

Forty Pages

The *sp²*

Price Five Cents

FARMERS MAIL AND BREEZE

Vol. 44.

January 24, 1914

No. 4.

Eggs
When
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Mean
Money

Plans
and Cost
of Pit
Silos



The
Use You
Make
of
Food

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Dual
Purpose
Animals?

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FOUR years ago the Overland passed into the hands of its present owners. During this same time many other automobile manufacturers have come and gone—flared up and out. But our progress has not only been phenomenal, but strong and healthy. Each year our sales have increased by millions. In the last four years we have accomplished *more*, done a *larger* business and given the farmer *more* car for *less* money than any other automobile manufacturer in the world.

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Tires as large as you find on the average \$1200 car.

Electric lights—even under the dash—deep upholstery, an unusually heavy frame, a large steering wheel, Timken and Hyatt bearings, three-quarter floating

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Cowl dash
Brewster green body, nickel and aluminum trimmings

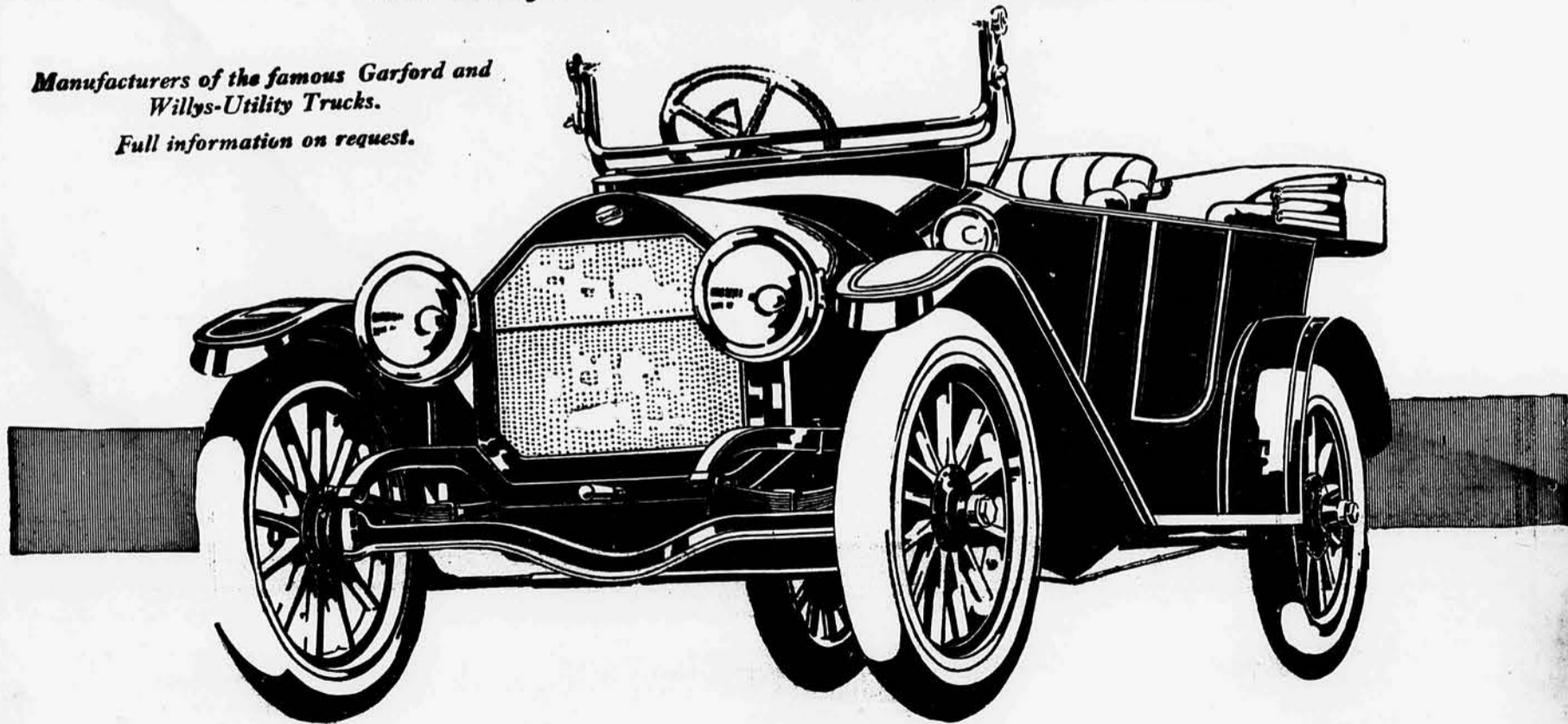
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THE FARMERS MAIL AND BREEZE

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Some of These Berks Go to Market

And Some of Them Stay at Home to Improve the Quality of Kansas Hogs—Alfalfa and Shorthorn Methods on the Bayer Homestead Farm

BY F. B. NICHOLS, FIELD EDITOR

MORE than 200 head of purebred Berkshire hogs are produced every year on the New York Valley Stock farm, on Owl creek, eight miles from Yates Center, Kan. This farm consists of 312 acres owned by J. T. Bayer. About one-half of these hogs are sold in the open market. The others go to breeders. The trade in breeding hogs reaches almost all over the United States. A small herd of Shorthorn cattle also is kept.

Much of the feed of the hogs in the summer is obtained on alfalfa pasture. About a one-fourth grain ration is fed to all the hogs, and in addition the pigs get some slop, which consists mostly of shorts. Mr. Bayer fully appreciates the value of protein for growing hogs, and when the alfalfa pasture gets a little short he begins to feed tankage. The protein in alfalfa is much cheaper than that in tankage, of course, so he prefers that the hogs shall get it from the crop when they can. When the alfalfa becomes woody, so the hogs do not eat it eagerly it is mowed, so that a good growth will start.

Considerable use is made of alfalfa hay in the winter as a source of protein, but some tankage is used also. Mr. Bayer believes that tankage can be used as an important supplement to alfalfa hay in supplying protein to hogs in the winter. The amount of slop and corn that the hogs receive is increased in the winter, but no effort is made to get the breeding hogs fat. The aim is to get growth, not fat. This is the reason such close attention is paid to the protein.

The hogs usually are sold for meat when from seven to eight months old when they weigh about 250 pounds. All these hogs are purebred, and some of the animals that go for meat have very good quality. Mr. Bayer believes that only the very best animals should be sold for breeding purposes. By enforcing this rule strictly a reputation for high class animals has been built up and it has paid.

Much of the good growth made by the Bayer Berkshires is due to the fact that they are on good alfalfa pasture. The soil along Owl creek is mostly of a limestone formation, well adapted to this crop. There now is about 40 acres of alfalfa on the place of which 10 acres is in hog pasture. The remainder is fenced hog tight, so it can be used if necessary. Alfalfa was the most profitable crop on the Bayer farm last summer, as indeed it is every year.

No special trouble has been encountered in getting a stand of alfalfa. The crop is sown in the fall following a spring grain crop. The land is plowed just as soon as the grain shocks are removed, and it then is worked after every rain until the seed is sown. Mr. Bayer tries to get a rather compact seedbed, and to have some loose dirt on top. This is obtained by the proper use of a disk and drag harrow, when a crust has formed on the ground.

Alfalfa usually is sown the last week in August, if the moisture conditions are right. Mr. Bayer does not like to sow the seed unless there is enough water in the soil to germinate it. The seeding is delayed until September if rain does not come; but it is not well to delay this seeding too long, or the crop will not make enough growth to withstand the

winter. When the rain does not come until well along in September, the seeding is done in the spring. It has been the experience on this farm that the fall sown alfalfa does the best.

Special effort is made to cut the alfalfa promptly, just as soon as the bloom has started. Mr. Bayer does not like to cut it before a few leaves of the new growth have started from the crown.

The hay is raked after it is well wilted, and most of the curing is done in the windrow and shock. Special effort is made to save all the leaves, and to get the hay into the barn with as good a color as possible. When rain comes—as rain has a special habit of doing when the first two crops of alfalfa are being cut in eastern Kansas—it is not possible to get the hay cured out well in the field, although this always is preferred when possible. When it is necessary to put hay containing much moisture into the barn it is often spread loosely over a large part

on the man who is mowing away the hay that he must not jump on it or drop heavy forkfuls on it. When A. M. TenEyck was professor of agronomy in the Kansas Agricultural college he cured some alfalfa hay in the barn by much the same method Mr. Bayer uses, and when he came to take out the hay in the winter he found that it had kept fairly well except in one spot, where it had spoiled. When he found this, he sought an interview with the man who had mowed the hay away. This man cheerfully admitted that he had jumped down on the hay on that spot in getting from the platform where the hay was dumped to the door.

As Mr. Bayer tries to pasture the alfalfa late in the spring and early in the fall, only four crops are cut on the regular hay land. The remainder of the growth is taken by the hogs. Considerable seed was harvested in 1913, which was the rule on many of the alfalfa fields in that section. Most of the crop yielded three tons of hay and six bushels of alfalfa seed an acre last summer, so it was profitable. The seed was threshed early and sold at once, and most of it went at a good price; from seven to eight dollars a bushel. This is higher than seed sold later in the season. It has been the experience of Mr. Bayer that alfalfa straw has considerable feeding value, and a profitable use always is made of it.

Thirty bushels an acre was the average yield of wheat on the Bayer farm in 1913. This was on rich soil, but the main reason for the high yield was good seedbed preparation.

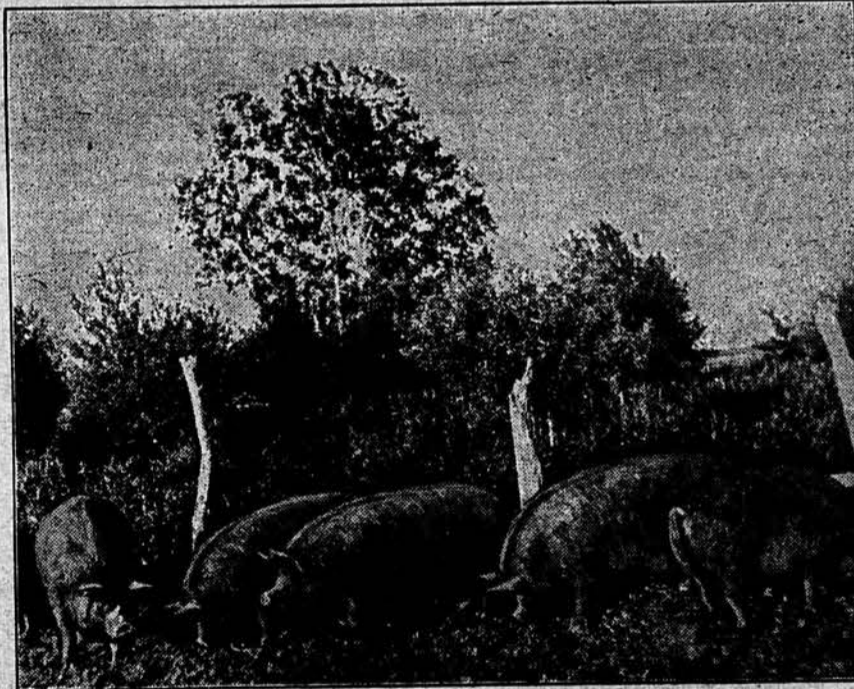
"We believe in deep, early plowing for wheat," Mr. Bayer said. "Our land is plowed seven inches deep just as soon as possible after the shocks of the previous crop are removed. This crop usually is oats, as we keep to our rotation program quite closely, but sometimes we grow wheat after wheat. The soil is worked after every rain until seeding time, and this puts the land in excellent condition in the latter part of September when the seed is sown."

A special effort is made with corn on the Bayer farm for quite a bit of the crop is sold for seed. Boone County White is the main variety grown, although some yellow varieties also are planted. The seed is

both top planted and listed. The listed corn made the best yields in 1913, which is the rule in a dry year. Some good ears were grown even if moisture was deficient, and several prizes were won at the Kansas State Fair at Hutchinson, and at the local fairs. Much of the good yield was the result of late cultivation. Mr. Bayer believes that the cultivation should not be stopped when the corn is too large for larger cultivators. He continues to stir the soil with smaller cultivators drawn by one horse.

The supreme aim in the farming on the New York Valley Stock farm is to conserve the fertility of the soil. All manure is hauled out on the land promptly, and there is considerable fertility in this, as almost all the crops grown on the farm are fed there. The wheat and some seed corn is sold, but more than enough feed, largely tankage, shorts and corn is purchased to make up for this. A very

(Continued on Page 29.)



Hogs form the principal source of the income.

of the mow, so the air can get to it and dry it out, and not deep enough to cause heating.

Sometimes it is necessary to pile up the uncured hay, and when this is the case it is piled just as loosely as possible. The hay is dumped on a rack, and mowed away by hand. No hay is dumped on the pile and no one walks on it. In this way the hay can be piled up in a loose manner so that it will cure. This method is successful, and it will give hay of good quality. It takes more work than that required with field cured hay of course, and for that reason the curing always is done outside when possible. This method is especially valuable in the spring, and much hay is saved in this way that would otherwise be badly damaged by rain.

When a man wishes to put moist alfalfa hay into the barn it is very important that he should impress

DEPARTMENT EDITORS
 Livestock Editor.....Turner Wright
 Field Editor.....F. B. Nichols
 Farm Doings.....Harley Hatch
 Markets.....C. W. Metzker

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PASSING COMMENT—By T. A. McNeal

Our Educational System ^{1/24 14}

A subscriber writes to ask whether, in my opinion, our educational system does good.

Certainly. I think that it does a great deal of good. One of the best evidences of its value is the effect on a community where there are educational institutions, both the ordinary and advanced. The people in the vicinity of these educational institutions are better educated, more orderly and law-abiding and more enterprising and prosperous, as a rule, than the people living in localities where there are few or no educational advantages. There is no doubt whatever in my mind that our educational system has been of immense benefit to the country.

Now if this subscriber had asked me if I believed that our educational system is as useful as it might be and ought to be I would answer that I certainly do not. I think that all honest educators will agree with that. Educational systems however, are evolutionary like government and civilization. Educators are learning by experience. Some of them are old fogies, reactionaries who do not believe in experiments. They would travel always in the same old beaten paths. They are built just like reactionaries in politics, in business, in religion.

Personally I am of the opinion that one fault with our present educational system is that it pays too much attention to the so-called higher education and too little to the foundation. Our rural schools as a rule are very far from being what I think they ought to be. I believe that with the proper kind of a revolution in our system of rural schools a great deal could be done to make country life more attractive and prevent to a considerable extent the drift of boys and girls from the farms to the cities and towns. I have mentioned this before, but now that I have this letter of inquiry it gives me an opportunity to speak of it again.

I would have the central school. My Socialist friend, Mr. Allen, wants the village system and we may come to that. There are some strong arguments to be made in favor of it, although the tendency of this country, even among those people who came from countries where they lived in villages and went out from them to their farms, has been away from the village idea, possibly because of the size of the farms out in this western country and the difficulty they had in getting to and from their work when they lived in villages.

The village idea would be this: Good roads radiating out from the central village of the district. Conveyances, perhaps auto wagons which would take the farmers to their work in the mornings and bring them back to the village in the evening. In the village would be the school building; where both a grade and a high school education would be furnished. There would also be an assembly room where the people could meet for entertainment purposes and for the purpose of discussing matters of interest to both the community and the state. Also, if people ever get sense enough to drop their foolish bigotry they could use this same assembly room as a place of common worship.

In connection with the school building would be a tract of not less than 40 acres of ground which would be cared for by the pupils of the school. It would be used as an experimental farm, and for garden and horticultural demonstration. Here would be tried out all sorts of experiments in the growing of grains, of fruits, and flowers, shrubs and trees. In connection with the school would be taught the latest discoveries in domestic science. Efficiency, economy and scientific methods both in the growing of grains, livestock and fruits would be taught, but also the most efficient methods of storing and marketing them after they were raised.

The village plan I confess appeals to me strongly for both social and economic reasons. For example, with the village certain public services could be performed co-operatively at less cost than they could be performed individually. The village could have its common water plant that would cost less than the aggregate cost of individual wells with individual pumps. It could have a common heating plant which I think would be a great improvement over the present method of heating. However, what I started out to talk about was what I conceive to be a great improvement over our present method of education.

If we cannot have the village then let us have the central country school with the same conditions as to the size of the experimental farm and the same idea to be carried out in the way of study and experiment.

One of the most serious problems that is facing

this country today is the waste of our agricultural resources. By our present haphazard, slipshod, unintelligent methods we are robbing our lands of fertility. We are destroying not only present possibilities of profit but what is worse, we are destroying the heritage of our children.

It is wrong, wicked almost, to go on as we are doing and leave to succeeding generations a land impoverished. For an impoverished soil means poverty everywhere, misery everywhere and finally bloody revolution and the overthrow of the republic.

Some Inquiries About Taxes

W. A. H., Fowler, Kan., asks the following questions:

1. Has the taxpayer the right to give in his personal property such as livestock, farm machinery, etc., outside of the city limits to save taxes?
 Ans. I presume the inquirer means where the taxpayer resides in the city and may have some personal property outside of the city limits. No, he is supposed to list his personal property where he resides and pay on it whatever the tax rate may be there.
2. Where one resides in one county and holds a mortgage on land in another county, where should he give in the mortgage? Where the mortgage is or where he lives?
 Ans. It is the note that is supposed to be taxed, not the mortgage which is given simply as a security for the note. The note being personal property, should be listed and taxed as other personal property, where the taxpayer has his residence.

Ventilation of Schoolhouses

Every person who has had experience teaching in the ordinary country schoolhouse knows how difficult it is to get proper ventilation. If the windows are kept closed there is a lack of fresh air and fresh air is necessary to the health and progress of the children. If the windows are either raised or lowered the cold wind is very apt to blow in on the heads of some of the pupils causing them to catch cold.

W. Moate, of Smith county, himself a school teacher I believe, makes the following very simple suggestion which has the merit of being very easily put into operation. Mr. Moate's suggestion is this: Cut a 1 by 4 board of a length that will fit perfectly in the window frame and place it under the bottom sash in each window. This will cause the incoming draft of air to flow upward between the upper and lower sashes so that it will not strike the heads of the pupils. The incoming draft would be on the side from which the wind happened to be blowing, while the foul air would be carried out with a downward draft on the opposite side of the building.

It will cost almost nothing to make this experiment and I believe that it will do the business.

Change the System

A subscriber at Elgin, Ia., writes me a letter which reads in part as follows:

Editor The Mail and Breeze—I have an only brother who enlisted five years ago this fall and like so many others got so lonesome for home and so sick of army life that he deserted after being in something less than a year. Now he is roaming the country, first one place and then another, causing great sorrow and many gray hairs to his widowed mother who needs his support. He enlisted in Chicago five years ago when he was 20 years of age and when asked by an officer how old he was, was told to lie as they would not accept anyone under 21 years of age.

This is one of a good many letters I have received from different parts of the United States and which is just another bit of evidence showing the fault of our present military system.

The government prints and posts a lot of seductive pictures for recruiting purposes showing a smart looking officer and his orderly. In the distance is the camp. The view is most pleasing and the impressionable lad gets the impression that army life is mostly a dress parade holiday. When he gets into actual service he discovers how badly he was mistaken but it is then too late to back out.

He finds that he made a mistake when he enlisted and then often makes a much greater mistake by deserting. He then becomes a hunted criminal, with a price for his capture and a term in prison ahead of him if he is caught. From our small standing army thousands desert every year. And so the army, which is supposed to stand as the embodiment

of order becomes under our system a creator of outlaws and vagabonds.

And this is wholly unnecessary. If we must have a standing army, which possibly is necessary until we get more civilized than we are at present, let that standing army be made a useful organization for the proper training and education of young men. Do away with penalties for desertion in time of peace. If the soldier wants to quit permit him to resign. Under the system I have suggested there will be no trouble in filling his place any more than there is now trouble in filling a vacancy at West Point. Do away with all social distinctions on account of rank. Make all promotions from the ranks after education and experience and on merit alone.

Limit the term of enlistment to six years and do not make the soldier life permanent. Divide the hours of the day into periods of work, study, recreation, with a reasonable amount of drill.

In short, make the army a great practical school which will pay a considerable part of its cost in useful service and best of all, will turn out a body of men eminently well fitted for every walk in life.

There need be no army of deserters, no fathers and mothers grieving over sons, disgraced, skulking fugitives with rewards offered for their capture.

They'll Repudiate Such Doctrine

A reader of the Mail and Breeze sends me the following extract from a recent issue of the Appeal to Reason:

The Progressives say they want to give every man a square deal; that is, they will decide what is a square deal, and then make a bluff at giving it to you. Socialists tell you to decide for yourselves what is a square deal for yourselves and then go get it. Get it out of your heads once for all that anybody is ever going to give you anything. Find out what you want and then take it. That's the only way you'll ever get anything worth while and be able to keep it.

I wonder if the writer of that paragraph stopped to consider what it meant. I can hardly think so, for it is not only dishonest but it is contrary to the doctrines of Socialism of which the writer pretends to be an exponent. When analyzed it is anarchy pure and simple. It means the rule of might and not the rule of justice.

"Find out what you want and then take it." Do honest Socialists approve of that? The honest Socialist claims that it is a fundamental doctrine of his belief that men shall have what they earn, not what they can take.

Socialism may be a faulty theory but it came about as a protest against the very doctrine preached in this clipping from the Appeal to Reason. Certain powerful individuals found what they wanted and took it. If the Appeal is right they were justified. They had the power to take and did it.

The history of the world is full of instances of that sort. The weak always have been crying out against the injustice and cruelty of that infamous doctrine. It was the basis of human slavery. The strong wanted the services of the weak and took them without compensation. The powerful few wanted the land and took it and lived in ease and luxury off the toil of others who had been robbed of their just rights. The powerful noble of feudal times saw the wife of his vassal and wanted her and took her, utterly disregarding the rights of the poor man.

David the king, saw the wife of Uriah and took her, conveniently getting rid of the husband by placing him in the front rank of battle that he might be killed. And for that injustice David was called to account by the fearless prophet of Israel.

Socialists say that every man should have the product of his own toil, but this doctrine would permit a lazy loafer to rob him of his earnings if he happened to be strong enough to do it. That doctrine would justify every aggression of capitalism, every robbery of the bandit, every thief that breaks into your house and steals your property.

And here is another quotation from the same paper:

There are four rules for getting rich: Be honest, be industrious, be hopeful and be patient. These rules, when applied by you, are sure to make the other fellow rich.

If that means anything it is condemnation of the cardinal virtues of industry, hope and honesty. It is not so evil as the first quotation but it is bad enough.

I happen to know a good many Socialists who are both intelligent and honest. They respect the rights of others and do not believe in the doctrine that a man has a right to take what he happens to want

if he has the power, nor do they scoff at honesty and industry. What's more, the writer of the first paragraph quoted does not dare to put his own doctrine into practice. If he did he would land in jail. Sensible Socialists know that such talk as this from the Appeal to Reason does infinite harm to their cause.

The same subscriber sends me a clipping concerning the action of Eugene V. Debs in taking the out-cast woman into his own home where he and his wife cared for her, and asks what I think of that. I say unhesitatingly that it commands my admiration. I know that there are people who say that Debs was simply grandstanding for advertising purposes, but I do not believe it. I have a great deal of admiration for Debs. He is a man of great heart and great ability. He is probably not fitted to hold the office of president for the reason that almost any smooth rascal in my judgment could work on his sympathies—not that I think Debs would knowingly favor a rascal, but because his sympathy and big heartedness would overbalance his judgment.

But as a private citizen and as an advocate of the equal rights of man, Debs deserves great credit and will have a place in history as a benefactor of his race.

Let us try to form our judgment of men and measures without prejudice.

An Optimistic View

Editor The Mail and Breeze—I have before me a letter you allowed to appear in the loyal old Mail and Breeze and will say it shows to us old hayseeds the fairness of your way of looking at the great problems of the times. I refer to the pessimistic view written by one A. B. C., commenting on another letter written by Mr. Hadley.

I am an old subscriber to the Mail and Breeze and like it above all farm papers that come to my home. One of my reasons for liking the paper is because you are not radical and give us a chance to air our heated arguments through the Mail and Breeze.

Now while I think well of Mr. Hadley, also of A. B. C., I cannot for the life of me see where they intend to get off. I am farming and expect to farm as long as I live. I was born of poor parents. They never owned a roof over their heads but they managed to raise 16 children, nearly all of them to manhood and womanhood.

I came to "Bleeding Kansas" in 1869. I own a few acres of the best land in the best state in the world. I find many men who will kick at something and complain about the hard times and rail at the man who happens to make a few dollars. There are others who are cheerful, no matter what befalls them.

I have raised 10 children, most of them nearly grown. Most of them married. They live near me and are happy and content. Some of them are renters. Why should we jump on you or anybody else because we did not get rains and had to go to the banks and borrow money to tide us over until next crop season? I do not think anybody will think any the less of me for that or condemn the banks for lending me the money. I am paying 8 per cent for money, but I have 100 head of young cattle and over 75 head of hogs. I will have to pay \$30 interest on my \$2,000 loan, for six months, but if my cattle do not make me \$1,000 they will not make a dime. The bank is helping me and I am helping myself.

Is not this way of living and trying to let live better than snapping and growling at everybody who is making more money than I am? I don't want the earth. What I want is plenty to eat and wear and to have a chance to lay by a little for old age. The man who farms intelligently and is honest can lay up something for a rainy day.

F. P. MERCER.

Conway Springs, Kan.

And here is another letter that strikes me as a calm and sensible sizing up of the situation:

Editor The Mail and Breeze—I noticed in a recent issue of the Mail and Breeze communications from three different Kansas farmers telling of very unsatisfactory farm conditions in their respective localities. It is true no doubt that the conditions mentioned exist to a certain extent over a large portion of the corn belt states as a result of the extreme drouth during the past season.

The worst feature of the situation is that the present market price of livestock, although by no means low, is too low for the farmer to realize a profit on his stock, taking into consideration the extreme high price of corn and all kinds of rough feed. But these conditions are only temporary and a favorable season and good crops in the year 1914 would bring about a readjustment of values and put farm products and livestock on a paying basis again.

Judging from the tone of the articles written by those men it seems to me they are inclined to look on the dark side of the situation. A. B. C. would have us believe that the average farmer is the most unfortunate son-of-a-gun on the face of the earth. In his gloomy discourse he tells of farms grown old and unproductive; of farms new and in a virgin state with bountiful crops and corn selling at 10 cents a bushel, hogs at \$2.50 a hundred weight, and calamities galore. I suppose it never occurred to A. B. C. that a hog in a good thrifty condition could be fed on 10 cent corn and sold at a profit of \$2.50 a hundred weight.

There are at present and always have been, and no doubt there always will be two classes of American farmers. One class we will call Class B. Fortunately only a small minority of the great army engaged in agricultural pursuits belong to this class. The Class B farmer is generally of not much account; always complaining about hard luck and the drudgery of life on the farm; always cussing some political party or class of men. If he happens to be fortunate enough to get hold of a good farm in the beginning of his career he does fairly well for a few years, until the land begins to show the effects of his slipshod methods of farming; in other words, until it begins to grow old and unproductive as a result of the system of soil robbery he has practiced.

He usually keeps an inferior class of livestock and as a rule it is fed and cared for in a shiftless manner. During the cold winter months his stock wanders about the place during the day, looking

for water or feed, and at night each animal gets on the southeast side of a fence post to escape the cold wintry blasts.

Everything about the place is in a dilapidated condition. His machinery is standing out in the fence corners at the mercy of the elements. Finally his farm gets so poor and run-down it won't raise a disturbance and he is compelled to throw up the sponge and in the language of A. B. C. join the down-and-outs.

Now let us take Class A farmers. Seventy-five per cent of the American farmers belong to this class. The farmer of this class is prospering and his methods of farming are up-to-date. He runs his farm systematically and on a sound business basis, thereby largely eliminating the so-called drudgery of farm life. His farm never grows old nor unproductive. He keeps up the fertility of the soil by rotation of crops and by the application of home-made fertilizers which are always in evidence around the feed lot as a result of marketing all the grain and different forage crops through the medium of livestock fed on the farm for the market.

The Class A farmer is always striving to better his condition. He realizes that life is too short to fool with anything of an inferior quality, therefore everything on his farm in the line of horses, cattle, hogs, sheep or poultry is high class and their owner knows at all times that they are paying for their keep and netting him a profit.

It is a well known fact that this class of farmers is getting more numerous and that in this day and age there is not much room for the shiftless farmer. This is gratifying, as the welfare of the nation depends on the man behind the plow.

JAMES F. MENEHAN.

Summerfield, Kan.

On the other hand, here is a reader whose confidence in me appears to be shattered although he addresses me by an endearing title. He says:

Editor The Mail and Breeze—I would like to say that I have been a reader of the Mail and Breeze for quite a while, and have been a booster for this paper because I thought that you would give the farmers a square deal, but it seems when we come to put you to a test that you will not come through with the goods.

As to A. B. C. in this issue of the Mail and Breeze, you say that you trust he will feel better since getting the above out of his system. There are plenty of just such cases as A. B. C. speaks of here in my neighborhood. In regard to Mr. Joseph Lembeck of Coffeyville, Kan., you say that he is laboring under some mental delusion. Are you this far from the condition of the farmer? If you are I would like to see you get right. I have been a farmer all my life and know whereof I speak.

FRED HARRIS.

Soldier, Kan.

I have no idea as to what I have done to shatter the trust and confidence of Mr. Harris, but sad as it may be, sooner or later the best of friends must part.

But here is a letter that is somewhat different again, as Abe Perlmutter would say:

Editor The Mail and Breeze—Let A. B. C. come again. It is a little the funniest article I have seen in the Mail and Breeze for a long time. It is so foolish. If this A. B. C. sees so many snaps in town why doesn't he sell all his farms and move? I have slopped hogs and fed calves all my life. I am not so stout as Jack Johnson, either.

I will admit we farmers don't get our just dues but I think A. B. C. will admit he just gave the dark side of farming.

A FARMER.

Bern, Kan.

And here is still another farmer who is inclined to take an optimistic view:

Editor The Mail and Breeze—I think a farm, if run on a strictly first class basis is one of the finest occupations in the world. I think any farmer to be successful must practice crop rotation and also must fertilize his ground. Growing the same crop year after year on the same ground is bound to finally exhaust its fertility.

Some people have not the kind of ability that is required to make a good farmer. Such men cannot make a success of farming and maybe at nothing else. In all parts of the United States we have ignorant and uneducated farmers, but do you think they would make a success in the city?

If A. B. C. could see and know the condition of hundreds and thousands of poor people who live from hand to mouth in every city of any size in the world he would perhaps not think the farm such a dreary, miserable place of existence after all.

The farm is like the city in this respect. We have well-to-do and poor people on the farms, as there are poor and rich in the cities, only there are more of the destitute class in the city than on the farms.

CLAY WAGONER.

Matfield Green, Kan.

And on the other hand, here is a letter from a breeder of Hereford cattle and Duroc-Jersey hogs in South Dakota:

Editor The Mail and Breeze—For several years I have been very much interested in "Passing Comments," but must say that A. B. C. in a "Pessimistic View," in the January 3 issue hits the nails square on the head and drives them every one home with facts that cannot be argued away.

We have several of those dudes up here. They tell us we surely ought to have consolidated schools so our boys can learn to play ball and get the necessary exercise; also that we should tax ourselves to make roads so that the leisure class can run their autos from 60 to 80 miles an hour.

Hope some more level-headed tillers of the soil will take the time to write a few lines in the Mail and Breeze and I shall be tempted to subscribe for another year.

L. B. BARKLEY.

Wagner, S. D.

Now when farmers whose interests are supposed to be in common, will differ so widely as these letters indicate and all of them presumably honest in their opinions, is it remarkable that sometimes things do not seem to move along so very fast?

My own judgment is that the farmers of the United States can secure in the way of legislation whatever they want, provided they ever arrive at anything like a unanimity of opinion as to what they really do want.

Kansas Needs Better Roads

The Farmers' Grange Favors Good Highways

BY H. J. WATERS
Kansas Agricultural College

The farmers favor federal and state road roads, because it be- poor roads exact a heavy who use them; that they necessarily the cost of get- icts of the farm to the ne consumer; that they in the way of the devel- atisfactory system of rur- at they contribute mater- eacy of the rural church; d the drift of young peo- country to the city, and le to the development of rural civilization.

has favored every move- to the betterment of the unities. It used its in- omote the establishment ee mail delivery, the par- agricultural experiment evelopment of the Depart- culture, and considers a n for the improvement of f equal importance with

or Motors Alone.

Grange recognizes the in- automobile owners and r in cross-state highways, on is firm in its convic- economic needs of the he consumer are of para- ance, and therefore, be- market roads should be improved. This is in line asiness principles, and it aterial saving in the most in proportion to the bus- adated. For illustration, tate Highway commission usive traffic records in that howed that the main road he country from the mar- the second or third cross- tance of from two to four our or five times as much he roads beyond this dis-

public roads at Washing- that 20 per cent of the lic highways in the Uni- y 90 per cent of the traf- o Better Roads. There is ve that 10 per cent of the ississippi valley bear three- burden of business. Ob- atest good to the greatest s that the roads that bear ffie should be improved

rt of the expense is borne government, and it should le and fair part, should uch manner as to stim- d local activity in road should be a co-operation state and the local com- carry out this program : manner it will be nec- rse, for every state to hwy department, which rely divorced from pol-

ime, Not Miles.

measured in time or cost, it costs no more to trans- of wheat from New York an it does to haul it nine verage country road. It age of 23 cents a ton freight over the average . In Belgium the high- n so improved that this reduced to 8 1-2 cents a a little more than one- it costs us in America. costs 9 cents. In Great ance 10 cents.

have in Kansas one of ms of dirt roads in the n part to the favorable mate and part to the en- farmers and citizens in otherwise keeping up t, according to State En- it is costing about 11 a year to get the product from the farm station. Engineer Gear- that 10 per cent of the lly 75 per cent of the s 10 per cent were im- cost reduced a third, a difference in getting

the products from the farm to the rail- way stations of from 3 to 3 1-2 and 1-2 million dollars—a nice saving indeed, in the cost of living or a substantial in- crease in the profits of farming.

During the months of September, Oc- tober, November and December, when the country roads are good, we always have a car famine, and there is more or less agitation to compel the railroads to fur- nish more prompt service. The railroad men best able to judge estimate that it would require seven times as much equipment as the railroads now have, and would mean an expenditure for the business of Kansas alone, for ex- ample, of 100 million dollars for new cars, if the bulk of the shipping were done immediately following threshing. These extra cars would be idle for the balance of the year, and another heavy investment would have to be made to provide storage room for them while they are not in use.

At present the grain and other farm products are stored in Kansas City, St. Louis, Chicago and New York, in eleva- tors and refrigerators located on ground worth from \$25 to \$50 a square foot. The stored grain when in large bulk must be moved about every 30 days to keep it from heating. This grain should be stored in co-operative elevators in the country where land is cheap and the perishable farm products should be held in co-operative storage houses so that they might be delivered to the market centers at periods of the year when the prices were most satisfactory.

Prevent Double Hauls.

This would relieve all car shortage, and the farmer would get a better price for his products without adding any burden to the consumer. This plan also would prevent much of the double rail- way hauling that now is so common. We ship products out of the locality in which they were produced, and later ship the same products, or their exact equivalent back to these communities to be consumed.

The more complex our types of agri- culture become, the more they are de- pendent upon the means of rapid and uninterrupted transportation. In the early days when our system of agricul- ture was primitive and our mode of living simple and almost wholly de- pendent upon what was raised on the farm or in the local community, if we did not get to town one week, the next would answer almost as well. Our pres- ent population cannot be fed under the old system of production, and will not long be fed adequately under our present system of farming.

We need to stimulate and develop dairy, fruit and vegetable farming, as rapidly as the increase in consumption will justify, for these are the types of farming that sustain the densest pop- ulation. But, without good roads these industries will not thrive, only such types as hay and grain farming survive under a system of indifferent roads. The dairy districts of Wisconsin and Illinois have more than 60 per cent of their roads improved. New Jersey, the leading vegetable and canning state of the Union, was the first to grant state aid to highway improvement and one of the first states in the Union in point of highway development.

Roads Help Schools.

Good roads have always been closely associated with and a necessity for de- veloping a good system of rural schools. In the five states of the Union which have the best system of public roads the average length of the school year is 180 days. In those states that have given the least attention to road im- provement the school year is less than half as long. Of equal significance is the fact that in the states with im- proved roads the average daily school attendance is 78 per cent while in the states with unimproved roads it is 59 per cent.

There are 55 oaks in the United States, about evenly divided between the east and the west. The eastern species, and particularly white oaks, are the most valuable.

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Answering Questions From the Farm

Problems in Feeding and Caring For Livestock, Solved in Our Own Service Bureau For Mail and Breeze Readers

By Turner Wright, Livestock Editor

THE Farmers Mail and Breeze has served its thousands of readers for many years. It has been one of its chief pleasures, too, to give the service that meant the saving of dollars and cents for its big family. It proved this last fall when it published free, hundreds of advertisements from stockmen who wished to buy feed and from farmers with feed to sell—a service still actively in operation. This one departure brought feed and feeders together in the most satisfactory manner at a time when just that kind of service was needed.

Every letter received in the Mail and Breeze editorial rooms is answered as promptly as possible. Sometimes the livestock editor, the field editor or the poultry editor may be out of town, for these men did not learn their agriculture in an office—and they spend much of their time in the field. Sometimes letters remain unanswered for several days, but every effort is made to give them prompt attention. Every letter is welcome. The service bureau belongs to the Mail and Breeze readers.

Does Silage Injure Cows?

How long can a cow be fed silage before it injures her stomach and teeth?—C. S. Nuckolls county, Nebraska.

I have never known silage to injure the teeth or stomach of dairy cows or of any other class of cattle. Silage has been fed to cattle for many years and I know of no instance where it has had this effect. I have seen several high producing cows that have been fed silage for 10 or 12 years without any bad results. Maid Henry, the record Holstein cow owned by the Kansas Agricultural college, has been fed silage all her life. She is now 14 years old and still has all the teeth that a cow is supposed to have. Our correspondent need not fear to feed silage because of any danger of this kind during the natural period of usefulness of the cow.

Feeding Flaxseed Meal.

I notice in your issue of December 27, that you advise W. J. of Kay county, Oklahoma, to feed his calves flaxseed meal. Where can you get flaxseed meal at from one to two cents a pound? It is impossible to buy it here for less than eight cents a pound.—J. D. P., Lyon county, Kansas.

In the article in question the term "oil meal" was used instead of "flaxseed meal." The writer of the article had reference to the byproduct commonly known as linseed oil meal and not the ground flaxseed. Flaxseed meal contains about 20.6 per cent digestible protein, 17 per cent digestible carbohydrates and 29 per cent digestible fat. It is not, however, used to any considerable extent as a feed because of the value of

the seed in the manufacture of linseed oil, and the expense of grinding. The fat and carbohydrates, or fat forming material, contained in corn answers the same purpose and is much cheaper.

Linseed oil meal, old process, is the residue left after the oil is pressed out of the flax seed. This residue usually is ground into meal and sold for feed. It contains more protein than flaxseed meal and not so much oil or fat. Every 100 pounds of old process linseed oil meal contains about 30 pounds digestible protein; 32 pounds digestible carbohydrates and 6.9 pounds digestible fat. Old process linseed oil meal was quoted on the Kansas City market December 27 at \$29.50 a ton.

Artichokes for Hogs.

Will some of your readers please tell me what they think of artichokes as a feed for hogs? They were grown for hogs in this community years ago but we never see or hear of them now.—C. N. B., Lewis county, Missouri.

The fact that persons who formerly grew artichokes for hogs do not grow them now is significant. I know of no one who has grown them many years in succession. They have been often recommended as a hog food but notwithstanding this they have not come into general favor among hog growers. Pasture crops and other succulent foods seem to be more profitable.

The Oregon experiment station, bulletin 54, reported an experiment in which six pigs, weighing from 113 to 215 pounds, were fed on artichokes and grain. The grain fed consisted of wheat and oats. About 310 pounds of grain in addition to the artichokes was required to produce a hundred pounds of gain. They may be harvested as potatoes or the pigs can root them out of the ground at will.

Remedy for Worms.

I have some fall pigs that are wormy and unthrifty. Can you give me a remedy?—F. I. G., Sedgewick county, Kansas.

Keep the pigs off feed 24 hours and then give 8 grains of santonin and 4 grains of calomel to every 100 pounds live weight of pigs. It is best to separate the pigs into bunches according to size, so that every pig will get the right amount of medicine. There should be no more than 10 pigs in a bunch for best results. Stir the proper amount of medicine, for a bunch, into a thin slop of wheat middlings or shorts. Be careful to mix the medicine thoroughly with the feed and break all lumps. Do not give more feed than the pigs will eat readily. Give a feed of wheat bran in the form of a slop about six or seven hours after giving the medicine. This

will help to carry off the worms. Keep the pigs in close pens so that the excretions can be burned or thoroughly disinfected. Quicklime is a very efficient disinfectant. If the hogs are badly infested it will be well to repeat the dose in seven or eight days.

It will be a good practice to give the government formula as a tonic and preventive at intervals of two or three weeks, after the pigs are free from worms. This formula is given here:

Government Formula.

Wood charcoal	1 lb.
Sulphur	2 lbs.
Sodium chlorid (salt)	2 lbs.
Sodium bicarbonate (baking soda)	2 lbs.
Sodium hyposulphite	2 lbs.
Sodium sulphate (glauber salts)	1 lb.
Antimony sulphide (black antimony)	1 lb.

These ingredients should be completely pulverized and thoroughly mixed. In case there is profuse diarrhea the sulphate of sodium may be omitted. A large tablespoonful once a day for each 200 pounds live weight of hogs to be treated is a dose. The medicine should be thoroughly mixed with the feed, which should be soft.

Pasturing Frosted Kafir and Sorghum.

I sowed some sorghum and kafir last summer and as dry weather prevailed it did not come up until late. It made enough growth to cut and then wet weather came. It was killed by frost before I could cut it. Will there be any danger of its injuring horses if they are turned in the field?—R. S., Marion county, Kansas.

There is always some danger in pasturing frosted kafir and sorghum though it is usually slight. I do not think there is any more danger of loss from pasturing these feeds than there is from feeding similar feed that has molded in the shock. It seems that with the present scarcity and high prices of feed farmers will have to take some risk in order to keep from running up a feed bill that will amount to more than the worth of their stock.

Feeding Alfalfa Hay to Horses.

As I have never fed alfalfa hay I should like to know its value as a feed for work horses in the spring. I can get alfalfa hay at \$16 a ton, corn at 70 cents a bushel, and mill run at \$1.30 a hundred. Which of these feeds will be the best to buy? Will caked alfalfa hay that was baled too green hurt the horses? I consider mill run and corn chop, mixed equal parts, an excellent feed.—E. S. L., Neosho county, Kansas.

Alfalfa hay, judiciously used, is a good feed for farm work horses and one of the cheapest the farmer has at his disposal. It should be cut at the proper time and be considered as a concentrate rather than a roughage. We say, ordinarily, that the proper time to cut alfalfa is when it is one-tenth in bloom but this makes a hay that is too "washy" for horses. It should be more

mature when cut to make good horse hay, and care should be taken to prevent spoiling or moulding. Mouldy or musty hay is injurious to horses. The caked hay that was cut too green will not be a good feed.

If fairly well matured, well cured, clean alfalfa hay can be bought it may be substituted at the rate of about one pound of alfalfa for one and one-half to two pounds of prairie or timothy until from one-third to one-half of the prairie or timothy has been replaced with alfalfa. The amount of mill run can then be reduced until the grain ration is two parts of corn and one part mill run, or if bran is much cheaper than mill run, it can be fed instead.

Feeds for Dairy Cows.

I can buy cold pressed cottonseed cake at \$22; cottonseed meal at \$28, and cottonseed hulls at \$8 a ton. Which of these feeds will be the cheapest for dairy cows?—K. C., Harvey county, Kansas.

Cottonseed meal will be the cheapest of the feeds named. Cold pressed cottonseed cake is lower in protein and higher in crude fiber content than the meal and is, therefore, less valuable as a concentrated feed for dairy cows. Cottonseed hulls are very low in protein and can hardly be compared with the other two feeds because they serve a different purpose. It is generally estimated that cottonseed hulls have a feeding value a little less than that of oat straw.

Winter Pigs Have Scours.

I have had more or less trouble with scours in my winter pigs for several years. The trouble comes when I try to feed the sows shorts, skim milk, tankage, or even alfalfa hay as a supplement to corn.—L. E. P., Cowley county, Kansas.

It is impossible to say just what is the cause of the trouble without a direct study of the existing conditions. The most frequent causes of scours in young pigs are damp beds, insufficient exercise, overfeeding, feeding sour feeds, and abrupt changes in feed. The most likely cause in this instance is overfeeding and lack of exercise. The addition of the milk-producing feed to the mother's ration causes an increased flow of milk and if sow and pigs are not encouraged to take exercise digestive troubles in the little pigs are the result. Care should be taken to prevent the young pigs from getting out in muddy lots on damp, cold days as colds and indigestion are sure to follow. It should be remembered that exercise, sunshine and dryness are the best tonics we have for little pigs. If they show signs of scouring the mother should have 1 or 2 teaspoonsful of tincture of opium in the feed twice a day until the trouble is checked.

A Good Book For Boys

BY JOSEPH HAWK,
The Office Boy.

Any country boy can read "Joe, the Book Farmer" and become a successful, scientific farmer if he will strictly follow the instructions given by the government agricultural papers. The methods are so simple and so easily understood that any boy who is not afraid of a little hard work could convert poor soil into good land, and in one season bring in large returns. Joe realized the importance of strictly following the instructions of the government papers he was reading. So could any boy succeed if he would read this book and farm exactly as Joe did no matter how inexperienced.

Joe is a boy of good common sense and business-like ideas. He was honorable in his dealings with Mr. Somerville, and his manliness in his home would impress boys with his fine character, and influence them for good. The book would be fine for this reason if

no other. Instead of reading so many books that are not beneficial it would be better to read this one because the characters are so good. Any ambitious boy can secure valuable farm training by putting into practice the ideas set forth in the story of "Joe, the Book Farmer."

The foregoing review was written, as the caption shows, by the office boy. The assignment was given him because the editor wished, first, to see if the office boy valued what he read, and second, to see what effect such a book really had on a thoughtful boy. It is hoped that Harper & Bros., the publishers, will see the value of the office boy's review. The piece is printed precisely as the boy wrote it.

Forage Crops For Growing Pigs

Farmers and pig growers do not always appreciate the value of green feeds and succulent pastures for their animals. Too often the hog is considered a scav-

enger and his ability to use waste is regarded as his chief value. However well he serves this purpose, he will pay well for good care, feed and housing.

Forage crops are especially beneficial to young growing animals. It is possible to grow them much more profitably and successfully when a good green field of palatable and nutritious pasturage is provided. Experiments and practical farmers' experiences prove that gains in weight are made at less cost on forage than in the dry lot. Brood sows can be carried through the season on pasture at less cost than when grain fields are entirely depended upon. Foraging induces the animal to exercise and obtain fresh air, and these prevent diseases being contracted, and when the animals are put in the fattening pen their gains are unusually rapid and profitable. The green feeds eaten are of much value just to keep the pig's digestive system in good condition and the appetite keen.

The entire hog herd can be run on forage crops and will profit by this

method of management. Younger animals seem to derive the most benefit, and fattening hogs the least. Herd sows and the herd boar are benefited by having green feeds. It is a good plan to have the brood sow running on green pasture at farrowing time, as this is conducive to a strong, healthy litter of pigs. She should be kept on green forage from the time she farrows. The young pigs will soon learn to eat, and the exercise and the green food in its natural state will start them along in good condition.

The method of feeding when on pasture will necessarily vary according to the kind of crop used. If the crop grown be rape, alfalfa, clover, cowpeas, soy beans, or other crops high in protein content, the grain ration need not be supplemented by feeds high in protein. If bluegrass, rye, oats or other non-leguminous crops are grown, it is best to add a small percentage of feeds high in protein to the grain.

You can't do much for a young man who buys jewelry and cigars on credit.



A Yard of—Who Knows What?

Few Persons Have Ever Seen a New Wool Dress

BY MRS. B. W. BIRDSALL
Kansas Agricultural College

AMERICAN people are so accustomed to an abundance of wool clothing, and the knowledge that wool is produced in almost every country is so reassuring that it is a surprise to learn that the sheep of the United States produce yearly only 21 ounces of new wool for each person. Add to this the wool imported, amounting to 40 ounces, and we have a total of 61 ounces for each one of the 90 million inhabitants of the United States. Reduce this quantity by waste in manufacturing, and we find that all the new wool produced, if manufactured without admixtures, would yield only 43 ounces of wool cloth as a year's supply for each person—barely enough for one suit of clothes.

Many other things such as carpets, rugs, blankets, felts and upholstery, are made of wool. Yet the supply of wool goods seems to be plentiful. This is explained by the fact that wool may be used over, not only a second time, but innumerable times, until the fibers are worn out. Wool is therefore blended. It is seldom that a pure wool is used for fabrics; if it is pure, the material is costly.

One-third of the woolen cloth on the market is made from old rags worked back into fiber and respun. These rags are ground, washed, and prepared for mixing with new wool. These substitutes are called by various names—shoddy, mungo, noils, flocks and extracts. If an all-wool fabric is wished these cheap wool substitutes are used. Cotton is another substitute frequently used. There is not so much danger of adulteration in staple goods as in the "novelties," which come out in different patterns each season. These one-season materials, whether high or low priced, are frequently manufactured of made-over products or loaded with cotton.

There are several tests that can be applied to woolens, but the one by touch is the only one that can be made at the stores. The buyer must be familiar with the "feel" of goods to make that test. It is best to get a sample of the material to take home. Put it in a solution of caustic potash and the wool will dissolve, while any cotton fibers present will be seen floating in the solution.

For service nothing equals storm serge; twills are also good. It is not wise to buy material that has a fuzzy surface on one side, for such goods is adulterated with shoddy, which will soon wear off, leaving the cloth worn looking and old. Beware also of so-called woolen goods that wrinkle easily; it is quite certain to be loaded with chemicals.

May Be Silk, and May Be Not.

Silk, the most beautiful of all the textile fibers, lends itself easily to adulteration. A variety of materials are made from silk, ranging from chiffons, laces, dress fabrics and underwear to upholstery and hangings, and the demand for low prices has caused the manufacturer to use adulterations and to substitute other fibers for it. Unfortunately, not even a high price insures a silk that will wear well.

Expensive silk that had split where there was no strain has been tested and found to be weighted with 5 to 58 per cent of adulterants. In the old fashioned silks there was so small an amount of adulteration that they were virtually pure. When strong chemicals are used to remove the color from the solid ground, as in polka dot or sprigged materials, it will "rot" the material. Some of the substitutes used instead of silk are spun silk, Lea Island (a fine grade of cotton), mercerized thread, resembling

ing silk, and artificial silk, which is a derivative of cellulose or gelatine and has much luster but lacks the strength and elasticity of real silk. All these substitutes materially decrease the cost of production.

Pure silk requires no dressing. It is finished by pressing. Cheaper silks have dressings of rice water, starch, glue, isinglass, gums, waxes, gelatine and dextrine. All these have a tendency to weaken the silk, until the fibers easily break down. Silk when it is pure and well manufactured is strong, light, clean and durable. But it is often loaded before it is dyed with such substances as bichloride of tin, mineral salts and dyes, and until the yarn has absorbed from twice to four times its weight of these adulterants.

One who is so fortunate as to get hand woven silk will find upon examination that the threads are perfectly round. Most of this silk is imported. If the threads are flat it is certain to be machine woven.

Pure Linen Wears for Years.

Because of the great value of linen it is also often adulterated. The flax fiber, from which the linen is made, is strong, and when properly manufactured will wear for years, as is proved by the remnants of our grandmothers' homespun. It absorbs water, does not fluff up, is smooth, stiff, slippery, cool, and heavy in weight. Owing to these qualities linens are to be recommended for household purposes, hygienic clothing, and surgical use. Adulterations in linens are due to gums, starches, glues and clays. Large quantities of this sizing give to the poor qualities of linen an attractive appearance; all these adulterations are removed by washing.

When the flax fibers are combined with cotton they produce a cheap linen which does not wear well. This mixture can be detected by the surface wearing rough and fuzzy. Calendaring, or heavy pressing, is also sometimes used to deceive. It gives a high gloss, and when cotton is treated this way a good imitation of linen is produced.

Even Cotton Is Deceptive.

The quality of cotton cloth depends upon the strength of the fiber, the fineness or coarseness of the material, weave, color, design, and the adulterations. Cotton is never adulterated with any other fiber, but its weight is often increased by additional sizing after the cloth is woven. Sizing is the process of adding a dressing to a fabric. It does not increase the wearing qualities, but on the other hand may have a tendency to injure the fibers, through the chemicals used. Light sizing is 10 to 25 per cent of the weight of the yarn, medium sizing 25 to 50 per cent (used on light fabrics), and heavy sizing 50 to 100 per cent of the weight of the cotton yarn.

This adulteration may be easily detected by the feeling, as a large quantity imparts harshness to the material. In very thin fabrics sizing may be detected by holding the cloth up to the light. Tearing will often cause the starch to fly, while washing or boiling will show the amount of sizing present.

Cotton materials depend greatly upon finishing for their effect. In the soft and supple finishes glycerine, fats, oils, and waxes are used. Gloss, such as is found in percalines, silesias, and percales, is furnished by starch, mucilage, and gums, and by the hot calendaring or pressing. Mucilage and gums are also required in swisses, tarletans and lawns. Cretonnes and canvas are weighted with clay to give a solid appearance. Cotton

is substituted for half silk, wool, and linen. Mercerized cotton is much used in combination with other fibers.

Since women are supposed to spend the family income economically, and since 12½ to 15 per cent of the income must be spent on clothing and household furnishings, they will find it well worth while to give a careful study to this phase of household economy. More thought must be given to the purchase of common fabrics. Certain standards should be secured for textiles, that the consumer may be able to buy intelligently. "Pure textiles," like "pure foods," should be enforced. In both cases the term "pure" should mean material honestly standardized and labeled.

No Women's Party in Kansas

By the unanimous vote of the judges, the prize of a silver cup, offered by Arthur Capper for the best letter from a Kansas woman telling how the newly enfranchised women voters could use their power for the best interest of the state, was awarded to Mrs. Lula R. Fuhr, Meade, Kan. High honorable mention was awarded to Mrs. Grant Hornaday of Fort Scott, and Mrs. Lizzie W. Smith, wife of Judge C. W. Smith of Stockton.

The first thing the women of Kansas should do, said Mrs. Fuhr, is to instruct themselves in the wise use of the ballot. They should seek information from every reliable source and vote independently.

Mrs. Fuhr does not believe that women should have special issues for which to stand. Their good is the common good of all. She says:

"Women should not have any special issues of their own. The best results are obtained where men and women work together side by side. Men and women should counsel each other, come to joint conclusions, and enact their common opinions into necessary laws. If women begin with pet issues of their very own, they may end by the practice of political bargaining, which fosters corruption in the body politic."

In her letter Mrs. Fuhr says the greatest need of Kansas is for wiser mothers and more patriotic politicians. The hope for betterment is in organizing for the study of eugenics, psychology, civil government and political economy.

Making a Pit Silo

As I have helped introduce the pit silo in northwestern Kansas I think I can help your correspondent, at Hill City, who has had trouble with his silage. The moisture does not escape through the walls of the silo as he intimates, for if it is made right it will hold water like a jug. His silage probably spoiled because the walls of the silo were not true and smooth so that it could settle properly. A rough or slanting wall keeps the silage from packing, thus allowing the air to enter and the silage spoils.

The plaster will not freeze and crack if some sort of cover is put over the silo. We have two pit silos that we have used for two years and the walls are as perfect as they were the day they were finished. If the pit silo is made right it will give as good results and be almost as convenient as the overground silo. In fact the overground has only one advantage over the pit and that is in getting the silage out, but this advantage is not

so great as one who had never used the pit silo would think.

The quickest, easiest, simplest, and cheapest way to get the silage from a pit silo is to set two tall forked poles, one on either side of the silo, and then put a cross bar or pole in the forks of the other two. Fasten a pulley to this cross bar. Make an old-fashioned windlass with a 6-inch rope drum to use for hoisting. Next make a bucket, with a trap bottom, that will hold about 150 pounds of silage. A man with ordinary strength can quickly draw up this amount. The block and tackle method is all right in theory but the ropes twist so badly that it is not practicable.

A good ladder will be indispensable with any method. We like this one. Take six 2 by 4's 8 feet long and bolt them together in sets of threes, lapping the ends about a foot. Use two bolts at each lap. Nail on the steps or rounds and then remove the bolts. This will give a 22-foot ladder in three sections.

Lean one section of the ladder against the wall when 4 or 5 feet of the silage has been fed and when 8 feet of the silo has been emptied fasten the top of the ladder to the cover of the silo so that it will hang against the wall. Lean the second section against the first when 4 or 5 feet more of the silage has been fed and when it is down 16 feet, the second section can be bolted to the first. The third section can be added in the same way. This ladder is made for a 25-foot silo.

Norton, Kan.

E. Wray.

Let the Breakfast Call

mean a dish of crisp, golden-brown

Post Toasties

served with a sprinkling of sugar and some rich cream.

This delightful food made of choice Indian Corn—flaked and toasted—is ready to serve direct from the package.

Just the thing for breakfast, lunch or supper, winter or summer.

A try tells why!

Toasties are sold by grocers—everywhere.

The Chinch Bugs Cost You Millions



First in the Wheat and Then in the Corn They Rob the Farmer's Store

BY J. W. McCOLLOCH
Kansas Agricultural College



BY EARLY November in Kansas all the chinch bugs have gathered in bunch grass and other clump-forming grasses, under rubbish, in the tangle of grasses along fences, in waste places, and in corn shocks, cane piles and woodlands. In fact, where present in large numbers, the chinch bugs appear to take shelter wherever it can be found, and in the late fall and early winter it is difficult to find shelter of any sort within a reasonable distance of corn, cane and kafir fields entirely free from them. By the time, however, that winter is well started the great mass of bugs is found in clumps of bunch grass, which forms a characteristic feature of all native grass pastures, fence rows and waste places throughout most of that portion of Kansas suffering serious damage from the chinch bugs.



Full grown, long-winged chinch bug, enlarged.

Of the clump-forming grasses, the chinch bug unquestionably prefers the type popularly known as little bluestem. This grass forms a dense upstanding cluster composed of many stems, from which spring narrow-leaves that die and decay in the bunch. Leaves, pieces of decayed stems and wind-blown soil collect in the base of these bunches, forming a soft, porous mulch, ranging from almost nothing to an inch or more in depth. The crown of the bunch stands slightly above the general level of the ground about it. Thus a hiding place is formed, well above the flooding of ordinary surface water and protected from snow and wind.

For the purpose of ascertaining the temperatures in the bunch-grass mulch where the chinch bugs prefer to winter, a soil thermometer bulb was inclosed in a typical unburned bunch of grass, at the point where the mulch was present, in such a manner that the only loss of heat would be through the mulch, as is normally the case. The result was surprising, showing that the chinch bug's choice has a very sound basis. While the temperature outside was ranging from 15 to 13 degrees Fahrenheit, the temperature inside ranged from 21 to 13 degrees Fahrenheit. Putting the same general matter in another way, the chinch bug outside would have from December to May to withstand average daily changes of 24.6 degrees and minimum temperature of 13 degrees Fahrenheit, while the bug inside would have to endure 6.4 degrees daily variation and a minimum temperature of 13 degrees Fahrenheit.

In the chinch bug scheme of things, wet weather is more to be dreaded than extreme cold, because wet weather encourages the growth of its terrible scourge, the chinch bug fungus. Let us, then, inquire into the way in which this bunch grass protects it from the wet. In view of the readiness with which the mulch is wetted by even a light rain and the slowness with which it dries out, the bunch grass would appear under wet conditions to be hostile rather than hospitable to the chinch bug. But this is only apparent, because while the temperature is high enough to permit the

growth of fungus, the bug is either not in the bunches or remains in them on top of the mulch.

In the fall of 1909, J. B. Parker found that during the warm sunshine following a rain the bugs ascended the stiff stems of the bunch grass, apparently to dry off and escape the wet, and that with falling temperature and drying out of the clump they descended. Thus it is seen that bunch grass affords the bugs an opportunity to escape the bad effects of wet weather. The only exception to this fact was observed during the spring of 1912, when, owing to a very late spring, the bugs did not leave the mulch until a considerable number had perished with the fungus and from loss of vitality.

Passing the winter principally in clumps of bunch grass and similar clump-forming grasses, the chinch bugs begin emerging with the advent of warm weather, and continue to come out with greater or less rapidity, depending on the weather, until all are out. Cold days put a temporary stop to this migration, but it is resumed as soon as the temperature moderates.

During the period of spring migration the bugs may travel considerable distances—just how far there are no conclusive data to show. Our observations indicate that they make their way to the nearest wheat or barley field, and that they do not travel farther than is necessary to get a sufficient supply of food. Here, by thrusting their beaks into the tissues of the tender plants, they break their long winter fast.

About three weeks after the first spring flight is noticed, the eggs begin to appear. They are deposited in cracks and crevices of the ground mainly on or near the stems and roots of the plants, but sometimes widely removed from all plants. They are also often thrust in between the leaf sheaths and stems of the plants. In fact, the location of the eggs appears to vary with any factor that affects the distribution of the bugs. Where the bugs find food plentiful and conditions to their liking, they congregate, and there the eggs are laid. The egg is a tiny, oval, reddish object about .03 of an inch long and one-fifth as wide. One end is blunt and bears four small, rounded lumps near the center.

In due time a tiny, pale yellowish-red bug, bearing an orange-colored spot on the dorsal aspect of the abdomen, emerges from each egg. The newly hatched bugs are very active, and quickly make their way to stalks of wheat, barley or grasses, from which they draw abundant sustenance by inserting their beaks into the sap stream.

With the ripening of the wheat, the



ily the time of migration depends on the food supply, and begins when the wheat ripens or is cut. If food gives out while the majority of the bugs are still immature the migration is made on foot, but if the food supply holds out until the bugs mature, distribution takes place both on foot and on the wing. Bugs migrating on the wing cannot be trapped and destroyed, while bugs migrating on foot can easily be killed. The farmer should, therefore, force the bugs to leave while yet immature, by cutting his wheat as soon as it will do and by disking or burning the grassy stubble.

When migration must be made on foot, the bugs avoid the heated parts of the day and confine their travel to a few hours in the evening. On cloudy or cool days they pass more or less all day. They begin passing about 3 p. m., reach a maximum about 5:45 p. m., and cease by 7:30 p. m. Where a stone fence or hedge afforded shade they begin passing considerably earlier. They seem to make every effort to avoid exposing themselves to high temperature.

bugs, only a few of which have reached the adult stage, must seek food elsewhere or starve. Of course, when small-grain fields are weedy and grassy the bugs can obtain food from the grasses, but when compelled by hunger they start out on foot toward the nearest corn, cane, kafir or millet field. Ordinary migration depends on the food supply, and begins when the wheat ripens or is cut. If food gives out while the majority of the bugs are still immature the migration is made on foot, but if the food supply holds out until the bugs mature, distribution takes place both on foot and on the wing. Bugs migrating on the wing cannot be trapped and destroyed, while bugs migrating on foot can easily be killed. The farmer should, therefore, force the bugs to leave while yet immature, by cutting his wheat as soon as it will do and by disking or burning the grassy stubble.

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Indeed, during the heated parts of the day the exposed soil becomes sufficiently hot to destroy them.

On reaching a field of succulent corn they congregate on the first few rows in sufficient numbers to blacken the stalks and to suck them dry of sap, and before the corn has become mature many of the outer rows of corn may be sucked dry and killed. Here the bugs feed until they reach maturity, when they rise on the wing and distribute themselves generally over corn fields and other sources of food supply. By the middle of July, at Manhattan, the females are depositing eggs, and eggs continue to appear until the middle of August. As in the spring, the eggs are deposited where the bugs habitually stay, and they are found between the leaf sheath and stalks of corn, cane and kafir, in the leaf sheaths of grasses, and on the roots of weeds and grass in the corn, cane and kafir fields.

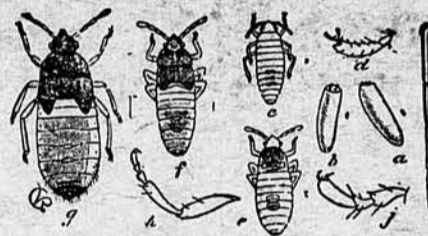
From these eggs come the well known tiny red bugs, which at once begin sucking the sap from the corn, cane or kafir and from grasses in fields devoted to these crops. Here the young bugs continue to feed until the plants become too dry to serve as food. Usually by the time the supply of food is thus cut off most of the bugs are mature and

the season is far enough advanced that they begin to seek winter quarters. At this time of year they sometimes concentrate on kafir, which remains succulent much later than other crops of which they are fond. In some cases they have been known to attack and destroy early-sown winter wheat.

Although the chinch bug undoubtedly prefers certain species, all grains and grasses are used on occasion. Wheat, barley and corn are the ones most commonly attacked in this state, although millet and the sorghums are very acceptable. Of the last group, milo is usually the worst sufferer. Oats are sometimes attacked, but only when other foods are absent. If necessary, rice, rye, Bermuda grass, foxtail, timothy, bluegrass, crabgrass, bottlegrass, and all wild grasses can be used. In Kansas the usual menu is about as follows: When just out of the winter quarters, wheat, barley, rye, oats, and occasionally corn and grasses are used, and when these sources of food supply give out in mid-summer the bug turns to corn, sorghums, millet, crab grass, foxtail, bluestem, and other native grasses.

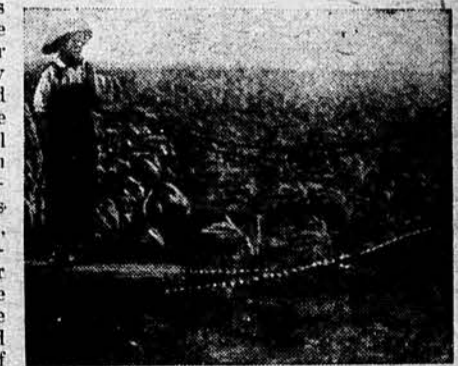
The chinch bug has damaged Kansas crops to a greater extent than has any other injurious insect, for from the time the settlers began to plant the prairie to the present it has exacted merciless toll. While in wet seasons its work has not been noticed, in dry ones it has destroyed a high percentage of both wheat and corn. Although there is no way to determine accurately the monetary value of crops destroyed by the chinch bug since Kansas was first settled, it is safe to assume that the amount reaches many billions of dollars. In a single year, under favorable conditions, it is conceivable that the chinch bug may do 25 million dollars' worth of damage to Kansas crops. The individual farmer may lose a heavy percentage of his wheat, barley and oats, and all his corn and sorghums.

The history of the chinch bug in Kansas reaches back to a point in time before the white man came. Coming from the South, say, the region of Panama, according to Webster's ingenious and plausible theory, the bugs migrated along the east and west coast of Central America and Mexico. The west-coast strain continued northward into



CHINCH BUG.

(a,b) Eggs; (c) Newly Hatched Larvae; (d) Its Tarsus or Leg; (e) Larva After First Molt; (f) Same after Second Molt; (g) Last-Stage Larva. The Natural Sizes Are Indicated by Small Lines at Side; (h) Enlarged Leg of Perfect Bug; (i) Tarsus of same, More Enlarged; (at Right) Proboscis or Beak, Enlarged. (From Riley.)



Dragging a log for dust.

what is now California. The east-coast division passed northward, then eastward along the gulf coast, and here split, one section going northward into the Mississippi valley and the other continuing its movements along the gulf coast to the Atlantic and northward into New England. The Mississippi valley strain spread out over the Mississippi, Ohio and Missouri basins.

Through the Farmiscope

Verse and Humor for the Mail and Breeze Family

BY ARTHUR CHAPMAN
(Copyrighted.)

Wail of the R. F. D. Man.

Carriers in the Rural Free Delivery service will leave their guns and game bags at home while they are on duty.—Postoffice rule.)

When we're drivin' 'cross the prairie,
'Mong the cottontails and grouse,
And a jackrabbit is started,
Lookin' bigger than a house,
We have got to keep on movin',
We have got to let him be,
And life ain't half so pleasant
On the R. F. D.

No more the trusty rifle
Is reposin' close at hand;
We can't bring down some deer meat—
It is Uncle Sam's command;
We wave the pronghorns bye-bye
When they skim the prairie sea,
'Cause they won't allow no shootin'
On the R. F. D.

We uster fill the game bag,
And we kept ourselves in meat,
But your Uncle Sam suspicioned
We was loafin' on the beat;
Now it beats tarnation thunder
How much game we allus see
Since they's banished shootin' irons
From the R. F. D.

Inevitably.

Optimo: Here's a county that has had no prisoners in its jail for a year or two and is going to rent the place as a chicken coop.
Pessimo: About the time the change is made, that county will probably be submerged in a 'wave of crime' and a lot of deserving chickens will be without a home.

Explaining It.

"No wonder the rush to the city goes on."
"Why?"
"Did any secretary of agriculture ever give any credit to the hired man for the enormous crops the country harvests every year?"

Honor Where Due.

A was a statesman wise who sat
Beneath a gilded dome;
His brow was bulgy, 'neath his hat,
But somehow spite of all of that,
He's now forgot at home.

He filled the mails with speeches brave
Beneath his much-used frank,
But now neglected is his grave,
And o'er it three-foot grasses wave,
Luxuriant and rank.

But next to him sleeps Farmer B,
Whose grave is neatly mowed;
For he it was that built, you see,
A work that brings each year new
glee—
A first-class country road!

Statistics.

Someone with a craze for statistics has figured it out that Uncle Sam's annual lard demands would fill a pail 334 feet high and 295 feet in diameter. But no one has ever had the courage to attempt to figure out the pail that would be required to hold our national whitewash demand.

No Ideal Eaters.

A Middle Western farmer has succeeded in producing an ideal ear of corn. But there is no indication that the person who likes corn on the cob is going to be made to appear any more ideal in the act of eating.

Jealousy on the Ranch.

Tex Jenks come home the other day—
He'd been East with a load of steers
And now he's goin' back, they say;
He's signed up fer to act two years
With one of them movie stunts;
And maybe this ol' Tex ain't proud;
He's told us forty times, if once,
How big a salary he's allowed.

Since he's come home ol' Tex ain't done
A lick of work that I can see;
He peddles brag-talk by the ton

And slings his "I's" around quite free;
But we have got to throw the ropes
And do the brandin' and all such
While Tex is tellin' how he hopes
To git on Fame the grizzly clutch.

It seems he don't report until
About a month or two from now,
And me and Pecos and Slim Bill
Can't figure out exactly how
We're goin' to stand his guff till then;
A month or two is long to wait
When one of these here actor men
Has wore you to a nervous state.

Left Out.

There's a minimum wage for Sister,
And a minimum wage for Brother,
But there's none to say
What's the minimum pay
For the toil performed by Mother.

The Real Problem.

The department of agriculture experts have decided that it should be "catchup" and not "ketchup," but what the public wants to know is about this "tomahito" or "tomayto" pronunciation business.

Bird Lore.

The most useful bird in the world is the gull.
The gull is found anywhere in the city or the country. It buys lightning rods, gold bricks, worthless stocks and valueless real estate. There are few laws for its protection, and these laws are generally enforced in lax manner. The gull keeps money in circulation, and furnishes thousands of men with their favorite indoor and outdoor sport. Long may his feathers wave!

Use the Home Seed

A subscriber asks if northern grown seed corn will equal Kansas seed. As a rule it will not, and the foreign seed should never be planted when good home grown seed can be obtained. It is probable that some seed will have to be brought in from other places this spring, however, and when this is the case it should be bought in localities as near as possible.

If you are glad you are in the world the world will be glad too, and have reason to be.

WONDERED WHY

Found the Answer Was "Coffee".

Many pale, sickly persons wonder for years why they have to suffer so, and eventually discover that the drug—caffeine—in coffee is the main cause of the trouble.

"I was always very fond of coffee and drank it every day. I never had much flesh and often wondered why I was always so pale, thin and weak.

"About five years ago my health completely broke down and I was confined to my bed. My stomach was in such condition that I could hardly take sufficient nourishment to sustain life.

"During this time I was drinking coffee, didn't think I could do without it. "After awhile I came to the conclusion that coffee was hurting me, and decided to give it up and try Postum. When it was made right—dark and rich—I soon became very fond of it.

"In one week I began to feel better. I could eat more and sleep better. My sick headaches were less frequent, and within five months I looked and felt like a new being, headache spells entirely gone.


"My health continued to improve and today I am well and strong, weigh 148 lbs. I attribute my present health to the life-giving qualities of Postum."

Name given by Postum Co., Battle Creek, Mich. Read "The Road to Wellville," in pkgs.

Postum now comes in two forms: Regular Postum—must be well boiled. Instant Postum—is a soluble powder. A teaspoonful dissolves quickly in a cup of hot water and, with cream and sugar, makes a delicious beverage instantly. Grocers sell both kinds.

"There's a Reason" for Postum.

Get Your Canadian Home From the Canadian Pacific



We will make you a long time loan—you can move on the land at once—your Canadian farm will make you independent and

We Give You 20 Years to Pay

Rich Canadian land, \$11 to \$30 per acre—*one-twentieth down*. Long before final payment comes due your farm will have paid for itself.

We Lend You \$2000 For Farm Improvements Only

No other security than the land. You are given twenty years to pay with interest at 6%. In case of approved land purchaser, we advance live stock to the value of \$1,000 on a loan basis.

Or if you want a place already established, you will find one on our Ready-Made-Farm. All planned by our experts, and our service and advice is yours free.

This Great Offer Is Based On Good Land

Finest on earth for general mixed farming—irrigated and non-irrigated lands. Located on or near railway. The famous Canadian West has magnificent soil, good climate, churches, public schools, good markets, good hotels, unexcelled transportation—and 20 years to pay. Time is precious. Write today.

G. M. THORNTON, Colonization Agent
Canadian Pacific Railway Colonization Department
112 West Adams Street, Chicago, Illinois
FOR SALE—Town lots in all growing towns. Ask for information on industrial and business openings.

Manure Spreader \$64.75 Prices Slashed! 64 Up

My low direct-from-factory prices will save you \$25 to \$50. My prices on complete spreaders, \$64.75 to \$79.50. Attachments only \$39.50 up. Think of it! Prices never before equaled. Lowest ever made! Write today—get quick. These special prices good for 60 days only.

30 Days Free Trial

Backed by a \$25,000 legal bond. Five year warranty. 40,000 Galloway spreaders now in use. Proved best by actual test. Get my catalog and special 1914 offer and lowest special prices. WRITE TODAY—ACT NOW!

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49 Railway Station (442) Waterloo, Iowa

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The grip of the SQUARE DEAL is exemplified in every knot on SQUARE DEAL Fence. You should get acquainted with this grip if you want fence that will cost you less, and last longest. Stock cannot go through it or under it.

Square Deal Fence

has one-piece stay wires—33 to every rod. Each stay wire acts as a post. There are many other reasons you should know about. Write us for price list, dealer's name, and we will send you Kopp's Net Calculator—worth its weight in gold—FREE.

Keystone Steel & Wire Co.
1130 Industrial St. PEORIA, ILL.

BROWN FENCE

13 Cents Per Rod Up

Strongest, heaviest wire, Double galvanized. Outlasts others nearly 2 to 1. Low prices direct from factory. Over 150 styles for every purpose—fence and gates of all styles. Mail postal for catalog and sample to test and compare with others. Address THE BROWN FENCE & WIRE CO., Department 13, Cleveland, Ohio.

ADVANCE WOVEN WIRE FENCE

Write for new catalog and prices on farm, hog, sheep, poultry and rabbit fence. New styles farm and ornamental gates. No middlemen. Direct to you at low factory prices. 2 ADVANCE FENCE CO., 135 N. State St., Elgin, Ill.

431 Valentine, Easter CARDS, Scenes, Seals, Views, Silver, Gold, Art colors, Beautiful Doves, Rabbits, Eggs, etc. ALL for ONLY 10c

4 Pgs. 24c, 20 Pgs. for \$1.00

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Tells you how to make baits at trifling cost—helps you catch more furs and make more money—illustrates traps at factory prices. Also ask for our fully classified price list. Contains facts and figures that you need. Mailed to you regularly.

WE PAY HIGHEST CASH PRICES FOR FURS

We positively pay the prices we quote and remit cash in full the same day shipment is received. No commissions; no undergrading. "Rely on Lyon." It pays. Write today.

M. LYON & CO.,
226 DELAWARE ST., KANSAS CITY, MO.

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BIGGS Pays Most FURS for FURS

Why submit to have 5% deducted from the price of your skins when you can ship to "BIGGS," get top-of-the-market price and get every cent of it.

Traps, Guns at Factory Cost.

We want more trappers to ship us their furs so we sell largest stock in the West, including the Victor, Newhouse, Onaida, Jump, and Stop.

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Salt Cured Hides.....13 3/4c lb.
No. 1 Horse Hides.....\$4.00 each
No. 2 Horse Hides.....\$3.00 each

Honest weights, highest prices, and no commission. Your check sent same day shipment arrives. This company has been highest in favor for 45 years. Ship today or write for free price list and tags.

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We can guarantee "Best Tan" because there is no guesswork in our business. Our laboratory and chemist enables us to treat each hide specially to its needs, and to make it soft, pliable and durable. Get your hide "Best Tanned"

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SPOT CASH FOR FURS

HIGHEST PRICES AND HONEST GRADING!

Ship your hides and furs to me. I charge no commissions and remit promptly same day shipment is received. Satisfaction guaranteed on every shipment. Let me tan your cow or horse hide for a robe or coat. Write today for FREE CATALOG—PRICE LISTS AND SHIPPING TAGS.

C. W. SWINGLE, 323 S. 9th St., Lincoln, Nebr.

Fewer Eggs Next Spring

Feed Being Scarce Farm Flocks Have Been Reduced

BY HARLEY HATCH

A FARMER living near our county seat town has 65 Rhode Island Red hens that laid 594 eggs during December. The smallest number of eggs laid in one day was 12, the greatest 27. In the flock were eight old hens, the rest being pullets. The good results from this flock of hens strengthens a theory we have always had about feeding layers. We have always contended if you wanted to fatten a cow or hog or a work horse quickly, you gave them all they could eat. Then why should not a hen have all she can eat when she is laying regularly? The farmer's hens which laid so well had the run of a feed yard where they could get all the corn they could eat.

The facts are that nearly all the chickens in Kansas are being kept on short rations this winter. Half of all the chickens in the state go to bed hungry every night. So long as such conditions continue there is not going to be much egg laying. Next summer, when insects and grasshoppers are plentiful, there will be more eggs, but next spring we expect a smaller egg crop in the West than for many years. Not only is chicken feed scarce but fewer hens are being kept on farms than usual. This means fewer eggs next spring at the very time when they will be needed most. The effects of the 1913 crop failure will be felt for a long time, especially by the man who has to buy all he eats.

The Gridley stock buyers paid \$7.35 for hogs weighing more than 200 pounds this week and corn could be bought there at the same time for 73 cents a bushel. This begins to look a little better for the hog feeder.

Usually it is figured that 10 pounds of pork can be made from a bushel of corn. How this will work out depends on so many things that the rule is little better than a wide guess. Weather, pasture, milk, or lack of milk, and the condition of the hogs make a great difference.

We are still getting letters inquiring about alfalfa seed. In reply we wish to say the price now charged is higher than at threshing time. Probably about \$8 would be asked now by most men with seed to sell. Every week letters and advertisements from men who have the seed for sale appear in the Mail and Breeze. The thing to do is to write them for samples of seed and the prices.

An Oklahoma reader inquires about the Holstein association. Several farmers in his neighborhood intend to go into the dairy business and wish to get some information about Holsteins at first hand. The address of the secretary of the Holstein-Friesian association is F. L. Houghton, Brattleboro, Vt. For Oklahoma conditions we think the Holsteins would be all right.

We like both the Holstein and the Ayrshire dairy cattle for regions where there is much roughness to be fed. These two breeds consume roughness in large quantities better than the Channel breeds of dairy cattle. Also the Ayrshires are a fair beef-producing cattle considered as dairy animals. They are hardy and good rustlers but more nervous than the Holsteins. For milk production there is no breed to equal the Holstein. We would hesitate to say what is the best dairy breed for all have their good points and anyone will fit into certain conditions better than the others.

During the dry time last summer several deep wells were drilled in the northeast part of this county and reached salt water. We have been told recently that some of these wells are now furnishing good water, the salt seeming to become less the longer the wells are in use. When first drilled the water from one of them was so salty that it seemed totally unfit for stock but the man who had it put down was so desperately in need of water that he gave it to the stock anyway. The animals apparently got along all right on it and the longer the well was used the less salty the water became until it now is about right. Does any reader know of

a similar case? Will water that has salt in it or which is strongly mineral when first struck get better as time goes on? What is the effect of giving the stock water which is moderately impregnated with salt?


A number of years ago, before the present water system was installed in the city of Lincoln, Neb., the water in use there was so salty one not used to it could not get it down. We could never drink it at that time without holding our nose and not tasting for a long time after the water was down. We watered the horses at Lincoln when we moved to Kansas, having to rest there all of one day. The stock drank little and what they did drink seemed to make them even more thirsty. When Kansas City was reached the animals had raging thirsts. Yet we were told that livestock accustomed to the water at Lincoln drank it freely with no bad effects. Is any reader using water like this for stock? If so, we should like to hear how they thrive on it. There is plenty of water in this locality at the depth of about 100 feet but it is all salty.

The co-operative Grange store in Burlington has now been in operation a little more than six months and in a settlement January 1, with its patrons made a showing of \$734.67 profit above all expenses. This amount was returned to the patrons of the store. We do not know the amount of capital, nor the volume of trade on which this profit was earned. Prices charged for goods at this store are the same as those charged at all the general stores in Burlington. The patrons get no lower prices to start with but they get the profits at the end of every six months, if there are any. So far the stockholders seem well pleased with the enterprise.

The inflated prices given out in real estate transactions during the year in Coffey county are causing the county assessor to do some thinking about how he is to explain matters to the state tax board. The state board bases land values to a great extent on the recorded sales of real estate during the year, but that is a poor way to arrive at a base. For instance, many sales are made where the consideration is only \$1, while in others it is given as high as \$60 to \$75 an acre, though perhaps not more than \$40 was paid. This is done to help future land sales, also to give an idea of greater value to be used later, if need be, as a basis for loans. If the state tax board can't take the word and judgment of sworn local officials in regard to the value of land it had better dismiss them and do the assessing itself.

We have taken this time of muddy and frozen roads to overhaul the motor car and to make such repairs as are needed. We find the drive pinion which connects with the differential is somewhat worn, so we will put in a new one while the parts are taken down. It might wear for a long time yet, but we will not run the risk now that we can so easily put in a new one. The chief reason for taking the machine down was to put in new axles. The axles in the car were not broken or even worn, but it is commonly understood that with this old type of axle they should be renewed every 5,000 to 7,000 miles. This is because the axles crystallize and break and it is better to put them in just before they break than to wait and have a breakdown on the road. The new type of full-floating axle is not subject to this crystallization as the weight of the car is not carried on the axle. The axles never wear out for the wheels do not turn on them except when rounding a corner, or something like that. In this they work just like the axles on a mowing machine. When axles crystallize they become very hard at the point where wheel and housing meet and the atoms of iron seem to lose hold of one another. This is caused by the continuous jar and strain.

The pigs from sows that come through the cholera are more or less immune from the disease.



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The Use You Make of Food

Good Health Depends Largely Upon the Things You Eat

BY ADAH LEWIS.

THE difference in the properties of foods is the result of varying proportions of the five food constituents. No matter where we find a food or what its characteristics may be, it is always composed of one or a combination of two or more of the food principles. There are only five of these principles or constituents, and without a general knowledge of them and the use of each to the body, the housewife cannot expect to feed her family intelligently.

The five food principles are carbohydrates, proteids, fats and oils, ash or mineral matter, and water. We will first discuss the occurrence of these constituents and their use to the body; and even if their scientific names are not remembered, it will be found helpful to remember the common representatives of each class.

Eat a Bit of Bran.

The carbohydrates are represented by such substances as starch, sugar and cellulose—the woody, stringy parts of fruits and vegetables. They occur chiefly in the products of the vegetable world as in fruits, vegetables and cereals. Carbohydrates perform the function in the body of supplying it with heat and energy. They cannot build muscular tissue. Cellulose does not supply the body with heat or energy, neither does it build muscular tissue; but it does serve a very important function in the dietary, namely, that of supplying a stimulant for digestion. The movement of the intestines which propels the food along the digestive tract in the process of digestion is known as the "peristaltic action." The cellulose is useful in performing this function by giving bulk to the digesting material. For this reason individuals who are troubled with constipation may often find relief by partaking of a diet rich in cellulose materials. Foods such as mushes and the coarse breads and wafers would be included under this class, as well as the tougher parts of fruits and vegetables.

Proteid Foods Supply Muscle.

The fats and oils occur in plentiful quantities in both the animal and vegetable kingdoms. Lard, tallow, butter and cream are familiar representatives of the fats occurring in the animal kingdom, and in the vegetable world we find examples in olive oil and cottonseed oil. The various nut butters contain large amounts of fats. The fats and oils serve the same purpose in the dietary as the carbohydrates, that of supplying heat and energy for the body. Owing to the fact that they are rather difficult of digestion we do not partake of them as freely as we do carbohydrates. Fats and oils cannot build muscular tissue for the body.

Proteid material occurs freely in the animal foods such as meat, milk, eggs and cheese. The leguminous plants such as peas, beans and lentils also contain protein material. This food constituent is the only source of muscular tissue for the body. No other food is able to supply it. Proteids also have the power to furnish the body with heat and energy in case there is a deficiency of fats and carbohydrates in the diet. As a rule, however, we consider them a very expensive source of heat and energy, for they are the highest priced foods we have.

In the process of digestion and assimilation of the food products by the tissues there are always certain excretory products formed which are eliminated from the skin by means of the lungs, kidneys and intestines. The carbohydrates and fats are converted into products that are easily eliminated, but proteid material forms a residue which must be eliminated by means of the kidneys. The body can utilize only a limited amount of proteid material, and any above this amount only necessitates an extra tax upon the kidneys in eliminating the waste products formed from the proteids. Hence we should not indulge in a diet too rich in proteid substances.

It is impossible to give any hard and fast rules regarding the amount of proteid we should consume, for circumstances alter cases; but as a rule the average individual consumes more pro-

teid material than is necessary for the maintenance of his body. Disease is a penalty for an overconsumption of any kind of food; this is particularly true of proteid material. A superfluous amount often leads to kidney disorders. Remembering that the proteids are represented by the animal foods largely, it is well to give care to the selection of our diets that we do not consume too many of these foods at each meal, or that they are not served in too plentiful amounts during the three meals each day.

We may well test our diets by subjecting them to the following questions:

- (1) Are they satisfying to the appetite?
- (2) Are they laxative or constipating in effect, according to the needs of the individual?
- (3) Are they easy of digestion?
- (4) What will be the ultimate effect upon the health of the individual?

These points should always receive due consideration from the housewife in planning the meals for the family.

Editor's Note.—The first article in this series of food talks appeared in the Mail and Breeze of January 16. If these articles are clipped as they appear they will be found to form a valuable discussion of the subject of foods and their preparation for the table.

Something to Do for Asthma

In the December 20 issue of the Mail and Breeze an Iowa reader is asking what to do for asthma. I had been a severe sufferer for 14 years, and had tried many warranted cures with little or no relief. The fall of 1912 a friend insisted that I try a muskrat skin. I had heard of it before but had no faith. This time I concluded to try it. The plan is to take a rather fresh skin, line the meaty side with a piece of cloth, and pin it over the chest to the underwear with the hair next to you. At night pin in your night clothes. It caused intense itching and my chest broke out with white blisters, but I have not had a symptom of the asthma for over a year and can exercise as I could not in 14 years.—Mrs. O. R. Ashby, Cadua, Colo.

Change of climate will do more good than most doctors. We lived in Ohio. My wife had asthma and hay fever and I was getting lung trouble. We doctored with several doctors without much help until six years ago when on the advice of a physician we came to western Oklahoma, and she has never been bothered with asthma since. She doesn't look like the same woman. She does all her work for four children, often for two hands, and through harvest for a header crew. In Ohio we kept a girl most of the time and had a doctor's bill, too. I don't know of a case of asthma around here.—W. E. S., Supply, Okla.

I had been a sufferer from asthma for five years. My hardest attacks were in cold weather. At last, after I had been so bad for a week I could not lie down, sleep or eat. I called for the keroseene can and a spoon. I poured out about two tablespoonsful of oil and drank it; within half an hour I was resting easy, and I went to bed and slept all night. I omitted taking it the next night but the third night I took another good tablespoonful. It penetrated through all my system. Within two days phlegm began to rise without the slightest exertion. Within a week's time I had no trace of asthma, and have had no signs of it since, and that was three years ago.—Mrs. Allie Aldrich, Independence, Kan.

A Sew and So Circle.

After reading your paper a long time I thought I would write and tell you of our club or circle which we farm women organized two years ago. We call it the Sew and So circle. We meet every two weeks at the homes of the different members, and we have a committee to arrange a program for each meeting. We have literary programs, spelling matches, guessing games, and so on, and give little prizes for the winner. Also serve light refreshments if we care to, this being a matter of taste. We also

sometimes take our note books and exchange recipes. We have a president, a secretary and a reporter. We have no dues. We organized this as a means of getting better acquainted with our neighbors, and getting away from home one afternoon in two weeks surely does us all good. We have about 25 members. We take our children with us, and they seem to enjoy it almost as much as we women. I neglected to say that our membership consists only of wives and mothers. I think more of the farm women who live a humdrum, stay-at-home existence such as most of us do, would find a great pleasure in a club of this kind.
Mrs. W. N. Scott.
Kansas.

Muzzle the Clothes Wringer

[Prize Letter.]

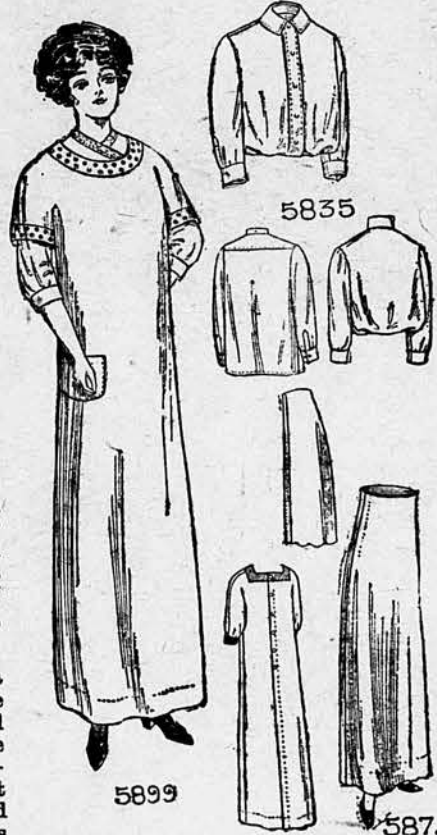
After running the baby's finger through the clothes wringer we immediately doctored the dear little member to the best of our ability and then I doctored the wringer so we need not fear a recurrence of any such trouble. Our wringer is the kind with the wooden frame and exposed cogs. I took a piece of strong tin about 4 by 5 inches, bent it through the center to a right angle and tacked it to the upright post nearest the top so the cogs were entirely covered. It's a short and simple job, and a wise precaution.
W. A. Oakley.
Beloit, Kan.

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The pattern for boys' blouse 5835 is cut in sizes 4, 6, 8, 10, 12, 14 and 16



years. Medium size requires 1 7-8 yards of 36-inch material.

The empire skirt 5872 is cut in two pieces. The pattern is cut in five sizes, 22 to 30 inches waist measure. Size 24 requires 2 5-8 yards of 44-inch material.

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Wanted a Vote.

There once was a woman of note
Who very much wanted to vote;
Her neighbors said, "Here,
You stay in your sphere!
Go home and have babies to tote!"

She then formed a club literary
Which studied child life, civics and dairy;
They found out their right
To make the world bright
And decent, and homelike, and cheery.

They studied of home and the nation,
And learned each to each the relation.
"We'll have better laws,"
Said these women, "because
We'll work for our country's salvation."

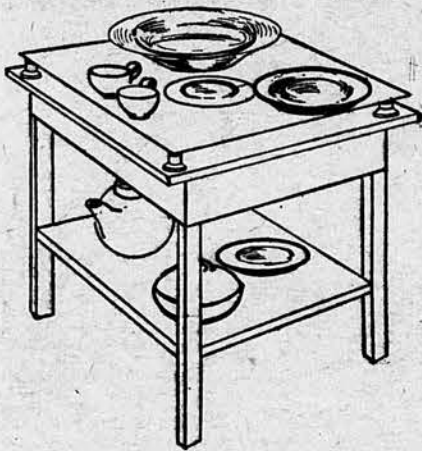
And now in ten states women vote
On questions both near and remote;
"Our banner's unfurled,
And our sphere is the world."
Says this wonderful woman of note.
—Mrs. John B. Parker.

The Woman Who Was Tired

BY LOUISE L'AHMUTY NASH

"Can't you devise something that will save you going to and from the kitchen so often?" my son inquired.

He was with us during his father's absence, but because he was lame he could not help me as he would have wished. So I set to work to try to ease his affectionate heart. I told him how I had once lunched with some titled aristocrats in England, when a "dumb waiter" was used. Everything



The table that saved steps.

likely to be needed was placed on this, and the men servants were dismissed for the remainder of the meal. I soon made up my mind that I would go them one better, and keep things warm as well as handy.

I brought down stairs an oblong table about 2 feet long. I got the tinner to cut me a sheet of thick galvanized iron the size of the table. It was strong enough to hold the dishes level; but it might have been as well to have had the edges turned up a little, to make it safer for them. The tinner has done this for me since, with other things.

I happened to have a small alcohol lamp, which had been used on an afternoon tea-table, and I bought another the same height. I laid the galvanized iron on top of the table, put an empty cotton spool between them at each corner, and glued them all together. The spools were a little higher than the lamp wicks. The lamps when lighted were pushed into the open space between the table and the sheet of iron, and soon the iron was heated through. The dishes were set on top, and I regulated their position according to the amount of heat that was best for them.

We always began dinner with soup. There was room on the warm shelf for meat and vegetables, a warm dessert, and a pile of plates as well. If there was too much heat over the spot where the lamp stood a piece of asbestos rectified it. The table had an under shelf which held the dessert plates, and later the soup plates. After the next course there was room on the outer shelf for the smaller set of plates. The plan was quite successful, and gave my son much pleasure.

[Editor's Note—Mrs. Nash does not mention the castors on her "dumb waiter," but these were undoubtedly among the "other things" that were added later. With castors on the table it can be filled with dishes and food from pantry and kitchen then rolled to the dining room, and everything taken in at one trip.]

Eating on a Bed of Roses

BY LUCILE BERRY.

A simple white dish costs no more than a heavily beflowered piece of china, but how much better things taste out of it! Isn't it a bit disconcerting when

you think of it, to have butterflies flitting near your breakfast coffee or your bacon sizzling on a rose?

If one is feeling good he can see the humor in serving butter on a picture of the state capitol building or Niagara Falls. If that person has a leaning toward dyspepsia though, a detail of that sort in evidence thrice daily is likely to throw him considerably out of kilter. Digestion experts insist that a person's state of mind has an effect on his digestive processes.

Dishes are made to serve one purpose and one only; that of holding and conveying food. They aren't ornaments or souvenirs. What can be more artistic than plain white china for every day use? The common dishes are constantly being broken. If each broken dish is replaced by a white one, before long all the dishes in common use will be white.

It is usually impossible to match a design from time to time in a country store, and if it is attempted a collection of assorted china probably will be the result.

White china and linen furnish an excellent background for simple table decoration. A flower or spray placed on the table at the last minute may bring a world of good cheer if it is noticed. It won't show up well with dozens of painted roses and forgetmenots.

Suet May Be as Useful as Lard

HOW TO RENDER THE FAT.

Some women have a habit of throwing good suet into the garbage pail or using it for soap making, because they say they do not like it for cooking. Suet possesses the same food value as lard, and if properly tried out is a satisfactory substitute for lard for frying purposes and for shortening. Suet is the hard fat about the kidneys and loins in beef and mutton and corresponds to the fat of hogs from which leaf lard is made. Suet can be so rendered as to make a soft, usable fat, practically free from any distinctive-flavor or odor. The following is the simplest method for trying out suet:

Remove the skin and lean parts from beef fats, and cut it into small pieces. Put it into a saucepan and cover with cold water. Place it on the stove uncovered so the steam may carry off any disagreeable flavor. When the water has nearly all evaporated, set the Kettle back and let the fat slowly "try out." When the fat has ceased bubbling and the scraps of skin are shriveled, allow the scraps to settle at the bottom of the kettle, strain the fat through a cloth, and set it away to cool.

This fat is so valuable in cooking that housewives will do well to save all suet from their meat and try it out. For those who want a mixture of suet and leaf lard the following recipe will be useful:

Take 2 parts of suet and 1 of leaf lard, finely ground in the meat grinder, and mix together. Render this with whole milk in the proportion of 1-2 pint milk to 2 pounds of the mixed suet and lard. (Render means to melt down or clarify by melting.) The mixture may be heated in a double boiler. When allowed to cool the fat will form a cake on the surface of the liquid and may be easily removed.

This fat has a good odor, color and texture, and is softer than the suet alone. It is useful for frying and for shortening foods with high flavors.

The unpopularity of fried food in many families is due to the fact that the fat has been burned in cooking. A slightly burned taste can often be removed from fat by putting into it thick slices of raw potato and heating it gradually. When the fat ceases to bubble and the potatoes are brown, the fat should be strained off through a cloth placed in a wire strainer.

Marion Wheat Looks Good.

W. M. Schleuver, one of the wealthiest farmers in Marion county, Kan., where he has been farming 40 years, remarks that he never saw wheat looking better in midwinter than now. On his large farm, Mr. Schleuver has 500 acres in wheat this year. "Then a very large acreage of alfalfa was put in last fall, and it too, looks exceptionally well," Mr. Schleuver added. "Altogether the outlook for a good crop is very promising."



Mitchell Big Six \$2,350.00

An uneven road plays hob with an automobile that isn't properly constructed and which lacks engineering balance. It strains the frame, the axles, the springs and the motor of a cheaply built car and no amount of repairs can ever make it good.

The Mitchell car is built to give where the give is necessary—to resist the strain and sudden jolt—to surmount these and other difficulties without the disastrous wear and tear which makes other cars burdens after a year's use—or less.

Farmers need better cars than people who live on smooth boulevards and there are hundreds of modern farmers who will tell you that the Mitchell has lasted them—in constant use—five, six, seven and eight years and are still the splendid utilities today that they were when bought.

The Mitchell car is more car and better car for the money than any other car in existence and we commend it to the farmer who wants an economical utility rather than an expensive luxury.

The Mitchell Models for 1914:

- The Mitchell Little Six—fifty horse-power—132-inch wheel base—36x4 1/2 inch tires—two or five-passenger capacity - **\$1,895**
- The Mitchell Big Six—sixty horse-power—144-inch wheel base—37x5 inch tires—seven-passenger capacity - **\$2,350**
- The Mitchell Four—forty horse-power—four cylinders—120 inch wheel base—36x4 1/2 inch tires—two or five-passenger capacity **\$1,595**

Equipment of all the Mitchell Models included in the List Prices Here Given: Electric self-starter and generator—electric lights—electric horn—electric magnetic exploring lamp—speedometer—mohair top and dust cover—Jiffy quick-action side curtains—quick-action rain vision wind-shield—dismountable rims with one extra—Tungsten valves—double extra tire carrier—Bair bow holders—license plate bracket—pump, jack and complete set of tools. Prices F. O. B. Racine.

Mitchell-Lewis Motor Co.
Racine, Wis., U.S.A.

Eighty Years of Faithful Service to the American Public

Over \$1,000 in Prizes Given Away in Farm Life's Big Prize Contest



FREE

including a \$600 National Concert Grand Player Piano, \$225 Harley-Davidson, 1914 Model, 5 H.P. Twin Cylinder Motorcycle, \$60 Crusader Bicycle, \$45 White Frost Refrigerator, \$25 Westman Good Watch, \$20 Stevens Double Barrel Hammerless Shot Gun, \$15 De Luxe Kokus China Dinner Set, \$10 Silver Set, \$10 Eastman 2A Brownie Camera, \$5.00 High Power Telescope.

Every person who answers this ad will be entitled to be considered in the awarding of Grand Prizes in our contest—just starting—closes midnight, March 21st, 1914.

UNLIMITED CASH REWARDS TO EVERY ONE who takes part in this contest. SEND US NO MONEY—everything is free. The quicker you send your name the better chance you will have to win the \$600 Player Piano—the \$225 Motorcycle—or one of the other Grand Prizes.

Answer this ad today and we will send you 1,000 FREE POINTS and tell you how to get the \$600 Player Piano—the \$225 Motorcycle—or one of the other Grand Prizes Free.

FARM LIFE, DEPT. MTR. SPENCER, INDIANA.

GAPS, GLOVES OR MITTENS FREE

FREE High Grade Work FREE

If you will send me a horse, cow, steer or bull hide to be tanned and made into a coat or robe. I do the work at a reduced rate and give you free either a cap, a pair of mittens or a pair of gauntlet gloves. Either one of these goes to every customer who will send me a horse, cow, steer or bull hide to be tanned and made into a coat or robe. I have reduced tanning to a science, having had 25 years' practical experience. I can make better prices on good tanning and finely finished coats and robes than other tanners and yet afford to throw in one of the above. My modern plant also enables me to make these reduced prices and this startling offer.

H. B. MICKLE, President, MICKLE FUR COAT & ROBE CO., 522 West 7th St. MASON CITY, IOWA.

SEED CORN
ARMSTRONG'S IOWA GROWN

Seed Corn selected by experts. Carefully sorted according to Armstrong's Standards backed by 25 year's experience. We specialize in high test reliable seed corn at farmers' prices and can give you the best of the kind you want. Large Yellow, Large White and some extra early varieties that make big crops and big profits. Write now and reserve your seed corn. Get our prices and special proposition and find out what "Armstrong Quality" is.

J. E. Armstrong & Sons, Dept. 170, Sheldahl, Iowa

THE COLUMBIAN METAL SILO

At last a perfect silo! All metal, air tight, indestructible, only silo reinforced with five thicknesses of metal at joint. Will not shrink, crack, warp nor sag. Absolutely tight metal hinge doors, lever clamp. Sold under guarantee. Perfect silage from wall to center. Non-porous, unaffected by weather conditions. Will last life time.

Mail us this ad at once and receive our free illustrated catalog describing the Columbian Silo together with valuable pointers on feeding ensilage.

COLUMBIAN STEEL TANK COMPANY
1600 West 12th St., Kansas City, Mo.

NAME.....
P. O..... STATE.....

Things the Girls Can Make

Nimble Fingers, Simple Stitches and a Little Time When Put Together Always Mean Pretty Things

EVERY girl likes to make pretty things, of course; if she didn't she'd be a funny girl, you'll all agree. Boys like to make things, too; but the difference is boys like to pound with a hammer while girls like to make a good many of their nice things with a needle.

Everyone knew that Mail and Breeze girls could sew, but no one knew just how nicely until the dusting cap contest, which was held just before Christmas.

Darning Stitch

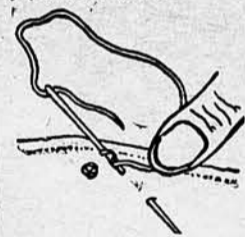
Those beautifully even little stitches took time to make; and the girls who know how to sew so nicely are just the ones who will be successful in embroidering, because many embroidery stitches are much like those used in sewing. The darning stitch, for instance, is known as the running stitch in sewing. The picture shows just how it is done; and the things you can do with this stitch are very wonderful.

First of all, when we are going to embroider we will remember never to make a knot. Begin by making three tiny stitches and one back stitch, putting them in a place where they will be covered up by stitches you will make later. This is to hold the end of the thread. Then, if your are going to darn, take a stitch a quarter of an inch long, pick up a few threads of the goods, then take another long stitch. Finish this row before you begin another, being sure to keep a straight line, then make the second row, setting the stitches so the picked-up threads of the second row come in the center of the long stitches of the first row. Keep the rows the same distance apart until the entire space has been filled.

The darning stitch is often used in filling in the petals of flowers, in making flags, and other things like that; but it is used still more often for filling in a background. A beautiful pillow can be made by making all the background of darning stitch, outlining the petals of the flowers, and filling in the centers of the flowers with French knots.

Outlining is the most used of any embroidery stitch. It is worked with the point of the needle toward you, each stitch lapping back two-thirds on the previous one, so when it is finished it looks like a tightly twisted cord. Always keep the thread on the left side of the needle. When you are outlining a curve the stitches should be shorter than when they are on a straight line.

French Knots



Another stitch that everyone wants to know how to make is the French knot. Besides being used for the centers of flowers it is used to trim collars and for a lot of other pretty things. The picture shows just how it is made. Bring up the thread through the cloth, and with the left hand wind it around the needle three or more times according to the size of the knot desired. Stick the needle back into the cloth close to where the thread came out, and with the left hand draw the twists tight until all the thread has been drawn through, then fasten with a stitch on the wrong side of the cloth.

You can find all kinds of pretty things at the stores stamped ready to work with these three stitches. Girls who know how to draw can draw their own flowers with a lead pencil and make anything they please.

Try It on Your Chum.

Here is a trick for you to try on your playmates in school, and grown folks will be just as much interested. Ask them

to stand up against a door, with the side of one foot and the shoulder pressing against the door. As long as they stay in this position it will be impossible for them to move the other foot. If you don't believe it try it yourself.

Who Has the Brightest Dog?

Who has the brightest dog in Kansas? We're asking because we want to know. Almost every dog knows how to do some tricks, but some dogs have done things that almost made you think they had brains, like folks. If you have a dog like this the Mail and Breeze would like to hear about it. Of course, if a boy or girl from Oklahoma, or Missouri, or Nebraska, has a dog that can beat a Kansas dog we want to hear about that. For the best letter, and the second best letter a prize will be given of a copy of Roosevelt's Trip to Africa. This is a big clothbound book with lots of pictures. Third prize, if won by a boy, will be a cowboy watch fob; if won by a girl, a hand carved bone brooch. Address your letters to the Junior Editor, the Farmers Mail and Breeze, and mail them so they will reach the office by February 10.

Here's A Thrifty Boy.

I started saving my money when I was 10 years old. Papa paid me 30 cents a month for milking; when I got a dollar I bought a pig. When the pig was worth about \$4 it died with cholera, but papa gave me another one. I kept it till it was big enough and traded it for a little calf. I kept the calf till it brought me \$14, and now the money is out on interest. I bought a ball suit, a fielder's mitt, a catcher's mitt, ball and bat, also a bicycle, out of my milk money and I have \$1.45 left. I want to save enough more to buy me a rifle. I am now 12 years old. I make all the money I can other ways. Lester A. Carr. R. 1, Derby, Kan.

Hands Seem to Be Full.

A most eccentric, yet interesting man was Bishop Brooks of Brookville. Although not a large man, wherever he went, night or day, he was always accompanied by, or carrying two playful animals, a number of small animals of a less tame variety, a member of the deer family, a number of whips without handles, some weapons of warfare, the steps of a hotel, two places of worship, two musical instruments, two standards of measurement, several articles of carpenter uses, two lofty trees, and two kinds of flowers. The account of this eccentric man was sent by Helen Irene Francis of Gorham, Kan. The answers will be published next week. How many can you find before that time?

Beef From Wheat and Silage

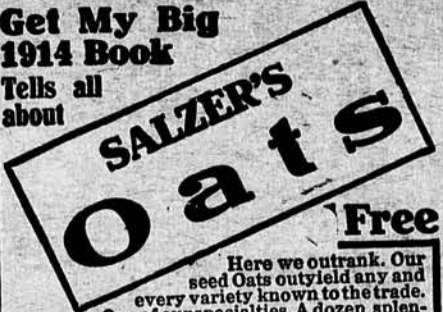
Dan Meyers of Clay Center, Kan., is feeding 200 steers on ground wheat and silage. Last week he bought 200 more in Kansas City to handle in the same way. Mr. Meyers's way of feeding wheat is to partly fill the troughs with silage and then cover it with ground wheat. He says he has fed the 200 steers more than 3,000 bushels of wheat, that they made excellent gains and are now ready for market. He also feeds some cotton seed meal and corn.

Lyon's Co-operative Experiment

Our Lyon County Farmers' Produce association has made great progress, and we did not expect to be rushed with business six weeks after starting. We are selling the farmers corn at cost, and getting more for their hay than could have been realized on the market. We are certainly well pleased with the results from our advertisement in the Mail and Breeze. If you had guaranteed one-half the returns we have had, we would have taken it for a joke. One nice thing they all say is, "I saw your ad in the Mail and Breeze."

A. B. Hall, Manager. Lyon County Farmers' Produce Association, Emporia, Kan.

Get My Big 1914 Book Tells all about



Here we outrank. Our seed Oats outyield any and every variety known to the trade. One of our specialties. A dozen splendid full-blooded varieties. Catalog tells, so also about Wisconsin's famous Barleys, Corns, Wheat and Potatoes.

10 Big Sample Packages 10c

For 10c we gladly mail one package each new \$1,000 Marquis Wheat, 20th Century Alfalfa, Rejuvenated Bonanza Oats, Silver King Barley and other farm seed packages. America's headquarters for Alfalfa, Clover, Grasses, Oats, Rye, Barley, Wheat, Potatoes, Seed Corn, Onions, Tomatoes, Peas, Beans, etc.

Salzer

139 S. Eighth St., La Crosse, Wis.

Seed Corn that tests 95 to 100%

AINSWORTH

Sold under absolute germination guarantee. Test the corn yourself twelve days. If not up to germination guarantee enclosed with shipment, return at our expense and we refund purchase price. Every bushel of Ainsworth corn is dried in the plant and hand sorted three times. All crabs corn dried on racks. We own our own farms—1,000 acres—grow our own seed—do not ship an ear of "crib corn." We have both 1913 and 1914 crops. The largest Seed Corn drying building in the world. Get our 32-page 1914 Corn Book FREE. W. T. AINSWORTH & SONS, Box W, Mason City, Ia.

FUNK'S Seed Succeeds

Because it is mated and bred, like pure-bred stock, to give high yields—on an average (1,600 cases) 15 BUSHELS MORE OF CORN; 6 bushels more of oats; 12 bushels more of wheat to the acre than low-priced commercial or homegrown seed. FUNK'S TESTS 96 to 100 per cent. Funk's are recognized leaders in scientific corn breeding, 25,000 acres. Headquarters also for oats, wheat, alfalfa, clover—all farm seeds. Send for Funk's corn book. Complete illustrated description of how seed is selected, bred, picked, dried, sorted, tested, stored and shipped. Explains why it is worth more than what we ask for it; how little more per acre it costs to plant the very best obtainable. Free. Address FUNK BROS. SEED CO., 1516 W. Washington St., Bloomington, Ill.

GOOD SEEDS BEST IN THE WORLD

Prices Below All Others. I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded. Big Catalog FREE. Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses. R. H. SHUMWAY, Rockford, Illinois.

Shallu

THERE IS MONEY in growing Shallu, new grain from India; also called Egyptian wheat. Yields 100 bushels grain per acre and large quantities hay. Drought resistant. Full description and sample free. VEGETABLE SEEDS; 10c Premium Offer—Send 10c and we will mail you regular 10c packet Fireball Beet, 10c packet Improved Big Boston Lettuce, 10c packet of Sunshine Muskmelon, 5c packet Petrowski Turnip, 10c packet Vegetable Marrow and coupon good for 10c on any order of 50c or over. Seed Book Free. De GIORGI BROS., 1495 3d St., Council Bluffs, Ia.

PURE SWEET \$6.00 CLOVER 6 Per Bu.

BIGGEST MONEY-MAKER KNOWN—INVESTIGATE. The greatest forage plant that grows. Superior to all as a fertilizer. Equal to Alfalfa for hay. Excels for pasture. Builds up worn-out soil quickly and produces immense crops, worth from \$50 to \$125 per acre. Easy to get started, grows everywhere, on all kinds of soil. Don't delay writing for our Big 76-page free catalog and circular giving full particulars. We can save you money on best tested guaranteed seed. Sample Free. Write today. A. A. BERRY SEED CO., Box 357, CLARINDA, IOWA

TIMOTHY SEED

The choicest selections from Iowa fields, carefully re-cleaned. Bought and sold under the microscope. We protect you from weeds. Prices are low this year. Ask for samples and quotations. Large illustrated catalogue of Farm and Garden Seeds free upon request. Write today. IOWA SEED CO. Dept 20, DES MOINES, IA



Our Pink List gives current weekly prices of field seeds. Sent free.

GARDEN SEEDS

Special Prices! on early orders. Not untiled seed that may prove worthless, but clean, pure, tested seed from the old reliable BARTELDES Kansas Seed House. Will grow fine garden and keep your table loaded with fresh vegetables and fruits all summer. Reduced prices good only until February 20th. Order now. Big Catalog Free. 412 pages, hundreds of illustrations. Also BARTELDES FARM GUIDE, a splendid book of ready reference. Free with Garden Seed orders of \$3.00 or more. Don't fail to get it.

BARTELDES SEED COMPANY

511 Massachusetts Street, Lawrence, Kansas.
685 West Main Street, Oklahoma City, Okla.
1627 16th Street, Denver, Colorado.
Write to nearest address.

SEEDS

Reliable and Full of Life SPECIAL OFFER Made to build New Business. A trial will make you our permanent customer.

PRIZE COLLECTION

Radish, 17 varieties, worth \$50; Lettuce, 12 kinds, worth \$50; Tomatoes, 11 the finest, worth \$20; Turnips, 7 splendid, worth \$10; Onions, 8 best varieties, worth \$50; 10 Spring Flowering Bell-peppers, worth \$50—55 varieties in all; worth \$1.00.

GUARANTEED TO PLEASE. Write today; mention this paper.

SEND 10 CENTS

to cover postage and packing and receive this valuable collection of seeds. Together with my big instructive, beautiful Seed and Plant Book, tells all about Buckbee's "Full of Life" Seeds. Plants, etc.

H.W. BUCKBEE

Rockford Seed Co.,
Farm 100 Rockford, Ill.

ALFALFA

The Kind That Produces Per Acre in Profits \$90

Can be grown anywhere successfully. The secret is pure seed—the Galloway kind—and system of inoculating and growing. Investigate today. Don't expect time and money. Write for

ALLOWAY'S Big 1914 Pure Seed Book

or send ten cents and get our new 62-page 25-cent book entitled "How to Grow Alfalfa, the Wonder Crop"—a mine of information; tells how to get a sure "catch," prepare ground, inoculate, protect, harvest and many other new facts and important discoveries.

GALLOWAY BROS.-BOWMAN CO.

45 Galloway St., Waterloo, Iowa.

BUY Trees At Wholesale

and Save Agents' and Dealers' Profits.

Apples 7c; Peaches 7c; Cherries 13c; Plums 15c; Pears 15c. A complete list of varieties.

SPECIALTIES

St. Regis Everbearing Red Raspberry	\$4.00 per 100
Black Pearl Black Raspberry	\$4.00 per 100
Giant Himalaya Blackberry	\$5.00 per 100
Senator Dunlap Strawberry	\$2.75 per 1000
Carolina, Lombardy and Norway Poplar	\$3.00 per 100
Concord Grapes	\$2.00 per 100

Many other items equally low in price. Quality the best.

Headquarters for Small Fruit Plants of all kinds—Flowering Shrubs, Roses, Perennials, Asparagus, Rhubarb, etc. We Pay the Freight on all orders amounting to \$10 or over. Free Catalog.

HOLSINGER BROS. NURSERY,

Box 208, Rosedale, Kansas.

Do You Have to be Shown?

I'm told that I have the best quality of seed, give the largest packages and have the most complete non-sensational book in the bunch. And I'm willing to admit it. Do you have to be shown? All right, I live close to the Missouri line and I'll "show" you. I'll send you the Seed Book and a package of garden seeds, and you can judge for yourself. NO CHARGE FOR EITHER, and you need not even send the postage unless you wish.

I also have guaranteed Clover and Alfalfa, and all kinds of farm seed at Farmer's Prices. Shall I send you free samples of these also?

HENRY FIELD, Pres.

HENRY FIELD SEED CO., Box 60, Shenandoah, Iowa.

Cane Saves Corn

An acre of sorghum has more food value than an acre of corn. It is the best kind of winter forage. Assure yourself a good yield by buying Griswold's good seed, government tested, and backed by our guarantee. Write for instructive free book. All kinds of seed at money-saving prices.

GRISWOLD SEED CO.

111 So. 10th Street, Lincoln, Nebr.

32 NICE POST CARDS

different sorts, and a Good Magazine for one year. The WHOLE THING for only ten cents.

ROBERTS & CO., 3247 WOOD ST., CHICAGO, ILL.

DON'T MISS

these announcements that are now appearing in this publication, from time to time, relating to

Landreth's

Seeds Which Succeed

There will be another one soon. Look for it. It tells you how to get the big new catalogue for the coming season.

D. LANDRETH SEED CO.
BRISTOL, PENNA.

VEGETABLE AND FLOWER SEEDS

BY MAIL POST PAID



Best Western Grown. Tested and Pedigreed. Safe delivery guaranteed. Write NOW for large FREE CATALOG. Tells all about our Dependable Grades of Seeds, Trees, Shrubs and Nursery Stock; also Poultry Supplies. Try our selected DRY FARMING SEEDS.

COLORADO SEED AND NURSERY CO.
1509 CHAMPA STREET, DENVER, COLORADO.

NURSERY STOCK

Dollar Specials

50 Concord Grapes \$1
20 Apples \$1
20 Peaches \$1

Hardy, vigorous, thrifty. All guaranteed. Only best stock shipped. Catalog and 25c Dues Bill sent FREE.

Fairbury Nurseries
Box J, Fairbury, Neb.

Greenwood County Nursery

Established 1890. Write for catalogue and price list of Fruit Trees, Grapevines, Berry Plants, Rhubarb, Asparagus and Speciosa Catalpa. Certificate of Nursery Inspection with each Shipment.

J. W. HINSHAW, Eureka, Kansas

BUY TREES THAT GROW

A complete line of FRUIT, SHADE AND ORNAMENTAL TREES, SHRUB VINES, FOREST SEEDLINGS, etc. It pays to buy good stock. Write today for catalogue.

Wellington Nurseries
Worden & Co., Wellington, Ka.

GOOD SEEDS

Best Crop Insurance

MISSOURI BRAND SEEDS are tested, selected and adapted to your section. Increase your crop by sowing the right kind of seeds. Write today for our new free catalogue.

Missouri Seed Co.
11 LIBERTY KANSAS CITY, MO.

SEED CORN

Test before paying a cent. Our northern grown seed corn is best for your locality. We have the kinds that will make good with you. Our guarantee positively the strongest. You keep the seed corn 15 days before paying us. Write for free catalogue today

Vermillion Seed Co., Vermillion, South Dakota

40 ACRES sold to So. progressive, Americans and other best everbearers. Get acquainted offer for testing. Send us 10c for mailing expense, and we will send you 6 high quality everbearing plants (worth \$1) and guarantee them to fruit all summer and fall, or money refunded. Catalogue with history FREE if you write today.

THE GARDNER NURSERY CO.
Box 133 OSAGE, IOWA

Sand Vetch

The Hardest Forage Crop and Greatest Fertilizer

Our harry Sand Vetch will grow anywhere, regardless of heat, cold or drought. Especially good for sandy, dry land. Crops range from 6 to 10 tons per acre. Excellent feed for growing animals or milch cows; 25 per cent more valuable than any other fertilizer. Send for free catalogue.

Griswold Seed Co., 141 So. Tenth Street, Lincoln, Neb.

CLOVER \$5.00 FOR 100 BU.

AND TIMOTHY

Investigate—Best and Cheapest Seeding Known. Alsike Clover and Timothy mixed. Fully 1-2 tons, a big bargain. Greatest hay and pasture combination grown. Write for Free Sample and 16-page catalogue and circulars describing this wonderful grass mixture. Seeds anything you can sow and ridiculously cheap. We handle only best tested reselected seed guaranteed. Write before advance.

L. A. BERRY SEED CO., Box 535, Clarinda, Iowa

Grange Program For February

BY L. S. FRY,
Lecturer, Manhattan, Kan.

For February meetings of the Kansas State Grange, the following suggestive program has been prepared:

First Meeting—Roll call, responded to with something about the early school days, the teacher, the school house or some incident relating to your chums of those days.

Discussion—How to make a day or evening at the Grange worth more than we are now getting from it.

Current events of the old year that are of special interest to the members of our order, by a sister.

Second Meeting—Fifteen minutes' song practice; the benefits to be derived from a lecturer's conference, by the lecturer.

Debate—Resolved, that the government should purchase and operate the telegraph and telephone lines of the United States.

Discussion—By a sister, How, when, and why use a King road drag? Meeting to be interspersed with songs and recitations.

Some additional topics:

Resolved, that Kansas should have a high school for each six or eight country school districts.

Chances for saving in the home.

gine—that is, portable rigs or a stationary rig.

Providing you wish to use a saw with this engine, I would advise that you use a 24-inch circular saw, not over 28-inch. You should use a balance wheel which should weigh not to exceed 70 pounds; I think 50 would be better.

If you wish to buy the stationary rig for this size saw and motor, it will cost about \$22; the saw will cost about \$4, or for the total, about \$26.

Tenants Need a Fair Deal

Why not think of the landless farmers? They read articles on building up the soil, rotation of crops, conservation and home-building. How is a renter going to do any of these things when his occupancy of the farm may terminate at the end of the year? Most landlords will only rent from year to year, because they are afraid they will discover some discrepancy in their tenant, or they will want to raise the rent on him if they find he is doing well and is contented.

I had that experience once. I raised the rental value of a man's farm from \$4 to \$10 an acre, giving one-half share crop rent and; then he came back at me the next year for three-fifths of the crop because he thought I was making

A Kansas Day Soliloquy

By Mrs. Belle Diehl, Dodge City, Kan.

We're going out to Kansas
To join the farmer band,
To settle on a homestead
Or buy a piece of land.

We'll wrestle with stern nature
As pioneers must do—
Build characters that conquer,
In men and women too.

I heard a sleek land agent
Tell where to get a home,
That beats the land o' Canaan
For fertile, prairie loam.

He calls it "Sunny Kansas",
This land of hopes and joys.
So its westward ho, we'll journey
To raise our girls and boys.

We'll build a roomy cottage
Wherein to dwell and rest,
Enjoying all the blessings
Abounding in the West.

It must be neat and cozy
With room enough to spare,
But full of human kindness
And comforts everywhere.

We'll send the kids to college
When through with public school.
We'll plant crops in rotation
By scientific rule.

We'll use gang plows and engines
And big Missouri mules
To help us in the handling
Of farm and farming tools.

This sounds a lot like building,
Of castles in the air—
These idle dreams of Kansas
When we are settled there.

But Kansans seldom falter
In what they aim to do.
Their pluck and perseverance
Just make their dreams come true.

We'll cultivate our talents
And make of each the best
While building up an empire
And homes out in the West.

Some may prefer a palace
Or cottage by the sea,
But a simple Kansas homestead
Is good enough for me.

How much is lost in this neighborhood by improper care of eggs?

Could this Grange and neighborhood support a course of lectures or entertainments?

Resolved, that a man working in the house is a bigger nuisance than a woman out of doors.

What is meant by the Torrens system of land transfers?

I am planning for a few conferences during February at points as convenient as possible for the Granges concerned. I shall be glad to receive suggestions as to localities and time for holding meetings.

Engine for a Saw

A. C. Dannenberg of Hiawatha, Kan., writes the Motor Car department of the Mail and Breeze asking for advice in getting an engine to operate a circular saw. The reply is from the Automobile Training School, Eleventh and Locust streets, Kansas City, Mo.:

In the first place, I think you will find that a one and a half horsepower gas engine is too small for practical use with a circular saw. Of course for sawing small material such as stove-wood and such, it would possibly be entirely satisfactory. Usually a three or four horsepower engine is used for this purpose and you can buy rigs which are supplied with or without the en-

gine—that is, portable rigs or a stationary rig.

Providing you wish to use a saw with this engine, I would advise that you use a 24-inch circular saw, not over 28-inch. You should use a balance wheel which should weigh not to exceed 70 pounds; I think 50 would be better.

If you wish to buy the stationary rig for this size saw and motor, it will cost about \$22; the saw will cost about \$4, or for the total, about \$26.

SEED CORN

Our corn is grown in Oklahoma. Hand-selected and tipped. It is much better for Kansas and Oklahoma than Northern-grown corn.

Prices delivered your station freight paid and bags free.

	Bu.	10 Bu.
White Wonder	\$2.00	\$19.00
Silver Mine	2.15	20.00
Golden Beauty	2.15	20.00
Improved Strawberry	2.25	21.00
Bloody Butcher	2.25	21.00

Request Sample on **STAR MILL & E. CO., Amarillo, Texas**
P. S. We specialize in Texas Red Rust Proof seed oats.

Get ISBELL'S Seed Catalog!

—Just Off the Press!

Get the ISBELL catalog—plant ISBELL'S Northern-Grown Vegetable and Flower Seeds. Buy from actual GROWERS. ISBELL'S seeds insure profit and pleasure.

120 Pages, Richly Illustrated

Special Offers on the best seeds grown. Don't buy seeds until you get ISBELL'S Catalog.

Isbell's Famous "Collections"

Bargain offers on various choice ISBELL Collections. Investigate.

Send a Postal for Catalog of America's choicest seeds. Valuable hints on planting, cultivating, etc. 823

S. M. ISBELL & Co., Pearl St., Jackson, Mich.

Hill's Evergreens Grow

Best for windbreaks. Protect crops and stock. Keep home and barn warmer—save fuel—save feed. Hill's evergreens are hardy, nursery-grown—low priced. Get Hill's free illustrated evergreen book and list of Great Bargain Offers—from \$4.50 up per Thousand. 56 years experience—World's largest growers. Write.

D. HILL NURSERY CO., Inc.
823 Cedar St., Danville, Ill. — Specialists.

Free Catalog

FREE BIG CATALOG OF LIVE SEEDS

and Plants and Fkt. Giant Fanny. Sent FREE. Best New Seeds sure to grow, at low prices. Gardens call for Wholesale List.

ALBERT BROS.
No. 11A. E. L., Rockford, Ill.

INCE TREES

Economical to buy—profitable to raise. Grow under ideal conditions of soil and climate—backed by the reputation and guarantee of the "Ince Boys." Ince Trees make paying orchards. Write for Free Catalog. High grade representatives wanted.

INCE NURSERY COMPANY
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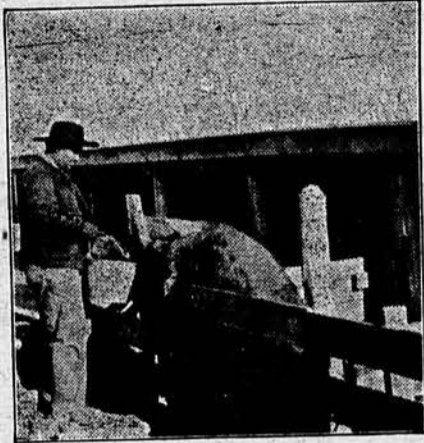
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These Farmers Get Results

With a County Agent the Leavenworth Progressive Agricultural Club Makes a Record

THERE has been a large increase in the acreage of legumes in Leavenworth county since the Leavenworth Progressive Agricultural club was organized in February, 1911. This association has 109 members. It was the first county organization in Kansas to obtain a farm agent. P. H. Ross began work as the county farm agent of Leavenworth county, August 1, 1912.



"Let's have that dinner."

Leavenworth county had 2340 acres of alfalfa when the county club was organized. This had increased to 6,348 acres by 1912. Now there is more than 8,000 acres of this crop in Leavenworth county. The acreage of the other legumes has increased also, with an especially keen interest in cowpeas.

The club was exceedingly active in the fight against chinch bugs last fall. The members are divided into 10 township organizations, and these appointed leaders in the chinch bug war for every school district. November 26 was selected as the "burning day" for chinch bugs, and the bluestem and bunch grass went up in smoke in most communities on that day. Some burning was done later.

Mr. Ross wrote to the railroads, and obtained good co-operation from them in the work. All section foremen in the county were ordered to see that the grass was burned on the railroad right of way. This was important, for the grass along the railroads and public roads is where a high proportion of the bugs live in the winter.

Much effort, also, has been made in the fight against the Hessian fly. The fly damage has been considerable in Leavenworth county in the past, largely because the farmers have been sowing their wheat too early. Seeding should not be started before October 1. The farmers were so well united this year that more than 85 per cent of the crop was sown after that date, although the rule has been that seeding usually was started about September 15. There is almost no damage to the late wheat.

An excellent example is to be seen on the farm of W. R. Green in the southwest corner of Leavenworth county showing the difference in Hessian fly damage on early and late sown wheat. Mr. Green sowed all of his wheat after October 1, and there is no fly in it, but some volunteer wheat that came up in an adjoining field about the time the first wheat usually is sown in that section was almost killed by the insects.

"I regard the increasing interest in alfalfa as a healthy sign for a better agriculture in this county," said Mr. Ross, the agent. "We have a glacial soil that will grow alfalfa well if it is properly handled; and it is one of the most profitable crops that can be grown even without considering the soil."

"Farmers have obtained good stands

of alfalfa here in many ways, of course, but one of the methods that has given especially good results is to sow the crop after oats. The preparation of the seedbed should be started at least a year before the seed is sown by plowing the ground deeply, at least seven inches, in the fall. Leave the ground rough through the winter and sow three bushels of oats in the spring for hay.

Cut these oats just after they have passed out of the milk stage, and double-disk the land promptly; this usually will be the third or fourth week in June.

"The land should then be disked enough to keep the weeds down and leave a good soil mulch on the ground until the seed is planted. Alfalfa can be sown the first time in August that the moisture conditions are right. It is not best to sow the seed unless there is enough moisture in the soil to germinate it and all the plants to grow properly. The seedbed for alfalfa must not be loose; it must be rather firm with a little loose dirt on top. In this way one generally can get this condition without much trouble."

It is extremely important that good alfalfa seed should be used and for that reason Mr. Ross has been making an earnest effort to encourage seed testing. He has had all the field seeds tested free of charge, that have been brought to him. There are two important things to guard against in buying alfalfa seed: One is to get seed that will germinate well and the other is to have it free from weed seeds. Mr. Ross believes that 15 pounds an acre is enough if one drills the seed, but if he sows it broadcast 20 pounds is better.

"Soil inoculation with alfalfa bacteria is important in Leavenworth county, and these bacteria should always be added when one is sowing the crop on the ground for the first time," Mr. Ross said. "One should use 200 pounds of soil an acre from an old alfalfa or sweet clover field, as this method is more certain than artificial cultures. It can be sown broadcast from a wagon. It is important that the work should be done on a cloudy day, so that the bacteria will not be injured by the bright sunlight. The ground should be harrowed soon after the soil is sown."

While alfalfa usually grows well in Leavenworth county, there is considerable interest in fertilizers for it, so this fall Mr. Ross made five tests with commercial fertilizers, to see what profits could be made. John Gable, near Lansing, and W. A. Amend, near Basehor, are co-operating in fertilizer tests on wheat. There is not so much need for fertilizers in Leavenworth county as there is in some other places, but some of this material is being used. Consider-

(Continued on Page 37.)



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No Dual Purpose Animals?

Kansas Stock Breeders Apparently Don't Believe There Is Such a Thing—Notes of the Annual Meeting

KANSAS livestock breeders believe that the farm animals of the state must be improved if the business is to continue to be profitable. Many influences are at work to change the conditions in the industry, two of the important ones being the high price of feed and the low tariff rates, and it is only the high class animals which are efficient meat producers that can make a profit. These facts were forcefully brought out and discussed last week in the meeting of the Kansas Improved Stock Breeders' association in Topeka.

Most of the livestock men have no belief in the dual purpose animal; they don't believe there is any such animal. As Professor A. S. Neale of the Kansas Agricultural college said: "There have been a great many efforts in recent years to breed high-producing dairy cattle carrying the heavy fleshing characteristics of the beef cow, but failure has been the result. The thick fleshing

objection made favorable mention of the work of the college. It is evident that the Kansas Agricultural college has some mighty good friends in the Kansas Improved Stock Breeders' association.

There was much interest taken in a talk made by A. C. Pierce of Junction City. Mr. Pierce built the first silo in Kansas 35 years ago, and it is in good condition yet. Clarence H. White of Burlington read a paper on "Who Shall Be a Breeder of Shorthorn Cattle?" in which he made a forceful plea for better beef cattle on the average Kansas farm. J. L. Papes of Mulvane read a paper on the "Development of a Dairy Community" in which he told of the growth of the dairy industry at Mulvane. In the course of his address, he said:

Dairy Cow Neglected.

"The man who causes two blades of alfalfa to grow where but one grew before is something in the way of a human benefactor. But he really is not in the same class with him who increases the herd of dairy cows to eat that alfalfa, and convert it into milk. Much attention has been given the beef steer, which after two years of fruitless existence, yields considerably less than a thousand pounds of food from his carcass. The efficient dairy cow has been almost wholly neglected. Yet she will produce from 6,000 to 10,000 pounds of nourishing human food in a single year and at the same time produce an offspring that one chance in two will duplicate the production inside of three years. And the dairy cow does not die to do this, but will do as well or better next year."

Mulvane, according to Mr. Papes, was helped materially when the milk condensary was established at that place. The farmers had been raising wheat, and the land was gradually losing its fertility. Now that dairying has taken the place of beef and wheat, something is being put into the soil that is increasing its value.

In the last three years, the amount of milk delivered to the condensary was about 30 million pounds, and the cash value has exceeded 1/2 million dollars. In 1912 one convert to the dairy business made \$1,436 off 17 1/2 acres. On seven acres of this he raised corn and the other 10 1/2 acres produced alfalfa. The value of the milk marketed during 1913 was more than \$200,000, and within the next few years the community expects to market 1/2 million dollars' worth, annually.

Kansas has about 6,000 silos, and the community of Mulvane has 150 of them. The Mulvane farmers realized that the silo was a good guarantee against total crop failures.

Stubbs's Dairy.

Ex-Governor Stubbs owns a half section of land near Mulvane and has started to make of it a high class dairy farm. He has placed at the head of his herd the famous sire, Gem Petertje Paul DeKol, who headed the Pabst Holstein herd at Oconomowoc, Wis. These facts were given by Mr. Papes to illustrate that Mulvane is becoming the Holstein center of Kansas. Breeders in that section have organized the Southern Kansas Holstein Breeders' association.

Mrs. Cora W. Bullard of Tonganoxie, spoke on the relation of the home to the development of the farm. She contends that there should be much co-operation between members of the family. Mrs. Bullard gave a few raps at bachelors in the course of her address.

Dr. A. E. Holt of Manhattan, spoke on "Fighting Off Peasantry or Prevention of a Scrub Stock." The speaker said that it must be recognized that the city has offered the high goal in American life. The rural population is decreasing, and the farmers in many sections of the country for the most part do not own their own land. In Kansas between 30 and 40 per cent of the farmers till soil which they do not own. There should be better organization in the communities, according to the speaker. Leaders with progressive ideas should be given a chance to use their ability for good.

T. H. Terry of Bavaria, was elected president of the Kansas Improved Stock

(Continued on Page 37.)



T. H. Terry, president of the Improved Stock Breeders' association for 1914.

characteristic of the good beef cows is not combined with high and profitable milk production of the good dairy cow. Each are special purpose animals inheriting the tendency in one case to turn feed into beef, in the other to turn it into milk."

W. A. Cochel's Talk.

W. A. Cochel, professor of animal husbandry in the Kansas Agricultural college, spoke on "Roughage in Beef Production." He showed that with the increase in the price of grains and concentrated feeds it is essential that more of the gains with beef animals should be made with roughage. He called attention to the differences this was causing in the feeding practices; many years ago one of the main boasts of a feeder was that his animals were eating more than a half bushel of corn a day, but now he was equally proud of the fact that equal gains were being made with less than a peck of corn and a more careful use of roughage.

Professor Cochel made a plea for a larger acreage of the legumes, especially alfalfa, and for an increase in the number of silos. Kafir and cane silage have a feeding value that is equal to corn silage, as was shown in the feeding results at the Kansas Agricultural college last spring, and Professor Cochel believes that there should be a great increase in the planting of these crops for silage, where the corn crop may be cut short by drouth. He believes the crop should be planted for the silo which will make the largest amount of silage.

After Professor Cochel had finished, one member objected to the feeding of show animals at the college, on the grounds that the gains were not financially profitable. In answer to this, Professor Cochel showed that the premiums and sales from the breeding herd for the last three years had been more than enough to pay the costs, and in addition to this the college has received an immense amount of publicity from the show herd. A large number of the members of the association took part in the discussions about the show herd, and all except the member who raised the origi-

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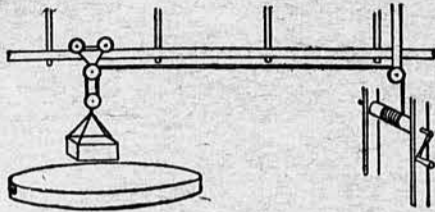
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dumping bucket. After being dumped the earth and stone was removed to a nearby corral with a slip scraper.

The 9-foot silo has a capacity of 26 tons. It cost us \$30 to do the digging, remove the earth, put in collar, and attend the plasterer. The sand at \$1.75 a yard came to \$6.75, cement at 55 cents \$18.70, and blasting material \$2.80. The plasterer's bill was \$2.50, all of which totaled up \$60.75. On the same basis



Silage hoister on the Kyle farm.

the 12-foot silo cost \$85.55 to construct. It holds 40 tons. These figures include our own time and that of the team.

It took 30 acres of fodder to fill these two silos—65 loads in all. In 1912 we had 6 acres of kafir that would have filled them to overflowing. The expense of filling was about \$1 a ton. It cost \$1 an acre to cut the corn which meant almost 50 cents a ton.

We opened the 9-foot silo October 8

gait. He is a willing worker up to the limit of endurance; after that he takes care of himself. The horse, on the other hand, has a tendency to walk faster and hurry when he gets warm. He is thus more easily overheated than the mule and not so safe a work animal for hired help.

There were 822,000 mules in the United States in 1867. These mules were valued at \$66.94 a head. This number has steadily increased until January 1, 1913, there were 4,386,000 valued at \$124.31 a mule. There were 222,000 mules valued at \$114 a head on Kansas farms a year ago. The valuation had increased \$0 a head over the preceding year. The average increase for the whole of the United States was only \$3.80. This shows that the Kansas mule has improved more in quality than the mules of some other sections. The improvement of the horse stock of the state may account for some of this increase in value. The constant demand for better jacks has also brought great improvement.

Some horsemen condemn the mule, but if this animal is bred and used in the right way he may be the most efficient means of bringing about improvement of the horses of the state. One of the best and quickest ways to free the horses of unsoundnesses is to breed



The Farmer's Good Friend.

and eight milk cows and two spring calves have been fed almost exclusively from it ever since. They had very little alfalfa or fodder in addition. Today (December 21) there is still 6 1-2 feet of silage left and it had settled 3 feet below the collar when opened.

I have a shed, open to the south, built over both silos. A Porter track with carrier is swung overhead and the silage is hoisted by means of a windlass at the feedway door. The drawing shows the plan. We raise about 150 pounds at a hoist. When the second silo is opened we will simply move the trip block on the track over this silo and will be ready to take out the silage.
Mankato, Kan. I. W. Kyle.

The Mule, a Good Friend

BY TURNER WRIGHT.

The mule long has been the favorite motive power in the South. He is patient and enduring and is a popular work animal where inefficient labor is employed. This is due no doubt to his inherent nature. When the mule gets warm he goes slowly and no amount of persuading can make him strike a faster

all defective mares, and all mares that are off type to jacks, and thus stop the reproduction of their kind. Mules from this class of mares will earn the farmer more money than horse colts from the same mares.

Mules have held an important place in the livestock world for many years. It has been said that mules never die but that they do pass on. They find a ready market and are shipped out of the country before they are old enough to die. The first account of the mule is when it was found running wild in the woods on Mount Seir. Mules were used to pay taxes 900 years before the Christian era and they have been paying taxes ever since. It is often said that the mule is the same as a bank note. Perhaps that is why King David honored King Solomon by having him placed on his own mule. Mules and other merchandise were shown at the fairs of Tyrus 500 years before the birth of Christ. They form an important part of our state fairs today.

If you make up your mind that you can't do it, that settles it. A good many people tie that stone around their own necks.

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WATCH, RING & CHAIN FREE We give this handsome silver watch, ring and chain free to all who send \$2 to pay for a three-year new, renewal or extension subscription to Farmers Mail and Breeze. We will send one set free and prepaid for three one-year subscriptions to the Mail and Breeze at our regular rate of \$1 per year. One of these subscriptions may be your own renewal, but the other two must be new subscriptions. If you want to be sure of securing one of these beautiful sets before our offer is withdrawn clip out the coupon and send it in today. Address

6 Beautiful Narcissus Silver Tablespoons FREE

To Match Our Teaspoons
Extra Special 20-Day Offer To Mail and Breeze Readers!

Here is a chance for every housewife who reads the Mail and Breeze to secure absolutely free a set of 6 of our famous Narcissus Silver Plated Table Spoons. During the past 5 years we have given away thousands of sets of these beautiful table spoons, but never before have we been in a position to make such an attractive offer as we are now making to the women folks who read the Mail and Breeze. Owing to our large purchases we have secured a price on these spoons which we believe is about one-fourth the price any local dealer would ask for the same grade of goods. We have searched through the silver plate markets of the world and have never been able to find, at anything near the same cost, goods of such remarkable wearing qualities and of such beautiful design as this justly famous Narcissus set.

Full Standard Length and Weight

These are not small sized dessert spoons which are usually offered as premiums. These spoons are all full standard table spoon size, 8 1/4 inches long—handle 5 1/4 inches long, bowl 3 inches long and 1 3/4 inches wide. They are silver plated and handsomely engraved and embossed in the beautiful Narcissus design, same as the Narcissus teaspoons which we have been giving away for more than two years. Bowl is highly polished and the handle finished in the popular French gray style. The Narcissus design extends the full length of the handle on both sides. The gray finish of the handle contrasts with the bright polished bowl and produces an effect that is decidedly pleasing. We could send you hundreds of enthusiastic letters from those of our readers who have received these spoons on other offers we have made in the past. We know they will please you, too—and if they don't you can send them back within 5 days and we will cheerfully refund every penny of your money.

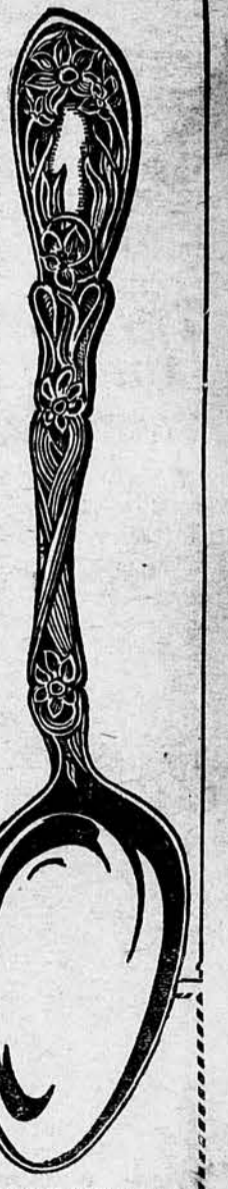
Here Is Our Offer:

For the next 20 days, or as long as our supply lasts, we will give one set of 6 Narcissus Table Spoons free and postpaid to all who fill out the coupon printed below and send \$2 to pay for a three-year new, renewal or extension subscription to Farmers Mail and Breeze. We will send one set free and postpaid for three one-year subscriptions to the Mail and Breeze at our regular rate of \$1 per year. One of these subscriptions may be your own renewal, but the other two must be new subscriptions. If you want to be sure of securing one of these beautiful sets before our offer is withdrawn clip out the coupon and send it in today. Address

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Use This Coupon Now!

Publisher Mail and Breeze, Topeka, Kansas.
I am enclosing herewith \$2 to pay in advance for a three-year subscription to Farmers Mail and Breeze. You are to send me as a free premium, postpaid, one set of 6 full size Narcissus Silver Plated Table Spoons.
This is a (new) (renewal) (extension) subscription.
Name.....
Address.....
(If you send 3 one-year subscriptions use a separate sheet of paper for the 3 names.)



It's Secretary Mohler Now

F. D. Coburn Resigned From His Position at the Meeting of the State Board of Agriculture at Topeka

THE resignation of F. D. Coburn as secretary of the state board of agriculture and the election of his assistant, Jacob C. Mohler, to that place was the feature of the meeting of the board at Topeka last week. Mr. Mohler was nominated by A. W. Smith of McPherson, the vice-president, and no other name was placed before the board. His election was unanimous. Mr. Coburn's resignation will take effect June 30.

Mr. Mohler has been in the office of the state board of agriculture 22 years. His father was secretary of the board 20 years ago, before Mr. Coburn's term of office began. Mr. Mohler was born on a farm in Osborne county in 1875, and he lived there until he was 13 years old. He came to Topeka in 1888, and attended Washburn until he had to quit and go to work. His connection with the department of agriculture began in 1892.

"I am deeply grateful for the consideration you have shown me," said Mr.



Jacob C. Mohler, new secretary of the state board of agriculture.

Mohler, in the course of an address to the board following his election as secretary. "I pledge myself to do the best work I can for this organization, and for the upbuilding of Kansas agriculture."

Coburn's Great Work.

The kindest of feelings was expressed toward Mr. Coburn by the members of the board, who believe that he has done a great work for Kansas. Mr. Coburn believes that he has been in public office long enough, and he wishes to retire to private life while he still is strong, and able to give the people of Kansas the best service. He does not think that a man should stay in office after he is too old to do active work. Mr. Coburn now is 68 years old. A very kind resolution was adopted by the board expressing sorrow over Mr. Coburn's resignation, which said in part:

Therefore, Be it Resolved, That it is with profound sorrow that we part officially with one who has been so efficient, agreeable and patriotic to the people of Kansas, and assure him that he retires to private life with the confidence, esteem and gracious benediction of not only this board in particular, but of the people of Kansas as a whole, and it is the prayer of all that the blessings of health and prosperity may attend him in all his future endeavors.

George B. Ross, the president of the board, in the course of his opening address, told of the need of encouraging the younger farmers of Kansas to attend the meetings of the board. He said in part: "What we need here is a larger attendance of real, enthusiastic, progressive farmers. They are the ones that put real life in an agricultural meeting. In Kansas today we have a large number of strong and enthusiastic County Farmers' institutes. In order to get these county institutes more closely identified with the state board of agriculture I would suggest a change in our present law, permitting each of the county organizations to send a real, active delegate to the annual meeting of the

state board of agriculture, where he or she would be allowed a voice in the election of our members."

L. A. Fitz, professor of milling industry in the Kansas Agricultural college, made a plea for better wheat in Kansas and better methods of caring for the crop. He believes that the state inspection force should have more power over the state shipments of grain, and that the department should be placed on a civil service basis. He urged that greater care be given to the handling of wheat in the field, so the quality will be high.

A stimulus to agriculture is not given by increased prices, according to R. A. Pearson, president of Iowa State college, who spoke on the topic, "Farmers as Scientists." To prove this, Mr. Pearson

showed that in a period when the price of products increased 7 per cent the prices of building material and labor increased 10 per cent. The farmer is not getting the benefit of increased prices. Mr. Pearson told of the advance of scientific farming and the benefits coming from scientific study of farm study and conditions. "I am speaking this evening on woman, the eternal feminine, as unchangeable as weather," said Mrs. May Belleville Brown in opening her address. "What will woman do with herself? She has started a new chapter in the book of life because of more leisure, due to the changed economic conditions. It rests with women whether she enters new fields or becomes a parasite upon society. Now she must choose and upon her choice lies the hope of civilization."

In addition to the secretary, the officers of the board of agriculture for the coming year will be: George B. Ross of Sterling, president; A. W. Smith of McPherson, vice president, and J. T. Tredway of La Harpe, treasurer. The

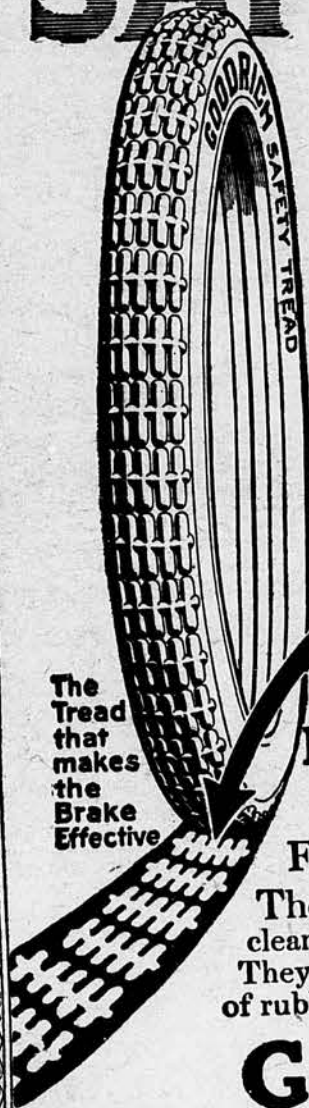
board of directors for 1914 will remain the same as for 1913 with one exception. J. C. Robison of Towanda was succeeded by E. E. Frizell, former mayor of Larned. Thomas M. Potter of Peabody, T. A. Hubbard of Wellington, R. B. Ward of Belleville, and H. M. Laing of Russell, were elected for two-year terms, and H. S. Thompson of Sylvia, for one year. The other members hold over another year.

George B. Ross, F. D. Coburn, H. S. Thompson, and T. A. Hubbard were selected as representatives of the board of agriculture on the Kansas State Fair board.

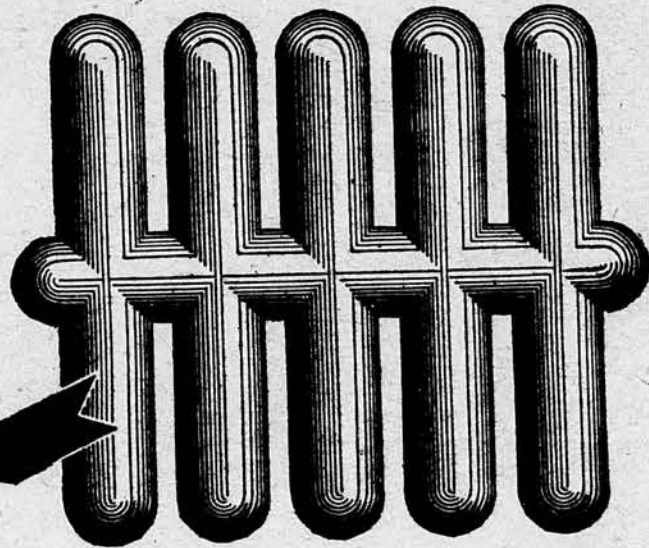
Elk County Has Cows.

G. S. McCallum of Elk county, Kan., calls attention to the fact that he remembers the time when there were no dairy cows in that part of the state. "Today we have several creameries, one of the largest in the state, which receives its supply of cream from hundreds of dairy cows," he said.

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30 x 3 1/2	15.75	17.00	35 x 4 1/2	34.00	36.05
32 x 3 1/2	16.75	18.10	36 x 4 1/2	35.00	37.10
33 x 4	23.55	25.25	37 x 5	41.95	44.45
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Why Keep Profitless Cows?

Scales and a Babcock Tester Will Give the Answer

BY A. S. NEALE
Kansas Agricultural College

JUST why some men persist in keeping cows that are not paying their board is not easily understood. I think that if all the cows in Kansas were tested today, and those sold that were not paying for the feed they consume, we would not have more than half the cows left in the state. And yet from the dairyman's standpoint, this is exactly the thing that should be done. A pair of scales and a Babcock tester will reveal the exact condition and will open the dairyman's eyes in a way nothing else can do.

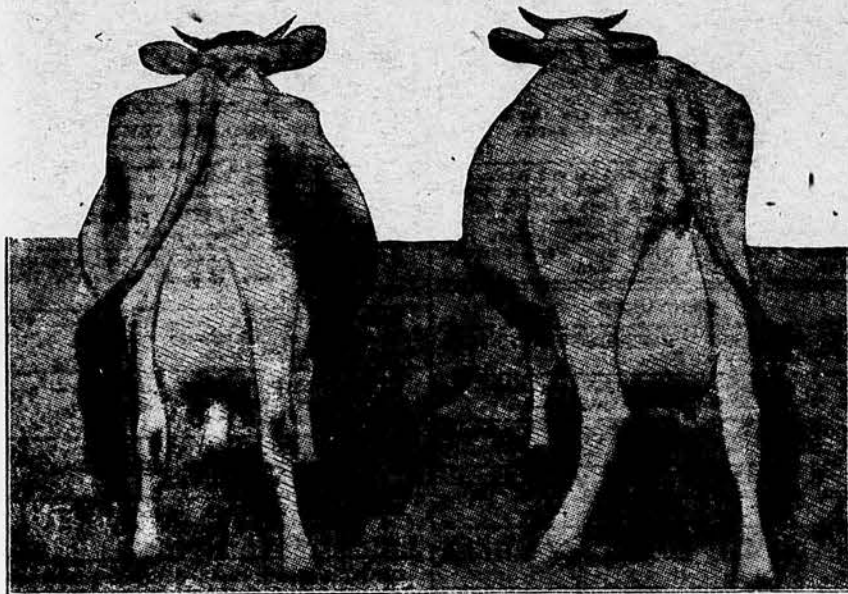
For example, a cow testing association was formed in Dickinson county a year ago, with 379 cows included in the herds under test. Only 133 of these cows completed a year's work. Some freshened during the year, and did not have a twelve-month test, but many were sold as not worth keeping. Those completing the year's work were divided into two groups at the end of the year. Sixty-five produced an average of 7,400 pounds of milk, and 311 pounds of butter fat each, consuming an average of \$40.66 worth of feed; 68 produced 4,872 pounds of milk, and 186 pounds of butter fat, consuming \$30.99 worth of feed to the cow. The best cow of this association produced 546

self at least once, if not several times. She can be made a permanent investment, if by judicious breeding she produces daughters of equal value. Is it not reasonable then to estimate her value considerably above that at which she would ordinarily sell? On the other hand, if the average cow records a loss of more than \$13 a year, is it not folly to pay more for her than she is worth for beef, and is it a good business proposition to keep a lot of such cows on our farms?

Why Not Grade Up?

If such cows as this can be produced by a breeding up process, is it not the wise thing for every man who wishes cows for dairy purposes to begin to grade up at once? It is a deplorable fact that the men who need to study the breeding problems most, that is the farmers with the poorest cows, are the ones who are most careless about it.

A statewide cow competition was held two years ago in Wisconsin in which authentic records were kept for one year of 395 cows. Fifty of these cows were grades. Five were Holstein, 24 Guernsey, 21 Jersey grades. The average production of these grades was 16,879 pounds of milk, and 555 pounds



The man who has special purpose dairy cows, like these two "Jersey milking machines," is fortunate. Often the grade dairy cow properly handled will prove her worth.

pounds of butter fat, 13,698 pounds of milk, and consumed \$65.91 worth of feed. The poorest cow in the lot produced 59 pounds of butter fat and 1,418 pounds of milk, costing \$33.23 for feed.

The Better Cow's Value.

When you compare these records you can get an idea of the value of the better cow. Figuring her returns at 25 cents a pound of butterfat and 30 cents a hundred for skim milk, we have a net return of \$104.33 over feed cost, while in the case of the other cow the return above feed cost is \$8.61. In other words, it would require 12 cows of the latter class to produce as much profit over feed cost as this one best cow produced. If to the cost of feed we add all the other expenses, such as labor, interest on the investment, deterioration and risk, which amounts to not less than \$30 a cow a year, we would find that the poorer cow would leave us \$21.39 in debt, while the better cow would still give a profit of \$74.83.

The question arises as to what is the value of the better cow, the owner has refused \$150 for her and she is only a grade. If we figure her value as an ordinary business investment is figured, we will find that it runs to an enormously high figure. If there were no risks attached to her life and she would continue living and producing this amount year after year, it would be possible to capitalize her at \$1,247.16 on a basis of 6 per cent interest. This cow will live only five or ten years longer and there is considerable risk to run, yet it is perfectly safe to assume that she will reproduce her

of butter fat for the Holsteins; 10,073 pounds of milk and 475 pounds of butterfat for the Guerneys, and 6,890 pounds of milk, and 364.5 pounds of butterfat for the Jerseys. The cost of feed was: Holstein, \$101.26; Guernsey, \$71.12; Jersey, \$62.45, and the net returns were from \$50 to \$81 a cow. If such results can be produced by the grading up process in Wisconsin, there is no reason why it cannot be done in Kansas.

Why go on producing cows that will never pay for their keep when we can have the profitable sort? In selecting the sire to mate with grade cows it is as important to look for high breeding as in selecting the sire for the purebred herd. In fact I sometimes think it is more important. The man with the grade cows needs the improvement more than the man with the purebreds. The better the sire, the greater the improvement. Consequently he should not hesitate to pay a few dollars more and get the best. There are in Kansas many men who have only a few cows, and when they have used the scales and Babcock tester for a year they will have still fewer. They do not feel that they can afford to buy a \$100 bull. Suppose this sire increases the production of a cow only 50 pounds of fat a year; that we get only five cows from him, and that they are in milk six years, our gain is 1,500 pounds of butterfat, worth \$375. We can afford to pay \$100 for him; give him away when through with him; pay interest on investment and cost of keep for five years, and still have \$100 profit. I believe that every man, even

(Continued on Page 25.)

No Excuse for any Cow Owner Being Without a DE LAVAL CREAM SEPARATOR

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ANY creameryman or experienced dairyman will tell you that a good cream separator will give you a great deal more and a great deal better cream or butter than you can produce with any gravity setting system.



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YOU cannot make the excuse that you can't afford to buy a De Laval, because it not only will save its cost over any gravity setting in six months and any other separator in a year but is sold either for cash or on such liberal terms that it will actually pay for itself.

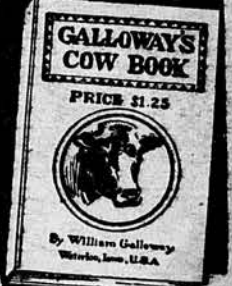
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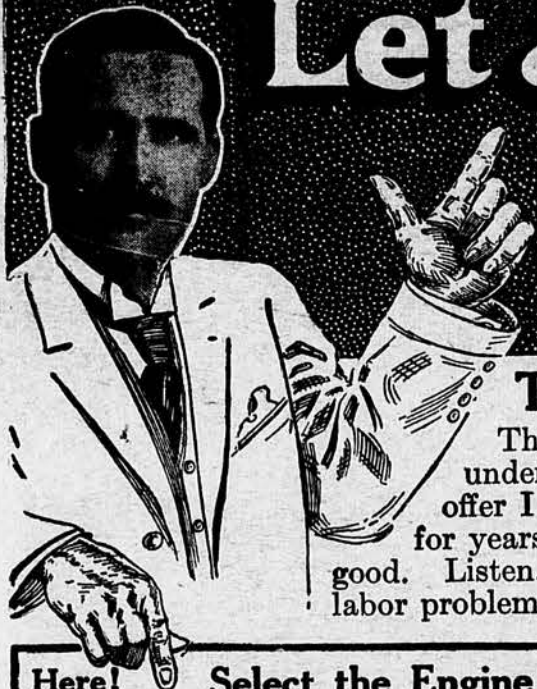
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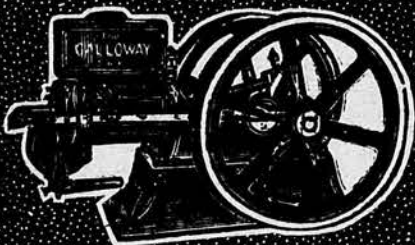
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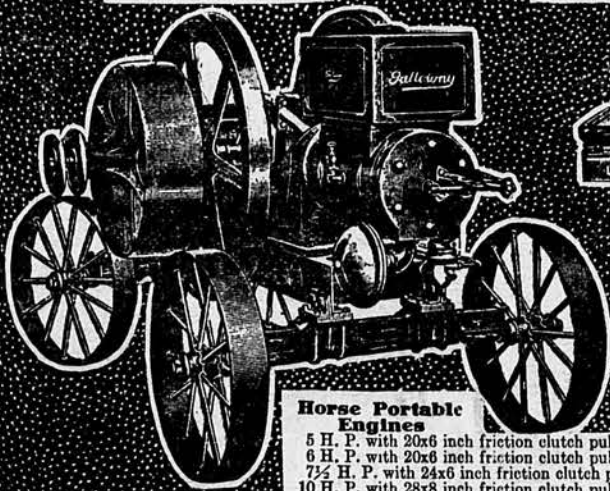
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It will come the nearest to solving the labor problem for you of any machine you can buy. It will pump water, grind feed, saw wood, run the shredder, silo filler, sheller, washing machine, churn, and nearly every machine you have on the farm. It saves you time for other work. You simply can't afford to be without one. They are the cheapest help you can buy. And you want to buy the best engine that you can find on the market selling at the lowest price. That means the Galloway. No one can compete with me in price and quality, the great combination that has made my business the big success it is today. Just notice my different styles and sizes of engines shown on this page with my new, low, direct-from-factory prices. Select the engine that fits your requirements best and send for one on trial. You take no risk whatever. My engines are sold backed by a \$25,000 bond. They must give you satisfaction or you can return them and I will refund your money and pay all the freight. But I know they will please you as they are high quality engines, backed by a five year written guarantee in "black and white" on materials. Give the Galloway a thirty days' trial on your farm at my risk. Send for my catalog giving all the facts. Don't buy an engine of any style or make until you have first tried the Galloway.

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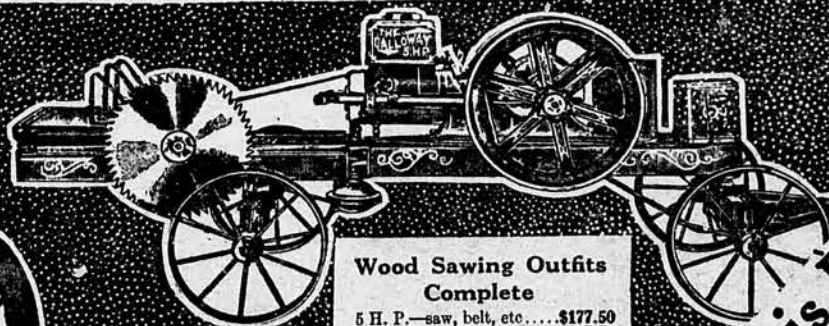
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12 Fall Yearlings that are big and the kind the breeders are looking for.

36 Early Spring Gilts that are the tops of a big crop of spring pigs.

The fall and spring gilts are out of the grand good sows offered in this dispersion and are from big litters and the best evidence of the worth of the sows offered. They were sired by Dreamland Col., by Waveland Col., Riverbend Col., by Muncie Chief and L. C.'s Defender, by Defender. These herd boars will be sold in this dispersion.

I am also selling in this sale a lot of nice thrifty fall pigs of both sexes sired by these boars and out of good dams.

Leon Carter, Asherville, Kan.

Auctioneers—John Brennen, Will Myers, W. C. Curphey. Fieldman—J. W. Johnson.

Howell Bros., Herkimer, Kan., Sell 50 DUROC-JERSEY BRED SOWS AND GILTS

at auction at their farm five miles from Herkimer, on the Grand Island R. R., and five miles from Marietta, on the Blue Valley Branch U. P.,

Tuesday, Feb. 3, 1914

The offering is one of unusual merit and will prove one of the best that will be sold in the West this winter.

15 spring and summer yearlings that have farrowed one litter each, 5 great fall gilts and 30 spring gilts, the tops of 55 head, make up the offering. The spring and summer yearlings are by Joe's Pride, Wide Awake Lad and Howell's Model. The spring gilts are mostly by Joe's Pride.

The catalog is ready and will be sent upon request by return mail. Address

HOWELL BROS., Herkimer, Kan.

Free transportation from stations to the farm and return. Sale in comfortable quarters.

Auctioneers: R. L. Harriman, Jas. T. McCulloch, F. E. Kenney. J. W. Johnson, Fieldman.

BRED SOW SALE Duroc Jerseys MONDAY, FEBRUARY 9

The offering consists of 40 early spring gilts, two choice tried sows and three young boars.

The 40 spring gilts are well grown, best of colors and have bone, quality and finish. They were sired by Defiance 2nd, Red Bobby, Model Top, Rambler's Wonder, 2nd Climax, and B. & C.'s Col. Chief. They are bred to B. & C.'s Col. Chief, Defiance 2nd and Chief Model Top. The tried sows are of choice breeding and good individually. They are bred of early spring farrow and are good producers. The dams of the gilts are my choice herd sows of popular blood lines and have been bought and reserved because of their ability to produce the kind that make up my offering of gilts this season. I believe these gilts to be as good as will go through a sale ring this season. Catalogs are ready to mail and will be sent upon request and by return mail. Sale in town. Free hotel accommodations for breeders from a distance. Address,

E. A. Trump, Formoso, Kan.

AUCTIONEERS—John Brennen, J. A. Howell.
FIELDMAN—J. W. Johnson.

J. H. Hamilton & Son's 10th Annual Bred Sow Sale of Big Smooth

POLAND CHINAS

Guide Rock, Neb.

Tuesday, Feb. 3, 1914

The offering numbers 35 head of choice bred sows and consists of 15 fall yearlings, 10 tried sows and 10 picked spring gilts. The tried sows are big, smooth individuals in the prime of usefulness and two of them are by Choice Goods. The others are of popular blood lines and worthy in every respect. The 15 fall yearlings are by Long Boy 3d, by Long Boy 2d (Peter Mouw breeding) and will be found one of the best lots of young brood sows offered this winter. The 10 spring gilts were sired by Referendum Jr., by Referendum, a prominent herd boar. They are well grown and extra choice. The entire offering will be found in perfect breeding form and immune. Everything bred for spring farrow to our herd boars.

Sale in town in comfortable quarters. Free hotel accommodations. Write for catalog which is ready to mail. Address

J. H. HAMILTON & SON, GUIDE ROCK, NEB.

Auctioneers: John Brennen, G. G. Denny, R. Peters. J. W. Johnson, Fieldman.

SHORTHORN BULLS: THREE 12 MONTHS OLD BULLS, GOOD ONES, Sired by the pure Scotch Bull, Red Monarch listed in the catalogue.

Northern Kansas Duroc-Jersey Bred Sow Sale Circuit

150 Immune bred sows from three prominent herds. Good morning and evening train service. Catalogs ready. Attend the three sales. John W. Johnson, Fieldman

W. E. MONASMITH'S BIG REDUCTION SALE

IN HIS OWN SALE PAVILION AT HIS FARM TWO MILES NORTH OF FORMOSO, KAN., THURSDAY, JANUARY 29.

THURSDAY, JANUARY 29. The first sale in the circuit and free conveyance to and from the sale. 10 TRIED SOWS, 12 FALL GILTS AND 30 SPRING GILTS

With much regret it has been decided to sell in this sale the great breeding boar Kansas Special and his assistant, Col. Gene. Kansas Special is one of the most popular herd boars in northern Kansas and is just in his prime. He should have been at the shows last season. Col. Gene is a coming sire of real merit.

The sows and gilts are all bred for March and April farrow to these boars. Of the 30 spring gilts three are by Kansas Special, seven by Col. Gene, three by Dreamland Col., 12 by L. C.'s Defender, three by College Boy 2nd, and two by Riverbend Col. Eight of the 12 fall gilts were sired by old Bonney K. The 10 tried sows are of the best of popular breeding and right in every way. Catalogs ready now. Address

W. E. MONASMITH, Formoso, Kansas

AUCTIONEERS—John Brennen, Ned Price.

FIELDMAN—John W. Johnson.

N. B. PRICE'S DISPERSION OF TOPS

AT MANKATO, KAN., UNDER COVER, FRIDAY, JANUARY 30

Mr. Price is leaving the farm which he has been operating for a number of years and for this reason is dispersing his entire herd. The heaviest buyer of top Duroc-Jersey bred sows at public sales and at private sale last winter was N. B. Price and the tops of the entire herd go in this dispersion sale. There will be seven tried sows (the tops of 20 head), a number of fall gilts and 21 winter and spring gilts.

Three Great Herd Boars Included in the Offering

These herd boars represent the leading families of Duroc-Jerseys and are individuals of merit. They have been purchased with care and at great expense to use in this herd. They go to the high bidder without reserve.

The sows and gilts in the sale, as has already been stated are the tops of the entire herd. They have been carefully conditioned and bred with a view to their future usefulness and make up one of the strong offerings, both in breeding and individual merit, of the season. Catalogs ready now. Address

Auctioneer—John Brennen.
Fieldman—John W. Johnson.

N. B. PRICE, Mankato, Kansas

Draft Sale of Immune Duroc-Jersey Brood Sows

From the R & S Farm, January 31, 1914, Smith Center, Kansas

This sale will consist of 60 head of bred gilts and tried sows that are of unsurpassed breeding and quality from the Golden Model, Crimson Wonder, and Colonel families.

At the head of our herd we have R. & S. Crimson Wonder, sired by Crimson Wonder Again and out of a Valley King Dam; Model Hero, a half brother of the noted sire Golden Model 2nd, sired by Golden Model Col. Muncie, sired by Dreamland Col., out of a Muncie Chief Dam.

This consignment represents the seven years' experience of selecting and mating for a better production, and we believe that we have accomplished a great deal along this line. We will say that this is the best lot we have ever put through the sale ring, and will be the best lot of this number that will be sold in Kansas this year, they are all uniform in the dark cherry color, the best feet and bone, extra length, fine head and ear and the high arched back.

We have fought the battle through this season's high prices of feed and have immuned our entire herd, and have selected and kept this royal lot of seed hogs and will carefully feed them up to the near spring pasture for you. We want you to come and see this offering and you will have your "Hats Off" to a good lot of useful sows, and we want you to make us some liberal bids.

If you can't attend the sale write for catalog and send your bids to the fieldman and he will see that you get what you want.

Sale will be held at the Fair Grounds adjoining town. Catalogs ready.

AUCTIONEERS—Col. Jno. Brennen. Col. N. B. Price.
FIELDMAN—J. W. Johnson.

RINEHART & SON, Smith Center, Kansas

Pleasant Valley Stock Farm Seventh Annual Sale

Devon, Kan., Saturday, February 7, Beginning at 10 A.M.

(Devon is twelve miles N. W. of Ft. Scott, Kans. Special train leaves Ft. Scott in time for the sale and returns to meet all trains on the Katy, Frisco and main line of the Missouri Pacific.)

I will sell five imported and American bred Percheron stallions, and one imported Belgian stallion, imported last January, by W. H. Bayless & Co., of Blue Mound, Kan. Everyone of these are first class and guaranteed.

TWELVE STRICTLY HIGH CLASS BIG BONE JACKS AS GOOD AS EVER WENT THROUGH A SALE. No better bred in America.

TWENTY HIGH GRADE PERCHERON MARES, ALL BRED TO MAGRUDE'S QUANTRELL Vol. 2 A. J. R. (50536), one of the best jacks in the whole country. A jack that I sold for \$1,500 this fall.

JONITHAN 7366, the imported Belgian stallion weighed 1825 lbs. in breeding shape. This is a great horse and right every way.

LAMONT 75653 P. S. B., foaled May 18, 1904, bred by E. T. Philpott of Iowa, weighs 2000 lbs.

TEDDY (register number will be furnished) foaled April 19, 1910, bred by Ira K. Kinnie, Hamilton, Mo., sired by Arlilan 45654 by Casino 27836, tracing to Brilliant and Cocoa on paternal side, out of Bessie K. 47338, by Quaker 14205 and tracing to Brilliant-Cocoa 11th and to Blucher, on the maternal side.

All of these stallions except one are under five years old. Pedigrees of the jacks and stallions may be seen by sending for a catalogue.

J. A. GODMAN, Devon, Ks.

P. S. I will sell one hundred head of cattle beginning at 10 o'clock a. m., and ten head of as good mules as can be found.

Get Your Cream Separator NOW

\$2 DOWN

Only One Year To Pay

Most Women Prefer the New Butterfly; It's so easy to clean.

Here is the opportunity you have been waiting for—a chance to get one of these big-capacity, light-running, easy-cleaning, close-skimming New Butterfly Cream Separators without taking the money out of your pocket.

By paying only \$2 down, you can get the biggest machine we make, use it 30 days free, then if you decide to keep it pay us the rest of our low factory-to-farm price (only \$24 and up) in small, easy installments. You can make these payments monthly out of the extra cream profits which the machine will save for you. You buy direct from the manufacturer and save half. You try the machine 30 days on your own farm before you decide to keep it. You get a signed lifetime guarantee. You have the benefit of this great labor-saving machine while it is earning its own cost and more. You don't risk a single penny. We pay the freight both ways if the separator fails to please you. Get your separator NOW at factory prices and on terms so easy you won't feel the cost at all.



New Butterfly Cream Separators

will make you \$10 to \$15 a year more profit from every cow you own. They are handsome, high-grade, durable machines. The most modern and convenient separator you can buy. No other separator costs more to make, has so many patented improvements or gives you as much value for your money. We will prove this on your own farm, or no sale. Thousands are in daily use all over the United States. Read the letter at right.

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Lifetime Guarantee

Fill out the coupon below—mail it to us right away for free catalog folder. Get our big special offer on the five sizes of machines we make, so you can pick out the one that exactly suits your requirements. We will ship it to you on our easy payment terms of only \$2 down and let you try it 30 days on your own farm. When the 30 days are up, if for any reason you are not pleased—if you don't prefer the New Butterfly to any other separator you ever saw or used—just return the machine to us. We will pay the freight both ways and refund your first payment. You won't be out a single penny.

Every New Butterfly Separator is guaranteed against defects in material and workmanship, regardless of how many years you have used it. No other separator manufacturer will give you this signed lifetime guarantee.

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Gentlemen: The New Butterfly Cream Separator works fine and we are well pleased with it in every respect. We are especially pleased with its light running and easy cleaning. It is the easiest cleaned machine in the neighborhood, and there are all kinds here.
Yours truly,
CHARLES BONHAM.
R. No. 6, Harrison, Ohio

No. 5 1/2
One-Piece Aluminum Skimming Device
Frictionless Pivot Ball-Bearings; Open, Easily-Cleaned Milk and Cream Spouts; Self-Draining Bowl and Tank.

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Our Big Illustrated Catalog Folder tells all about this wonderful machine, contains letters from many users, shows large colored illustrations, pictures the machine in use; shows how every part is made, and tells you all about our factory-to-farm self-earning separator plan. Fill out the coupon at left—mail it to us today for the Free Catalog Folder and BIG SPECIAL OFFER.

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Albaugh-Dover Co., 2183 Marshall Blvd., Chicago, Ill.
Gentlemen: Please send me at once your big colored Catalog Folder, with full description, illustrations, factory prices and self-earning, easy-payment terms on the New Butterfly Cream Separator. I keep _____ cows.

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