSION OF THE MICHIGAN CENTRAL RAILWAY.—The Chicago Tribune says:

We learn that the Michigan Central Railroad are about commencing that part of the road between New Buffalo and Michigan City. The work of grading will be very light, and the bridging cheap. It is expected to have it completed from New Buffalo to Michigan City by the 1st of next July, when the steamboats will discontinue their trips to New Buffalo, and run no farther than the former place.

TENNESSEE has at this time within her limits forty-seven furnaces and ninety-two bloomeries, forges and rolling mills. In the manufacture of iron she stands as the third State in the Union.

MANUFACTURE OF MCCORMICK'S VIRGINIA REAPERS.—This extensive establishment, owned by Messrs. McCormick, Ogden & Co., at Chicago, Illinois, is carried on in a brick building 40 by 190 feet, one half two stories, and the other half three stories high. The machinery is driven by a highly finished engine of 30 horse power, giving motion and efficiency to three planing machines, four circular and two upright saws, two wood lathes, seven iron lathes, three boring machines, machinery for cutting key seats in cart wheels, and a fan for blowing blacksmiths' fires. Between 120 and 130 men are employed in the establishment. We are informed that 500,000 feet of ash lumber, 150 tons of wrought iron and 250 tons of castings are used annually. Since the first of last October, 1,500 reapers have been built and sold at a value of $180,000. With only one man to rake and a boy to drive, it is said that this machine cuts from 15 to 20 acres a day, depositing the grain in gavels ready for binding, and leaving no scattered heads on the field. The reapers manufactured at this establishment are sold in all the western states, but the demand is not fully supplied.

A NEW ARTICLE OF FUEL.—Our attention was drawn a few days since to a load at the door of a citizen in Albany, which in appearance resembled unburnt bricks. Upon inquiry we found that it was an article of fuel, manufactured in the vicinity of Newton's Corners, a few miles out of the city, from a swampy piece of low land, which furnishes an article much resembling peat. We learn that this muck, or peat is thrown into a mill and ground, then pressed in the shape of bricks for the purpose of thoroughly drying, when it is ready for use. It is considered to be quite as cheap as hard coal, and preferable to either coke or coal for grates, there being no gas or smoke from it. Thousands of tons have already been taken from a single acre in the above vicinity, affording a nice profit to the owners and manufacturers.—*Troy Budget.*

HOW TO FEED SALT TO BEES.—After you make cheese, take the whey, and mix it with bran thick enough to allow the bees to stand on it without clotting their wings; place it in a trough or board six or eight rods from the hive; or take an empty salt barrel, and put into it a bushel of bran or two, pour in some milk or water, make it firm enough so as the bees will not drown. From this they will extract the salt which will ooze from the barrel. As they empty the barrel of its liquid, renew it again. This will be of great service in dry weather to the bees.—*Michigan Farmer.*

☞The production of tobacco is thus rated in the several States—Kentucky, 68,000,000 lbs.; Virginia, 45,000,000; Tenessee, 35,000,000; Maryland, 23,000,000; Missouri, 15,000,000; Ohio, 9,500,000.

## Banner Wheat,

OR KLOSS BLUE STEM WINTER WHEAT.

We have occasionally made some remarks on this wheat. Brother Drew, of the Gospel Banner, in an excellent address before the Franklin (Maine) Agricultural Society, makes the following very interesting remarks on this subject:

And speaking of personals, you will allow me to advert once more to my own experience with what I call the *Banner* wheat. I observed that, originally, I received a single spoonful from the Patent Office, in Washington. Hon. Rufus McIntire, of Parsonsfield, also received the same quantity at the same time. This is all I have heard of in this country. Mr. McIntire's success in York county has been good. He has published accounts of it in the Boston papers. He thinks it *the* winter wheat for Maine. Last year I sent some of it into every county in our State. In some cases it proved a failure; and I was glad it did, because it showed causes of failure not chargeable to the grain or to the climate. In all such cases, the wheat had been sown too late the preceding autumn, or on flat, heavy lands, liable to be heaved badly by frosts. Whenever sowed in August, or, if later, when sowed on sandy loam, where the water will not stand, and where the snow did not blow off by high winds sweeping over it, the wheat did well. I consider it perfectly sure against the weevil on account of its earliness only; and for the same reason, nearly as sure against the rust. If the grain fills before the muggy, dog-day weather arrives, there is no danger from rust. Sown in August, it will ordinarily ripen early in July following, and that is before the weevils arrive, or the rusting weather begins.

I have taken a little pains to ascertain the average yield of this wheat the past season, and so far as I have been able to gain facts, I find that it has averaged twenty-five bushels per acre of one bushel's sowing. I ascertain, too, that in the counties of Kennebec and Somerset, on the Kennebec River, there have been, within a month past, three hundred bushels of it sown.—Perhaps it would be a reasonable calculation to say there has been as much sown in all the other (eleven) counties in the State; and if so, Mother Earth has already received six hundred bushels of that rich grain. Should what is sown now, yield as well next year as it has done the present, there will be in our State, by another July, fifteen thousand bushels, which will seed the whole State pretty well. I believe every farmer may find a piece of land on his farm, on which that wheat will be as sure as is corn; and if each man raised but one acre, it would greatly stop the terrible clanking of New York mills, so far as Maine ears are concerned.—*New England Farmer.*

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CHEESE FACTORIES.—In the Western Reserve, Ohio, where the making of cheese has been largely carried on for several years, a change of system has lately taken place to some extent. Certain men who are well acquainted with the manufacture of cheese, purchase the *curd*, unsalted, of their neighbors; and make it into that kind of cheese for which they find the readiest sale and best price. A single manufacturer sometimes uses the curd produced from the milk of several hundred cows. It is gathered every morning by men who call at the different farms for that purpose. These large establishments are called "factories." The *Conneaut Reporter* notices some factories which it is stated use 3000 pounds of curd daily, making from twenty to thirty cheeses of from fifteen to thirty pounds weight each. Some of the cheese is sent to the English markets, some to the West Indies, and some to California.—*Albany Cultivator.*

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SUGAR.—*It Fattens more than Meat.*—The Medical Review contains some peculiar facts in relation to the use of sugar, as a nutritious diet:

The celebrated Boliver had, by fatigue and privations, so injured the tone of his stomach, that he was unable at times to take any other food but sugar, which, in his case, was easy of digestion. His personal friends assure us that in some of his last campaigns he lived for weeks together upon sugar alone as a solid, with pure water as a liquid; but, probably, in nine hundred and ninety-nine cases out of a thousand, this diet would soon have brought the person adopting it to his grave; for, on those whose digestion is feeble, a large or exclusive allowance of sugar adds to their grievance, because the excess of nutriment, not being generally absorbed by the weakened system, becomes converted into bile, and causes great debility and wasting of the body:

To show how natural is this taste for sugar, it is stated that:

Everywhere, the beasts of the field, the birds of the air, the reptiles, the fish and insects are found to have great liking for sugar and honey. Mr. Martin says he has tamed the most savage and vicious horses with sugar, and has seen the most ferocious animals domesticated by being partly fed upon it. The tamers of lions and tigers owe their power over them chiefly to a judicious use of sugar and other sorts of sweets, and lavender water, and various perfumes, of which feline animals are remarkably fond. In the sugar season in the West Indies, the horses, mules and cattle soon acquire plumpness and strength by partaking of the leavings of the sugar canes, after the manufacturer has done with them.—In Cochin-China, the elephants, buffaloes and horses are all fattened with sugar. We learn from the "Memoirs of Dr. Edward Cartwright," that that ingenious man used to fatten sheep on sugar. To birds this diet proves so nourishing, the suppliers of the European poultry markets find that sugar, along with hemp seed and boiled wheat, will greatly fatten ruffs and reeves in the space of a fortnight.

## Smut in Wheat and Oats.

You will please to indulge me until I can communicate some facts to your farmer friends—facts which, in all probability, the most of them are not aware of. The subject to which I allude, is smut in wheat and oats. It has become a universal rule, almost, for farmers to reap their wheat and oats before ripe. Wheat, for the reason, most of them say, because it will make better flour, and oats for the purpose of making better seed, both of which is a mistake, in my opinion; but I shall not trouble you with any arguments of mine on the subject at present: my object in this communication is to show some cause for smut. The true cause of smut in wheat and oats, in my opinion, is because the seed that is sown was not ripe when cut. By the seed not being fully ripe when cut, the proper qualities to produce good wheat or oats again are not properly matured in it. Although at the same time that there is not sufficient substance in the seed to produce the wheat or oats, there is sufficient substance in it to bring forth the blade or stock; but there is a material difference between the substance that produces the stock, and the substance that produces the grain. What more fully convinces me that the above is the true cause of smut, is, that I bought some seed oats from one of my neighbors this spring, and sowed them; when they headed, there was at least one third of them black heads. I was surprised and sorry, and made some inquiry of my neighbor what was the cause of so many black heads. He told me, the reason of it must be by a mistake that was made when he threshed his seed oats. He cut about one half of his crop quite green, the other half quite ripe, for seed, stacked them side by side, and when he sent his son after them, he took the wrong stack. Another of my neighbors sowed some old seed and some new; the old seed was ripe when cut, the new was green; he sowed them in the same field, the same day. There were no black heads in the old oats sown, but the new seed were about one third black heads; so much difference in them that you could tell them to the very land sown, and almost to the furrow. Now, if this is the true cause of smut in oats, it undoubtedly must be the true cause of smut in wheat. If it is not, I would like very much if some of your subscribers would inform me what is the true cause. F. S. H.

Gaston Co., N. C., 1849.

*Philadelphia Dollar Newspaper.*

Remarks by Editor N. E. Farmer.—The subject suggested by the above article, is worthy of consideration and experiment, and for this purpose we present it. The case named in which new and old seed were sowed side by side, and with different results, is not conclusive evidence of the superiority of late cut seed, as the writer infers; for its excellence might depend on its age, which might destroy the cause of smut existing in the seed. We hope that experiments will be made to give a fair illustration of this subject.

To Sweeten Bread without Sugar.—It is not generally known that pure starch, added to the flour and made into dough, will be partially converted into a species of sugar during the process of fermentation and baking, and produces sweet and wholesome bread. From the experiments of Dr. Colquhoun, it appears that starch, arrow-root, farina of potatoes, or similar amylaceous substances made into a jelly, with hot water, may be employed for this purpose with advantage. It is only necessary to mix the flour up with the jelly, instead of mere water, to add yeast and salt, and to bake in the common way. Dr. Percival has recommended the addition of salep for this purpose. One ounce of salep dissolved in one quart of water, two pounds of flour, eighty grains of salt, and two ounces of yeast, give three pounds two ounces of good bread; but the same weight of materials, without the salep, gave only two pounds and three quarters. If too much salep be added, however, it will give its flavor to the bread.

## The Indian Summer.

There is a time, just ere the frost
Prepares to pave old Winter's way,
When Autumn, in a revery lost,
The mellow daytime dreams away.

When Summer comes, in musing mind,
To gaze once more on hill and dell,
To mark how many sheaves they bind,
And see if all is ripened well,—

With balmy breath she whispers low;
The dying flowers look up, and give
Their sweetest incense, ere they go,
For her who bade their beauties live.

She bends above the quiet pool
In which the rill forgets to play;
The frolic eddies quickly school
Their eyes of glass her transient stay.

She enters 'neath the woodland shade;
Her zephyrs lift the lingering leaf,
And bear it gently where are laid
The loved and lost ones of its grief.

She seeks the shore; old ocean heaves,
In gladness huge, his mighty breast,
Prisons his wild winds in her caves,
And basking in her smiles, is blest.

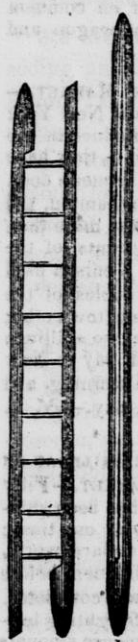
At last old Autumn, rousing, takes
Again his sceptre and his throne:
With boisterous hand the trees he shakes,
Intent on gathering all his own.

Sweet Summer, sighing, flies the plain,
And waiting Winter, gaunt and grim,
Sees miser Autumn hoard his grain,
And smiles to think 'tis all for him!

—[Home Journal.

## The Folding Ladder.

From its lightness, compact form, and the facility with which it can be carried about, the ladder denoted in the adjoining cut is the best we have ever seen. It is so constructed that it can be folded up in the form of a pole, when not in use; and consequently will occupy but little room, and can the more easily be conveyed from place to place. It is very convenient for the use of stores, warehouses, dwellings, and for plucking fruit from high vines and trees.



*a* *b*

The letter *a* shows the ladder when opened, and *b*, its appearance when closed. The rounds are fastened by pivots at both ends, on which they freely turn; and when the ladder is folded up, they are admitted into the side pieces by means of grooves.

These ladders may be constructed of any length, less than fifteen feet, at 30 cents per foot, and are offered for sale at the Agricultural Warehouse and Seed Store of A. B. Allen & Co., 189 and 191 Water street, New York.

Whenever they are required to be of a greater length than fifteen feet, the rate per foot must necessarily be increased.

From the Literary Gazette.

## On the Nature of Soils.

An all-wise Creator, for some all-wise purposes, decreed that plants and animals should derive their subsistence from the soil; hence we find all the elements of vegetables and animated nature in the soil. For instance, in most soils we find iron abundant; then, if we look into the animal economy, we find iron in the muscles of both man and the lower orders of brute creation. And the wonder working chemist detects nature in using the same ingredient in coloring all the fruits and flowers. All things, having been once created, the making principal stopped, and a changing one immediately took its place, and has never ceased to act since mutability was indelibly stamped upon creation. In the formation of plants and animals, Nature gradually collecting her materials, slowly forms her most perfect specimens; but like a human mechanic, inasmuch as she lacks one or more of the materials, in the same degree is the fabric imperfect. Thus we see that if the soil in the field lacks one or more ingredients in the formation of a vegetable, the plant assumes a dwarfish, sickly appearance, like an animal robbed of its food. Now, the farmer, to be a good husbandman, must plant the germ, and place around it all the materials of which it should be composed; then Nature, the handy workman, soon rears the perfect plant.

The question now arises, what those ingredients and materials are. The chemist has given us all the knowledge he has on the subject; the air and the water, the soil and the subsoil, have each a part in their possession, and should each be made to contribute a share. Nature, in the production of a perfect plant, does not restrict herself to the animal, vegetable, or mineral world. The opinion so generally prevalent that the soil, two or three feet below the surface, must consequently be entirely barren and useless, may be, and doubtless is, erroneous in many instances, especially in that called *hard pan*. If, in producing the perfect plant, nineteen may possibly be found in the surface soil, while the twentieth may be found in the subsoil. Instances have occurred where a good dressing from soil ten feet deep, entirely destitute, to all appearance, of vegetable matter, have had equally as good, or the same beneficial effect, as a good dressing of gypsum. This is truly an age of improvement. Many a farmer has found, while others have yet to find, a mine of wealth below the reach of his plow, of which he was as unconscious as the mountain of its ore. It is very reasonable to suppose that the newly created world was at first entirely a mass of mineral matter, from which vegetables soon grew abundantly enough to support animal nature. Geologists generally suppose the action of the elements, for an indefinite length of time, was necessary to fit it for the abode of plants and animals; but I believe the action of the frost with the winter's rain and snow, to be a powerful fertilizer in this climate; hence fall ploughing and deep ploughing should go together.

LABORER.

CURIOUS MODE OF GRAFTING THE GRAPE VINE.—A gentleman in the neighborhood of Oporto, split a vine shoot, (white grapes,) very carefully down the middle, cutting the blood in half, and then split a corresponding shoot on a black vine, and united them as in common grafting, and after many experiments, succeeded in making the graft grow; and the produce of the vine was white and black fruit on the same bunch, and on others variegated fruit.—*Texas Register.*

AGRICULTURAL BUREAU.—It is said that one of the prominent features of the report of Mr. Ewing, will be the recommendation of the establishment by law of an Agricultural Bureau at Washington. This will relieve the Patent Office if established, of a load which, in justice to the inventors of the country, it never ought to have been obliged to bear. It will also advance the interest of the farmer, by making more ample provision for the collection and dissemination of agricultural knowledge.—*Boston Journal.*

He is my friend who grinds at my mill.

## Information for Farmers about Plank Roads.

Scientific experiments have proved that the same power required to move one ton in a common lumber wagon, on a level earth road, will move the same wagon with a load of four and one-third tons on a level wood surface.

One ton is the average practical load for a two horse team, over a tolerable level common road; it follows, then, that the same team can, with equal ease, draw a load of four and one-third tons on a properly graded plank road.—Practical results have proved this to be true, because four tons now constitute the usual load for a two horse team on all plank roads, where the inequalities of the land's surface have been levelled to practical grades. Wagons, nowever, to bear such increased weights, should be made somewhat stronger than they are commonly made for ordinary use—but yet a common wagon will bear a much greater weight on a plank than on a common road, for the reason that the pressure is direct and uniform on a plank road, whereas, on a common road, by reason of ruts and inequalities of surface, the wagon is subjected to severe trials by oblique and lateral strains. Both wagon and harness, in constant use on a plank road, by means of this steady action and diminished friction, will last longer than on ordinary public roads.

Suppose a farmer, living some ten miles out of Detroit, has 140 bushels of wheat to take to market in his wagon, over common roads in the condition in which they generally are. He would not ordinarily carry more than 35 bushels at a load—the weight of which, at 60 lbs. the bushel, is 2,100 pounds, one would occupy so much time, that he could only make one trip a day, and then he would have to make four trips, and consume four days in conveying his 140 bushels to market—but, if he could travel on a plank road, he could carry the whole 140 bushels at one load; the weight of the whole, at 60 lbs. the bushel, is four tons and 400 lbs. How, then, does the account stand? Four trips over a common road will cost as follows: four days for himself and team, at one dollar and fifty cents a day, six dollars.

One trip over a plank road, one day, is $1 00.

Toll both ways at two cents per mile, is $0 40.

Difference in favor of plank road is $4 10.

The first impression is very strong against being taxed for traveling to market, and great hostility is naturally felt against the conversion of a free into a toll road; but this arises from not understanding the advantage of a plank road.

The above calculation shows that the payment of the forty cents for toll is not, in fact, a tax out of pocket, but the cost of a privilege by which $4 10 are saved. Money saved is money made—and in the case above stated, the farmer takes forty cents out of his pocket and puts $4 10 in the place of it.

In the above calculation, no notice is taken of the cost of strengthening the wagon, because such is more than made up by saving in blacksmith and other mechanic's bills, for repairing damages which continually occur on common roads, and the greater duration of wagon and harness.—*Com. Bulletin.*

EFFECTS OF RAILROADS ON THE MARKET.—Whether the Railroads leading into New York have had a tendency to cheapen produce in the city, we cannot say; but certain it is, they have greatly enhanced the price at the farmer's door. We were struck with this at Binghamton, the other day. The price of poultry has more than doubled. Butter is within two cents of the weekly average in New York. Venison used to be a common dish upon the tables of the quiet villagers of that once inland town: but now they cannot afford to pay the two shillings a pound that the city epicure will pay in New York, where it can be sent in the morning, and served up for supper the same day.—*N. Y. Agriculturist.*

EFFECT OF THE N. Y. AND ERIE RAILROAD ON THE BUTTER AND POULTRY MARKET.—Fifty thousand dollars worth of butter has been shipped on one boat from Newburgh, at one time; while twenty to thirty thousand dollars worth, as a common freight, used to be frequent before the New York and Erie Railroad was completed. This road somewhat lessened the freighting business of Newburgh, but added immense amounts to the New York market of almost everything that is eatable. A few years ago, turkeys, ducks, and chickens were hawked about the streets of Owego, begging for buyers. But now, if you want an article of that kind, you had better snap at the first offer, or it is off for New York. And eggs are eggs for a surety there now. Railroads are wonderful revolutionizers.—*N. Y. Agriculturist.*

CALIFORNIA FARMING.—We have hitherto heard only of *gold* from California—from the following, we judge we shall speedily hear of farming in that far off region—"A few miles below this place, there is a man by the name of Swartz, who has a farm on the river, 18 miles by 3.—He came here in 1841, and obtained this farm as a gift from the Mexican government. I saw about 16 acres of it, covered with potatoes, cabbages, beans, corn, &c., the worth of which, he tells me, is twenty thousand dollars, and that he can sell his produce faster than he can raise it, at the following prices, viz.:—potatoes $1 per lb,; water melons $2 each; corn, 8 ears for $1; cucumbers, 6 for $1." If one fourth of the persons who have gone to California to dig gold had gone to digging the soil and raising food, they would have made probably four times the amount of net profits they will now realize. They will be wiser in time; and we shall probably hear, another season, of large quantities of fertile land brought into successful and profitable cultivation.—*N. Y. Agriculturist.*

# EDITOR'S TABLE.

## Educational Department in the Farmer.

We are now making arrangements for adding an Educational Department to the Farmer, at the commencement of the next volume. As a smaller sized type is to be used in the printing of this Journal, we can devote from four to six pages to such a department, and not materially abridge the amount of Agricultural matter now given. If demanded, additional pages will be furnished. In making this new arrangement, we are confident we but consult the wishes of the great mass of our readers; and though it puts us to considerable additional expense, yet we trust to a greatly enlarged circulation to reimburse us in our increased outlay of means. No effort will be spared in sustaining for the Farmer the excellent reputation it has acquired, and in rendering broader the sphere of its usefulness. The best talent in the State will be engaged to furnish articles regularly for the several departments, so that, in all respects, the Wisconsin Farmer shall be *the* paper for the Farmers of Wisconsin.

Hovey's Patent Bedstead.—We have recently had shown us by Mr. Utley, Agent for this State, this simple, but truly valuable invention. Its superiority over other patents consists in its exceeding simplicity, the ease and dispatch with which it may be put up or taken down, and in its being perfectly bug-proof. The *fastening*, as it is termed, for which the Patent was obtained, is of such peculiar constuction, that a "turn of the wrist" only is required in putting the bedstead together. This fastening "consists of a right angle piece of cast-iron, inserted in the post, with catches, by which the tenons of two adjacent rails are locked and firmly held in the post, making a close joint." We have no hesitation in saying that we believe the Patent greatly superior to any we have ever seen, and that it can be easier and cheaper manufactured.

Mr. Utley will soon visit the principal towns in the State, for the purpose of disposing of rights.—Those desirous of making money will do well to purchase, wethink

Sir Allan McNab is very dangerously sick.

Ventilation.—Wherever large numbers of people are brought together in a close apartment, the air is rapidly rendered impure, and attention to ventilation becomes necessary. This is particularly the case in schools, and the attention of teachers cannot be too often called to the matter. Commencing the session with pure air, the gradual deterioration of the atmosphere is apt to pass unnoticed by teachers and scholars, though the air would be very offensive to one coming in from the pure air of the street. This is an every day matter. Where there are no flues for ventilation—as in every well constructed school house there must be—the window sash should never be entirely closed. A very small aperture at the top of the window will ventilate the room. If the room becomes too cool, let it be warmed by fire, and not by the animal heat of the children. Health is more valuable than stone-coal.

Taxable Property in Dane.—The assessed value of property in this county, liable to taxation for the present year, is as follows:

| | |
|---|---|
| Farming lands,..... | $1,053,454 21 |
| Village lots and personal property, | 208,633 59 |
| Total taxable property,..... | $1,262,087 80 |

The number of acres of farming land returned for taxation this year, is 427,099 acres—being an increase of 109,960 acres since last fall. This of itself is a good basis from which to judge of the rapidity with which population is coming in. Almost all of this has been taken and improved by new settlers.—*Madison Argus.*

☞ A large flouring mill is in process of erection at the Falls of St. Anthony. Minnesota is an excellent wheat-growing country.

Shipbuilding in the United States.—One of the immediate advantages, it is prediced, which the United States will gain by the reciprocity between England and this country in the carrying trade, will be the impetus which it will give to ship building. A New York cotemporary thinks that Detroit, Chicago, St. Louis, Cleveland, Buffalo—in fact, all our cities and towns bordering on the great lakes and rivers, will at once go into the business. The spectacle will frequently be presented of ships, barques, and brigs, built of materials from the forest within a mile of the ship yards, and laden with western produce, clearing for English ports direct This has been the case to a certain extent already, and must be greatly increased.

☞ Mr. Papineau, the French leader in Canada politics, has written a letter, in which he strongly advocates the annexation of Canada to the United States.

A World's Mechanics' Fair.—A project is on foot in London for a monster exhibition of arts, and specimens of industry and ingenuity from all parts of the world. It is proposed to be held in 1851, at Hyde Park, in a building constructed for the purpose, a mile long, at an expense of one hundred thousand pounds sterling. Prizes are to be given away from five thousand pounds downwards, to the value of twenty thousand pounds. The total expense of this "world's convention," for the encouragement of art are composed of two hundred thousand pounds, or $1,000,000. Prince Albert has consented to act as President, and Superintend the enterprise.—*Worcester Spy.*

Philadelphia Mint.—It is stated that the whole amount of California Gold which has been received at the Philadelphia Mint to the present time is $3,000,000, and that the coining is now carried on at the rate of $140,000 a day. Preparations are making for the coining of double eagles, on the completion of which the daily coinage will be increased.

☞ The St. Louis Republican says $50,000 of the Susquehanna Bank are in circulation there "mostly from houses in Cincinnati."

The California Fleet.—The last Shipping List contains the following summary:

The total number of vessels that have left the United States for California, from the commencement of the excitement, is as follows: Ships, 189; barques, 175; brigs, 119; schooners, 83; steamers, 7—total, 573.

Of the above, there have arrived at California up to the latest dates, as follows:—Ships, 55; barques, 45; brigs, 35; schooners, 28; steamers, 4—total, 167.

The number that have sailed the past month is as follows:—Ships, 18; barques, 14; brigs, 18; schooners, 15—total, 65.

According to the same authority there are now up for California, 47 ships, 21 barques, 22 brigs, 9 schooners and 2 steamers—total 101 vessels—of which 12 ships, 6 barques, 9 brigs, 2 schooners and 1 steamer, are up at Boston, in all 30 vessels. At New York only 27 vessels; Philadelphia, 6; Baltimore, 4; New Orleans, 8, Newburyport, 6; New Bedford, 6; Bangor 3; other places, 11.—*Traveller.*

Dangerous Condition of Shipping at San Francisco.—A letter from Com. Voorhees, of the U. S. ship Savannah, dated San Francisco, Aug. 31 says:—"There are about 250 vessels in harbor, many of them large ships, and mostly abandoned and going to ruin. They will all be wrecked in the course of the coming winter if they be not taken care of in time.

Provision Business of the West.—The Cincinnati Gazette of the 23d ult., says:—We have looked over a large number of Ohio, Indiana, Kentucky, Illinois and Missouri papers, for some indication of the probable price of hogs at the opening season. Our search, however, has been in vain.—We find, almost universally, one statement, and one opinion; the former is that the country is full of hogs—the latter, that the prices will and must open low, and continue to rule low.

Hogs—The Weather.—Tne Madison (Ia.) Courier of Thursday evening says: A sale of 100,000 pounds of pork, at four cents per pound, round, delivered in New Orleans, has been made by one of our enterprising business firms. A sale of eighty-five haad of light but good beef cattle, was made to the house on the hill yesterday at $3 nett. The Indian summer is now; but though the weather is delightfully pleasant, our people would rather feel, as well as see, a change. From all accounts, hogs are abundant, and only await a change in the weather to give the packers something to do.

☞ All that the Cincinnati pork butchers receive for slaughtering hogs is the offal, and they find it very profitable.

☞ The editor of the St. Louis Republican has been shown a sample of Rice grown in the vicinity of that city. It was raised without irrigation of the land, and the experiment, though made on a small scale, has convinced the cultivator that rice may be made as valuable a crop to the grain grower of that region as many others which are now cultivated.

The Crops in New Hampshire are as abundant as usual this season. A letter from Weare says—"Good returns have been made for the labor expended upon both corn and potato crops, and indeed almost every thing, the past has been a fruitful season. A general competence abounds, and the toils of the husbandman yields a reward sufficiently generous to encourage his heart, and fill his habitation with joy and gladness."

Free Schools in New York.—The free school law has been approved by a very large majority of the votes of New York. This is highly creditable, not merely to the philanthropy of her citizens, but their intelligence. The law is similar to the provisions in our constitution.

Large Cheese.—There was a cheese exhibited at the Agricultural Fair in New York, made from one day's milk of 600 cows, by A. E. Austin, of Austinburg, Ashtabula county, Ohio. It weighed 2,000 pounds.