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## **The modern farmer and busy bee. Vol. 17, No. 1 January, 1906**

St. Joseph, Missouri: Emerson Taylor Abbott, January, 1906

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*Start Right, but Remember Keeping on Wins.*

*The*  
**Modern Farmer**  
*and Busy Bee*

*A FRIEND OF ADVANCED AGRICULTURE AND HAPPY HOMES.*

VOL. XVII No. 1.

*A Journal Devoted to the Interests of the Farm and Home.*

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JANUARY

*My Country.*

**R**ESOLVED, to become a Soldier in the Army of the Common Good; never to suffer graft in silence, nor endure the acquaintance of grafters; to enforce the Square Deal, and in all my relations with politics and government to remember that I am first of all an American Citizen.

*My Neighbors.*

**R**ESOLVED, to lend my neighbor in need a helping hand; to be kind; to judge tolerantly; to be patient with affliction or misunderstanding; to extend to others the degree of courtesy and consideration I require them to accord me.

*Myself.*

**R**ESOLVED, to play fair; to speak true; to hold sacred my pledge, my friendships, and my obligations; not to ask another to do aught I dare not or would not do myself---above all, ever to keep well in mind that wealth is no corollary of worth and success no evidence of character.

*From January Everybody's.*

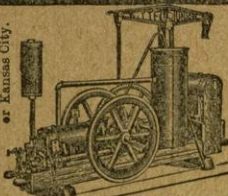
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# The Modern Farmer

## and Busy Bee

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E. J. WATERSTRIPE.....General Farm Department

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ALL COMMUNICATIONS intended for publication must be written on one side of the sheet only, and must be accompanied by the name and the address of the writer.

REMITTANCES should be made by express or postoffice money order when it is possible. If these cannot be obtained, put the money in a letter and register it. When forced to send stamps, we prefer to have one-cent stamps, and they should be folded carefully, with paper between them, so they will not stick together.

If this paragraph is marked with a cross your time expires with the number marked. The paper will be stopped unless you send us 25 cents for renewal. DO IT TO-DAY.

## EDITORIAL.

We are asked to write an article on figs, how to grow them, how to dry them, etc. Who among our readers can tell us anything of interest on this subject?

What is the best method of cultivation in a Missouri peach orchard where the land is rich and will grow anything? It is now in grass, and has not been cultivated for a number of years.

Acting upon a suggestion made to it by a young lady born in Kentucky, but now living in Colorado, the Louisville Commercial Club is to have a "Home Coming" for all Kentuckians next June. The plans, as far as matured, contemplate a celebration much more extensive than any of the "Home Coming" weeks ever held in New England. The dates fixed are June 13, 14, 15, 16 and 17.

If all of our readers would drop us a postal card and tell us what department interests them the most we would greatly appreciate it. We are thinking of dropping one of the departments, and we might drop one in which most of our readers are interested. We want to enlarge the departments which appeal to the largest number of people among those who read the Modern Farmer.

Here is what the National Grange has to say about free alcohol in the arts and etc, but our devotion to a theory will probably prevent any action along this line. "Resolved: That the National Grange, representing the organized farmers of the United States, urgently requests the removal of the internal revenue tax from alcohol rendered unfit for use as a beverage, and urges upon Congress the necessity for the immediate enactment of legislation for this purpose, and the Legislative Committee is hereby directed to urge such modification of the revenue laws as will carry out the purpose of the resolutions."

A circular issued by the Department of Agriculture, D. C. says: "Forestry is a matter of immediate interest to every household in the land. Forest destruction is no imaginary danger of a distant future. If it is not speedily checked its effects will sooner or later be felt in every industry and every home. To make these facts known is a national duty. The work of education must continue until public opinion will not tolerate heedless waste or injudicious laws." Just so, and that means that every vestige of the tariff should be removed from lumber and the people should be encouraged in timber growing in every way possible.

Dean Waters says: "The results of our eight years of experiments at the Missouri Agricultural College with several hundred head of cattle of all ages, from calves to two and a half year old steers, fed under all conditions, from merely being wintered to full fed, show that a bushel of corn worth 30 cents, when fed with the best quality of timothy hay, millet or sorghum, is worth from 36 cents to 40 cents when fed with clover, alfalfa or cow peas. This is due to the fact that these plants supply a very important ingredient in which corn is deficient. Hay made from timothy millet or sorghum is more deficient in this element than corn, and makes the ration even more one-sided or unbalanced. Of course, farmers had better raise clover hay than to buy it, for while growing it improves the fertility of the farm, a thing which cannot be said of timothy. There is no single way in which the farmers of Missouri can so readily improve the quality of their soil and increase their income as by devoting larger areas to clover, cowpeas, or alfalfa, and making a larger use of these crops in the ordinary cattle feeding operations." This is in line with what the Modern Farmer has been saying for years and our readers will find it greatly to their interests if they will conduct their farming operations along these lines.



The press bulletin of the University of Missouri reports Cap. King of the Globe-Democrat as having said in a lecture on journalism in speaking of the Editorial page, "It should reflect rather than mould public opinion. The best editor is one who can feel the public pulse and tell what is coming. In this way he can anticipate movements and thus appear to lead when he is only following." If Cap. King is correctly reported, and we hope he is not, he must have a very poor idea of what an editor should be and do, for the above suggests at the very beginning that he should be a fraud and not what he seems to be. There is entirely too much of this *seeming* business in the world, and it seems like an outrage for a prominent man to tell the students of a great University that they must seem what they are not in order to be good editors. What the world most needs, in our opinion, is not spectacular pretense, but the real thing, men and women who stand for more, and are more than they appear to be on the surface. What would Geo. W. Curtis or Horace Greely say, if they were back among us, to such a definition of an editor?



It will take us a short time to get into our new method of discontinuing the paper at the expiration of the time, if not renewed, and some whose time has expired may get the January issue, but if it comes after that you may conclude that it has been paid for and no bill will be sent. Our readers will please notice that the time their subscription expires is written on every wrapper, and if this is not changed after they send in a renewal, we will greatly appreciate it if they will drop us a card. We want to thank our many friends for the generous responses they have made to the statements which we enclosed in the Dec. number. A few mistakes have been reported to us, and we hope that if there are any others that we may be so informed, as we do not desire to mistreat any of our friends. Please remember that the publisher has to depend upon hired help to look after these things, and it is of no interest to them either way and that we will never know anything about the mistakes unless you call our attention to them. Let no one take these statements as a personal dun, for they are not intended as such, and they would not be sent at this time if the postal regulations were not as they are. If not convenient to remit at once simply drop us a card and say you want the paper and will pay later and we will send it on. We must have *some response* from everyone. *Will you not kindly attend to it now, if you have not done so. We want you with us.*

According to C. H. Eckles, of the Missouri Agricultural College, there are two common mistakes made in feeding cows; first, not feeding liberally enough; second, feeding a ration not properly balanced. It has been found by experiments that about sixty per cent of what a cow can eat is necessary to merely maintain her without producing any milk or gaining in weight. This being true, it is evident that it is not economy to feed only a little more than this sixty per cent needed to keep up the cow's body.

Below are given balanced rations that will furnish the materials necessary to produce milk in about the right proportions. By the term "rations" is meant the feed for twenty-four hours. If a cow will not give a good flow of milk in the early part of the milking period, when fed a liberal amount of one of these rations, it indicates that she is not adapted by nature to be a dairy animal and should be disposed of. The amounts given are considered about right for a cow giving from twenty to twenty-five pounds of milk per day. For heavy milkers these rations are to be increased, and reduced for lighter milkers. In making up these rations, it is designed that the cow be given practically all of the roughness she will eat and then sufficient grain is added to furnish the necessary amount of digestible material.

Clover Hay, 20 pounds, Bran, 5 pounds, Corn, 6 to 8 pounds. Clover Hay, 20 pounds, Oats, 4 to 5 pounds, Corn, 6 to 8 pounds. Clover Hay, 20 pounds, Corn and Cob Meal, 8 to 10 pounds, Gluten or Cottonseed Meal, 2 pounds. Alfalfa or Cowpea Hay, 15 to 20 pounds, Corn, 9 to 12 pounds. Alfalfa or Cowpea Hay, 10 pounds, Corn Stover, 10 pounds, Corn, 8 to 10 pounds, and Bran, 2 pounds.



Prof. H. J. Waters, Dean of the Missouri Agricultural College says that the University cattle which won third prize at the Fat Stock Show in Pittsburg in competition with the world, were the last of six carloads purchased three years ago for the purpose of determining the influence of age upon the cost of beef production which the Experiment Station is conducting in cooperation with the Federal Department of Agriculture.

One-third of this original bunch of cattle was finished as yearlings, and topped the Chicago market for the year. The second third was finished as two year olds, and also topped the Chicago market for the year. The third portion of these cattle won third place as stated above, and topped the Pittsburg market for heavy cattle, bringing \$7.10 per hundred, the next best load of heavy cattle bringing \$6.60.



They were high grade Herefords, purchased in the neighborhood of Columbia.

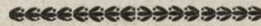
In the meantime the Experiment Station has in the same experiment matured one bunch of yearling Angus and a bunch of yearling Shorthorns. They now have on feed ninety Shorthorns with a view to covering the same ground with a different breed.

In addition to the test of the influence of age upon the rate of cost of grain, these cattle were divided into lots of eight each and fed different grain rations on pasture, one group receiving shelled corn alone, another one-fourth cottonseed meal and three-fourths shelled corn, another one-fourth linseed meal and three-fourths shelled corn, another

one-fourth gluten meal and three-fourths shelled corn, all having access to equally good grass.

In the case of the yearlings and two year olds, a more rapid gain and as a rule a cheaper gain was made on the mixed feeds than on corn alone. It is also true that in every case the younger cattle receiving mixed feeds became fatter, carried a better bloom, and were from every point of view more marketable.

In the case of three-year old or the mature cattle, however, the difference in the rate and economy of grain between straight corn and the mixed feeds was almost inappreciable, and there was not a marked difference in the fatness of the different groups.



## Shall the Farmer Send His Sons to Agricultural College?

By Fred Kelsey, Publisher University of Missouri.

The other day I advised a well-to-do farmer to send his son to an Agricultural College. "If I wanted to be sure he would never amount to anything as a farmer, I would do so," was his reply. There are a great many people who believe just as this man does that education leads away from agricultural pursuits. I remember quite well when I was a Missouri farmer boy, my father used to dampen my ardor for an agricultural college education by telling me of a schoolmate of his who went off to college, married a college girl and then came back to live with his parents on the farm. "And he never did any good," the old gentleman would conclude, "and finally got away with most of his father's property."

Since then I have been six years in close connection with the Missouri Agricultural College, first as a student, and I have learned this:

In the first place, the men who do the teaching are not, as father supposed, ignorant of the practical problems of farm life. The teachers of horticulture have their own fruit farms in the Missouri River hills; the teacher of animal husbandry is actually engaged in feeding operations upon his own farm; the teacher of dairy husbandry has been manager of a private creamery. And so it goes, throughout the entire faculty one cannot find a man who has not had actual experience on an average farm.

In the second place, teaching is not confined to book mastery. Books are used only as supplementary to the more practical laboratory method. Two principles are at the basis of the arrange-

ment and execution of the courses; Give the boy what he will need when he goes back to the farm, and let him learn it by doing it. For example, students are required to spend three afternoons each week in the dairy building, making cheese and butter; three at work in the blacksmith and carpenter shop, so the practical is emphasized in all the courses.

It will thus be seen that this education means something quite different to a boy from what the old education meant. It leads him to and not from the farm.

H. J. Waters, Dean of the State Agricultural College, himself from a Missouri farm, gives this advice concerning the education of farmer boys:

"The experience a young man gains on the farm is a most valuable asset. He should not throw it away by entering some other profession in which this experience is of no special value. This is particularly true when we consider the extent to which most of the professions are crowded and the unusual opportunities now offered in agriculture. Every farm boy in Missouri should supplement this experience by training in a College of Agriculture, so as to be prepared for the greatest possible success."

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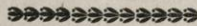
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# Keep Sheep if You Can, but Keep a Few Bees Anyway.

In talking with a friend a short time ago about some of the possibilities of Kansas he remarked that there was room on almost every farm in Kansas for a small flock of sheep and eight or ten colonies of bees. What is true of Kansas in this respect is also true of almost all of the states in the union. Just stop and think what all of this would mean to Kansas, or any other state. How much do you think Kansas pays out every year for sweets of various kinds, many of which have but little food value, if they are not positively injurious. Then, too, think of the pounds of delicious nectar that has been distilled in the laboratory of nature, as pure and healthful as the fabled food of the gods in the folk lore of past ages, which goes to waste on every farm simply because they have no bees to gather it! This is especially true in the alfalfa regions, and we are finding out here in the West that this kind of forage plants will grow on almost any soil. Then why continue to pay tribute to the glucose trusts by buying their non-nourishing syrups, when you have a much better sweet going to waste on your own farm? This is not the whole story either, by any means, for ten colonies of bees on every farm means more and better fruit in every orchard reached by these busy little gatherers of nature's sweet, and the improvement of many other farm crops. In some states they pay a bounty for the benefit of the sugar beet industry, which may be all right, we are not so sure about that, but enough, bees on every farm to gather the nectar which goes to waste means more to the West, if not the East, than all the beet sugar industry of the entire country. Then why longer neglect this industry which means so much and needs no bounty to develop it, but only the disposition to work, and, a little gumption on the part of those who till the soil. Taking the nectar from the flowers is not like stealing one's good name, for it does not make the flower any poorer, and adds greatly to the enjoyment and riches of those who are enterprising enough to garner up this delicious gift of nature. Keep sheep, but whatever else you do, or do not do, keep bees enough to gather your own sweets, and thus reduce your grocery bill, as well as improve the health of yourself and family. You may think you are not adapted to bee-keeping, that it takes someone for whom the bees have a special liking, etc. This is all a mistake, any man or woman, boy or girl, who can look after a milch cow properly, or feed a lot of pigs intelligently, can learn to care for a few colonies of bees. The way to learn is to begin with one colony, and learn as you go, and grow as you learn.



## Good Seed of Prime Importance On the Farm.

One of the most important things on a farm is the seed. Perhaps it would be correct if we said that the character of the seed planted is the most important thing with which a farmer has to do. The character of the land is very important, tillage is important, but the best of land and the most perfect cultivation will not produce the best results if the seed is poor. Of course, the best of seed will not yield a perfect crop if the tillage is poor and not given at the proper time, but with poor seed and all the other conditions favorable the crop is sure to prove almost if not an entire failure, for good seed lies at the

Do You not

very foundation of success. It is very important, then, that the farmer know first what good seed is, and that he put forth the greatest possible effort to secure it. Here, by the way, is a field of work for the boys and girls that are inclined to think that the farm does not offer any opportunities for growth and development, or that there is nothing on the farm the study of which will promote intellectual growth, strengthen the memory, and broaden one's life. We feel quite sure that they will change their minds with regard to this, if they will begin a thorough and systematic study of the seed of an ordinary farm.



What is good seed, and how can it be secured? To answer the last question first, we may say that there are two ways by which a farmer may secure his seed, he may grow it himself, or he may purchase it of those who make a business of growing seed for the market. In either case, it is very important that the farmer know himself what constitutes good seed and how it can be produced. He may think that it is not necessary for him to know all about the best methods of seed production, as he can buy his seed of a man who makes seed growing his business, and that will suffice, and he need not give himself any further trouble about it. Here is where he makes a serious blunder. The daughters of wealthy men, and ignorant young men with plenty of capital at their command, often make the same kind of a blunder. The woman says that she does not expect to cook, wash, iron or make beds, and what is the good of her knowing anything about these things? The young man goes into a business the details of which he does not know, and flatters himself that knowing it is not necessary, as he does not expect to do anything but boss, and will find some one to do the work. They both soon wake up to the fact that a boss who does not know anything about the details of the work he or she is attempting to direct is placed at a very great disadvantage. The farmer who depends entirely on the honesty and wisdom of others for his seed is very apt to find himself in the same condition. Even if all seed growers and dealers were honest, which we are sorry to say is not the case, it would still be important for the farmer to be posted as to what constitutes good seed and how it can be produced. Seed which is good in one locality is not always good in another locality, and then new discoveries are being made every year and the seed grower may not find it to his financial interest to keep in touch with all of these new things. There is a tendency now among agriculturists to look to the national government for information about the new things and directions as to how to apply them. We can not help but think that this is a very serious mistake. The government can and has done a great deal along this line for the farmer, but it has and is doing now some things which would much better be left to individuals, and the distribution of free seed is one of them. The man who depends on gov-

think you can afford 25c. for this paper one

ernment seed is very apt to prove a very poor farmer. All the government does along this line costs the people too much money. Luther Burbank working alone as one individual in his comparative poverty has given more to the world in the last twenty-five years than any half dozen of the so called scientists in the employ of the government have done in the same length of time. However, let us return to the question of good seed, and the very great importance of the farmer learning to grow and care for it on his own farm.

We read in one of our exchanges a short time ago about a farmer, in Michigan, if we remember correctly, who has been selecting and growing his own seed corn for twenty-five years, until he is now producing very much larger crops of corn than any of his neighbors in the same locality. This is an illustration of what every other farmer might be doing. Much, is being said now about the importance of good seed corn, but it is just as important to have other crops grown from good seed as it is to have good seed for the corn crop. We can not explain in this article fully what we mean by good seed, but will throw out a few hints and the reader can enlarge on them to suit his own taste. We know well enough what is meant by a good horse, a good cow, a good hog, a good sheep, or a good any other farm animal, but we would not think of using many of the animals on the farm which may be correctly called good for breeding purposes. We not only want good individual specimens, but we want to make sure that there is a long line of ancestors which were good on both the father's and mother's side, for, if this is not true, we are not reasonably sure that the progeny will prove to be good. It takes a long line of breeding to fix a type in animals; and, while it may not take quite so long to fix a type in the vegetable world, a line of good ancestors is just as important here as any where else. The plant on which the seed grows should be a good specimen of its kind, and the plant which furnishes the fertilizing element which causes the seed to develop should also be a good specimen of its kind, and each of these should have a long line of ancestors behind them which were good specimens. You say that this means a lot of work and painstaking care; of course it does, but it is the kind of work that will pay in the end. This is the way the man in Michigan gets his big crops of corn, and the best



land and cultivation on earth will not produce the largest possible yield of the very best quality of any crop unless that kind of seed is planted. There are a multitude of other things, of course, about good seed. It must be of the right age, must be kept properly, so it will not lose its vitality, must be free from adulteration, and be planted at a time and in a soil that will give it the best possible chance to do its best. This winter will be a good

Year?



# BOOKS AND PERIODICALS

By the Editor.

We want this department to be of permanent value to our readers. We therefore, invite publishers to send us copies of books and Periodicals of special interest to farmers. They will receive careful attention in this department. Always mention **THE MODERN FARMER** when writing to publishers about any book or periodical mentioned here.

## A Good Remedy.

Complete repose, the doctor said,

Would put him at his best;

And so he ceased to advertise

And got the needed rest.

—Woman's Home Companion for January

"Recreation," the sportsman's monthly, Dan Beard, editor, continues to improve with every number and should be read by everyone who loves the sport that comes with dog and gun, or the rod and line.

"The Country Calendar" and "Country Life" were united on January first and will now be published as one magazine, and the price will be \$4.00 per year after Feb. 1st. This should bring something very fine, indeed.

"Tomorrow"—Chicago, for January, has a number of articles which will tend to make the reader think, even though he cannot agree with all he reads. The reading is not of the character that is found everywhere.

If you grow a garden, and everyone who can have the use of ten feet square, or more, of land should have a garden, you will find many valuable hints in the "Garden Magazine." In fact, after you have read it for a time you will begin to wonder how you got along all these years without it. It costs only \$1.00 per year and would not be dear at double the price. We club it.

"The Housekeeper" is one of the low priced home papers which always contains high class reading of interest to every member of the family, and especially so to the ladies. It begins the year with an interesting table of contents and promises its readers that future issues shall be up to the high standard set in the January number. There is nothing

cheap about this excellent home magazine but the price, 60 cents per year. We are offering it in clubs, so that it does not even cost this small amount. Surely there is no reason why our lady readers should not avail themselves of this opportunity to secure a home monthly and other valuable papers that will bring to them a deal of valuable information and many a pleasant hour during the year.

"Pearson's" for January is up to the standard of this wide-awake monthly and contains a number of interesting features. It has greatly improved during the last year, and the people have shown their appreciation of it by an increased patronage. It is one of the papers in connection with which we are making some very liberal clubbing offers. We can duplicate any offer made on this or any other publication.

The "Western Fruit Grower" has published a valuable series of booklets covering a number of topics of special interest to farmers or anyone who has a small tract of land to cultivate. The following subjects are treated, each in a separate volume: Spraying; How to Grow Strawberries; Packing and Marketing Fruit; Propagating Trees and Plants; The Home Garden. These booklets sell for 25c each and are well worth the money to anyone who is interested in any of these subjects.

We will give anyone who will send us two new subscriptions to the **MODERN FARMER** and **BUSY BEE** for one year, at the special price of 25 cents per year, one of these books free, or we will furnish the **MODERN FARMER** one year and any two of the books for 60 cents.

The January "Cosmopolitan" is a further demonstration of the new management's ability to make good, for it is beyond a doubt one of the

time to read up and get posted on the seed question. We want to close as we began by saying that one of the most important things to the farmer is good seed and knowing how to secure it. It is equally as important as is a good sire and a good dam in breeding live stock. Like produces like in the vegetable world as well as it does in the animal kingdom. The next best thing to growing your own seed is buying them of reliable seedmen, such as advertise in the **Modern Farmer**.

best numbers they have issued. Yet we are told that many improvements will be made in the near future, and we are promised some spicy and startling articles during the coming year. We are making such liberal clubbing offers in connection with this magazine that there is no good reason why all of our readers should not have it come to them during the year.

The January "Phrenological Journal" comes out in an attractive new cover with a number of able and instructive articles. No paper in the land is doing more to awaken in the minds of people a disposition to study themselves, their capabilities, weaknesses, limitations, &c. It is published, as everybody knows, in New York City, by Fowler & Wells, and costs only 10 cents per copy, or \$1.00 per year. Whoever among our readers invests ten cents at a news stand, or sends to the publishers, for a copy of the January issue will not have cause to regret it.

With the March "Designer" begins an exceedingly interesting continued story, "A By-Path in Altruria," by Mrs. Susie Bouchelle Wright, whose clever short stories are well known to magazine readers. It is charmingly and appropriately illustrated by J. A. Williams, and will run through several numbers. Craig S. Thomas contributes one of his characteristic articles, "The Seeds of Trees," accompanied by reproductions of photographs made by the author.

The current issue of "Suggestion," a magazine of the New Psychology for thinkers, discusses health without drugs, auto-suggestion, the law of mental suggestion, mind power, suggestive therapeutics and allied subjects; it tells how to live without drugs and without grumbling; how to break undesirable habits and how to form good ones, and how to be happy, successful and prosperous.



The magazine is optimistic, and teaches that man has sufficient inherent power to overcome all obstacles.

In "Success Magazine" for January, Cleveland Moffett begins the second series of his powerful articles on "The Shameful Misuse of Wealth." He devotes his attention this month to the great and increasing concentration of riches in the hands of a few wealthy families, and shows how these immense fortunes are rapidly becoming so colossal as to baffle the imagination and defy the utmost efforts of the owners to spend even the income.

The "Delineator" begins the New Year with an attractive cover and a display of all that is new in the fashion world, to say nothing of the many features of literary excellence.

Practically speaking, there is only one live-stock paper in the United States, and that is the "Breeder's Gazette," Chicago, Ill. It is a weekly and covers the field so completely that no one who is at all interested in live stock can afford to do without it. It comes to you every week, and the special numbers are worth the price of a yearly subscription. It costs \$2.00 per year, and is well worth it, but we are making such liberal clubbing offers of it in connection with the MODERN FARMER that anyone who needs that kind of a paper can afford to take it.

The January "Popular Science Monthly" has an interesting article on "Chinese Education." Some quotations which it gives on the subject of women will, no doubt, be of interest to those who have a poor opinion of woman's ability to do things.

"A clever man builds a city,  
A clever woman lays one low;  
With all her qualifications, that  
clever woman  
Is but an ill-omened bird.  
A woman with a long tongue  
Is a flight of steps leading to  
calamity;  
For disorder does not come from  
heaven,  
But is brought about by women.  
Among those who cannot be  
trained or taught  
Are women and eunuchs."

"What is an ear of corn?" by T. G. Montgomery is an article in which he attempts to trace the botanical development of corn, and should prove of interest in these days when so much is being said about this valuable cereal.

Prince Louis of Battenburg is the chief contributor to the "Woman's Home Companion" for January, his subject being "Diplomacy—A New Field of Endeavor for the American Woman." Jerome K. Jerome answers the question "Why Do We Read?" and Elliott Flower begins a series of stories of "Barney and No-rah," in which Policeman Barney Flynn imitates Sherlock Holmes with original results depicted by Hy Mayer.

The Modern Farmer and Busy Bee has been saying for a number of years that football is a beastly game, and should not be encouraged or permitted in any institution of learning, but the game has gone on reaping its annual harvest of twenty-five or thirty killed or injured. However, we are glad to see that the people are beginning to realize that it is just

as much murder to kill a man in a football game as it is to shoot him down in cold blood, and that the game is beastly and demoralizing. We are glad to be able to quote such high authority as the "Review of Reviews" on this subject. An editorial in the January issue says, "Spanish bull fighting is humane and refined as compared with recent American football. Even prize-fighting is conducted upon a higher plane of honor. Sensible observers have ceased to be patient with university and college authorities that have allowed their institutions to become chiefly known among large classes of people for their success or failure in the football contests. Our colleges and universities must set themselves to the complete abolition of the evils now associated with such contests as football, and of such barbarous practices as hazing." The January issue of this Prince of Literary Magazine contains so much of value to every citizen of the United States that it would pay him to purchase a copy of it at the news stand, and lay it away to be read as he may find time. No better text-book for the advanced reading classes in the country schools can be found than the January "Review of Reviews," for the student will get a summing up of the current history of his country at the same time that he learns to read; it will also enable him to study the faces of the prominent people who are doing things at the present time. Homes where there is a family of young men or women, or both, should not fail to include the "Review of Reviews" in their clubs for their year's reading.

# The Farmers Home

By Emma Ingoldsby Abbott.

A happy, prosperous home means a happy, prosperous country

Clean the pancake griddle by rubbing while warm with coarse wrapping paper.

A good way to sweep a very dusty carpet is to go over it lightly with a clean mop wrung out of clear water. This will take up considerable dust. Have outside doors and windows open when sweeping, unless the weather is too severe. After sweeping, go over it again with the mop wrung as dry as possible to take up what dust remains and brighten the color.

For a mince meat without meat that is said to be easily digested by delicate stomachs, Good Housekeeping gives this recipe: "Take two pounds of finely chopped suet, four pounds grated bread crumbs, four pounds currants, four pounds of raisins, five pounds of brown sugar, one and one-half pounds of peel, lemon, orange and citron, six pounds of apple weighed after being chopped,

two tablespoons of cinnamon two tablespoons of cloves, one tablespoon of mace, one tablespoon of salt and two quarts of boiled cider. The ingredients are blended without being boiled; put away in jars set in a cool place this mince will keep all winter."

Buckwheat cakes may be made with buttermilk and soda and without yeast. Mix one teaspoonful of soda with one cup of buckwheat flour, then stir in four cups of buttermilk, adding a half teaspoonful of salt. Possibly a half cupful more of buttermilk will be needed. It depends somewhat on the flour. This will make cakes enough for three or four persons, depending on how well they like pancakes.

A family of sisters in a New York town are making home-made candy that is becoming famous. They have won success by being able to make

something a little finer than ordinary, and knowing how to advertise it when they have it for sale. They send circulars all over the country soliciting trade, sending candies by express. This might be a hint to girls on the farms who are wishing for some way to earn money.

The next time you are making bread try some cinnamon rolls. They are good and easily made. When kneading the dough the last time, take a piece large enough to make the required number of rolls, work into it a little melted butter then roll out quite thin. Spread with melted butter and sprinkle thickly with sugar and ground cinnamon; roll this into a long roll and cut into inch lengths; dip the top of each piece in melted butter and set them on end, closely together in a shallow pan. Sprinkle sugar and cinnamon over the tops and set to rise. When



light, bake about half an hour in a hot oven. You'll like them hot, you'll like them cold, but you are not likely to keep them until they are nine days old.

I have seen a bit of paradise lately. It was a home where harmony and contentment dwelt. Discord and malice with all their ugly train had no harbor there. Children's voices made music in that home. The father rose early and toiled "the long day through" that he might provide for the needs and comforts of the family. The mother toiled equally as hard, keeping the home and little ones neat and clean, and managing

her brood with a gentle firmness rarely seen. The grandmother, too, still at the helm, with spirit undimmed by years of hard work, sacrifices and sorrows, added her cheery presence.

At night the father read aloud some entertaining story or helped the older ones with their lessons. When bedtime came cheerful good nights were said with no cloud to mar pleasant dreams or a happy awakening.

Not once did I hear railery against the rich, nor complaints about the hardships of a poor man's lot. Not a word about the inequalities of so-

ciety; not a groan about long hours and poor pay, nor a sigh about the work and worry of a woman's lot. All toil hard, content with the rewards of honest labor; and who shall say it is not a better philosophy of life than the howling fanaticism that would overturn the staid old world, and when that is done would turn it over again and keep it forever in a tumult?

The children of that home will not inherit wealth, but may the beautiful spirit of forbearance and kindness that is their birthright go with them to the homes they build when they fly from the parent nest.

# The Farm in General

BY E. J. WATERSTRIFE.

The up-to-date farmer is ever on the alert for new things.

Have your feed already for winter, then you will not have to haul in the mud or on bad days.

If you haven't anything for bedding try to get a load or two of straw from that neighbor who has plenty of it. But be sure you get it in some way before winter.

The farmer best situated is the man on a small farm who tries to see how much he can raise and sells it at best market price, and then uses the money to buy the necessities of the home and farm.

Say, Brother Farmer, is that mowing machine and cultivator still standing out to take full view of the weather yet? If so, cannot you manage some way to give it shelter this winter? Try at least.

Did you ever think that every time you buy a load of hay or feed you bring just that much fertility on your farm, and every time you sell feed you haul just that much off? I never do either without thinking about this, and I assure you I do not sell very much, except in special times, and not much then.

Are we to believe all we read? Well, I guess not, I have just read of a man who advises to eat just before going to bed and then have a lunch ready when we wake up in the night, for persons who cannot sleep. I am not going to try it yet awhile. I have no trouble in sleeping and would advise such persons to take more exercise.

If you take several farm papers which do you like best? Do you like the one which makes every scheme for advertising and fills up the reading space with anything, or the one who tries to get the best reading matter, and right amount of advertising? Do away with the scheming farm paper, that is why I like this one, for it has no free readers.

Anything which is worth having is worth taking care of. Then if you have a new carriage try to keep it new as long as you can, while it is

new and good try and keep it as such. Oil frequently and there is no use in using too much at a time. If you want the luster to remain on the paint have a cover to protect from dust. If you get caught in the mud wash at once.

It will pay the American farmers to study some of the German methods, and there is nothing I like to read better. The main thought will be fertility and intensive cultivation. If it pays the German farmers to carry the manure in a basket why will it not pay the American farmer to save it all and scatter by the load? The time is coming when we will have it to do.

## CELERY FOR EARLY MARKET.

By Wallace Jamison.

Another season's experience convinces us that the white varieties of celery are best for early use. They can be blanched much easier than the green varieties. A well blanched stalk will sell upon its appearance without regard to quality. We like the White Plume. It is a good grower, is easily blanched, the quality is good and with us it has been a good keeper, having kept some last spring until May.

## WILL IT PAY TO HOLD CORN?

According to information collected by the Missouri Agricultural College, the farmer who puts his corn in a crib to hold it for better prices can count on a loss by next June of at least fifteen per cent. That is to say, leaving out of account the cost of handling and loss by waste, thirty cents a bushel for the crop now is better than thirty-five cents next spring.

This conclusion is based on the reports of careful experiments covering seven years and extending over a large part of the Mississippi valley. At the Iowa Station, for example, seven thousand pounds of corn was husked and stored October nineteenth, in a crib built upon scales in order that the weight might be taken without disturbing the natural condition of storage. There was a shrinkage of nine per cent for the

first quarter year, five per cent for the second, three per cent for the third, and two and five-sevenths per cent for the last quarter. The experiment was conducted under the conditions that normally exist in this section of the United States and the results may, therefore, be taken as typical of those that will obtain on the average farm.

The College of Agriculture, however, does not advise farmers to sell their corn, but to feed it to some class of animals, thus returning as much of it as possible back to the soil. Careful estimates show that where corn is fed, eighty-five per cent of it can be sent back to the field to preserve its fertility. Selling the corn crop means taking this eighty-five per cent from the farm and thus, needlessly, reducing its fertility.



Warranted  
to give satisfaction.

## GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and  
positive cure for

Curb, Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable.

Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address

THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.



# Dairying on the Farm BY N. J. SHEPHERD.

Feed the cow all that she will eat and digest.

The better the butter the less salt is required.

No breed of cows gives a milk uniform in color.

Artificial coloring cannot cover radical defects in butter.

A lazy man will be a poor dairyman and poor feed will spoil any cow.

Stirring the cream makes a more uniform mess than can be secured in any other way.

Milk containing large globules will cream more rapidly and efficiently than milk with small globules.

It is succulence that gives to grain and other green foods a special value over and above their value of composition.

No care, feeding or forcing can make a heifer that naturally gives thin, poor milk give rich milk abundant in solids.

It is of no use to get better cows, new apparatus and better rations unless the skill of manufacture is brought up accordingly.

So long as cows will continue to differ in appearance from each other so long will they continue to milk and produce differently.

The dairyman who will feed a cow an abundance of good food in a warm stable need never devise ways and means to make the cow hardy.

The value of a cow for dairy work is determined by her ability to produce the largest quantity and highest quality of product at the least cost of food.

Those who make butter only when everybody makes butter will never know the good results which could otherwise be derived from their work.

Any large amount of exercise is at the expense of the yield and quality of the milk, but excitement from rough treatment is most unprofitable of all.

Winter milk means a warm barn, water convenient, cows in the barn all of the time and made comfortable in every way with plenty of wholesome food.

The surest way of management is to get animals of a good milking strain and give them such treatment as is best calculated to secure the largest quantity and the best quality.

A well fed scrub dairy cow will make as good butter as the best special purpose breed in the world, but she will not make so much of it nor for so long a time on the same food and care.

Butter color may give color to butter, but it cannot give flavor or quality, disguise defects or strain out undesirable additions that were never put there by the cow.

To make the best cow out of the growing heifer, it is important during growth that her feeding and care should be such as will secure the best development.

Dirt is the great enemy to good dairy produce, and cleanliness is one of the great secrets of success in butter making. It is much easier to keep dirt out of milk than to get rid of it once it gets in it.

If milk which has been set for some time, and on which the cream is partly risen, is stirred, the cream never rises full again, and there is considerable loss of butter from it.

Milk once set for cream rising should not be disturbed until skimmed.

The milk of cows being a direct elaboration from their blood, whatever interferes with a healthy condition of that fluid will equally affect the quality and quantity of the milk secreted by the udder.

Strive after securing an even lot of cows that will make a large supply of butter all the year round, rather than a few extraordinary animals that can only make a big test on a strain, while the other cows are only ordinary or below it.

There is only one infallible test of a good cow, and that is the churn and scales; if they show the right quantity of milk and butter, then the cow is all right; if not, though all other indications are present they count for nothing.

## ANGORA GOAT RAISING

With a Chapter on the MILCH GOAT By Prof. F. G. Thompson

A new book at a reasonable price, which tells just what every farmer wants to know about the Goat Industry. This book is up with the times and covers the field in a clear and practical way. Price, bound in cloth, \$1.00. With the MODERN FARMER one year, \$1.10, post paid. Address, THE MODERN FARMER, St. Joseph, Mo.

## Townsend & Wyatt

*Dry Goods Company*

### IMPORTANT BARGAIN EVENTS

Now in progress throughout the store. Values that are quite out of the ordinary in both winter and spring merchandise. Every bargain feature more pronounced than ever.

### MID-WINTER CLEARING SALES

Final and sweeping reduction on winter goods. We have taken our annual inventory and have marked all seasonable goods at extraordinary reductions to avoid carrying them over. There's plenty of cold weather ahead yet and these radical price reductions will enable you to prepare for it under the most favorable conditions.

### ADVANCE SPRING SALES

This period of the season has become noted at this store for its important sales in Muslin Underwear, White Goods, etc.

This year is no exception to the rule, except that stocks are larger, styles are prettier and values greater than before.

5th and Felix Sts.

St. Joseph, Mo.



## Publisher's Department.

We are willing to do all we can to make the ads of our patrons attractive, but no free "readers" will be given to anyone.

We have no editorial opinions for sale at any price.

All advertising must be paid in advance when satisfactory references are not furnished, and then collections will be made monthly, and all bills are due as soon as a copy of the paper containing the ad is received. Send references when you send your ad and save time. We want them to protect our readers as well as ourselves. If you do not pay your bills promptly, we do not want your patronage.

### ADVERTISING RATES.

(Advertisements measured by agate line, 14 lines to the inch.)

Less than 14 lines, one inch, 10 cents per line each insertion. No ad taken for less than 25 cents.

14 to 34 lines.....	7½ cents a line
112 lines and over.....	6½ cents a line
168 lines and over.....	6 cents a line
336 lines and over.....	5 cents a line
672 lines and over.....	4½ cents a line
1000 lines and over.....	4 cents a line

Reading notices charged 10 cents per count line, brevier. Advertisements classed as objectionable will be rejected. Special position charged at higher rate, owing to position.

## VIRGINIA HOMES

Our section Emporia, Greenville county, Virginia is the section that raises more kinds of products successfully, than any other section in the U. S. You can learn all about lands, soil, water, climate, products, mode of cultivation, prices, markets etc. by sending 10c. for 3 months subscription to the

Va. Farmer, Box 404, Emporia, Va.

## A Special Club.

The Modern Farmer and Busy Bee	\$ .25
The Breeder's Gazette (A great paper)	2.00
Gleanings in Bee Culture	1.00
The Agricultural Epitomist	.25
Poultry Gazette	.25
One Gold Filled collar button	.25
	\$4.00

All for \$2.00

Cosmopolitan, Pearsons, or American Boy may be substituted for Gleanings, or any two of them for Breeder's Gazette.

## The New Cardinal Raspberry

Most productive berry grown, most hardy, greatest vigor, best quality and profit. The triumph of the age. 16 qts. berries from one plant. Never fails.

## ...FRUIT TREES...

of all kinds, Evergreens, Flowering, Shrubs, Roses etc. Guaranteed first class and true to name. Write us.

HOWELL & CHRISTIE  
Waverly Kansas.

IF  
YOU  
ARE

# A DEMOCRAT

Or if You are not You will want to read

## BRYAN'S COMMONER

The Commoner is issued weekly and the subscription price is \$1.00 a year. By special arrangements with the publisher we are able to offer, for a short time only, THE MODERN FARMER, THE COMMONER and GREEN'S FRUIT GROWER one year, all for \$1.00.

Address all orders to

THE MODERN FARMER,

St. Joseph, Mo.

## Gems In Verse

### A Summer Resort.

The sylvan breeze is soft and sweet,  
And yet 'tis undeniable  
That an electric fan complete  
Is vastly more reliable.

The summer moon and stars are fine  
As they gleam out o' nights,  
And yet when you would read or dine  
You want more earthly lights.

The brook that struggles through the glade  
Doth form a fair retreat,  
And yet for comfort, rest and shade  
The bathtub has it beat.

So, nymphs and satyrs, fare you well.  
With you I shall not roam.  
For, spite of what the poets tell,  
The real place is home.

—Washington Star.

### The Leaf.

From thy frail stem,  
Detached by force,  
Poor, withered leaf  
In eddying course,  
Where goest thou?  
I do not know!

The mighty storm  
Bore down to earth  
The giant oak  
Which gave me birth.  
Since then I've wandered  
To and fro.  
The north wind bids me  
Onward go.  
And e'en the breeze  
Moves on by stealth  
And drives me with  
Its gentle breath.  
From the forest  
To the dale.  
From the mountain  
To the vale, rising, falling in the air,  
Sometimes here and sometimes there,  
Without a shudder or a sigh,  
Before the wind I ever fly.  
Sometimes fast and sometimes slow,  
I go. I go where all things go.  
I go where, reft of beauty, goes  
The leaflet of the perfumed rose  
And where the bay leaf finds repose.  
—T. B. Lecompte in Boston Globe.

Read our ads. They are all clean.



### 50 BULBS

25 Cents.



Will grow in the house or out of doors. Hyacinths, Tulips, Gladiolus, Crocus, Fuchsias, Oxalis, Tuberoses, Begonia, Jonquils, Daffodils, Chinese Lily, Dewey Lily, Gloxinia, Lilies of the Valley—all postpaid, 25c. in stamps or coin. As a premium with these Bulbs we will send FREE a big collection of flower seeds—over 200 kinds.

**HILLSIDE NURSERY, SOMERVILLE, MASS.**

## 50,000 TREES AT HALF PRICE.

First class Apple, Cherry, Plum, Shrubs, Plants, at wholesale. Peach trees \$10 per M. Baldwin cherry in colors and catalogue free.

SENECA NURSERY, SENECA, KANSAS.

## CHEAP COLUMN

Ads in this column one cent per word. Every sign, figure, letter or word counts. No ad taken for less than 25c.

Here is a chance to sell or buy anything you want very cheap. Cash in advance.

FOR SALE—Buff Leghorns, Barred Plymouth Rocks, Pure Italian Bees, Queens, etc. Geo. W. Marshall, Gregory, South Dakota

FOR SALE—White Leghorn Cockerels, Rose Comb. From \$5. eggs. Fine birds. Few at \$1. each. Ranch raised. Chas. Hillman, Richland Center, Wis.

It is always best to commence in good season to feed the turkeys that are to be marketed, so that they will be in as good thrifty condition as possible, as in this way but a short time of full feeding will be required to properly fit them for market. Turkeys do not bear confinement well and ten days or two weeks is usually as long as they should be kept penned up, and if they are well fattened in this length of time it is very essential that they be in a good thrifty condition when the feeding is commenced.



# Farm Beekeeping *By the Editor.*

Someone has been pointing out to Editor Root the fact that Maeterlinck is not altogether sound in his philosophy of social life. If Editor Root had read the book review department of *The Modern Farmer*, he would have known this long ago, and what is more that he is a long ways from being sound on bees. However, Friend Root, do not go and tell people not to read Maeterlinck, for if you do, he will only get that much more free advertising. Socialism and other isms are rampant now in the old world, and also in some parts of this; so is a broody hen when she wants to set, but if you will just let her have her own way she will cure herself, and lay eggs again just like any good orderly hen.

Now is the time to get ready for next year's honey crop. Order your hives and your supplies, and get them made up, painted, etc., ready for business. There is not only a discount on goods purchased now, but you save in many other ways, and best of all you make sure of having your hives ready for the bees when you need them. You may say that you want to wait until spring and see if you have any bees. There will be no trouble about this if you have been a constant reader of *The Modern Farmer* and have followed our instructions. Your bees are no more likely to die than your horses or your cattle, if you have given them plenty of food in the right place. If you have not, do it now.

A committee was appointed at the Chicago meeting to report on the advisability of dividing up the United States and Canada into twelve parts based on the present membership, and to let the members of each district select, and elect, its own member of the board of directors, giving Canada one member. The idea is that this shall be presented as an amendment to the constitution at the next annual meeting. That is if Bro. Root and some more of our friends will permit such a subject to be discussed. The Editor of *The Modern Farmer* is chairman of that committee, and would be glad if any of our readers who are bee keepers would tell us briefly what they think of the idea. We believe it would double the membership of the national, and make it a much greater power for good. It would do away with voting for the same set of men every year without regard to locality, and would bring to the front, no doubt, new blood, which would prove of great value to the association.

The Chicago meeting has come and gone, and it was an excellent meeting in many respects; excellent on account of what we considered a large attendance, excellent in the

character and intelligence of those present, excellent in the way it was entertained, and excellent on account of some of the papers that were read. We had with us Dr. Phillips, the new apicultural expert of the department of Entomology, Washington, D.C. His paper was one of the best it has ever been our privilege to listen to on any subject relating to bees. It was free from cant, verbosity, bombastic egotism and a super-abundance of so-called scientific phrasology; which was very refreshing, indeed, as we are frequently treated to an overdose of these things by speakers and writers who put down their address on the hotel register, "Washington, D. C.," and

draw so much per day from Uncle Sam. Our Uncle Sam is a wise, rich old fellow, but he annually pays for writing and publishing a vast deal of more than worthless verbiage and nonsense. It is to be hoped, however, he will give Dr. Phillips plenty of money and a free field, for he is sure to evolve some things of real practical value to the people. We might remark in closing, for the benefit of Brother Hill of Florida, that so far as we could learn, there were no fatalities from freezing, and if anyone went away hungry, or poorly provided for, this also escaped the watchful eye of the representative of *The Modern Farmer*.

## THE BEST BEE GOODS IN THE WORLD

... ARE ...

## LEWIS GOODS

EXCELLENT IN QUALITY, PERFECT IN WORKMANSHIP

SEND FOR CATALOGUE LISTING EVERYTHING IN

### BEE KEEPERS' SUPPLIES

E. T. ABBOTT, St. Joseph, Mo.

Special Southwestern Agent.

G. B. LEWIS CO., Watertown, Wis.

## Marshfield Manufacturing Company

Our specialty is making SECTIONS, and they are the best in the market. Wisconsin basswood is the right kind for them. We have a full line BEE SUPPLIES. Write for free illustrated catalogue and price list.

Marshfield Mfg. Co., Marshfield, Wis.

## DITTMER'S FOUNDATION

THE BEST MADE.

RETAIL, WHOLESALE AND JOBBING.

Owes its Reputation entirely to its Merits and our Persistent Efforts to Make the Best and Keep it the Best. It is Tough, Clear and Perfectly Transparent, has the Natural Sweet Odor of Pure Wax, and the Color of the Brightest and Lightest Lemon and Orange. We make a Specialty of Working Wax into Foundation for Cash, by the Ton, Hundreds and Thousands of Pounds and we are in the Best Shape to attend to all orders promptly, our Capacity being 1500 pounds daily. Full and Complete Line of Supplies, and the Best Only. Do not fail to write for Samples of our Foundation, Descriptive Catalog, Prices and Discounts, stating Quantity of Foundation wanted, Wax to be Worked, and List of other Supplies, and Prices will be accordingly. Beeswax always wanted.

E. Grainger & Co. Toronto, Ontario.

The Bee & Honey Co. Beeville, Texas.

E. H. Taylor, Welwyn, Herts, England.

W. D. Soper, Jackson, Mich.

Agents for, Canada.

" " Texas.

" " Great Britain.

" " Michigan.

GUS DITTMER, AUGUSTA, WISCONSIN.



Editor Putnam of the Rural Beekeeper read a paper at the meeting of the National in which he referred to the "co-operative committee of the Minnesota State Beekeepers Association." Now Editor Putnam should not misrepresent in order to try to strengthen a point. There is no such a committee as he refers to in existence. The editor of the MODERN FARMER was present at the meeting of the association when that committee reported, and the report was disposed of and the committee ceased to exist. These people have a perfect right to advocate co-operation, or anything else, as individuals, but it is not honest or fair for them to claim that they are acting in any way for the Minnesota Beekeepers' Association. Brother Putnam and the friends in Minnesota should not lose sight of the fact that there is a good deal of humbug about a large amount of this so-called "co-operative talk." A paper that in every issue contains an undercurrent of discord and strife and seems to be trying to stir up contention need not expect to have the support of people who are inclined to think that in spite of all its faults this is not a bad world. There are plenty of people who are anxious to overthrow the existing order of things, but thoughtful people naturally ask, "What next"? Let us not tear down too many old houses until we are sure we have better new ones ready to move into. We might get left houseless and adrift. Did you ever notice how many people there are who talk of co-operation, socialism, etc., that speak with a foreign accent? We are Americans, and America is founded on individualism, with the home as a center of social life.

Editor Root of Gleanings deplors the discussion of amendments to the constitution at the annual meeting of the National. He says that it costs money to attend the National, and the members come there to learn about bees and how to keep them. Where are we to discuss amendments to the constitution, if not at the annual meeting? He intimates that there are those present at the annual meeting that are not interested in the discussion of these questions. If they are not interested, they should be, at least; for upon the success of the National depends its value to them, and whatever makes the National more valuable promotes the interest of every beekeeper. The "push" amended the constitution so that it is now no longer possible to present any amendments to the membership at large that have not been passed upon by a majority of those present at the annual meeting. Now this same "push" do not want any amendments discussed and voted upon, and so the "push" would suppress all discussion and progress because they "want to learn about bees." Is it really true, as Editor Root says, that a great many come a long distance in order to get information about bees? Are the annual

meetings of the National made up of those who want to learn the ordinary things about beekeeping? This has not been our experience, and we have only missed one meeting, if memory serves us right, in the last fifteen years. It is our experience that the majority of the people who attend the annual meetings are expert beekeepers, or think they are, and they are more anxious to tell someone what they know about bees than they are to get information from others. However, let this be as it may, we are quite sure we need more, and not less talk about the affairs, the business affairs, of the National at every annual meeting.

Surely the hundred or two intelligent men and women who attend the National are as competent to discuss and act on the affairs of the association as are the dozen men who are members of the board, we have not thought enough of the intelligence of women to put one of them on the board. Yet, it is nearly always one of the directors who offers some objection to any amendments

to the constitution that are proposed at the annual meeting, and that do not want anything submitted to the entire membership. They frequently resort to the cowardly parliamentary rule of "laying things on the table." The foreman in a printing shop is the head of his department, but when the proprietor, the real owner talks, modest y, if nothing else, would suggest that he keep still. The bee journals is the place to ask questions and discuss whether a bee has two tails or one, and such other weighty questions as perplex and confuse the minds of the masses, and delight and make swift the pen of those who write for so much per, but the annual meeting is the place to discuss and act on the real business affairs of the National, as all who are there present are supposed to have a vital interest in everything that pertains to the welfare of the association. An annual meeting without any business is too much like a revival without any church to look after the converts, and is very apt to prove "a flash in the pan."



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## A GOOD RECORD.

Walnut, Mo.

Editor Modern Farmer:—

One year ago I had twenty-one hives of bees. Out of these six got to clover harvest last May in a starving condition. I got two Italian queens May 22nd. One swarm escaped to the woods. I divided until I have eighteen, all with Italian queens. I used all the old combs. Bees gathered very little honey the last of the season, so my bees had to be fed. I am making candy by taking three cups of sugar, one-half cup each of vinegar and water. Cook without stirring until particles become brittle when dropped into water, then pour into dishes. Now, I wish to ask, first, is this candy made right? Second, how much sugar will it take to the hive to winter this way? Third, how much had I better put on at a time?

F. P. BANE.

What is the vinegar put in for? We can see no use of it. From six to ten pounds will take a colony through the cold part of the season, and sugar cakes are not good after it is warm enough for the bees to fly out. It should all be put on at once, and then the bees should not be disturbed while they are clustered.—Editor.

## IMPORTANCE OF STRONG COLONIES.

Editor Modern Farmer:—The season of 1905 proved to be very discouraging to bee-keepers in this locality, so much so in fact, that some left their bees without sufficient win-

ter stores.

They would say, "I can't afford to feed my bees this fall, as they haven't given me any surplus honey."

What folly! These off years are just the time we should give the bees extra care, as the season following may quite likely be a good one, and if the bees are half dead and the other half very weak, we cannot expect them to do very much at honey-gathering.

As the seasons pass I more fully realize the importance of keeping my colonies strong, and especially is this important when one lives in a locality where an early honeyflow may be expected. It often happens that apple blossoms furnish our best yield of the season. This was the case here the past season, and had my colonies all been strong at that time my honey crop would have been greatly increased. But owing to a press of other work I neglected my bees the previous fall, and a "slim crop" was the result.

What I once called a strong colony I now only call a medium one, and would unite two such to form a strong one. It isn't the number of hives one may have containing bees that counts during a honey flow, but the number of strong colonies. They are the ones that "do the business."

This advice to "keep your colonies strong" may seem a little "shop worn" to some, but it will bear repeating often for the good of those who do not fully realize its importance.

A. E. WILLCUTT.

## LESSONS in BEEKEEPING No. 11

Insects, like all other creatures, breathe, or take oxygen from the air, but not in the same way. Animals and people breathe through the mouth and nose. Perhaps it would be better to say that people breathe through the mouth and nose, and animals through the nose; for man is the only animal that does not seem to know how to breathe naturally. The nostrils are the proper opening through which all air should reach the lungs. An animal does not breathe in any other way, unless compelled by some ailment. It always sleeps with its mouth closed when in health. About one-half of the human family breathe through the mouth, and the result is that they suffer from catarrh, and a multitude of other ailments, as a result of this violation of nature's laws. Now, a bee could not breathe in this way if it wanted to ever so much. The lungs of animals are located in the chest, and are reached through openings known as the mouth and nostrils which come together in the opening that leads to the lungs. The bee has no passage through its mouth that leads to its breathing apparatus. Its breathing tubes are located in different parts of the body and are

connected with external openings known as spiracles. The bee has a number of these openings, so you cannot "shut off its wind" by closing one of them, but if they are all closed the bee will die, just as a man will die if you close his mouth and nose so no air can reach his lungs. If you drop a little honey on a bee you will see that she will begin at once to clean herself, as honey stops up her breathing tubes, and "cuts off her wind," as we say of man or an animal. A fish, as the reader probably knows, breathes in another way and sifts the air out of the water by means of its gills. Take it out of the water and it dies for want of air the same as does a bee when its spiracles are closed. The practical side of this bit of information is that bee keepers should avoid those things that tend to obstruct the breathing apparatus of the bee. Every time the combs are broken and the bees are smeared with honey they are caused more or less inconvenience, just the same as it would inconvenience a person for one to put a hand over his mouth and nose at the same time and hold it there. Some bee keepers feed bees by pouring syrup on the frames and letting

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it run down over the combs and bees. This is a bad practice, as it injures the bees more or less, and greatly inconveniences them until the syrup is all cleaned off. It is true, they will clean up, and repair things as quickly as possible, but they suffer more or less while the syrup, or honey, is on them, and they are bound to die "for want of breath," as we say of people, if it is not cleaned off. So let us remember how our little workers get the oxygen they so much need, and not "shut off their wind" any more than we can help.

Probably the most important internal organ of the worker is its honey-sac. It is most important to the owner of the bees, for it is in the honey-sac that bees carry home the nectar which is sucked up and lapped up with their wonderful little tongue, about which we spoke in a former lesson. The honey-sac is an enlargement of the alimentary canal, but it is in no way similar to a bee's true stomach in which the digestion of the bee begins. Some scientists hold that it is not possible for anything to pass from the true stomach to the honey-sac, while there are others who do not fully agree with them. Honey has been called by some "pre-digested food," giving the ordinary reader the impression that it passes through some change similar to that which takes place in our own stomach when food passes into it. We confess we do not take kindly to the phrase "pre-digested," for it suggests, as we said above, to the ordinary reader something which is not true, and we prefer the term "inverted," as the process is purely chemical in our opinion, and has nothing to do with the vital energy of the bee, beyond the fact that the chemical which produces it is furnished by the bee. This is not secreted by glands in the honey-sac, but by one of the glands of the head. This chemical, whatever it is, is added to the nectar while it is on its way to the honey-sac, or else as it is being passed out into the cells. The honey-sac according to our way of thinking is only a carrying vessel, and has nothing to do with the transformation of the nectar, "cane-sugar," into honey, "invert sugar," which is ready to be assimilated by the human body without any further change. Now we hope no one will bob up and tell us that Cowan says so and so, Cook says so and so. We do not care a fig what they say. We have read time after time what they all say, but we are telling now what we think and not what other people say. There is a good deal said in these times about the best definition of honey. The best we know is, "The nectar of the flowers inverted or transformed by the bees." Nectar is just as important as the transformation, for the bees cannot transform sugar syrup into honey any more than pure glucose is honey, which is practically the same chemically speaking. Honey to us is something separate and

apart from everything else, having a characteristic flavor, and vital energy of its own, and nothing can be made into honey by the bees but the pure nectar of the flowers. This may seem a narrow definition of honey, but it is exactly what we mean when we say honey, and is the only thing we are willing to give our money for when we ask for honey. Any other kind of honey is a fraud, bees or no bees. The reader should not get the wrong idea of the size of the honey-sac, for it is exceedingly small, and the bee must make several trips to gather a single drop of honey. By a little figuring one can see how much labor a super full of comb honey stands for on the part of the bees. The willingness with which these faithful little workers make millions of trips to store up something for future generations is worthy of the study and imitation of anyone. If there is any one lesson which is distinctly taught by the bee hive it is the lesson of industry, persistency and self-sacrifice.

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Pure water is more essential than clean grain.

Poultry hatched in an incubator are free from lice.

Milk in any form is both meat and drink for fowls.

Variety, not uniformity, is the spice of a chicken's life.

In a cock a coarse looking head is a good indication of vigor.

A fowl inclined to fatten too readily is not as a rule a prolific layer.

Tar and sulphur burned in the hen house with closed doors is a good disinfectant.

Dampness and draughts ruin more fowls and breed more disease than all else combined.

Never feed fowls more than they will eat up in a few minutes, as they will be more active.

Uniformity is important as it adds to the attractiveness of the flock. To secure it, use only pure bred cocks.

The use of cross bred or mongrel cocks prevents uniformity in the color and characteristics of the chicks.

Overfeeding is expensive. It not only costs more for the feed, but the hens become fat and lay fewer eggs.

There is nothing better for fowls during the molting season than a little flax seed mixed with the morning meal.

If ducks and geese have been plucked of their feathers several times during the season, they will not molt.

Fowls should be well fed from the start. Once stunted by starvation they never develop their full capacity for usefulness.

Fowls running at large in an orchard do an infinite amount of good in the destruction of larvae, worms, beetles, bugs, etc.

Fall hatched chickens must be forced up to a fairly good size before severe cold weather sets in if they are worth wintering over.

Young pullets that were hatched late will not lay in winter if they do not mature by November, but will begin early in the spring.

The science of mating for best results not only in fine points but vigor and fertility requires careful study and practical observation.

Feed the poultry all they will eat a few days before sending to market. This applies to all kinds. Much of the poultry sent to market is not in a condition to be of the best quality.

As a rule two-year-old fowls make the best breeders and it is not wise to market them all before you know that you have others their equal to replace them.

All things considered the best plan of feeding grain is to scatter among litter and let the hens scratch it out, and the best way to feed soft food is on broad, clean boards.

In selecting the pullets to be kept for breeding and laying, first select birds that are well developed. Be sure that they have made a good growth and are strongly built, then look for activity.

If fowls are overfed and an overplus of fat produced, they will become inactive and eggs will not hatch well, neither will chicks come out with sufficient vigor to make them easily brought up.



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When poultry have been for a long time accustomed to certain foods they will not readily eat such as never was placed before them until a change is desired, and hence suddenly changing to new food often results in the hens eating sparingly for a time.

Do not attempt to winter too many fowls. A small number will pay more handsomely, takes less feed, and the supply of eggs will be increased. As ordinarily managed, not more than fifty fowls should be kept in one flock. When a larger number is kept together the risks of loss are materially increased.

One of the advantages in the use of dry dirt in which to scratch for loose grain is that it also prevents lice. If the hens are given plenty of dry dirt they will dust frequently and remove the lice from their bodies. It is the cheapest material that can be used and is also beneficial as a deodorizer and disinfectant.

Growth and development require a corresponding quantity and quality of food to build up a large, solid frame and give strength and vitality to the constitutional organs, so that they may perform their functions actively and usefully. A well fed and well cared for fowl is always in prime condition and a little extra feed at any time will fit it for the table.

If an incubator is to be purchased and used, it will be found a good plan in nearly all cases to purchase reasonably early in the fall in order to have plenty of time in which to get well acquainted with its workings before time to start the hatching. Earliness is quite an item with early broilers for market and the safest plan is to always commence in good season.

A brooder is a necessity in raising early broilers for market. With reasonable care the incubator can be made to hatch out the little chicks, but a brooder is needed to properly care for them until they have made a sufficient growth to be allowed to run about, at least to some extent. The work of raising without a brooder is materially increased, with an increase in the risk of loss.

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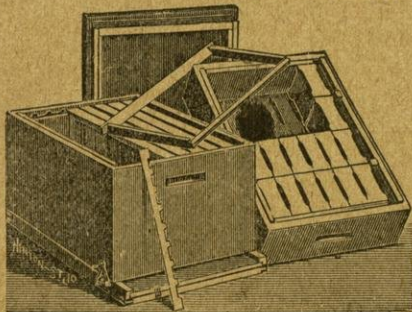
**Y. M. C. A. Business College,**

**St. Joseph, Mo.**



# THE "ST. JOE" HIVE.

This is, Without Doubt, the Best All Purpose Hive on the Market, and it Never Fails to Give Satisfaction.



OTHERS may tell you that there are better hives made than the "St. Joe," but we will not believe it, and we do not think you will after you have put the matter to a practical test and have become thoroughly acquainted with its merits and demerits, if it has any. It is not built for show, but for practical utility. It has no complicated parts which are hard to understand, difficult to operate and of doubtful utility when put to practical use. It has all of the very latest and

best devices known to the beekeeping fraternity, and every objectionable feature has been eliminated. It is made of the very best white pine, and every part of it fits every other part accurately and snugly.

We have improved the hive in many ways since the illustration was made, but it brings out clearly and distinctly some of its strong points, the most valuable of which is the metal spacer, by which every frame is held in its proper place, and at the same time it is impossible for the bees to glue the frames fast at any point. Every frame can be removed with ease and without disturbing any other frame in the hive. This spacer will not break nor split, as do the wooden spacers which are used in some hives, neither can the bees glue the frames together and make them all one solid mass, as they do the Hoffman frames. There is no trouble about fastening the spacers in place. All that is necessary is to drive them down in the saw kerf in the rabbet as far as they will go, and they are there to stay.

The frame is of the same dimensions as the Hoffman frame, has the heaviest top-bar of any frame made, and is so arranged, with two grooves and a wedge, that full sheets of foundation, or starters, can be fastened in a frame in a moment's time.

The bottom of the hive is loose, and is made of heavy,  $\frac{3}{4}$  lumber. It is so constructed that it can be reversed and the entrance made large or small. This is accomplished by nailing strips on both sides of the bottom, the narrow strips being nailed on one side to make the small entrance, and the large strips on the other side to make a large entrance at the other end of the bottom. The bottom can be fastened to the body either with what is known as the Van Deusen hive clamp, or with simple hooks.

The lid is made with an air space above the sections, as illustrated, and is very strong and simple in construction. There is a honey board with each hive which is to go in the lid, slats down, either on top of the sections or the frames, as the case may be. This is to keep the bees out of the lid and to make the hive cooler in hot weather.

The super we generally send out has pattern slats  $1\frac{1}{2}$  inches wide, in the bottom and two presser boards, one for the side and one for the ends, so that the sections are held snugly in place. No separators are used in this super, and we always recommend the use in it of sections open on four sides. Bees will store more honey where separators are not used than they will if the super is divided up into narrow compartments with no connection between them.

Those who prefer can have supers with section holders and separators, if they will ask for them when they order. Or, we can furnish the hive with supers fitted up for plain sections and fence separators. In fact, any combination used in the dovetailed super can be had with the "St. Joe." We may not always have all of these different combinations in stock, but can get them in a short time from the factory. Any "St. Joe" super will fit on a Dovetailed hive, but Dovetailed supers will not fit "St. Joe" hives, on account of the rabbet on the sides which holds each part to its place.

Every bee space in the "St. Joe" is accurate. Bees do not build combs between the ends of the frames and the hive walls, nor between the frames and the supers. There is also a bee space between the supers when more than one is used.

We have aimed to combine the very latest and best of all hives on the market in the "St. Joe." It is the result of twenty years experience, devoted almost exclusively to the handling of supplies and the production of high-grade honey. As we said before, we have dropped out what we considered the bad features of other hives, retained the good ones, and introduced some new ones not found in any other hive.

The hive is first-class in every respect, and never fails to please those who use it. We advise those who want an up-to-date and modern hive to try the "St. Joe."

Do not let anyone persuade you that they have a hive "Just as Good," there is "No Just as Good" hive except the "St. Joe" itself.

Our prices are the same for the "St. Joe" hive as others charge for poorer ones. Please note that it is crated in lots of five, the same as other hives, and that anything less than a crate will be sold at single rate. We furnish it in both eight and ten-frame, but we recommend to all beginners to start with the ten-frame hive.

The prices of the "St. Joe" hive and the various parts are the same as are quoted for other makes of hives. Five, 8-frame,  $1\frac{1}{2}$  story, \$8.50; ten, 50c; twenty-five, \$36.50. 10-frame hives 15c per hive more than 8-frame.

E. T. ABBOTT, St. Joseph, Mo

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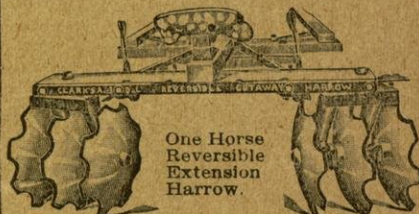
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## Farm and Stock

for 1906 will be handsomely illustrated with half-tone pictures, and will be printed on high grade super-calendered paper. A specialty will be made of reporting meetings of breeders' associations of all kinds, and its readers will be kept in close touch with the work of the agricultural experiment stations. Subscription price \$1.00 a year, but will be sent during 1906 on trial for TEN CENTS and the names of ten farmers who are interested in Corn or Live Stock. Address

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REVIEW OF REVIEWS is the greatest of all magazines of its class. Helps you to keep up with all that is going on in the world as nothing else does. Its monthly views of men, events, policies and industries is unequalled. If already a subscriber will add a year to your subscription.

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Housekeeper .....	.60

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## Gems In Verse

### The Four Leaved Clover.

I know a place where the sun is like gold  
And the cherry blooms burst with snow,  
And down underneath is the loveliest  
nook  
Where the four leaved clovers grow.

One leaf is for hope, and one is for faith,  
And one is for love, you know,  
And God put another one for luck—  
If you search you will find where they  
grow.

But you must have hope, and you must  
have faith;

You must love and be strong, and so,  
If you work, if you wait, you will find  
the place  
Where the four leaved clovers grow.

—Ella Higginson in Philadelphia Press.

### A Dakota Harvest Field.

On every side the golden stubble stretches,  
Looped and laced with silvery spiders'  
webs.

From stalk to stalk the snapping insects  
leaping

Add sparks of glittering fire to gold and  
silver haze,

Their clicking flight the only sounds of  
living

In all the deepening solemn hush  
Of flooding, falling light through droop-  
ing, dreamy grain.

The sweet warm light grows every mo-  
ment richer.

Ever more sonorous the damp and hollow  
air.

And now there comes the clatter of the  
reaper

And loud and cheery urging of the tired  
teams.

Around, unseen, the choir of evening  
crickets

Deepens and widens with the fading dusk,  
And distant calls to supper reach across  
the tangled grain.

The overarching majesty of purple clouds  
grows brighter,

Soaring above in seas of green and blue.  
A tumbled mountain land of cloud crags,  
fired and lighted

To glowing bronze and red and yellow  
gold.

And through the grain the reaper still  
goes forward.

And still the crickets chirp and insects  
leap.

And overhead the glory of the sunlight  
turns to gray.

—Hamlin Garland in Cincinnati Enquirer.

### The Knight's Vow.

I made them lay their hands in mine and  
swear

To reverence the king as if he were  
Their conscience, and their conscience as  
their king;

To break the heathen and uphold the  
Christ.

To ride abroad redressing human wrongs,  
To speak no slander—no, nor listen to it;

To honor his own word as if his God's;  
To lead sweet lives in purest chastity,

To love one maiden only, cleave to her,  
And worship her by years of noble deeds

Until they won her, for indeed I knew  
Of no more subtle master under heaven

Than is the maiden passion for a maid,  
Not only to keep down the base in man,  
But teach high thought and amiable  
words

And courtliness and the desire of fame  
And love of truth and all that makes a  
man.

—Tennyson.