

# KANSAS FARMER

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## Breeding Agricultural Plants

PROF. H. F. ROBERTS

K. S. A. C.

The era of plant breeding has only begun. We are scarcely more than entered upon the threshold of the age of plant improvement. When we look abroad over the vast world of plants and see the immense resources that still lie hidden and untouched for lack of men and money and intelligence to study their uses, we find little of which to boast in the progress that we have made in the improvement of agriculture through the breeding of plants. Most of our advances in this direction have been a series of stumbling, blundering accidents, like the discovery of the Concord grape in Massachusetts or of the seedless orange in Brazil. Yet these two discoveries alone are of what immense value to mankind. As a matter of fact, up to the most recent times, we have made no conscious, intelligent, well-directed efforts toward the breeding of improved races of plants. The little that has been done has been so much talked and written about and so extensively advertised, that people have come to think that the human race has the resources of the plant kingdom pretty well in hand. But this is not so. It is not more than ten years since the re-discovery of Mendel's experiments, which opened up to us the true nature of hybrids. It is no longer ago than 1901 that the epoch-making discoveries of De Vries concerning mutation in plants were first published. It is only within the last five years or so that plant breeding in any definite, logical, scientific sense, became a part of the business of the American experiment stations. It is only within the very latest years indeed, that the stations have begun to employ investigators in that special field. To the writer's knowledge only one university (Cornell), maintains as yet a chair of plant breeding. I have said that little progress in the improvement of plants has been made in the past. The reason is clear. People did not know—scientists did not know—the fundamental laws underlying breeding, until Mendel's papers became known. The domain of plant hybridization remained until then, an utter chaos of contradictions, a hopeless mess of confused details. Out of the rubbish of this ignorance we are now arranging and sorting out useful facts in accordance with definite laws. We do not all agree yet as to the reasons for the laws, but there is no dispute about the laws. We now know that everything that we expect to get in the breeding of plants, must depend ultimately on the laws governing the behavior of crosses. We go out into the field, and find, discover, or select, a "superior" plant of any kind whatever. How did it get its characters that make it "superior?" It got them from its parents, and the characters were somehow shuffled together in the cross. While therefore the plant breeder has to keep his eyes open and alert to discover what nature has already produced in this way, his larger business is going to be to create consciously these new forms. That is what, in the domain of fruits and ornamental flowers, Mr. Burbank has done and is doing in California. That is what Professor Hansan of South Dakota, who will some day rank as one of the greatest benefactors of the west, is doing in his inclement climate, which rejects the strawberry, the peach, the cherry, and even the ordinary apple.

But Hansan found the humble sand-cherry, which only birds and boys and other wild animals eat, and by crossing this hardy plant with all sorts of our best cherries and plums he has succeeded in bringing into existence hardy cherries and plums for the bitter cold northwest, that rival in size and flavor the tender sorts. The same he has done for the strawberry by making crosses upon the wild strawberry, and so on. Some day the whole northwest will be planted with his fruits, and the inhabitants will give the full measure of praise to this most modest and unassuming and retiring investigator.

Far down in Texas lives an old man, a gentleman of the old school,

T. V. Munson, the greatest American authority on grapes, and the greatest breeder of the grape we have yet produced. In the study of this plant he has spent a lifetime, and in the new and superior sorts of grapes Munson has produced, he will be remembered long after most of our politicians and multi-millionaires have been forgotten.

And so one could go on naming one after another the men who are devoting themselves to one of the most beneficent of human occupations—that of the moulding of new races of plants for the use of man. Now, for the most part, the plant breeder must either languish in neglected obscurity, and make the breed-

ing of plants a side issue, to be cultivated incidentally out of spare moments in the day's occupation, or else, on the other hand he must suffer like Burbank, the fate of becoming an exploited monstrosity, a "wizard," who merely has to wave some kind of a magic wand, to set the whole plant world topsy-turvy, and cause new and astonishing races of plants to issue in phalanxes from his ark. The industry of the snap-shot reporters, whose ignorance of the laws of plants is made up for by their liberal use of adjectives, has been responsible for the creation of the "wizard" idea in plant breeding, and for the making of wizards themselves.

Now to come down to Kansas, which is the particular rectangle on the planet that we happen to inhabit, what can we do here and now to improve the plants that we grow here, and how are we going to do it. For some four years the present writer has been endeavoring to make progress in this direction, and although, like most of the other breeders of plants in our experiment stations, he has had many additional duties to fulfill, yet something substantial has been accomplished. The writer believes therefore, that he is at least tolerably well prepared to answer the inquiry of the editor of the KANSAS FARMER, as to what the Kansas Experiment Station has done and can do, and is going to do to improve our plants. By selection alone, Professor TenEyck has done an inestimable service to the various races of corn, sorghum, Kafir corn and wheat. Thousands of bushels of these grains in many different varieties have thereby gotten into the hands of farmers in better and purer condition than they could have been had from any other source. Increased yields in all these crops have been reported all over the state by growers of Professor TenEyck's selected races of cereals.

The present writer has confined his work of breeding hitherto to wheat and alfalfa, and has now in progress of increase several hundred absolutely pure bred races of wheat, some of which are going to ultimately replace the wheat now being grown. These pure bred races of wheat, the writer has obtained by the selection of one single head, as the progenitor of each race. This summer's harvest will give us seed for the milling and baking tests, which the new department of experimental milling is going to handle. The public may be interested to know that we are also engaged in rearing pure bred strains of the yeast plant for these tests of the raising quality of the gluten. We want to make all the conditions for this experiment as uniform as possible. The writer ought to say further that aside from selecting and rearing pure bred wheat by selection, he is now growing the first generation of wheat hybrids made between the pure bred strains. This work of hybridization is going to be the most important end of our wheat breeding work. By selecting and growing pure races of wheat, we get the material for important crosses, and we now know enough about the laws governing wheat crosses to operate intelligently and to advantage, something impossible in the past.

In alfalfa, we have over a dozen pure bred strains, each of which dates (Continued on page 25.)

### It is better to be safe than sorry

IT IS BAD BUSINESS TO PUT POOR SEED INTO GOOD SOIL. IT COSTS JUST AS MUCH TO CULTIVATE AND YOU DON'T GIVE THE RAIN AND SUNSHINE A FAIR CHANCE TO DO THEIR BEST UNLESS YOU USE PURE, CLEAN SEED TIME CANT BE TURNED BACK TO MAKE UP LOSS FROM SEED FAILURE



"You wouldn't have your hired man working half-time; Why have your soil idling for want of the best seed you can get?"

# SEASONABLE SPRAYING

*Prof. Albert Dickens, K. S. A. C.*

The subject of spraying has been discussed from more different points of view than almost any other subject that concerns the horticulturist. It should be remembered in the first place that spraying is largely preventive in its purpose. The object of spraying is to prevent the insects developing within the fruit, or to prevent the spores of fungus disease entering the tissues of the leaves or fruit. The first question to answer is, what is the matter with the plant? If it is the attacks of insects which bite the leaves or fruits, some poison must be applied to the surface that will kill the insect. The canker worm, potato beetle, and codling moth, are common examples of the biting insects.

Insects which suck the sap, of which San Jose scale is a well known example, must be killed by contact. Something must be applied which will kill by destroying the tissue of the insect. The fungus diseases which develop upon the leaves and fruits, while differing widely in their botanical characters, have life histories that are quite similar in general, and the treatment differs only in the requirements of time and strength of application. Some acquaintance with the insects and disease is part of the fruit growers' working capital. The entomologist, botanist, and horticulturist, at the Experiment Station receive hundreds of specimens each year for identification, and this correspondence work carried on has been the means of widely spreading the knowledge of these orchard enemies. Many orchardists are now fairly well versed in the appearance of plant diseases, and have a fair knowledge of insects they have obtained in this way. This knowledge is necessary for successful spraying. The old fashioned "shot gun" description, putting in a little of everything and a hope to catch all the enemies is not the ideal of up-to-date spraying.

The loss from codling moth has been enormous. An apple with a worm in it or one in which a worm has developed is not tolerated in good society. It may by the help of the knife pass the cook and help fill the pies or cored and trimmed may get into "second grade dries" but rarely pays its way.

The loss to the growers from having wormy apples offered for sale is very great. Even the keenest appetite is dulled when the halved apple shows the presence or work of the worm, and the customer is quite likely to "take oranges for his" the next meal. The market demands sound apples and the spray pump is the machine which must be depended upon to annihilate the enemy.

The diseases, scab, blotch, and bitter rot are already causing heavy losses to Kansas growers, and any preventive measures must include spraying.

Recent experience serves to emphasize the value of high pressure. In spraying for codling moth, the mixture is forced into the calyx or blossom end of the young apple and the chance of the early death of the young worm is greatly increased. A pressure of 100 pounds to 150 pounds is recommended. Spraying from above the tree should also be emphasized especially for the first spray for codling moth, the small apples are still "blossom end up" and the spray can be more certainly be placed where it can do the most good. This first spray is the all important one for the codling moth.

Arsenate of lead has been the most satisfactory insecticide. It has been less liable to cause injury, and has adhered to foliage and fruit very much longer. It is rather more expensive than Paris green, but it has been well worth the difference in price. The commercial brands of arsenate of lead sold as "Disparene" and "Target Brand" have proved satisfactory. The cheapest and at the same time a very satisfactory form of arsenate of lead was largely used at Hutchinson during the season of 1906, and was made by combining acetate of lead with arsenate of soda in the proportion of three pounds of arsenate of soda to seven pounds of acetate of lead. This mixture was satisfactory in every way.

The most satisfactory fungicide is



the Bordeaux mixture, composed of sulfate of copper (blue stone, blue vitriol) and lime. Various proportions have been used, but the formula four pounds sulfate of copper and four pounds of quicklime to fifty gallons of water has been most used in late years.

Copper sulfate varies somewhat in composition, and Bordeaux mixture should be tested before using in order that any excess of copper, which is liable to cause injury, may be detected and neutralized with more lime. Blue litmus paper has been used to make the test. If it remains unchanged it is safe. If it turns red, more lime should be added. Ferrocyanide of potassium is one of the most satisfactory tests. After the mixture has been thoroughly mixed, a sample is taken from the tank and a few drops of the ferrocyanide added. If a reddish brown precipitate appears the mixture has an excess of copper, and lime should be added until the drops of ferrocyanide remain unchanged.

#### PUMP AND POWER.

A good spray pump must have sufficient force to cover the plant treated with a very fine mist. The pump must have force, and a good nozzle must be used. There are several good forms of nozzles. The Vermorel, Demorel and Mixtry have all given good service and satisfaction.

The number of nozzles used, and consequently the rate of spraying depends upon the power. Any good hand pump operated by a strong man should furnish power for a double nozzle upon a single lead of hose. The hand pump is a good spray machine for the small grower. It should be a good one, with working parts (plunger, valve, air-chamber and cylinder) of brass. A pump of this kind has been used ten years with entire satisfaction. About the cheapest arrangement is that of mounting the pump upon a barrel and placing this with other barrels containing water and chemicals in a wagon, but where

trees are low-headed it is often difficult to get the wagon in the best position for spraying.

With a barrel pump and wagon two men should spray from seven to fifteen trees per hour, depending upon the size of trees and the convenience of water supply.

For extensive operations a pump operated by a gasoline engine has been most satisfactory when everything is considered. The gasoline engine is a rather delicate machine, and some delays have been occasioned by failure of the engines to work. It is essential that the engine be covered in some way to protect it from the spray materials. In one instance an unprotected engine gave serious trouble before it had been in use one season. The chemicals used in spraying had so seriously corroded some parts of the dynamo used for a "sparker" that they had to be replaced. It is perhaps needless to say that any spraying machinery should be thoroughly cleaned before it is stored after each spraying, and especially so after the season's work is completed.

For operations on a large scale, a sprayer operated by compressed air has a number of advantages. Geo. C. Richardson, manager of the Missouri Valley Orchard Company, assembled an outfit for use in the company's orchards at Tonganoxie, that has much to recommend it. The special advantages of the compressed air outfit over the gasoline or other power sprayers is that the mechanical work is all done at the central charging plant, thus requiring the service of but one skilled man.

The central plant consists of an engine to operate the air compressor and pump, and a five-horsepower gasoline engine will do this. In the accompanying illustration a steam engine is being used to operate the machines and at the same time to cook the lime-sulfur wash. If a gasoline engine furnishes the power a small portable boiler would be required if the lime-sulfur was made and applied.



When the gasoline engine furnishes the power, the engine, air compressor and pump are mounted on a platform wagon. Mr. Richardson's wagon is made with both front and hind wheels on axles carrying a large fifth wheel, such as are used in heavy transfer wagons, enabling the driver to make a very short turn. The platform wagon also carries two mixing tanks of one hundred and fifty gallons capacity each, and one tank of three hundred gallons capacity for spray materials ready for use. Mr. Richardson's supply of water is secured from ponds, a number of which have been constructed in convenient locations throughout the orchard. When it returns to the supply station the operator observes the gauge; if much below one hundred and twenty-five he connects the compressor, increases it to one hundred and twenty-five pounds, and again fills the spray material tank as before. No time is lost by transferring liquids and the men with the hose leads and nozzles are kept busy.

The gasoline engine pumps the water from the ponds into the mixing tanks, from these to the supply tank, then to the tanks on the spray wagon. Each spray wagon carries two steel tanks thirty inches in diameter and forty-nine inches high, each of one hundred and fifty gallons capacity, one for compressed air and one for spray material. The spray material tank is equipped with pressure gauge glass to indicate spray material connections for hose spray lines; both tanks have openings on top and bottom to make flexible connections, one with the other, and each opening is equipped with a gate valve. The base and connections used are the same as used on air brakes on railway cars.

With the spray materials mixed in the large tank the spray wagon is driven by the side of the platform wagon carrying the compressor and engine. Connection is made with the air tank and the valve connecting air tank and spray material tank opened. The compressor then pumps up the air pressure to one hundred and twenty-five pounds. Then the air hose is disconnected and the force pump connected and the spray material tank is pumped full against the pressure of one hundred and twenty-five pounds. When the glass shows the tank full, the pressure registers two hundred and fifty pounds on the gauge. The filling of the spray material tank drives the air from that tank into the air tank. When full the valves are closed and the wagon goes to the orchard. Connections are made there with the hose leadlines and business begins. The air pressure keeps the material well stirred and when all liquid is exhausted the pressure registers slightly less than one hundred and twenty-five pounds, owing to possible leakage.

The economy of the air compressor and tanks is that the machinery is located at a central point under the care of a skilled operator, the only mechanical devices on the tanks being valves and stopcocks that do not often cause any serious inconvenience. The tanks are charged and driven to the tract to be sprayed, and the men who hold the nozzle rods have only to turn the stopcock and direct the spray.

In the spring of 1906 the Experiment Station assisted in an advisory way in some very extensive spraying operations carried on by the apple growers at Hutchinson, Kan. Interest in spraying there was aroused by the very serious injury to the crop of 1905, by the codling moth. Notes from the work there follow: The operations of Mr. W. H. Underwood were the largest of any undertaken. Four hundred acres were sprayed and fifty acres were unsprayed. His report is as follows:

"In 1905 the crop was very bad, worms in almost every apple. In 1906 we sprayed four hundred acres, leaving fifty unsprayed. We used Bordeaux mixture and arsenate of lead. We take thirty pounds arsenate of soda and suspend it in a linen or cotton sack (so that no fiber will come off) in thirty gallons of water. We then suspend seventy pounds of acetate of lead in another sack in sev-

enty gallons of water. When these are dissolved we run them together into a tank holding one hundred gallons set lower than the two stock tanks so it will run by gravity. When these two colorless liquids come together they make a chemical combination which looks like milk or lime. We then stir thoroughly, and have it stand at least two hours before using. It precipitates very little, but before using we stir thoroughly and then

take out from six to eight gallons of this mixture, which is a pound to the gallon, to put into our 200 gallon spraying tank, giving six to eight pounds of the poison to 200 gallons of water. The government chemist tells us that our mixture is some twenty per cent to twenty-five per cent stronger than the commercial brands of arsenate of lead on the market, and we can mix it cheaper than we can buy the trade arsenates, and have a

stronger article. I think we must have been right, because we secured such excellent results, having changed our crop of year before last of all wormy to about ten per cent wormy this year.

"I cannot answer the question as to what it costs to spray. We have had all in one lot, Bordeaux, poison, labor, machinery, wagons, tanks, and our whole spraying operation has been charged against the crop this

year so as to get it out of the way and forget about it. Even by doing that we made three times the money this year that we ever did before, and I believe the spraying did it. This year from the unsprayed orchard no apples were picked or even sold from the ground. From the sprayed orchard we packed forty per cent to fifty per cent extra fancy, twenty-five per cent No. 1, balance No. 2, and culls."

# TIME RIPE FOR SILO

PROF. A. L. HAECKER

At Convention of Nebraska Dairymen.

The times are very ripe for the silo, and this does not imply that the silo has not been a good thing in the past or that those who have had silos for ten or fifteen years were ahead of their time, but conditions today make the silo more necessary on the average stock farm, than they ever were before.

Land has greatly increased in value and must now earn more than it did in the past. Not only has the price of land increased, but also the cost of roughage and grain which increases materially the cost of feeding stock. Labor has also advanced and as the silo is a labor-saving device for feeding cattle, it should be reckoned in this light. The increased production of alfalfa has been used by some farmers as an argument in opposition to the silo, counting that with good alfalfa hay, they did not need corn ensilage. This I wish to use as an argument for the silo. If a man has alfalfa hay in abundance, then he certainly needs corn ensilage, for as the engine needs coal, it also needs water. In the past, the expensive part of a stock ration was digestible protein and all rations were figured on this basis, when accounting for their cost and value. With alfalfa hay in abundance, the protein side of the ration is well taken care of and the next consideration is to find a cheap, succulent form of carbohydrates. Here is where corn ensilage is unexcelled. By combining these two great food stuffs, alfalfa hay and corn ensilage, we have the cheapest and best source of economic stock feeding.

The silo will be instrumental in promoting winter dairying, and by winter dairying, the profits in the dairy business will be doubled. I was informed recently by a creamery man operating in Nebraska, that his butter output during three months of the summer was equal, in volume, to the other nine months of the year. This necessitates, naturally, a great waste of equipment and labor on the part of the creamery, and as far as the producer is concerned, it is useless to mention the wastefulness of such a method.

### SILLO SAVES LABOR.

The soil will also, to much extent, save labor in feeding and caring for the stock. To have a large supply of succulent forage close at hand, away in good condition, in all kinds of weather, is no small item for the feeder. Those who prefer corn fodder over oats to silage, will admit that their system is very disagreeable during the winter months when the snow and ice have covered the forage and often rendered it totally unfit for stock food. The present custom of allowing the stalks to remain in the field, where they are for a few weeks gleaned by the animals and the balance of the winter, wave at scarecrows in the chilly winds, certainly should be discontinued, for while it is evident this system will be in practice for many years to come, it cannot be profitable to the stock farmer.

It is needless for me in this presentation of the subject to discuss the merits of corn ensilage as a ration for stock. Sufficient experiments have been carried on by hundreds of practical feeders and many experiment stations during the past 25 years to well establish the fact that corn ensilage is a good succulent ration and one which, in many respects, takes the place of pasture. I wish to devote my time principally to the dollars and cents side of the question. In casting about for good reasons why more farmers and stock breeders do not have silos, I have found a few arguments which I will here attempt to answer. One of the first and most frequent heard is that the silo is an expensive equipment and only those

who are well-to-do can afford to maintain one; in other words, they feel too poor to build a silo. Another reason why they do not have a silo is because they claim they have plenty of other feed, in fact, they have feed to sell. In answering the first I will offer a table, which I have compiled from various reports, and which is an attempt to give liberal valuation as to cost and conservative estimates as to yield.

### COST OF SILAGE.

As corn silage is not sold on the market and has no quotation, its value must be found by carefully ascertaining the cost. To find the cost of producing corn ensilage, much averaging is necessary for no two farms report the same figures. In the tables here given, I have taken results from the states of Wisconsin, Iowa, Kansas and Nebraska, and I find the variation among the states much less than would be supposed.

Table showing cost of growing silage corn:

Rent of land per acre.....	\$4.50
Plowing and harrowing.....	2.00
Seed corn.....	.25
Planting.....	.30
Harrowing and cultivating four times.....	2.25
<b>Total.....</b>	<b>\$9.30</b>

Yield, 13 tons per acre.  
Cost per ton, 72c.

Cost of filling the silo:	
11 men at \$2 per day.....	\$22.00
7 teams at \$2.25 per day.....	15.75
1 traction engine per day.....	5.00
Engineer.....	2.00
To coal.....	3.00
<b>Total.....</b>	<b>\$47.75</b>

Silage cut per day, 75 tons.  
Cost to put in silo, per ton, 63c.

Cost of silo and harvesting machinery.....	\$600.00
Interest at 6 per cent.....	36.00
Depreciation and repairs.....	58.00
Taxes and insurance.....	6.00
<b>Total.....</b>	<b>\$700.00</b>

Cutting 400 tons, per ton.....	.25
Cost putting in silo.....	.88
Cost growing corn.....	.72
<b>Total cost for two or more farms, per ton.....</b>	<b>\$1.60</b>

Cost of 150 tons, one farm, per ton..... 2.02

From the table given, it will be seen that an attempt has been made to cover all expenditures liberally and even such items as depreciation and repair of machinery, besides taxes and insurance, are counted. Two total results are given: One intended for farmers who cooperate in their work and use one equipment for filling two or more silos. Naturally it will be seen that such a method would greatly reduce the total cost of the ensilage. Even though the farms are several miles apart it is not difficult to transport the harvesting and cutting machinery and certainly it is advisable when realizing that the saving in the expense of making ensilage by this method is from 40 cents to 50 cents per ton. Where four or five silos are filled on as many farms the total cost of ensilage would be but \$1.50 per ton, while one farm, putting up 150 tons without cooperation or assistance, the cost would be about \$2 per ton.

### PROBLEM OF HELP SOLVED.

It is often argued that it is impossible to find the necessary labor to put up the ensilage at the proper time. This in some cases, no doubt is a vexing problem, but where it is possible to get the grain thrashed in

shock or stack, it is also possible to put up ensilage by the same labor system. Silo filling time comes as a rule between shock and stack thrashing and it would not be difficult in most communities, by arranging ahead of time, to get sufficient help to put up the ensilage. If there are two or more silos in the communities, it is quite easy to put up the ensilage and do it with the greatest economy.

I am often asked concerning the relative value of different kinds of hay and silage. It should be understood that such comparisons are difficult and do not illustrate the full value of the ensilage, for it does not value the succulent nature of the ensilage, or its cooling, appetizing effect on digestion, as with blue-grass, when analyzed fails to show any marked abundance of nutriment and yet we know the beneficial effect of the food. Waiving these, the most valuable qualities in corn ensilage, we can compare it with hay as follows:

Value of corn ensilage based on digestible carbohydrates:

One ton of ensilage equals one ton of sugar beets.

Three tons of ensilage equals one ton clover hay.

Three and one-half tons of ensilage equals one ton alfalfa hay.

One-half ton ensilage equals one ton pumpkins.

In a rude way this table has been compiled to avoid fractions of tons given in terms of pounds. It must, therefore, be considered a rough estimate. However, basing the value of hay at the present price, it will be found that corn ensilage in every case is a cheaper food. The feeding value of corn ensilage, based on present prices of food stuffs, I have placed at \$5 per ton. This is giving ensilage due credit not only for its digestible nutrients, but also, its succulency. Sugar beets are generally based at this price and as the two are about equal in feeding value, we may use the one to base the price of the other. From the figures already given, it will be noticed that the cost of producing corn ensilage under the most expensive system is about \$2 per ton, which gives this food a decided advantage over beets in respect to cost.

### ECONOMY OF THE SILO.

One of the benefits of the silo which is of no small consequence, is its great economy of storage space. We find from estimates made by different experimental stations that the weight of a cubic foot of corn ensilage varies from thirty-five to fifty-five pounds, according to the amount of moisture the ensilage carries and to the location in silos, as too near top or bottom.

The following will show the difference in the space required by hay in mow as compared with ensilage in silo:

One ton of ensilage, 50 cubic feet; one ton of hay, 500 cubic feet; one ton of ensilage, cost to put up, 43c; one ton of hay, cost to put up, \$1.50.

It will be seen that ten times more space is required for hay than ensilage and I do not believe it possible to construct even a cheap hay shed, to say nothing of a barn, for the price required to store the same amount of ensilage. With the ordinary hay loft in a good dairy barn, the cost of storage space would be three times that of the silo.

The above also gives a comparison between the cost of harvesting corn ensilage as compared with hay. It will be seen from these figures that corn ensilage can be put up for nearly one-third the cost of harvesting the hay. These figures do not allow for

interest on money invested in machinery or storage. While hay is about three times richer in food elements, it is still an expensive roughage as compared with silage for stock.

In summing up the subject, it is safe to state that until the feeder can find a food equal to corn ensilage for even twice the cost he had better seriously consider the silo. Under present conditions, I believe that one-fourth of all the farmers keeping stock in the corn belt will find the silo an economic equipment. An acre of corn put in the silo I value at \$55, while the same corn standing in the field and husked in the usual manner I value at \$27. This is accounting for all cost of harvesting. Then an acre in the silo is worth two in the field, or, putting it another way, the silo doubles the value of the corn crop.

By using the silo to furnish carbohydrates and the legumes to furnish the protein, we need have no fear of making a fair revenue from our land, even though it increased in value threefold and we receive the same prices for our products. We are, indeed, a fortunate people to be located in a country where we can produce these two great food elements so cheaply and easily. Now is the time for the farmer to study the silo subject as he never did before. Get silo-wise and don't be afraid to be the first in your community to take up the enterprise. This is my advice to the dairyman and stock farmer.

### The Care of Young Pigs.

Young pigs arrive at the most inclement season of the year. Special care must be taken to preserve them in good health as upon this depends their profit-making capacity. A pig should grow from the start and without being stunted or set back in any way. Unless he does this he cuts into the profits seriously.

If the young pig is not provided with plenty of fresh, clean bedding during these uncertain spring days, he is almost sure to have the scours or to have a cracked and sore skin or else lose his tail. Any of these things, or anything else that makes for his discomfort, will make itself felt in his growth and development.

The dam should be fed sparingly at first, only pure water being given the first day. Feed a little middlings and gradually increase the ration until the pigs are about two weeks old when the sow should be on full feed. Right here is where special care is needed. If the sow is overfed it will react on the pigs and anything that affects them at this time will cost money in their lack of future development.

At three weeks the pigs should be eating and a small trough should be provided for their use in a separate pen. Here is where the value of hand separator milk shows up strong. A little wheat middlings, and later a little corn added, will help along wonderfully. A little care between now and grass will pay big dividends.

The bad effects of the heaving action of frost on the wheat fields has awakened an interest in the possibility of growing spring wheat, as mentioned elsewhere in this paper, but perhaps more farmers are showing interest in the oats crop. Quite a number of farmers have expressed their intention of drilling oats into the wheat ground and using the resulting crop for feed. In many cases this may be the best use that can be made of the land. It is noticeable, however, that the action of the frost on the wheat crop has served to re-awaken a very general interest throughout the state in the subject of crop rotation and many farmers have stated that they wish to sow oats on their wheat land this spring as the beginning of this rotation.



# KANSAS FARMER

## EDITORIAL



W. H. Goodwin, who graduated from the Kansas Agricultural College in 1905, is now assistant entomologist in charge of fruit inspection and investigation in the Ohio State University. He recently visited his home state and his alma mater and reports himself very much pleased with his new work.

Prof. V. M. Shoemith, who was formerly assistant professor of agriculture in the Kansas Agricultural College, and who has been agronomist in the Maryland Experiment Station and professor of agronomy in the Ohio State University since 1907, has recently been elected professor of farm crops in the Michigan Agricultural College, from which he graduated before coming to Kansas.

During the past four years 1940 tests of corn, including 20 varieties; 195 tests of oats, including nine varieties; 314 tests of winter wheat, including over a dozen varieties; 254 tests of soy beans, including seven varieties; and 246 tests of cow-peas including seven varieties were conducted by the Indiana Experiment Station at nearly 3,000 farms well distributed throughout the state.

The government crop reporting board estimates that the amount of old wheat remaining in the hands of the farmers of Kansas on March 1, was 20 per cent of the crop while the 10-year average is 21 per cent for the same date. The amount of corn on hand was 35 per cent as compared with a 10-year average of 35 per cent and the amount of oats was 35 per cent which is exactly the 10-year average. The high prices for grain have evidently not caused the farmers to "sell short."

Announcement has just been made by the Department of the Interior that the Yakima Indian reservation, containing 1,200,000 acres of agricultural and grazing land, will be opened for homestead entry, probably the coming season. Government appraisers are now at work classifying and appraising the land under the heads of agricultural, grazing, timber and mineral land. With the opening of this immense tract to public entry almost the last parcel of public land in the northwest passes from Uncle Sam's domain.

The Government reports show that automobiles are becoming a rapidly increasing factor in international commerce. The value of the world's output of automobiles for 1909 exceeded \$50,000,000 as against \$9,000,000 in 1902. In this trade vehicles of American manufacture supply each year the larger proportion of the world's requirements. At this time France leads the world as an exporter of automobiles while the United States takes second rank. Indications are pointing to a profitable reversal of this position before the end of the year 1910.

Last week the Business Men's Association of Larned, Kan., gave a good roads "smoker" which was attended by more than 300 citizens of the county. The enthusiasm developed insures a new era in the building and maintenance of good roads in this section of the short-grass country. Such a meeting would have been impossible a few years ago because it was thought that the dirt roads of middle and western Kansas would never need any great amount of care. Increased population however, has shown differently and there are now no more enthusiastic sections of the state on the good roads proposition.

Up at the Agricultural College there are now nearly 200 students who are taking special instruction in the poultry department. They are deeply interested in the lectures which include such subjects as breeds, meat type, egg type, feeds, poultry house construction, cement work and the poultry industry as a business. They are also taught judging and the course is made as complete as possible. Hereafter, this instruction has been confined to the short course students but during the spring term the junior students in the regular course will receive the same instruction as a part of their training.

With which is combined FARMERS ADVOCATE. Established 1877.  
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**ADVERTISING RATES.**—25 cents per square line, 14 lines to the inch. Announcements of reputable advertisers respectfully solicited. No medical nor questionable worded advertising accepted. Forms close Monday.

**OUR GUARANTEE.**—It is our belief that all advertisements in this paper are from reliable persons or firms. To show that we are

The dairy department of the Agricultural College is conducting a somewhat novel experiment to test the real value of the succulence in ensilage. There is no question as to the value of ensilage as a feed. There is also no question as to the value of corn stover. One of these, however, is in a succulent condition and the other dry. This experiment contemplates the growing, side by side, of two plots of corn which shall be as nearly equal as possible and one of which shall be made into ensilage, while the other is cut up in the same manner as ensilage but preserved in a dry state for feeding. These will be fed to dairy cattle and accurate records kept in order to determine the value of the succulence of ensilage.

Recently the railroads of Missouri have come to believe that every man who receives instruction in agriculture at Columbia and settles along their lines is an economic asset. After careful investigation of the work of the agricultural department of the University of Missouri, the Frisco Railroad has decided to offer 45 scholarships, each valued at \$100. One scholarship will be awarded in each county through which the Frisco Railroad passes in Missouri. The scholarship will be given to the young man over 16 years of age who grows and exhibits the best 10 ears of corn in each county. This corn will be grown under the direction of the College of Agriculture and finally judged by an expert judge at a county corn show to be held in the fall.

The 500 student boys who went from the Agricultural College to Fort Riley the other day for special instruction in horse judging were given some opportunity for entertainment as well as business. A luncheon was provided for them in the riding hall of the fort after they had spent some time in inspecting the various buildings and stables. Following the work of judging they were treated to an exhibition of fancy riding by Captain Williams and his men in the riding hall. Captain Williams is in charge of the riding school and his company is said to be the best trained in the United States Army. In addition to the regular cavalry drill, exhibitions were given in broad and high jumping and other fancy stunts that are equalled only in a circus of trained performers and horses.

Acting under direction of the State Legislature, Professor TenEyck of the Agricultural College several years ago visited the great wheat fields of Alberta and Saskatchewan for the purpose of determining whether the wheat of that region would be valuable for importation as seed into this state. He reported that the wheat was badly mixed and advised against its importation. At that time, how-

ever, the Experiment Station of Alberta ordered 30 bushels of Turkey Red and the same amount of Karkhoff wheat from the Kansas Station for planting in that province. It is now reported that the Kansas wheat has outyielded the best varieties of Canadian wheat by an average of over 9 bushels per acre and that many thousands of bushels of seed wheat, which originated from this first shipment to Alberta, have been distributed to the farmers.

**CONTRIBUTIONS.**—Correspondence invited on all farm topics, live stock, soil cultivation, grains, grasses, vegetables, household matters, recipes, new and practical farm ideas, farm news, Good photographs of farm scenes, buildings, live stock, etc., are especially invited. Always sign your name, not for publication, unless you desire it, but as an evidence of good faith. Address all communications to

KANSAS FARMER COMPANY,  
Topeka, Kansas.

The recent Rock Island corn special, which was conducted under the auspices of the institute department of the Agricultural College, in connection with the railroad officials, and which traversed the corn belt of Kansas, proved a very successful effort to disseminate real information of a practical value and at the same time bring the farmers in touch with the active work of the college. The crowds in attendance at the different stations were not so large as had been present on other similar trains, but they were excellent in quality and the work done was of real value. During five days that the train was on the road lectures were given at 69 towns. The total attendance was some 6,000 people with an average of about 1,200 per day. Prof. A. M. TenEyck, Supt. J. H. Miller, Asst. P. E. Crabtree of the extension department and J. G. Haney, superintendent of the Deming Ranch at Oswego, Kan., and one of the best corn growers in the west, were the lecturers who accompanied the train.

Reports continue to come in in regard to the winter damage to the wheat crop. It develops, however, that much of this damage was not due to heaving as was first reported, but was attributable to the ice cap which smothered it out. As before mentioned, it was found that those fields in which the seed-bed was poorly prepared suffered the greatest amount of damage. This was especially true in the thick, black soil of some of the central counties. It is now reported that in Pratt county much of the wheat is entirely dead. In Barton county the greatest damage was done on the bottom land where there is a good deal of sand. In Riley county it is said that more than half of the wheat fields will be plowed up. The Agricultural College wheat plots have suffered along with other wheat fields but out of this has developed some interesting facts. Some of the plots of the variety tests showed an almost total loss while others showed a slight damage or none at all. The unusual season through which we have just passed will serve to establish, better than anything else, the facts regarding the varieties which are proof against winter kill. We shall be able to report these facts a little later.

### SIGN YOUR NAME.

Kansas Farmer is frequently in receipt of letters from its subscribers to which they have failed to affix their signatures or else have omitted their post office addresses. Such letters do not and cannot receive the attention they deserve. We now have a postal card from Beloit, Kan., asking for information about rubber but which is not signed. There is also a letter from John Finn but no post office is given. Will not our readers give care to this detail and save delay.

### JAPANESE FARMERS IN KANSAS.

Near Valley Falls a farm owner is attempting to solve an old problem in a new way. He bought a lot of pure bred hogs that cost from \$75 to \$150 each and some cows that cost as high as \$250 each, made some improvements and then secured some Japanese students who had been trained at the Kansas State Agricultural College to run his farm. His plans involve the employment of a man and wife who will board the Japs and help in the farm work. It is a commercial proposition in which the owner, D. F. Plazek, secures competent help and the Japs get employment and an opportunity for further training.

### FOREST RESOURCE OF ALASKA.

Royal S. Kellogg, of the Forest Service, and incidentally a graduate of the Kansas State Agricultural College, was sent to Alaska last summer, by the government, to investigate the forest resources of that country. In speaking of Alaska Mr. Kellogg said:

"In the coast country there is a large amount of big timber and in the interior there are large areas of small timber all of it on public land. Wood is used for everything in this interior country; even for running steamboats, engines and the like and immense quantities are being consumed. "The total product of Alaska, up to the present time, is about \$350,000,000. Only about half of this comes from furs and salmon. Terrible ravages have been made among the seals of Alaska. It was estimated that, at the time of the purchase from Russia in 1867, there were 5,000,000 seals. There are now not over 100,000."

### LAND TOO HIGH PRICED FOR LIVE STOCK.

An Indiana business man who had lately purchased a farm as an investment said to the writer that he had been induced to take this step because of the high price and ready sale of farm produce. He wanted information as to how best to manage his new farm and in asking this he stated that the land was "too high priced to raise live stock."

There is no farm land that is too high priced for live stock. Live stock is the salvation of all land. Of course it is possible to farm without live stock but this requires expensive fertilizers and methods which are not within reach of the average farmer.

The fertility that is available for crop production lies principally in the first 8 inches of the soil and continuous cropping without feeding this soil will soon deplete it. Barnyard manure is the cheapest and most economical plant food and this is best produced on the home farm.

### CACTUS FOR CATTLE.

Hon. John Boyle, of Sherman county, has been experimenting with the Burbank spineless cactus. Mr. Boyle was formerly a member of the Kansas Legislature and has taken great interest in Kansas progress. Having learned that the spineless cactus would produce about 75 tons to the acre, and that the crop had a value nearly equal to alfalfa in food elements with an added value for succulence he became greatly interested and bought some plants last year in California. These have increased until he now has about 150, which he will divide up and plant again this season in the expectation that he will be able to plant about 10 acres next year. He says that as soon as he has a sufficient supply he will begin the experiment of feeding them to cattle. As there are hundreds of cattlemen in the western part of the state that are watching his experiments, it is believed that his success will mean the development of a new industry in the

high and dry prairies of that section. This plant does not thrive in regions of heavy rainfall but is at home in the sandy soil and climatic conditions of western Kansas. However, its value as a cattle feed remains to be determined.

**KANSAS CORN ALL RIGHT.**

Prof. A. M. TenEyck of the Agricultural College has been making a further series of tests on the germination of Kansas corn. His last test was of 100 samples in which the lowest germination observed was 60 per cent though only a few run below 80 per cent, while the average is above 90 per cent. This is the second series of tests that Professor Ten Eyck has made and the results are similar in each case. The early freeze in October which served to practically destroy the germinating qualities of Iowa and Nebraska corn, does not seem to have injured Kansas corn very seriously, as tests show that ears which have been standing on the stalk all winter have germinated as high as 95 per cent. This indicates that Kansas corn was fully ripe and hardened before the freeze came. It also indicates that Kansas will probably be called upon to supply a large quantity of seed corn to the farmers of other and less favored states. There will undoubtedly be a great demand for Kansas corn for planting purposes as soon as it is generally known that the crop was not injured, and those farmers who have good corn for sale should make it known to us as soon as possible.

**A NEW ALFALFA PEST.**

Reports would seem to indicate that the clover hay worm has been much more destructive than common in Kansas this year. These reports indicate also that this pest is spreading and some means will have to be adopted to control it. It infests both clover and alfalfa hay, and it will be well to bear in mind some facts connected with it in order to preserve the hay and prevent a further spread of the worm.

The eggs of this pest are some-

times found in the field though generally they are laid in the stack where most of the damage will be confined to the first two feet. The larvae work in a silken case which mats the hay together. Sometimes the ray becomes so badly infested that but little is left except stems and the silken threads. It is not injurious to cattle though if the hay is badly infested they will not eat it unless compelled to do so.

The preventive means are simple. Never stack clover or alfalfa on old stack bottoms. Always clean out the loose leaves and old hay in the mow before putting in the new hay. If it is found that the old stack bottoms are badly infested it is best to burn them as a protective measure. This worm has not yet made itself conspicuous as a state wide pest but might do so unless protective measures are adopted.

**HOME ECONOMICS CLUBS.**

Miss Francis Brown, of the Farmers' Institute Department of the State Agricultural College, inaugurated a movement in January that is likely to prove one of the most important for the uplift of the home. This is the home economics club which has for its aim to dignify that which most girls consider a drudgery, to encourage more girls to study domestic science in its various phases, and to assist in securing a place for this important branch of knowledge in the higher class of schools. During the past month more than a dozen of these clubs have been organized in different parts of the state under the personal

supervision of Miss Brown. After the clubs are ready for work a course of lessons in cooking and sewing under the direction of the Farmers Institute Department is begun. These courses cover a period of twenty weeks and the meetings of the clubs are held weekly. At each session the successes or failures attained during the past week are discussed and the secretary furnishes the outline for the succeeding week together with such instruction, recipes, etc., as she has received. Regular reports are made to Miss Brown and questions of special interest are answered by her. She will plan to visit these clubs and others which may be organized as early as possible though during the winter season her time is very much taken up with the regular farmers institute work and she can only give the clubs attention between times. Information concerning the plan and work of the clubs will be furnished by Miss Brown.

**PRESIDENT TAFT'S PROCLAMATION ON THE CENSUS.**

President Taft has issued a proclamation calling attention to the requirements of law and the duty of the people in connection with the thirteenth de-cennial census of the United States, which will be taken this summer, beginning April 15. In this he says:

"The sole purpose of the census is to secure general statistical information regarding the population and resources of the country, and replies are required from individuals only in order to permit the compilation of such general statistics. The census

has nothing to do with taxation, with army or jury service, with the compulsion of school attendance, with the regulation of immigration, or with the enforcement of any national, state, or local law or ordinance, nor can any person be harmed in any way by furnishing the information required. There need be no fear that any disclosure will be made regarding any individual person or his affairs. For the due protection of the rights and interests of the persons furnishing information every employee of the Census Bureau is prohibited, under heavy penalty, from disclosing any information which may thus come to his knowledge.

"I therefore earnestly urge upon all persons to answer promptly, completely, and accurately all inquiries addressed to them by the enumerators or other employees of the Census Bureau, and thereby to contribute their share toward making this great and necessary public undertaking a success."

**WHY PRICES ARE HIGH.**

With limited exceptions, owing generally to temporary local conditions, the price of commodities in general use is fixed by international conditions. Any general advance in price in one country is followed by a corresponding advance in other countries. The high average of prices now prevailing in the United States, obtains in England, France, Germany and elsewhere. These conditions are not brought about by local legislation or local conditions, but by conditions which are world-wide.

It is evident that consumption is overtaking production. The wants of the world are increasing faster than the supply of things desired. That these conditions are permanent, is also evident. A reversal of present business conditions, tending to restrict the ability of the consumer to buy, might, for a time, impair demand and thereby unduly increase the surplus, depreciating prices; but the general tendency is toward increased consumption in a ratio exceeding production. In other words, the number of people and their wants are increasing faster than the ability of the disposition of the people to supply such wants. This means that the general trend of prices will be upward.

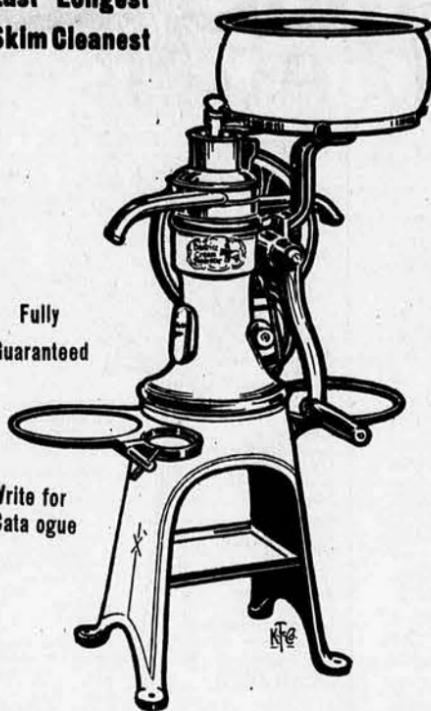
But there is another element to be considered. The great increase in the production of gold in recent years, and the probability that this increase will continue indefinitely, is another very potent cause for increased commercial activities, and the consequent inflation of values.

In view of those things, the farmer may rely upon a continued increase in farm values, and upon a fair price for his products. It will pay the farmer who is up with the times to stick to his farm. General conditions for him are promising.

Runs Lightest  
Last Longest  
Skim Cleanest

Fully  
Guaranteed

Write for  
Catalogue



**BEATRICE**

**Cream Separator**

**\$50.00**

For 500 pound Skimming Capacity.

We Pay the Freight.

Other Sizes at Other Prices

Surpasses all Others in Efficiency, Simplicity, and Durability. The Beatrice combines all in a manner never before found in a cream separator.

THE BEATRICE WASHING DEVICE enables the user to thoroughly wash and dry the bowl in less than two minutes. This is the greatest labor-saver in connection with a cream separator that has ever been invented.

A Dozen Other Superior Points.

**THE CONTINENTAL CREAMERY CO., Topeka, Kans.**

**Tailored Skirts made for \$1.95**

**\$1.95** is our price for the work of a high class tailor.

Buy any wool dress goods in our stock, and we will have the skirt made to the measurements which you send us, perfectly finished and thoroughly pressed, at \$1.95 for the making.

Write for samples of goods to select from, stating colors wanted and price you wish to pay. Express paid in Kansas.

**KANSAS MAIL ORDER SERVICE**

The Mills Co., Topeka.



Out There in Kansas. A rock walled lake containing 20,000 barrels of water; fed by two cold springs. One spring just above this lake contains 1,300 barrels of cold, clear, healthful spring water. Only 100 yards from the barns on "Roseland," owned by Thos. D. Hubbard, Kimball, Kan.

# LIVE STOCK



## Skim-Milk for Hog Feeding.

The feeding of skim-milk is one of the most interesting studies in pork production. Any one who has had experience along this line knows of the keen appetite which pigs have for this by-product of the dairy; yet it is safe to say that the great value of skim-milk as a supplement for corn is not fully appreciated by the average farmer. Pork production is without question one of the most profitable branches of the dairy industry, and more thought should be given to the use of skim-milk if the greatest possibilities in dairying are to be realized. Although the separator removes the fat, which is the highest priced portion of the milk, yet from a chemical standpoint the skim-milk contains practically all of the most valuable feeding constituents. Practically all of the protein or the flesh building part of the whole milk is left in the skim-milk. This protein is necessary in every ration, especially is this true in the feeding of young stock. Considered from the standpoint of fertilizing and feeding, protein is the most expensive portion of the milk. When you buy mill-feeds, packinghouse by-products and other expensive feeds, the price you pay depends upon the amount of protein they contain. The value of skim-milk is not due altogether to the fact that it contains this flesh building material. It has an effect upon digestion that brings results out of all proportion to its nutritive value. When pigs have been fed for a long time on a monotonous ration such as corn alone, they lose appetite, become listless and consequently make very unsatisfactory gains. If skim-milk is given even in small amounts, an immediate change for the better is noticed; the appetite returns and the pigs begin to gain in weight very rapidly. This condition is also true when pigs are fed on a grain ration with skim-milk in comparison with others fed on grain alone. This is no doubt due to the fact that skim-milk keeps the digestive system in better order, thus enabling the animal to actually digest and assimilate a larger portion of its food. Although corn is rich in fat and energy-forming material, it contains only a small amount of flesh- and bone-building substances. It is due to this fact that the combination with skim-milk makes such a valuable feed. The use of skim-milk also results in pork of a more nearly uniform high quality.

In raising breeding hogs it is very important that they have strength of bone. The Nebraska Experiment Station divided a number of pigs into three lots. Lot one was fed on corn alone. Lot two was fed on corn and shorts. Lot three was fed on corn and skim-milk. The length of the feed period was 22 weeks. After slaughtering, the bones of the hogs were tested for strength. The average breaking strength of bones per hundred pounds live weight of hogs in lot one fed on corn alone was 325 pounds. The average breaking strength of those in lot two fed on corn and shorts was 396 pounds. The average breaking strength of those in lot three fed on corn and skim-milk was 509 pounds. This increased strength of bone was per hundred pounds live weight and consequently was not due to a more rapid growth and heavier weight of pigs resulting from the supplementary feeds. There was no apparent difference in the external appearances of the bone but the thickness of the bone wall was increased materially when skim-milk was fed. These differences are no

doubt due to the fact that corn contains a very small amount of mineral matter while skim-milk is rich in mineral matter.

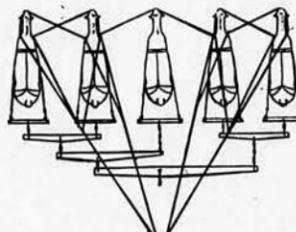
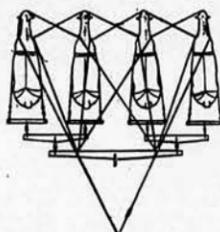
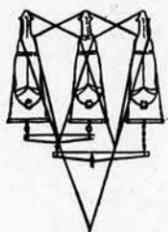
Another experiment carried on by the same station showed that skim-milk was actually more valuable for pig feeding than was whole milk. A number of pigs were divided into three lots. Lot number one was fed on skim-milk. Lot number two was fed on milk containing 3.5 per cent fat. Lot number three was fed on milk containing over 5 per cent of fat. Lot number one, or those receiving skim-milk, averaged a gain of 36 pounds in 30 days. Lot number two, or the ones receiving milk containing about 3.5 per cent fat, averaged a gain of 28 pounds in 30 days. Lot number three, or those fed on milk containing over 5 per cent fat, averaged a gain of 25 pounds in 30 days. For longer periods of feeding results were much more in favor of skim-milk. In many cases where the feeding period was long there was a loss in weight on those fed on milk rich in fat.

In an experiment carried on by another experiment station it was found that on cornmeal alone it required 416 pounds of dry matter to produce 100 pounds of gain. When skim-milk was fed in conjunction with corn it only required 293 pounds of dry matter per hundred pounds gain. The cost of feed per hundred pounds gain was \$5.80 when cornmeal alone was fed, and when skim-milk was fed in conjunction with cornmeal the cost of 100 pounds gain was only \$4.60. The Ottawa Experiment Station found the value of 100 pounds of skim-milk was equal to 54.6 pounds of corn for hog feeding purposes. With dressed pork worth seven cents per pound, 100 pounds of skim-milk was found to be worth 38 cents. At the present price of corn and hogs it is very evident that skim-milk is one of the principal sources of revenue from the dairy cow.

In feeding skim-milk the proportion of grain to milk should be increased as the hog gains in weight. For hogs weighing twenty to sixty pounds the mixture should be one part of grain to seven to ten parts of skim-milk. For hogs weighing sixty to one hundred pounds the ration should be one part of grain to about five parts of skim-milk. For hogs weighing one hundred to one hundred eighty pounds the ration should be one part of grain to about two or three parts of skim-milk. If the supply of skim-milk is limited the proportion of skim-milk may be reduced and good results still be had. It was almost impossible to get satisfactory results under the old whole milk creamery system where the skim-milk was returned to the farm sour and cold and when it was fed cold at one time and warm another. Scours and unsatisfactory gains are the results from such feeding. The milk should be in the same condition from day to day. This is made possible only by the use of the hand separator. Not only does the hand separator remove all of the but-

## How to Hitch Them.

In using the large and heavy farm machinery of the day it is necessary to double up the team force and the question of the proper adjustment of



the eveners, as well as the driving reins, sometimes becomes a puzzle. The accompanying drawing will show hitches made to cover the requirements of ordinary farm work where more than two horses are used. The

# BIG MONEY IN OATS

STIFF  
STRAW  
WHITE  
BERRY  
BIG  
YIELDER

Look at  
This Cut;  
from a  
Photograph  
Taken of Two  
Stalks from  
Galloway  
Brothers' Field;  
Over 200  
Kernels to the  
Stalk.

GENUINE  
REGENERATED  
SWEDISH  
SELECT

Not Every-day  
Swedish Select—  
Remember, there's  
a Difference.

THE GREATEST  
OAT ON EARTH

This is what people say who have tried these oats in this country. We believe it will pay you to try some of this new seed. There is more money year in and year out in oats than any other grain, if you raise the right kind. They are easy to raise and generally a sure crop.

Why are oats higher today than they were in former years? Simply because the farmers have been sowing the same old oats over and over again—oats that are inbred and run out, and yet they wonder why they do not get a better crop.

Try some of our new seed. There is big money in raising even 50 and 60 bu. of oats to the acre. At the present price of land you cannot afford to sow inferior, inbred seed any more than you can afford to breed your herd to an inbred bull. It is as easy to put in and harvest a big crop as a small one.

Remember, Northern-grown seed is the kind of seed for this country. All the oats we have to offer are guaranteed to be clean, free from foul seed, and, according to Canadian Government Grain Inspector, they grade No. 1 White—almost an unknown quantity in the United States.

Here is what Professor M. L. Bowman, former professor of Farm Crops, Iowa Agricultural College, says: "I visited Galloway Brothers' big farm in Canada, and was much impressed with the way they farm. I saw these seed oats they are offering. They are fine, pure, clean, big oats, and I believe it will pay any farmer to try ten or twenty bushels of this seed.—M. L. BOWMAN."

If you are interested in any of this grain, write us at once for free sample, or send us ten cents for a packet of one or both kinds. We will also mail you free our little booklet entitled, "Big Money in Oats and How to Grow Them," with authority on how to increase the yield. The oat yield of this country could be doubled if the farmers would follow instructions in this book, gotten out by Prof. M. L. Bowman and Galloway Brothers, Oats Specialists.

Don't wait until it is too late. Many people were disappointed last year in not getting seed from us, because they waited until our supply was run out. All Minnesota, Wisconsin, North and South Dakota, Montana and northwestern orders will be filled direct from Minneapolis, Minn.

Address all communications to

GALLOWAY BROTHERS, 202 Galloway Station, WATERLOO, IOWA

If You Raise the Right Kind. Here's Your Chance to Get Them. Imported Canadian Seed Oats for Sale.

THEY have proven their worth in this country from different reports we have received from farmers who bought last year—some of them doubling, and in many cases tripling their crops from this seed, as compared with their old run-out, inbred seed.

Send for free sample which will speak for itself, or send ten cents for good-sized packet of one or both kinds of these oats.

Try some of these wonderful oats. We make a specialty of growing seed oats on our big Canadian farm. New, clean land; no weeds; located at Lajord, Sask., Canada. We have best-known varieties. Regenerated Swedish Select went 116 bushels to acre. Most wonderful oat we have ever seen. This may look like a big yield to farmers of this country, but it is true just the same. They stood 6½ feet tall; have stiff straw, large, plump, white grain, very thin husk, and an early variety. For this seed we originally paid Garton Bros., of England, \$2.00 a bushel for 250 bushels, put them in on specially prepared ground, and will vouch for their quality.

We also have a quantity of Early New Market Oats—Canada's very best-known variety and an enormous yielder.

Here's what farmers write us who bought last year:

W. McConnell, Baldwin, Wis.—"We threshed out 65 bushels per acre; stood up better than any other oats."

John Stuppy, Lowell, Ind.—"They come up to my chin and nose before they start to head."

John F. Otto, Dows, Iowa.—"Stood up in fine shape; turnout was good. 90 bushels to acre by weight. They weighed 41 pounds to the measured bushel."

J. L. Slick, Lanark, Ill., writes—"In regard to Regenerated Swedish Select Oats I bought from you last spring, I am more than pleased with them. Of the twenty acres sown of this seed fifteen acres went 80 bu. to the acre of nice, healthy, plump oats, weighing 37 lbs. to bushel. Some of my neighbors sowed very inferior seed and reaped from 15 to 18 bu. per acre. They averaged 60 in. high, free from any foreign seed, and are all pure oats."

H. P. Rund, Bronson, Minn.—"Oats were dandy. Yielded 95½ bushels to acre of 40 lbs. Common varieties go 40 bu. per acre. See difference!"

Simon Simonson, Tyler, Wis.—"They yielded 48 lbs. per bu. stood up very good; best I ever saw."

Nick W. Klein, Vernon, S. D.—"I got 70 bu. by weight. They weighed 48 lbs. per bu."

Adam Czerwonka, Chetek, Wis.—"Early New Market turned out good. Went 100 bushels to acre. Weighed 44 lbs. per bushel."

Wetzel Bros., Floyd, Iowa.—"Your Early New Market oats did just wonderfully; grew 4½ ft. tall; stood up fine till they were cut; went 65 to 70 bu. per acre. Had other oats that went about 25 bu. per acre by measure. Could sell all we raised a dozen times over to our neighbors."

Don't wait until it is too late. Many people were disappointed last year in not getting seed from us, because they waited until our supply was run out. All Minnesota, Wisconsin, North and South Dakota, Montana and northwestern orders will be filled direct from Minneapolis, Minn.

Address all communications to

GALLOWAY BROTHERS, 202 Galloway Station, WATERLOO, IOWA

## ALFALFA SEED

Grown in Finney County in 1909. Red Texas Oats, Barley Macaroni Wheat.

Write for samples and prices. KNOX SEED CO. Garden City, K'n.

## ALFALFA SEED

FOR SPRING SOWING. From locality where it grows best and most abundantly. Our seed won the gold medal at the St. Louis World's Fair in competition with the world. All our seed is native grown, plump and vigorous. Write us today for & DALLAS, GARDEN CITY, KANSAS.

prices and free samples. Address McBETH

## BILL BROOK FARM SEED CORN

We have a large quantity of pure bred, well matured, well selected Boone County White Corn. Shelled and graded, sacks included, \$2.00 per bushel. Crated in the ear, \$3.00; sacked in the ear, \$2.75.

## H. O. TUDOR

Holton, Kansas

ter-fat from the milk but the skim-milk may be fed in the best possible condition, warm and sweet. If every day the skim-milk is fed warm and sweet, as nature intends it should, the possibility of having the young pigs scour will be largely done away with. The greatest enemy to the successful use of skim-milk is dirt. All utensils for handling milk should be kept clean.—Blue Valley Bulletin.

drawing is designed to show by sight the relative lengths of the two ends of each of the eveners, as well as to help the novice or one who is not accustomed to driving these larger teams, in adjusting his reins. These

## HOME GROWN ALFALFA SEED

Just thrashed. Splendid seed. \$10 per bushel.

Englewood, IRIE SNYDER, Kan.

REID'S YELLOW DENT SEED CORN that will grow 1 row and carefully select every ear of my seed corn. Twenty ears won 2nd place at Nebraska State Show. Single ear won 3rd. Send 25c for sample ear, grains free. Write for prices; they are right.

Humboldt, FRANK J. RIST, Nebraska.

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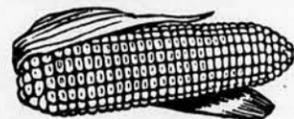
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W. T. Gough & Co., Abilene, Kan.



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Drouth and Bug Resisting. Fifteen Varieties—55 to 90 bushels to acre.

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First at Leavenworth, first at Topeka, three firsts at Leav Co Farmers' Institute, two firsts and sweepstakes at Wichita, three firsts and two sweepstakes at Hutchinson State Fair, first at State Corn Show, five firsts at Kansas City Inter-State Fair, seven firsts at National Corn Exposition, five being in open to the world class. All in 1909. First three successive years at state corn show. Immense yield.

J. M. GILMAN & SONS, Leavenworth, Route 1, Kansas.

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Fruit, Ornamental and Evergreen trees; Shrubs, Roses, Vines

Everything in the Nursery Line.

Beautifully Illustrated Catalogue and Price List Sent FREE

Special: 45 Concord Grapes \$1.

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**WANTED—LOCAL MEN TO TAKE ORDERS** for high grade western grown nursery stock. Experience unnecessary. Outfit free. Cash weekly. National Nurseries, Lawrence, Kan.

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**WANTED—LIVE AGENTS WHO ARE** not averse to making good money, to sell "B-Bright Metal Polish" to both dealers and private individuals, unequaled for polishing brass and metals of all kinds. Big demand from automobile owners. Exclusive territory and liberal commissions paid promptly. Write for full information, Auto Accessory and Supply Co., 1529 Grand Ave., Kansas City, Mo.

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**PARTRIDGE WYANDOTTES—PRIZE** winning cockerels and eggs. Farmers' prices. Write S. S. Jackson, Scranton, Kan.

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**S. C. WHITE LEGHORN EGGS FOR** sale: Wyckoff strain. Mrs. Mabel Sullivan, Abilene, Kan., R. 7.

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**WHITE ROCK EGGS—100, \$7.00; EX-** press prepaid; 15, \$1.50. Cockerels, \$1.00. H. L. Pellet, Eudora, Kan.

**ROSE COMB WHITE LEGHORN COCK-** erels \$1.00 each. Eggs in season. E. E. Klefer, Lawrence, Kan.

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**ROSE COMB RHODE ISLAND REDS EX-** clusively. Eggs for hatching in season, \$1.50 per 15, \$7.00 per hundred. D. Winchell, Unionville, Mo.

**100 BARRED ROCK CKLS. AND FE-** males, prize winning strains, 85 premiums, 30 yrs. experience. Eggs \$2 per 15, \$5 per 50. Chris. Bearman, Ottawa, Kan.

**ROSE COMB RHODE ISLAND REDS,** exclusively. Eggs, \$1.50 per 30; \$2.00 per 50; \$5.50 per 100. Alfred Young, Wakefield, Kan.

**WHITE WYANDOTTE COCKERELS, \$1** each. Indian Runner Drakes \$1.50. Eggs \$1.00 per setting. E. N. Miller, Baldwin, Kan.

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**BUFF ROCKS FOR BUSINESS, PLEAS-** ure and profit. Have raised nothing else for nine years. Have the best stock of birds now that I ever had. Eggs, \$1 for 15; \$5 for 100. M. M. Stephens, Munden, Kan.

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**EGGS! EGGS!—FROM 18 VARIETIES OF** thoroughbred poultry, geese, turkeys, Fekin, Rouen, Muscovy and Indian Runner ducks, pearl and white guineas, bantams, dogs, all kinds of fancy pigeons. Hens' eggs 15 for \$1.00. Write for free circular. D. L. Bruen, Platte Center, Neb.

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**LIGHT BRAHMA EGGS, THE LARGEST** and finest I ever produced. By the 100, \$5. Score 90 to 92, \$1 and \$2. Special, \$3 to 95, \$3 for 15. I have 60 fine pullets yet for sale at \$25 for 12, with a fine cockerel free. My stock needs no recommendation; its winnings everywhere tell its merits. Mrs. J. R. Kenworthy, Wichita, Kan.

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**TESTED PURE BRED SEED CORN AND** oats of standard varieties. Western Pure Seed Co., F. A. TenEyck, Mgr., Concordia, Kan.

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**PLANT CATALPA SEEDLINGS AND** grow your own posts. We have a fine lot of pure Speciosa and will sell them cheap. We also have an assortment of fruit trees etc. Try us on evergreens; we dig them with balls of dirt and sew sacking around the dirt. Almost sure to grow. Lost Springs Nursery, Lost Springs, Kan.

**ALFALFA SEED FOR SALE—250 BU.** home grown seed without irrigation at Kendall, Kan. Main line Santa Fe R. R. Kearney Co. Delivered in seamless bags at \$10.00 per bu., f. o. b. cars. Bags 25c extra. Advance money order to John Shinkle, foreman, for amount wanted. Reference, Holland Banking Co. Springfield, Mo.; Kearney Co. Bank, Lakin, Kan.; M. R. Beatty, P. M. and merchant, Kendall, Kan.; H. H. Smalley, 738 East Walnut St., Springfield, Mo.

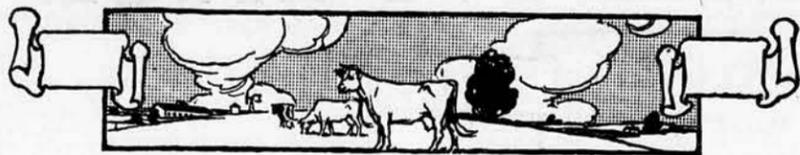
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**SEND FOR FREE BOOKLETS—ALL** about patents and their cost. Shepard & Campbell, 6900 McGill Bldg., Washington.

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**CLASSIFIED ADS CONTINUED ON P. 28.**

# DAIRY



Give the cream good care. Remove the animal heat immediately after separating. Hold in a cool, well ventilated place. Protect from the sun while delivering to the cream-receiving station.

Dairying is a business which builds homes and gives a stability to farm operations. When a country gets old and its people begin to realize that the farm is the best place dairying gets into the foreground. Look into conditions surrounding the most important dairy countries and note if we are right.

Have you made provision for the dairy cow next summer when the pastures are dry and short? Now is the time to do it, before the plans are all made and spring planting begins. Promise yourself this minute that a few acres of green feed of some kind will be set aside for the dairy cow's use and that when she needs it she will get it. Sorghum, Kafir corn, Indian corn, alfalfa are each good and neither will ever be worth so much money as when fed green and converted into butter-fat.

### The Silo, Then the Dairy Herd.

W. J. Gillett, the Wisconsin dairyman who bred, fed and milked the world's champion dairy cow, has for 20 years been a user of the silo. He writes: "I did not suppose there was any argument against the advantages of the silo. They are simply indispensable and offer the very best opportunity for the economical production of milk and butter. No feed available answers the needs of the dairyman as does corn silage, for it is cheap; it is handy, and it is healthful to the animals consuming it. I would recommend building the silo and filling it before the dairy herd was purchased." Mr. Gillett is sure that his great cow could not have produced 27,000 pounds of milk in 12 months had she not been abundantly supplied with good ensilage.

**We Overlook Cheap Feeding.**  
Ex-Gov. Hoard gives this opinion on the silo. "I believe there is no one thing that the dairymen of the country, as well as the producers of beef in the great corn districts, more generally lack, and certainly need, than instruction on the silo. The tremendous waste of corn fodder, amounting as it does to 40 per cent of the feed value of the entire plant, ear and all, is a standing reproach to the intelligence and enterprise of the men who are looking for cheap methods of producing meat. The silo can be used particularly in connection with clover or alfalfa, to very good advantage in the production of beef. It is also one of the greatest feeds we have in the production of milk in dairy farming, and I trust your efforts will arouse a strong spirit of investigation on the part of the farmers in the southwest concerning this very much neglected and important method of cheap feeding."

### A Wonderful Producer of Human Food.

A Holstein cow owned by the dairy department of the University of Missouri in one year produced more human food in her milk than is contained in the complete carcasses of four steers weighing 1,250 pounds each, says C. H. Eckles, professor of dairy husbandry, University of Missouri. This statement, impossible as it seems, is not only true, but does not even do full justice to the cow. The solids in the milk which are completely digested and used by the body are counted against the entire carcass of the steer which is only in part edible.

The cow that performed this feat of producing the equivalent of four steers is Princess Carlotta. In the year she produced 18,405 pounds of milk. Below is given the amount of proteids, fat, sugar and ash contained in this milk and the amount of the safe substances found by Dr. P. F. Trowbridge in an analysis made of the carcass of a fat steer weighing 1,250 pounds.

	18,405 lbs. milk.	1,250-lb. steer.
Proteid.	552	172
Fat.	618	333
Sugar.	920	...
Ash.	128	43
Total.	2218	548

The total amount of dry matter in the milk was 2,218 pounds, all of which is edible and digestible.

The steer, with a live weight of 1,250 pounds, contained 56 per cent of water in the carcass leaving a total of 548 pounds of dry matter. In this dry matter of the steer is included hair, and hide, bones and tendons, organs of digestion and respiration; in fact, the entire animal, a considerable portion of which is not edible. The analysis of the steer's carcass was made from samples taken after grinding up together one-half of the complete carcass and is not in any sense an estimation of the composition of the carcass.

Princess Carlotta produced proteids sufficient for more than three steers; nearly fat enough for two; ash enough to build the skeleton for three, and in addition, produced 920 pounds of milk sugar worth as much per pound for food as ordinary sugar.

These figures show the remarkable efficiency of the cow as a producer of human food. It is because of this economical use of food that the dairy cow and not the steer is kept on high-priced lands. When land is cheap and feed abundant the meat producing animals predominate, but when the land becomes high in value and feed expensive the farmer turns to the dairy cow.

**Kansas Creamerymen's Association.**  
Through the effort of State Dairy Commissioner Wilson the Kansas Creamerymen's Association was organized at Emporia last week. The association will accomplish much good



## The Simplest, Strongest And Most Convincing of CREAM SEPARATOR ARGUMENTS

We cannot believe that there is a sensible man living who would put his own money into the purchase of any other than a DE LAVAL cream separator, for his own use, if he would but first avail of the opportunity open to everyone to SEE and TRY an improved DE LAVAL machine before buying any other.

IT IS HARDLY POSSIBLE TO SAY MORE THAN THIS. IT IS HARDLY POSSIBLE TO PUT THE SIMPLE TRUTH IN PLAINER WORDS. IT WOULD HARDLY SEEM POSSIBLE TO SAY IT MORE CONVINCINGLY.

The TRIAL of a DE LAVAL machine is free to every responsible man thinking of buying a cream separator. We have agents in every locality for this purpose. If you don't know the agent in your neighborhood send to us for his name and address and it will be a pleasure to give your inquiry prompt and courteous attention.

### THE DE LAVAL SEPARATOR CO.

105-107 BROADWAY NEW YORK  
42 E. MADISON STREET CHICAGO  
DRUMM & SACRAMENTO STS. SAN FRANCISCO  
178-177 WILLIAM STREET MONTREAL  
14 & 16 PRINCESS STREET WINNIPEG  
1010 WESTERN AVENUE SEATTLE

## \$948 Profit from 4 Acres

### 3 Crops a Year Without Wearing Out Soil

An Alabama farmer planted four acres of land in Irish potatoes. They netted him \$468—or \$117 an acre. He then planted the same four acres in sweet potatoes which netted \$480. Total, **\$948 Profit on Four Acres of Land**, which yielded in addition a thrifty forage crop.

### Come Now and See Such Crops Growing While Your Land is Still Frost-Bound

Learn what the energetic Northern farmer can do in a country where there averages 312 working days a year. No long winters to tax your resources—and land so rich that you can raise three crops a season without wearing it out. **Banner Grass Country of the United States**—There is ten months' good pasturage during the year. Stock thrives on grazing alone; there is always abundant water, no droughts and no blizzards. You don't need costly barns for winter housing—you needn't spend time and money raising feed to carry your stock through the winter.

Send for Our Booklets and read hundreds of letters giving the actual experiences of men who have left the high-priced land and rigorous climate of the North for the fertile lands of Tennessee, Mississippi, Alabama, Georgia and Western Florida.

**Low Round-Trip Rates** are in effect the first and third Tuesdays of March and April. Your opportunity to see this beautiful blooming region while your farm is still in winter's grip, and learn what great profits can be made on even a few acres in the Great Central South where the summers are not oppressive and the winters no colder than Northern Octobers. (62)

G. A. PARK, Gen'l Immigration and Industrial Agt., Louisville & Nashville R.R., Room 212, Louisville, Ky.

**\$27<sup>90</sup> to \$42<sup>50</sup>**

The Lowest Prices Ever Quoted for Practical Dairy Separators.



We do not advertise or sell small capacity kitchen separators made to set on a table. Some dealers are representing such toys as practical dairy machines. Our Economy Chief Separators are all big, strong, solid, substantial machines, built for the business of dairying, guaranteed to do the work and produce the profits. Every one is mounted on its own solid base and is of the finest and most substantial construction. Even the smallest Economy Chief, at \$27.90 complete, has a skimming capacity of 300 pounds, or 145 quarts per hour. It will skim any quantity from 1 gallon up. Sixty days' trial to every buyer. Fill out this coupon for our free Dairy Guide, the book that tells you all about the Economy Chief Separator.

Sears, Roebuck and Co., Chicago, Ill.  
Please send me your free Dairy Guide.

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Kansas Farmer

SEARS, ROEBUCK AND CO., CHICAGO

## The Most Sacred Spot

In any community is the last resting place of loved ones, and if only as a mark of respect it should be fittingly kept and made proof against desecration.  
**Cyclone Cemetery Fence and Gates**  
are designed to harmonize with and beautify the old burying grounds. They last for years, are stock proof and much cheaper than wooden fences. Write for our fine, free illustrated catalogue. Address: **CYCLONE FENCE CO., Dept. 131, Waukegan, Illinois.**

for Kansas dairying. The object of the organization is the furtherance of general dairy interests through the medium of education and the discussion of methods relating to production, manufacture and handling of butter and the adoption of means of combating interests which are contrary to the progress of dairying. The organization is permanent, non-political and non-factional. Its interests are broad and sane and take cognizance of the producer, the manufacturer and consumer of dairy products. The by-laws declare:

The dairy industry of the state of Kansas has grown wonderfully in quantity and quality, value and variety of products and uses, and dairying has been an is now recognized as an essential factor in perpetuating the wealth of the state and prosperity of the people.

Kansas with her favorable climatic conditions, her luxurious pastures, her tremendous crops of alfalfa, corn, Kafir corn, offers possibilities for dairying which are unequalled.

The dairy industry, from the production of the raw material to the consumption of the finished product, comprises many parts and presents many diverse conditions and many problems for solution.

In order to bring about the growth of dairying to the fullest extent, there should be cooperation between the three great interests involved in the industry, to-wit: the producer, the manufacturer and the consumer for these reasons:

First: The increased demand and the desire for food products of highest quality makes necessary the encouragement of the producer for larger production and for further improvement of the quality of the raw material.

Second: The manufacturer must address himself to the problem of handling the raw material as it comes to him from the producer along the lines of the highest science, greatest economy, sanitation and purity; involving the use of up-to-date equipment, cheapest transportation and best service.

Third: The presentation of the finished product to the consuming public in the most attractive, healthful and sanitary condition.

Fourth: To act in cooperation with the state dairy commissioner in the enforcement of existing dairy laws and in securing legislation as needed and as found necessary and beneficial to the best interests of the dairy industry.

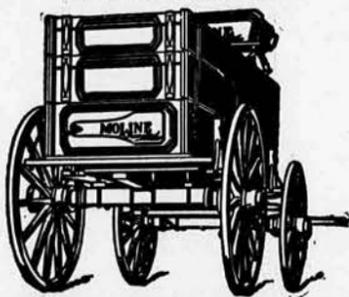
### This New Farm Wagon Has 14 New Features Found In No Other Wagon

Think of that—14 features none of which any other wagon can boast—14 features all invented in perfecting this great wagon—14 features which added to a most remarkable construction of air seasoned oak and hickory, strengthened at all vital points with iron, produce a wagon whose strength and durability has never been approached in any other wagon. Every dollar you pay for the

## JOHN DEERE MOLINE IRON-CLAD

buys dependable quality—30 years or more of service. You can only guess how long a cheap wagon will last. At the best it will last less than one half as long as a John Deere Moline Iron-clad, and will need twice the repairs. Even if you are not in the market for a new wagon just now, you should investigate this greatest of wagons. Find out just what its 14 exclusive improvements are. We will be glad to send you an illustrated booklet if you will send us your name.

MOLINE WAGON COMPANY  
800 Third Ave., Moline, Ill.



### Heider Eveners

Are the best that skill and brains can produce. Made for 2, 3, 4, 5 and 6 horses. HEIDER 3-horse Wagon Evener for wagon, manure spreader, grain drill or any other implement with pole. HEIDER 4-horse Plow Evener works 4 horses abreast on gang sulky or disc plow, 1 horse in furrow, 3 on land. No side draft, all horses pull equal. We make Clevises to attach our Eveners to all plows. ASK YOUR DEALER FOR HEIDER EVENERS; if he can't supply you write us at once, we will tell you where and how to get them. Let us prove to you the many points of merit, why you should accept no other kind and insist on getting HEIDER EVENERS if you want the best on the market. We also make wagon doubletrees, singletrees, neckyokes.

HEIDER MFG. CO.  
Dept. 13  
Carroll, Iowa.

### BOWSHER

(Sold with or without elevator.)  
Crush ear corn (with or without shucks) and grind all kinds of small grain, and head kaffir. Use Conical Shape Grinders. Different from all others.

### LIGHTEST RUNNING.

(Our Circular Tells Why.)  
Handy to Operate. 8 Sizes—8 to 25 h. p. One size for wind-wheel use.  
Also Make Sweep Grinders; both Geared and Plain.

O. N. P. Bowsheer Co.,  
South Bend, Ind.

### FEED MILLS

### 10 DAYS FREE TRIAL

We ship on approval without a cent deposit, freight prepaid. DON'T PAY A CENT if you are not satisfied after using the bicycle 10 days.

DO NOT BUY a bicycle or a pair of tires from anyone at any price until you receive our latest art catalogs illustrating every kind of bicycle, and have learned our unheard-of prices and marvelous new offers.

ONE CENT is all it will cost you to write a postal and every thing will be sent you free postpaid by return mail. You will get much valuable information. Do not wait, write it now.

TIRES, Coaster-Brake rear wheels, lamps, sundries at half usual prices.

HEAD CYCLE CO. Dept. 1-24 CHICAGO

### PAINT SILOS AND WOODWORK WITH

#### Avenarius Carbolium Registered.

It preserves woodwork, stops decay. Doubles life of silos and all woodwork. Used for barns, roofs, windmills, fence posts, chicken coops (lice killer), etc. Easily applied. Freight prepaid. Beware of imitations. Circulars free.

Carbolium Wood Preserving Co., Dep. 55, Milwaukee, Wis.

#### Dairy Notes.

There are ample opportunities for the breeders of pure bred cattle. That the "pure bred business" will be overdone need not worry the present generation. There are upwards of four million farms in the United States. Only one farm in 40 has a pure bred bull of any breed. If one farm in 20 were to be supplied at once they would call for 185,000 pure bred sires.

Interest in the dairy breeds in Kansas and the surrounding four or five states is becoming decidedly marked. Scarcely a day passes that this editor does not receive an inquiry for information regarding the location of breeders who have stock to sell. The few breeders of dairy animals in Kansas are sold out at practically all times. It would seem that good dairy farmers here and there would feel justified in rearing animals for sale. A central Kansas man wanted to buy Ayrshires a few days ago. We do not know of a herd of this breed in Kansas.

A silo manufacturer a few days ago wrote that there was more interest manifested in silos in Kansas than in any other state and that he was making unprecedented sales for summer delivery. KANSAS FARMER feels that its agitation in favor of silage is beginning to bear fruit. Silos will enable our farmers to convert that 40 per cent of the value of the corn crop which is wasted by allowing the stalks and blades to blow away each year, into the most palatable and prolific flesh and milk-producing feed obtainable. Some one has told us of a large producing dairy herd fed last winter on silage and alfalfa hay at an expense of only seven cents per day.

A country paper reports an auctioneer as saying that all fall and winter he has been selling average farm milk cows at \$50 to \$60 per head. If the average farm cow is selling at such figures then the best farm milker is easily worth \$100 to \$120 and an extra good dairy cow of pure breeding should be worth still more. This editor heard a dairy farmer say he would pay \$250 for a pure bred cow of a well known dairy breed if the cow would produce 300 pounds of butter-fat per year. While a 300-pound cow is a good one it is possible for a farmer to breed a whole herd of such cows from common stock in less than 10 years.

A subscriber inquires if Holsteins should be light or dark and whether or not the proportion of black or white is an indication of pure breeding. The tendency of Holstein breeders is to the light colors. The tendency to light Holsteins is a fad, pure and simple, and to our mind may be carried too far. The most discriminating buyers will not pay high prices for dark animals. The color, whether light or dark, is no indication at all of the amount of pure blood in the animals' veins. In the pure bred, however, the white should be pure and the black solid.

Less than two per cent of the cattle, beef and dairy, in the United States are pure bred. There is still much room for the breeder.

Here is a bit of good sentiment for the breeder:  
Good—better—best,  
Never let it rest;  
Make your "good" better,  
Make your "better" best.

Choose your breed and stick to it. A good producing herd can never be acquired by mixed breeding.

A steer will put on two and one-half pounds of fat per day, while a cow may give 40 pounds of milk containing five pounds of solid matter, and mature a calf within her at same time. To get the meat the steer is killed but the cow goes on producing milk and calves year after year.

Just to give the reader an idea of the way really good cows are selling: A New York breeder is advertising three fine young pure bred cows averaging 20 pounds of butter-fat per cow in seven days' test for \$1,000 cash. They are cheap enough, too.

The silo is a good thing. The evidence is all in its favor. How can it be otherwise when the silo will save 40 per cent of the corn crop, a part now wasted and which when placed in the silo has the feeding value of June grass?

Keep \$25 to \$50 in Your Own Pocket—That's as Near Home as You can Get

"I'll Treat You Square"



## Friends—

SEND me your name—just tell me how many cows you milk, and I will write you my personal advice so you can try for 30 days free the best Galloway Bath-In-Oil Cream Separator to do your work—over 200 to 950 pounds capacity per hour, according to your needs. Spend a cent now, this way, for a postal and you can just as easily save from \$25 to \$50 as not. Why pay more when for only \$33.50 and upward, I prepay the freight to you on 30 days' free trial—90 days' approval test, if you say so, and give you my 30 years' guarantee? You cannot get a better offer—to make you more money or save you more money on any separator made—and I will send you the best separator in the world today and you can prove it without any salesman there to talk you over. Why not send Galloway your name today and let me write you personally and send you my splendid, big, color-illustrated separator book right away.

## Let Me Send You My GALLOWAY Bath-In-Oil SEPARATOR On My Real 30 Days' Free Trial

YOU can test the Galloway alongside of the highest priced \$85 to \$110 separators sold by anybody today—to prove that my new Bath-In-Oil principle is the greatest invention in separators in history. Gears run in oil like a \$5,000.00 automobile. Dust-proof—no oil-hole. Impossible to heat or wear or put out of commission the splendid mechanism which gets you the biggest profits—all the cream—all the butter fat. All gears enclosed—handsomest machine made (as you can tell below by the illustration), milk and cream spouts high for cans; lowest revolving milk tank, only 38 inches high; so no high lifting. The Galloway is the easiest to clean, with few parts, which come out easy and cannot get back out of place; easiest to run; high crank; low tank; no high lifting and no "back breaking" cranking. Gets the finest cream qualities—and all of it. No lumps or churning, as Nature's true principle is followed without forcing either the milk or cream the wrong way up or down. Skims closest, in any climate or season, no matter whether your milk is warm or cold. This handsome machine, compact and substantial, with beautiful finish, cannot be beaten at any price. And you cannot get my new Bath-In-Oil principle on any other separator. Remember, that this is most important. It proves to you why I can afford to give you a 30 years' guarantee because I know that the parts cannot wear this out—get hot—clog—or clash and put the separator out of commission like others do where you have to be remembering to oil them all the time. The Galloway is the only separator into which you can pour oil at the top once a month from your oil jug, or can, and have it oil itself without danger of running dry or ruining it like others. This costs you nothing extra—is worth \$50.00 more than separators built the other way. Remember, that I am an actual manufacturer—not a supply house, catalog house, dealer or jobber. You get the lowest direct factory price from me every time. Write me today for my big separator catalog and let me quote you prices that will astonish you.

Wm. Galloway, President  
THE WILLIAM GALLOWAY COMPANY OF AMERICA  
383 Galloway Station, Waterloo, Iowa

Revolving Milk Tank Only 38 Inches High

Highest Crank No Stooping Closest Skimmer Easiest to Clean Simple and Sure

Big Book FREE



All Capacities From 200 to 950 Pounds Per Hour All Gears Encased and Run in Bath of Oil

Positive Insurance Against Wear No Oil Cup or Oil Holes No Danger From Getting Caught Prompt Shipments

Freight Prepaid \$33.50 and Up

Wm. Galloway, President



### Kemper Disc Furrow Opener

Used on any planter. Cultivates the ground. Makes loose mellow seed bed. Plants uniform depth. Gives better stand. Increase the yield 10 bu. or more per acre. Ask your dealer to write for circulars.

WALKER MFG. CO., Council Bluffs, Ia.

## Shoes of Quality Are Stamped M.D. Wells Company

For Mother and the Girls Every shoe bearing this famous name on the sole, assures its wearer the greatest dollar for dollar value possible, whether style or comfort is looked for. No shoe, at any price, has more style—fewer shoes afford as much solid comfort and long wear.

There are Wells Shoes for every member of the family—mother, father and the children. They are conscientiously made by expert workman, of the best leathers money can buy—all leather, no substitutes—and the soles are genuine oak tanned.

If you are one of those who appreciate a hundred cents worth of shoe value for every dollar you spend, insist on being supplied with Wells Shoes.

If shod in WELLS' SHOES, you are "well shod." Free We have laid aside a very interesting booklet for every reader of this paper, entitled "Mother, Father and the Children." Yours is waiting for you—send for it today. If your dealer cannot supply you with Wells Shoes, you will be rewarded by writing M. D. Wells Company, Chicago.

# The GRANGE



**"Excuse me I know what I want and I want what I asked for Kellogg's TOASTED CORN FLAKES"**

The name—Kellogg's—and the signature are protected by the laws of the U. S.

The flavor and goodness are equally impossible of imitation.

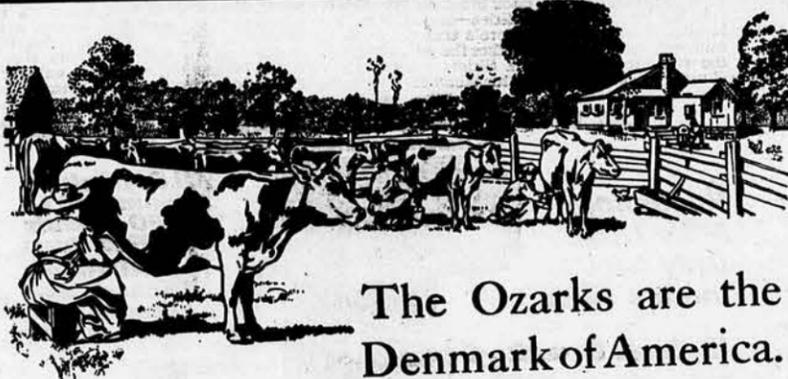
The original corn flakes is Kellogg's—imitated but never equalled—deliciously flavored—appetizingly crisped—wonderfully wholesome—Insist on the genuine for your own protection.

The Original Corn Flakes—the Kind with the Flavor—always bears this Signature. None other is Genuine

Made of the Best White Corn Only



W. K. Kellogg



**The Ozarks are the Denmark of America.**

Right here in the heart of the Mississippi Valley, practically on the outskirts of three great cities, is the greatest natural dairy country in the world, where butter fat can be produced cheaper than it can be produced anywhere else in America.

There are logical reasons why this is so.

First, the cost of land is very low; \$5 to \$25 an acre with abundant timber shelter.

The climate of the Ozarks, free from extremes of heat and cold, is ideal for the health of the cow and the production of milk.

Numerous mountain streams provide an abundance of pure water.

Grasses, clovers and forage crops grow profusely in the Ozarks, thus producing cheap feeds that reduce the cost of feeding to the minimum. Orchard grass, an especially prolific grower, will furnish fine green feed almost the entire winter. If reinforced with winter Vetch, winter rye, winter barley, winter oats and fescue grass, there will hardly be ten days all winter when

stock can't be allowed to run on such pastures and kept in fine flesh. Milk cows in the Ozarks, when properly managed, are always healthy, and free from tuberculosis.

One Ozark farmer gets a net profit of \$12 a month from each of his cows. The cream and fertilizer from each cow are worth \$100 a year to him.

With the use of intelligent methods others can do this well. I am prepared to explain just how such results are accomplished if you are interested

Dairying is just one feature of intensive farming in the Ozarks. Hogs, sheep, mules, poultry and fruit are all very profitable.

A small farm devoted to these pursuits will return a big profit on a small investment of capital and labor.

If you will get a small farm in the Ozarks, set out an orchard of well selected varieties, lay out a vegetable garden and berry patch, stock the farm with poultry, cows, pigs, sheep and mules, grow the feeds and grasses you need for them, you will realize a greater profit than you possibly could make on a big grain farm elsewhere.

Furthermore you would live in a beautiful country, in healthful surroundings, free from malaria and away from severe cold and snow. You would be within a few hours of three large markets—St. Louis, Kansas City and Memphis and would have advantage of good local markets, schools, churches, etc.



It will be worth your while to look farther into this. We have some attractive books full of plain facts about the Ozarks. They will interest you. Write for free copies today.



ALEX. HILTON, GENERAL PASS. AGENT 1510 Frisco Bldg., St. Louis

Farmers are beginning to learn their own business and to understand that there is as much necessity for and benefits accruing from organization of farmers as there is to any other class. Why not organize some more Granges in your community? The expense is small, the benefits along social and educational lines are worth far more than they cost. Think it over, talk with your neighbors. Call a meeting to discuss it, act now.

**The Farmer Makes the Farm.**

The real builder of the farm is the farmer. The right kind of a farmer can bring almost any kind of land into good condition for the growing of some kind of crop. Crops differ so much in the conditions under which they will grow that if a man understands the peculiarities of his soil he can find some kind of crop that is nearly adapted to it and can fit his land accordingly.

So great is the science of agriculture that what a man can do with land is limited only by what he knows. The farmer can make his farm into almost anything he chooses. He can be improvident and permit it to run down by constantly taking from it and putting back nothing, or he can make it more and more productive by always putting into his land just a little more than he takes off.

Read what the Honorable James Wilson, Secretary of Agriculture, says of the Grange: The Grange is the best organized, most sensibly conducted and most valuable organization the farmers of this country have ever known. It is organized along proper lines; it recognizes the home and the wife, and brings such influence into the deliberations of the Grange as to put them on a very high level, excluding entirely whatever would not be welcome to the most delicate ears. The social features of the Grange are admirable. Farmers live so far apart, whether a quarter of a mile or a half mile, that unless some organization brings them together, they live lonely, isolated lives. The Grange does much to overcome this natural condition. It should be more extensively organized. The settlers of the western country, beyond the Mississippi river, would be greatly benefited by an organization of this kind."

On Thursday morning, Feb. 17, I left my home at McLouth for Delia, Kan., by rail. We held a meeting there in the evening and the next day drove eight miles north and completed the organization of Adrian Grange with a charter membership of forty. We went to Avoca in Jackson county the next day, held a public meeting, and organized a Grange and sent for the charter. On Monday evening we organized another Grange at English Ridge school house in Pottawatomie county. From there we went to Soldier City, but on account of the intensely cold weather the meeting which was to have been held there was postponed for two weeks. On Wednesday we drove across the country to the Banner school house and

that evening completed the organization of Banner Grange and gave the secret work to 29 charter members. On Thursday evening we held a public meeting at Centerville school house, north of Mayetta. This morning we start out on a 17-mile drive to a point in the northern part of Jackson county, and will report results later. On Saturday morning, after a very pleasant and successful meeting six miles north of Holton, we now return to Holton, where I will take the train for home, after having arranged for several appointments in Jackson county for the near future.—A. P. Reardon, national organizer and lecturer.

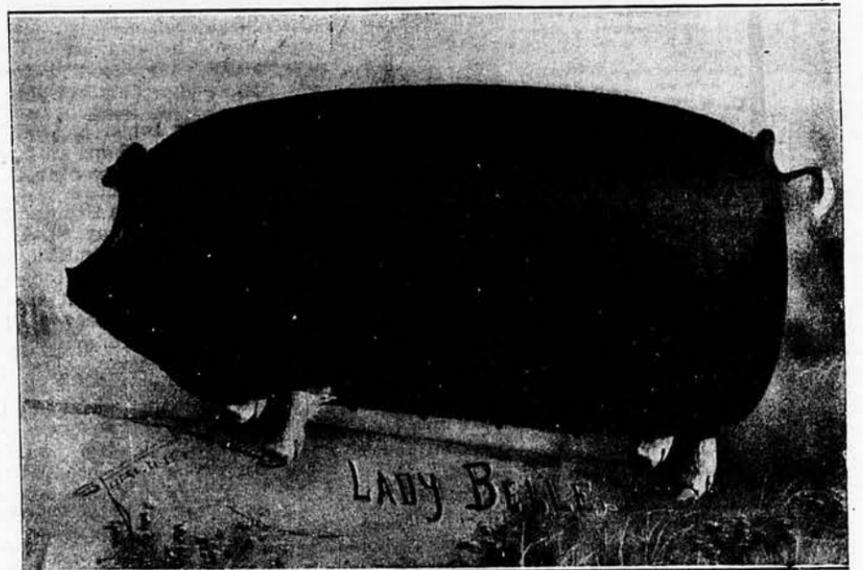
**More Agricultural Schools.**

For more than a quarter of a century the Grange has advocated the teaching of scientific agriculture, many were indifferent, others scoffed at the idea but year by year the Granges of the United States reaffirmed their position on this most important subject. The Grange has said that the farm boy and girl shall have the same chance for a technical education along the lines of agriculture as those who desire to follow other occupations or professions. After all of these years of agitation we note a change of sentiment from other interests as is clearly set forth in the following from Mr. Hill, the great railroad man, who says he would take \$5,000,000 or \$6,000,000 a year and start at least a thousand agricultural schools in the United States at \$5,000 a year each in the shape of model farms. The purpose of these schools or farms would be to furnish a working model of practical farming for the instruction of all near enough to benefit therefrom. The idea is one to be commended and the suggestion one that Uncle Sam might well take under consideration. No doubt, Mr. Hill, himself would be willing to father the movement and extend it all the personal aid possible. The development of such a system of farm demonstrations, under the management of either federal or state experiment stations, would be a worthy work.

**New Grange to Build \$2,500 Meeting Place.**

A special meeting of the Pleasant Ridge Grange was held last week at the Pleasant Ridge school house, west of North Topeka. The meeting was called to discuss plans for the new Grange hall which will be built soon by the Pleasant Ridge organization. It is now proposed that the hall be built at a cost of about \$2,500. The site upon which it will be located is not as yet picked out and a special meeting of the Grange has been called at which the various locations will be discussed and one chosen.

One of the proposed sites is that just back of the Pleasant Ridge Presbyterian church, north of Kiro. Another is at the Kiro station, and one north of Menoken has been proposed. The one which seems to have the most supporters and which will most likely be accepted is on Pleasant Ridge back of the church. It is the most centrally



**LADY BELL.**

The diva of the grand champion show herd at the Kansas State Fair 1909. Lady Bell was sired by Corrector 2nd, her dam was by old Proud Perfection. She is one of the best producing sows in Kansas today. She is owned by G. W. Roberts, Larned, Kan.

located and is on high ground; with good roads leading to it.

The committee which has the building proposition in charge is composed of L. H. Neiswender, Dan Landis, Robert Rigdon, Walter Coleman and H. Cochrane. The money for the building will be raised by subscriptions from the members of the Grange. At present the grange has over two hundred members and is growing rapidly. As soon as the committee knows exactly what the plans for the hall will be the subscription papers will be circulated. The meeting called for Saturday will be an all-day affair and a basket dinner will be served at noon.

The legislative committee of the National Grange, Patrons of Husbandry, has issued a circular calling attention to the important subjects upon which the Grange demands legislation. These subjects are: national aid for highway improvement, the establishment and maintenance of a parcels post, the creation of postal savings banks, the extension of agricultural college work on to the farms and into the homes of the farmers, the election of United States senators by a direct vote of the people, a strong stand against a suggested repeal of the oleomargarine law, a protest against the granting of a ship subsidy and the conservation of timber and mineral lands. The Grange has always acted fearlessly and regardless of political parties. It has accomplished much for the good of the agricultural interests of the country in past years and, with its constantly increasing strength, will be able to accomplish more in the future. Its position on some subjects antagonizes one or the other of the great political parties but it is persistent and if it does not succeed in its first campaign, it inaugurates one of general education.

**The Farm Garden.**

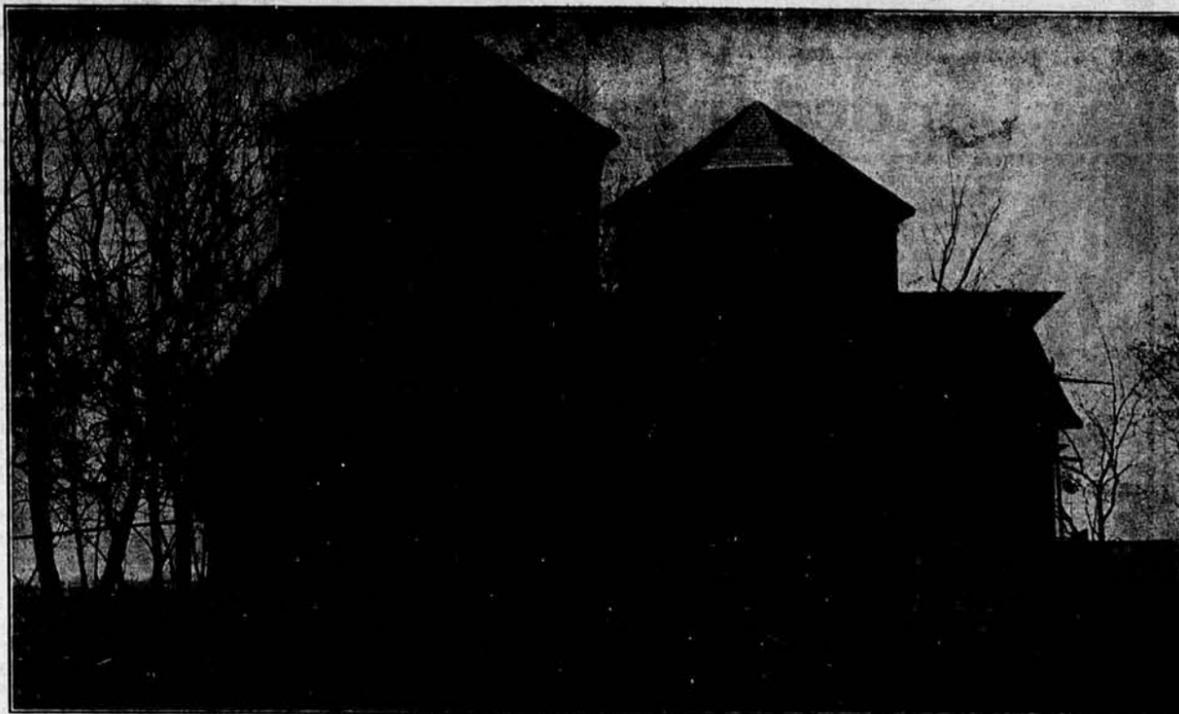
Too often the farm garden is a joke. It is frequently located in some out of the way corner that is not useful or not available for regular farm operations, and yet it is deserving of the best location to be found on the home acres. A well kept garden is not only a pleasure to the whole household but it is a matter of strict economy as well. It is economical in that it greatly reduces the cost of living by turning a little labor and a few seeds into the most wholesome of human food. But its chief value, perhaps, lies in the variety which it will give to the farmer's table at all seasons. Most farmers believe in balancing their rations for their live stock but few give attention to balancing the rations for themselves and the family. Balanced rations in the house are just as economical and just as valuable as they are in the barn or feed lots.

One of the best gardens the writer has ever seen was located on a stretch of bottom land below a "bench" which encircled it to the north. On this bench was a heavy growth of trees. The land was somewhat sandy with a gentle slope to the south and east. This peculiar location gave the owner protection from the north winds and ample sunshine and he was able to produce his crops of garden truck weeks earlier and of much finer quality than his neighbors on nearby farms.

The best spot of ground on the farm then, should be devoted to the garden, and if this spot can be located so that it will be long and rather narrow it will be much more convenient for plowing and cultivating. In planting one should have a plan and follow it closely. All vegetables that are capable of growing closely together should be planted in one section of the garden so that they may be cultivated together. Rows of beans, onions, peas, radishes, etc., can be handled nicely this way by the wheel hoe and if the garden has been well plowed in the first place and the soil put in good condition the labor is not great in attending it.

The vegetables of larger and coarser growth, such as tomatoes, cabbage and melons, should be placed in another part of the garden, each by itself, so that they may be cultivated with the aid of a horse. The vines can be cultivated until they begin to run when they need no further attention than hand pulling of weeds.

The important point in achieving success with a garden is to put the soil in proper condition by heavy manuring in the fall and deep plowing. Drainage is also essential. Lessons in intensive farming learned on a little garden patch may be of value in the larger fields as well.



The whole corn crop under cover and ready to feed as ensilage. Typical stave silos. By courtesy of the Indiana Silo Co.

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Forty pages in colors

## WHAT EVERY FARMER WANTS YOU CAN GET IT FREE

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The fact that this book also contains description of

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Illustration here shows the regular runner, but stub runner or disc openers may be had on special order. In fact, the **Deere No. 9** is strictly up to date in all real improvements.

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 "We have obtained wonderful success in the use of "Sal-Vet" for destroying stomach worms. Since we began its use, our entire flock of sheep have become much healthier and more vigorous. I cannot praise it too highly."  
 (Signed) T. R. ARKELL, Prof. Animal Husbandry.

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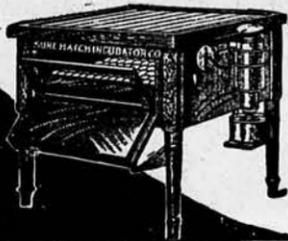
No other incubator is good enough for Bonding Companies to risk their money in backing. The Bankers' Surety Company could not afford to let their name be used, let alone back up our guarantee if the **Sure Hatch** were not the best incubator on the market. They didn't agree to issue bonds on the **Sure Hatch** without first looking into the machine, its construction and record.

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Your dealer can supply this machine, or send \$9.00 and we will ship C.O.D. for balance. Write for our new 1910 book, "More and Better Wool." It is FREE. Send for a copy today.

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# THE FARM



### Selection of Garden Seeds.

The seed proposition has become a serious one with the market gardeners, and the country is sorely in need of some legislation on these lines similar to the pure food legislation.

The only way to maintain the good quality of garden seeds is by allowing the most perfect specimens to seed and maintain the standard from these selections, as it is now only a question with the seed houses of how cheaply they can buy their seeds. The bulk of radish, lettuce and onion seeds are grown in California, where they are sowed the same as we sow wheat in Kansas and harvested by machinery. In this way they may be sold to the seed houses for almost the price of Kansas wheat. This process has been carried on until the type as built up by the originator is lost and the plant reverts back to its original type. Watermelons and cantelopes are planted on a large scale, the choice fruits are marketed, the culls seeded and the seeds sold to the seed houses, by whom they are sold to the public as "Seed grown especially for us and under our supervision."

I recall an instance where a market gardener sent to another state for some early roasting ear corn put out under a big flaring name, paying \$4.00 per bushel, and on opening the sack he found the card of a Kansas seed house which had been overlooked. So, by having a more glaring name than the Kansas man could think of, this seedsman procured \$3.25 per bushel more for the corn than the Kansas man could. It is the same all along the line, and the most worthless lot is our "political seed" sent out by the Government.

To grow good produce the gardener must select and propagate from the most perfect specimens, using the same method which the stockmen have used to get out of the "long horn steers" class. Some twelve years ago I was trying to earn a livelihood as a city man. At the same time our Secretary of Agriculture was classing this part of Kansas as being in the semi arid region. There were no small fruits raised here as they invariably burned up. Truck gardening was not much of a success as spring rains were very uncertain. As there seemed to be an unlimited market for such produce here, and there being an abundance of underflow, I began to experiment with irrigation.

I procured a centrifugal pump with a capacity of 500 gallons per minute and operated it with a gasoline engine. After several failures in getting an open well to supply enough water for the pump, I hit upon a plan of sinking a four-inch pipe 12 feet long, with 8 feet of the lower end drilled full of half inch holes, and the whole 8 feet covered with a coarse jacket, making a point 8 feet long, and found it would supply 500 gallons per minute continuously. But my troubles had just begun. I could not handle the water any great distance from the pump, as it would wash out the ditches or sink in the sand. So I overcame this by placing sewer pipe, with joints cemented, under the depth of the plow, using tees at high points for outlets and putting in branches where wanted, and connected directly to the pump. I found I could then distribute water just where I wanted it without loss. If I wanted to water on some other part of the farm, I could move the engine and pump and have them running in an hour's time. I understand they are now using this plan in the beet districts in the western part of the state for irrigation on a large scale.

This part of Kansas is now out of the "semi-arid" region and I have had no occasion to use the pump for five years and Reno county is now noted for fruit and vegetables, produce being shipped to Western Kansas, Colorado, New Mexico and Texas.

For watering in greenhouses and small truck patches, which need an abundance of water and need it often, I am using a three-inch double-action Goulds engine, or a smaller gasoline

engine, capable of generating 200 pounds pressure. I connect this with a system of pipes, and distribute with a hose. I also use the same outfit mounted for spraying vegetables and fruits, it having a capacity of several acres of vegetables per day or will take two rows of trees at once through the orchard. As we passed out of the semi-arid region we entered the blight region and spraying is as important now to insure a crop as irrigation was formerly.—F. L. Parker, Hutchinson, Kan.

### Are We Soil Robbers?

Hello, EDITOR KANSAS FARMER.—

Connect me by type with your 60,000 readers for a few minutes and let us reason together about better farm conditions and their attainment. I have always been associated with farmers and find them, to my mind, the very best people on earth. We are an independent lot, and every fellow is so resourceful that he thinks he can run his own business regardless of everybody else, and he sometimes violates the plain laws of health and nature and expects no evil results to follow.

Now brother farmer, push the "type" receiver close to your ear and let me whisper a few plain secrets to you. I am a country-jake by birth, a minister of 20 years' experience by profession a newspaper correspondent by accident, and a farmer-stockman by choice. I have tried city life, country village, county seat, metropolis, mining camps, cow camps, large ranches, hay camps and the small farm, and must give my plaudits to the plain old country farm home.

Are you aware that the kings and queens of this earth in character, contentment, purity, strength and love dwell there, and raise their children to go forth to be the leaders in town, city, state and church circles? Can you imagine the many evils and dangers the city boy and girl are constantly beset with, while your boy is enjoying God's best and freshest blessings? A pure home, good associations, good books and papers, free fresh air, and a keen appetite with plenty of good, pure, wholesome food to satisfy it. He drinks at nature's fountains and gathers inspirations for higher things and his day dreams lure him out to things unseen and unknown.

Say, boy, what are you thinking about as you follow the plow? Cities and pleasures, ease and comfort? Alas, too often is this the case. Stop a moment. Sit down on the plow beam. Take up a handful of that fine soil you have just exposed for the first time in centuries to the sun's rays and the gentle showers, and look at it. What does it contain? How long was the kind Creator in building it? What did he make it for. To be plowed up and washed away by the rains into the creeks and away to fill the mouths of the great rivers?

Of what is it composed? What will it produce? What does it owe you? What will it do for you? What does it need? How can you supply that need?

Oh boy! Look into that soil as the gold miner looks for the gold. Look into it as carefully as the astronomer studies the stars. Look at it as the attorney studies the statutes. Look at it as the doctor his patients and books. Look at it as the preacher studies the Word and his listeners.

Boy, your text book is nature, her laws, her gifts, her penalties. Study her ways and be healthy, wealthy and wise. Violate her laws and reap the harvest of poverty and discontent. Too many of us are giving out time and thought to things appertaining to the other fellow's business, discussing the failure of politicians, professional men and tradesman, while they are planning how they can use us for the advancement of their own gratification.

Say Boys, let us look to our own interests. Study better methods of preparation of the seed-bed, selection and grading of seed, adaptability

# NOW! — IS JUST THE TIME — NOW!

## GET A PENCIL AND A POST CARD

You have been seeing my ads all fall and winter—read some of them, may be. Meant some time to write me to find out what all my advertising was about. But you put it off—couldn't find a pencil maybe. Had to quit reading and go out to do some chore or other—and you clean forgot it.

Now—Right Now you're thinking about it again. Don't stop till you **Write Galloway today about a Manure Spreader**



**Freight Prepaid**

**Made in 5 Sizes**

Lowest prices ever offered. Try it 30 days on your own farm.

Why? The best reason is that this in the year when you will need a spreader if you ever did. Manure in piles all around the barn and feed lots. Worth lots of money. Can't afford to waste a bit. Takes an awful lot of time. Get a spreader of Galloway. Best investment you ever made in machinery.

Galloway makes all his promises, all his statements, claims and challenges in black and white. A man can read 'em running. Now, what about the other fellow? Make him write it in the contract. Does he say his spreader will beat the Galloway before breakfast? Make him write it in the contract. Does he claim his spreader is made of better material than the Galloway? Make him write it in the contract.

I will write any of my agreements—I do write 'em, every one of 'em. Ever think of that? Think it over then. If the Galloway were not exactly as good or better than I claim it is, could I hope to escape utter smash-up? You know I couldn't stay in business with my written claims and agreements if I didn't have the spreader to back me up.

Well then, won't you take my advice, accept my invitation, fix it any way you choose but get your name onto a slip of paper or a postal card and send it to me. Not next week—not next Saturday—not tomorrow. Do it quick. Now is the time—Now. Then you'll be ready for the spring work.

By the way, ask for my proposition. It might pay for your spreader before the year is half done.

WM. GALLOWAY President **WM. GALLOWAY COMPANY** 387

Galloway Sta. WATERLOO, IOWA



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### Dr. Hess Dip AND DISINFECTANT

is sure death to all sheep ticks. It is also a guaranteed cure for Sheep Scab, Foot Rot and every form of Mange or other parasitic disease of the skin in horses, cattle, sheep, hogs, dogs and poultry. It is also excellent for disinfecting and deodorizing hog pens, chicken yards, cow stables, sinks, closets, etc.

One gallon of Dip makes from 70 to 100 gallons. Dr. Hess Dip and Disinfectant diluted one part to 70 of water meets the Government requirements for official dipping for sheep scab.

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If you were buying or trading a horse? You would if you had read

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enables you to instantly detect every trick that has been played on the horse you are about to buy to make him appear sound—to hide blemishes and sickness. It reveals the favorite tricks of "Shutting a heaver"—"Plugging a roarer"—producing artificial plumpness—the "Bishoping" trick of altering teeth to hide age—how to detect a "doped" and "gingered" horse—how to know when eyes and ears have been "doctored"—discharging fistulas, etc., concealed, and spavins hidden—tricks of dishonest auctioneers. It exposes the bogus pedigree trick and scores of other smooth dodges practised every day. Gives many valuable secrets for feeding and conditioning stock; for curing balking, kicking, "cribbing," halter-pulling; formulas that enable you to practically duplicate the best-known "horse remedies" at a big saving. "Horse Secrets" will save and earn many dollars for every man who owns a single horse or a large stock farm.

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a copy of "Horse Secrets" and two years' subscription to Farm Journal, the standard paper for the farm and home—bright, practical—to the point—the cream of helpful, money-making suggestions.

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of seed to our soil and climate, care of the stock and the number we can handle with profit on our farms, care of the fences and fence rows and turning rows. Do not let them wash or become breeding plots for weeds. Care for the native grass in the valleys and place grass plots on all low places to catch the wash from your own field. Love your neighbor but do not contribute your best soil to him by allowing it to wash over on him.

Rotate your crops and be sure you add to the soil fertility and make the farm better by your living on it, the community better for your being in it, and the state and nation richer and the coming generation reap a rich harvest because you have known and loved and built up the soil.

Brother farmer, we are banded together in sentiment at least, against all robbers and bribe takers, but if we could read the verdict being written in nature's court against us, how many would have to answer "guilty" to the awful charge of soil robbing. How many of us could face our own stock as a jury and answer not guilty of cruelty for lack of care, food or shelter.

Now boys, you have held that receiver long enough and we'll hang up.

I say, if this does not stop your clock, I may call you to talk more definitely on some experiences in farming and stock raising, and if you think worth while just call up M. G. Hamm, the farmer preacher, Holton, Kan., at any time. That's all. "Ting-a-ling."

### Testing the Accuracy of Seeding Implements on the Farm.

Seeding implements have taken an important part in the industrial revolution of the eighteenth and nineteenth centuries, and although they have been developed to a high degree of efficiency, perfection has not yet been reached and in their usage errors are common. We wish to call attention to some of the errors and to render suggestions and figures that will aid in their correction. This knowledge should be of use to the farmer in selecting a new seeding implement.

Seeding implements for the general farm may be classified as follows:

Small grain and grass seeders, grain drills, corn planters.

Accurate seeding involves a uniform distribution of the desired amount of seed properly placed in the surface soils. That is, we are interested in the distribution, amount of seed, and the seed covering.

Ordinarily in broadcasting we can expect to lose some seed, either by its being covered too deep or by not being covered at all. A seed on the surface does not stand any more chance of being covered by a mere stirring of the ground than does a soil particle on the surface. Unless a covering instrument is used which will turn the entire surface soil under, some seed will be left uncovered and be destroyed.

Rotary seeders can be adjusted to sow any given amount to the acre, but are liable to sow in streaks. A uniform distribution is hard to obtain since as the seed is flying in every direction, that which is thrown against the endgate or the man's body falls near the center of the sowing strip. As a consequence the seed is thicker at the center of the strip. It is a common error to walk or drive too far apart at times when sowing with the rotary seeders, leaving strips and patches bare. These errors are coun-

teracted to some extent by sowing one half the seed one way and the other half by crossing at right angles. Perhaps a better way, if pains are taken to keep the sowing strips straight, is to lap half each time. Again the wind interferes with uniform seeding with rotary seeders and it is best not to use them on any but still days, or in morning's while the air is quiet.

The common broadcast seeders are more desirable than the rotary in that a more uniform distribution can be attained, and with them seeding is not interfered with by the wind. Unclean seed may be more difficult to sow with these, however, as clogging is more apt to occur. These seeders are more difficult to handle and are perhaps more expensive to operate, but it is generally conceded that the good work which they do will more than affect these undesirable qualities.

With grain drills the covering is insured when soil conditions are right. When the soil is wet, clogging of the spouts may occur, or if it is dry and cloddy much of the grain may not be covered at all, or not covered with moist soil. Fairly uniform distribution can be expected if the seed is clean and the feeders are adjusted properly. It is possible for the feed shell or casing about the feeder to become loose and out of place, in which case careful adjustment and tightening is necessary. The gage or scale of the grain drill cannot as a rule be depended upon. Hence calibrations should be made occasionally.

Calibration consists in the adjustment of seeder to sow or plant a specified amount of seed to the acre.

To make the process simple a fraction of an acre can be determined, this sown, and the amount of seed in sowing it determined, and calculated upon the basis of an acre. To do this it is necessary (1) to measure 40 rods into a field and set a stake, (2) to determine sowing width of seeder or drill, (3) and to sow one strip and calculate the number of pounds sown by the seeder on the strip.

### CORN PLANTERS.

Because of the relatively small amount of seed used per acre with corn the problem of uniform seed distribution is a difficult one. Much has been said regarding losses sustained by improper dropping devices, poorly graded corn, etc., a part of which is well founded.

Calibration of drill planters is a simple matter. The drill whether a two row planter, a lister and drill combined, or the small one horse, one row drill should be mounted to make the driving wheel free. Fill the planter box and have everything in shape for dropping. Measure the rim of the driving wheel in inches, with a tape divide this into the number of inches in, say 10 rods or 1,980 inches. Turn the driving wheel by hand the number of times equal to your quotient in 45 seconds, as 45 seconds is the average rate a team travels 10 rods in the field. Count the kernels dropped. The following table shows the number kernels you should have for the distance apart you wish to plant. Some pains should be taken to see that only one kernel is dropped at a time.

Inches apart of kernels in row.	Number kernels.
14	142
16	124
17.5	113
19	104
22	90

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tion. At this time we can not enter into the details of the process. Should there be a demand the writer will be glad to explain it later. Some satisfaction may be had by running the planter in gear over the bare road where the kernels can be counted. —Carl F. Chase, University of Nebraska.

# HOME CIRCLE



## House Plants in Summer.

About this season the ladies begin to think of bedding out their cherished house plants, thinking to save themselves the care of them when work is pressing, and also to get the blossoms sure to follow the planting out of the geraniums and other pot plants. Without stopping to think that plants need rest, they try to get two crops from them, and the result usually is that in winter the plants are spindling, ungainly and without blossoms. There is a way of bedding out that is very helpful, but not the ordinary one where the plants are left to shift for themselves until fall, when they are repotted and expected to start to blooming at once.

As geraniums are the most common of house plants, and also as cheap as anything that can be bought, it is foolish to try to make the poor things blossom summer and winter. If the plant is desired for summer it is easy to start a number of slips in April or earlier, from the house supply, or buy the small plants ready potted from some green house. Sending to some reliable seedsman for the small size is also a good way to get a start, and as soon as the weather is settled, get them into the rich, sunny beds. But if you want blossoms in winter, don't pursue that plan at all. Get your plants on the north side of the house or under an arbor where they can rest all summer long, and get hardy and strong for forcing. If you leave them in the pots see that they are watered enough, but if they are planted in the border the rain will usually supply the moisture. Then early in August they can be lifted back into the pots and be ready for the winter.

Fuchsias and ferns also like a cool, north exposure, where they can luxuriate all the long warm days. Ferns like plenty of sand and well rotted soil about their roots, and are usually better for not being taken from their pots, except when they outgrow them. All the geraniums with sweet scented leaves enjoy a rich soil and not too fierce sunshine if they are to be lovely and green the next winter, and calla lilies need a complete rest. In fact, it is safe to put nearly all varieties of winter plants on the north side of the house where the sun can not bake them.

Roses for the amateur are a snare and a delusion, but you want to try having them in the house in the winter, keep back all summer by pinching off the buds. This is a good rule for geraniums, also, as it gives a fine stocky growth without exhausting the plant with blooms. Palms do well almost anywhere except in the hot sun, as in their native country they can scarcely be killed. Ivies die down and look rusty in warm weather, but no fear need be felt on that account, as they seem to enjoy a cool, moist temperature best.

Water the plants occasionally with liquid manure, and if in the open ground keep the weeds down so the plants can get the nourishment. A good mulch of weeds protects the roots and holds the moisture, so that there is less need of water than if the ground is exposed. A handy device for keeping the flower pots damp is an old dishpan or any kind of water tight receptacle to hold the pots. Pour the water into the pan and allow the plants to "drink with their feet" when you are busy. Everyone knows how tedious it is to sprinkle plants with a sprinkler until they are wet enough, but by using the absorption plan much labor is saved.

Begonias make such handsome porch plants that it is well to keep them in their pots. Large saucers under the pots will hold water for them, and if the dead leaves are kept picked off they will indeed do double service, looking beautiful as they rest all summer. Of course they do well on the lawn, but a beautiful foliage plant is such a delight in cold weather that it deserves a rest when it is hot.

A little lemon or orange tree in a flower pot carefully cared for will reward the grower by bearing its glossy leaves and bright fruit, but this also requires special care. Tuberoses that

have been started in March in the house may be placed in the open border since they will not last until winter, and so may chrysanthemums, though the latter may be kept till Thanksgiving by carefully taking from the outdoor air to the house. A few fine specimens should be pinched back and kept in the pots unless work is unusually pressing, as they look better than the ones dug up in September and potted for the house.

So just remember the summer is the resting time for your house plants and treat them with due consideration. You would not like to work all day and all night, so do not expect too much of your pets. Feed them well with rich soil and let them luxuriate in the warm, shady air. Then you may confidently expect an abundant harvest next winter.

## The Fireless Cooker.

The principle of operation of the fireless cooker is an old one. It is simply to retain the heat obtained by preliminary boiling. Many of the cooking processes are best accomplished when the temperature is kept below 212° F., consequently for many things the fireless cooker method is ideal. Water has a great capacity for absorbing heat and if the heat can be retained the changes of cooking will take place without the addition of more heat.

The ease with which a fireless cooker can be constructed, the small expenditure necessary to insure an efficient cooker, and the convenience of the cooker to the housekeeper justifies the interest that is being taken by housekeepers at the present time in this simple kitchen contrivance. That it saves time and fuel is recognized by all who have used it. Many of the cheapest and most nutritious foods, such as certain cuts of meat, dried beans, peas, corn or fruit, are seldom served in the average home because of the time and fuel required to make them palatable. The housekeeper who has a fireless cooker in her kitchen and who is willing to study its possibilities may prepare wholesome, nutritious, economical and attractive dishes with comparatively little expenditure of time or money. The cooker has its limitations. The idea is still in the process of development and each manufacturer is striving to add some new feature to the cooker which will increase its value. It is not necessary, however, to buy a cooker, for it is not a difficult thing to improvise a satisfactory one at home.

A deep box or small trunk or a candy pail may be used, and for packing any good non-conducting material will serve the purpose. Wool, cotton, excelsior, ground cork, hay, asbestos wool, crushed or torn paper have been used with satisfactory results. To pack the box it is convenient to make cylinders from pasteboard which are a little larger than the cooking utensils to be used. The inside of the cylinders should be covered with a little padding sewed on neatly. Fill the box to the depth of four inches with packing material; place the cylinder in the center and fill the space around it with the packing material. Much of the success of the experiment depends upon the manner of packing. It is necessary that it be solidly and firmly packed so as to prevent the escape of heat. To hold the packing in place some finely woven cloth may be neatly fastened over it. Cushions for the top must be provided. They should be three or four inches thick and packed firmly and evenly with the packing material. They must be of the exact size to fill the space above the cylinders.

Porcelain, granite ware or aluminum utensils are suitable for use in the fireless cooker. Tin rusts and is not suitable. It is necessary to have tight fitting lids. The ideal cover fits down into the kettle for an inch or more.

It must be remembered that the cooker does not generate its own heat.

It is essential to have the kettle and its contents very hot when it is put into the box. This preliminary boiling must be continued sufficiently long for the food to be heated through. The time varies from five minutes for vegetables and cereals to twenty minutes to half an hour for a large piece of meat. Close the box quickly and do not open until the food has had time to cook. The length of time required will depend upon how carefully the cooker has been made and upon the food to be cooked. It will be necessary for the housekeeper to experiment and to determine for herself the time required. In these experiments remember that boiling hot food, tight lids and tight coverings are the essential points.

It is possible to follow the principle of the fireless cooker further and to provide a means of baking as well as boiling. This is done by insulating an oven. For this purpose use an oven from a gasoline or gas stove and a box similar to the one already described. The packing is arranged around the oven. It is best to place a layer of asbestos such as the plumber uses around the oven before placing the packing. The oven is heated by placing hot soapstone slabs into it. Bread, meat, potatoes and apples may be baked in an oven insulated in this way with excellent results. The oven will retain its heat for hours. The size of the oven, the completeness of the insulation, and the size of the slabs are the factors which must be considered in heating the oven. The time required for baking is determined by the temperature of the oven, which can only be determined by experiment.

These directions and explanations are the outgrowth of experiments and are given with the hope that others may become sufficiently interested to give the fireless cooker a fair trial.—Mary Van Zile, K. S. A. C.

## First Aid to the Injured.

### CONTUSIONS OR BRUISES.

Contusions are those injuries to the tissues of the body caused by their coming in contact with some blunt object. In simple or slight contusions the injury is confined to the area very closely surrounding the point of contact. In severe contusions the systematic effect or the shock produced may cause immediate death. In hot contusion the external skin surface is not broken and only the underlying structures show evidence of injury. To a greater or less extent a contusion accompanies lacerated and incised wounds (where the skin is

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broken) and in many cases it is a very serious complication. Any of the structures below the skin may be injured by a contusion as the tearing of muscle fibers, rupturing of blood vessels, paralyzing of nerves or crushing of bones.

The part injured in tender on pressure and painful on movement. Swelling may take place at once from the rupture of a blood vessel or after a short time from the collection of serum to the part. There is always a certain amount of shock produced which in some cases, as some contusions of the abdomen, may cause immediate death. After a few days in most instances the blood from the ruptured blood vessels finds its way towards the surface and the skin becomes discolored. This is very noticeably shown in cases of "black and blue" eyes. Sometimes the tissues have been so deadened that the break down and slough away or become infected and are destroyed by that means.

As preventive measures for contusions never strike anyone about the head, face, or body, especially in the abdomen. Nearly everyone knows how easily his wind may be "knocked out" even by a light blow in the abdomen. In games, such as football, where contusions are liable to be frequent, protect the body by guards and pads as much as possible.

The best treatment for the contusion itself is absolute rest of the part for a short time. This may be procured by bandages, slings, splints or putting the patient to bed. Firm bandaging lessens the amount of swelling and favors its re-absorption. Cold in

the form of icebags or cold water placed on the part also tends to lessen the swelling. Considerable caution must be used in the application of cold as the tissues are always a little devitalized by the contusion and the added slowing of the circulation by the cold may cause them to die and decay. Therefore if the tissues appear to have a low vitality they should be kept warm by being surrounded by hot-water bottles and covered with warmed blankets or other covers.

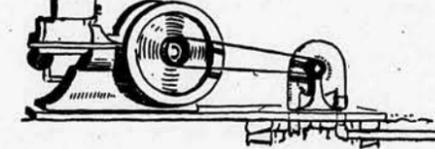
After a few days the part should be massaged, kneaded, and moved about, slowly at first but with increasing force. Rubbing with some liniment as witch-hazel, arnica or soap liniment may also help some to improve the conditions this time.

If the general shock is at all severe it must be treated by stimulants as aromatic spirits of ammonia, brandy or strong coffee. The patient must be kept warm by covers and some form of artificial heat or hot water bottles or heated bricks. If breathing has stopped, as it so often the case in blows on the stomach, artificial respiration should be given at once and maintained continuously until the patient is able to breathe normally. Methods of artificial respiration will be given when treatment of drowning is considered.

A physician should be called in all cases where the shock is at all marked as some serious injury may have been done to some of the internal organs. —William H. Bailey, A. M. M. D., University of Kansas Medical School, Rosedale, Kan.

**Irrigation by Pumping.**

There has always been more or less interest in irrigation in Kansas and the dry season of last summer served to increase it in some sections that had not heretofore seemed to be interested. There was considerable talk about irrigation and its possibilities in the southeastern part of the state last



fall and the possibility of securing state aid in one or more large projects was seriously considered. Apparently nothing could be done along this line, however, and if it had been accomplished, it would have been of no benefit to those farmers living above the ditch. Large irrigation projects are always more or less expensive, and adaptable only to favorable localities. It is possible, however, for the individual farmer to own and operate his plant independent of his location with reference to any stream and without the co-operation of his neighbors.

Herewith is shown a drawing that will serve to convey an idea of a small plant that has been in successful operation in Reno county, Kansas, for a number of years. It consists simply of a gasoline engine, a rotary pump and as much glazed drain tile as may be necessary. A level is taken of the ground and the pipes laid to give the best service. They are placed below the frost line with elbows at intervals so that different sections of the plotted ground may be watered without watering other sections. The joint of pipe which reaches the surface at the elbow is stoppered up so that the water can be delivered at the extreme end of the pipe line, or the end pipe may be stoppered up so that water may be delivered at either one of the openings as indicated in the drawing.

The land on which this outfit has been used for a number of years is quite sandy and the sheet water rather close to the surface. The engine is mounted on skids so that it can be moved from one place to another as occasion may require. The supply wells are made by driving eight or ten well points into the sand to the proper depth and coupling these all together onto the pump supply pipes. This method, of course, would not apply under other conditions. There is no reason, however, why it should not be used with any well of ordinary depth. The farmer who uses this plant so successfully has made a practice for a number of years of watering two strawberry beds, one of which contains three acres and the other one

four. He also raises large quantities of both Irish and sweet potatoes, celery, cantaloupes and tomatoes. All these are watered through the tiling pipes.

It is also possible to do successful irrigating work without the use of these buried pipes as is shown on this same farm where young peach orchards were given a thorough wetting down during a dry spell some

time ago which threatened the existence of the trees. Board troughs laid along the surface, enough to direct the water to the proper place serve as a makeshift for the irrigation of trees or crops, which do not need to be watered frequently or regularly.

F. L. Parker of Hutchinson, Kan., is the owner of this farm and for

years has made a very pronounced success in the raising of the special crops mentioned above. He has not attempted to use this method for irrigating his general farm crops and it perhaps might not apply unless a more elaborate plant were installed. For special crops, however, where the acreage is not too large, there can be no doubt of its success and its economy. As this is the first plant of this kind that the writer has ever seen in actual operation during a number of succeeding years, it is believed to afford a valuable hint to our readers and to solve the question of individual irrigation, regardless of the location of the farm in its relation to running water.

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# FROM OUR READERS

**Condition of Wheat.**  
I notice in the "Farmer" of February 26 a call for reports on the condition of the growing wheat.

Of the wheat in this part of the state probably more than 90 per cent is badly damaged by being lifted out of the ground by continual freezing at night and thawing during the day. Of this 90 per cent apparently from 50 per cent to 75 per cent of the plants are dead.

While the prospect for the next wheat harvest is discouraging, the freezing and thawing has loosened up the ground to such an extent that Kansas never had a brighter prospect at this season of the year for a "bumper" corn crop.

The past few winters, with the exception of a few days, have been so mild that the frost has had practically no effect on the soil and this in connection with the heavy rains had a tendency to let the soil become packed and sodden. Followed by a thorough plowing the Kansas soil, barring the plant elements it has been robbed of, never was in a better condition to promise large returns for spring crops. By taking advantage of this help nature has given toward a more thoroughly cultivation of the soil this apparent disaster so the farmer may prove to have been a blessing in disguise. Hurrah! for a bumper crop corn, oats, feed and garden crop.—Wm. L. Menser, Anson, Kan.

### Sowing Timothy and Clover.

The method that experience has proved to be the best for sowing clover in this state, is to sow on the wheat about the first week in April. Sow eight pounds of clover and ten to fourteen of timothy per acre and cover with a harrow. Usually a light harrow will do, but on heavy soils it may be necessary to use the heaviest harrow on the place. The harrowing will help the wheat by breaking the crust and by killing the weeds that have started.

Wheat is an excellent nurse crop. If it has been well put in, the ground will be in good condition for the clover and the wheat will be removed before it has had a chance to injure the clover very much. We have watched this method of sowing for several years and know of but very few failures.

If one does not grow wheat the ground should be plowed to a medium depth in the fall and then put in good condition and the seed sown the first week in April. With this method however, the weeds and grass will start with great promptness and about the first week in June the field should be mowed, running the cutter bar high so as to clip the clover very little if any. However, with this method, the profit from the wheat crop is lost and the chance for a good catch is but little better.—F. B. N.

### The Meat Boycott and the Dairy Cow.

Is the steer the most profitable machine to use in the manufacture of raw material into a finished article? What about the milch cow, the great foster mother of mankind. Has she not played a greater part in the advancement of civilization and even science than even the horse or any other animal. To her we readily turn for our nourishment in our infancy and again in our old age and in sickness, so why not more during manhood's prime. A cow will give in milk from ten to twenty times her bodily weight in one year. "The milch cow transmutes the forage and pasture of the farm into edible protein, lactose and fat, into units of nourishment for man at less than one-half the cost of similar units in beef produced by the steer."—Pearson. The same author says: "Milk is not only the most economical, but when pure the most easily digested of all foods of animal origin."

Two pounds of milk contain the same amount of solid food as one pound of beef and as a rule costs much less than its equivalent in beef. Also milk in itself is almost a perfect food. I do not think much harm can befall any people who take in their diet a quantity of good milk daily. Nor yet is this all that is claimed for milk. Dr. Metchnikoff, the famous pathologist of the Pasteur Institute, Paris, was much impressed, when visiting Bulgaria and part of Turkey, to find that the proportion of centenarians was greater than any-

where else. He investigated the cause and came to the conclusion that the longevity of the people was due to the fact that milk formed a great part of their diet, and was mostly eaten in a soured or prepared form.

Dr. Reinhardt has written a book entitled: "One Hundred and Twenty Years of Life" in which he sets forth Dr. Metchnikoff's theory. People do not necessarily need to eat meat in order to possess brawn and muscle. Let me exemplify. In Ireland one will find in the bogs or on the hillsides of Conought, men wrestling with mother earth in her most stubborn form to make her yield up her fertility in crops of potatoes and oats. These are men wielding the spade with barwn and muscle and even stature which hundreds of Americans might be proud to possess. The staple foods of these people are potatoes and milk. Though eggs are eaten to some extent, but beef is almost a luxury. Bacon is eaten only sparingly, and this is generally of American production. It pays Paddy better to sell his own hogs and buy American bacon when his fancy yields in this direction.

It was the great Dr. Johnson, when lecturing to an English audience, who described the oat as the food of the horse in England, but in Scotland the food of men. It probably was a Scot who retorted: "Aye!" and where do you find such horses and such men?" I say that at the present time the finest men, physically, are produced in districts where fresh meat is to a great extent a luxury. I know a man personally whose sole food for 14 years consisted of oat meal. I saw the same man at the age of 70 years in a game drive lasting the whole day, and keeping the same pace as the younger men. This man was no exception. Any number may be found here who have gone for years without meat and without suffering any in health, mentally or physically.

I have seen the Briton and the Normandy Frenchman at work in the island of Jersey for 25 cents per day, and I may say that if the average American did as much work for \$1.00 he would think it sweetly earned, especially if it came to the use of the spade. It does not take a great deal of calculating to come to the conclusion that 25 cents per day will not buy much beef, yet these men do a fairly good day's work. When it comes to dollars and cents as a basis on which to judge a man's mental and physical ability, it can not be done.

If there is so much fertility leaving the state each year in the shape of wheat, why not bring it back to an extent in the shape of fertilizers or artificial manures. Why is it that in Great Britain the crop yield per acre is so much higher than in the states? Simply because of the extensive use of fertilizers. The best farmers there think nothing of putting on \$8.00 to \$10.00 worth of fertilizer per acre for a single crop. In Britain they import phosphates from Carolina and Florida, nitrate of soda from Chili, and potash from Germany, at the same time making use of their own fertilizers such as sulphate of ammonia, bones, blood, fish, oil, etc., for the upkeep of the soil, and even here there is room for more extensive use of fertilizers, for on the Rothamstead experiment ground, the plot which received nothing but chemical fertilizers for over sixty years, the yield is ten bushels of grain per acre above the rest of the country's average.

In conclusion I would draw the attention of the readers of Kansas Farmer to the article by Prof. A. L. Haecker on "Dairy Cow vs. Beef Steer in the Economical Food Production," in your issue of Jan. 15.—Andrew Logan, Great Bend, Kan.

# RATEKIN'S 100 BU. OATS

Ratekin's Big Banner 100 Bushel White Oats—The biggest, prettiest, plumpest oat in existence. Side by side with the common sorts they yield 100 bushels per acre where other sorts make but 25 to 35 bushels. Strong, stiff straw, sprangled head, ripens early never rusts, blights or lodges. There is none like them and when our stock is exhausted there is no more to be had. Samples Mailed Free. Also our Big Illustrated Catalog of farm, field grass and garden seeds. A postal card will bring them to your door. Address, **RATEKIN'S SEED HOUSE, Shenandoah, Iowa.**

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New Seed Oats. Big money in oats if you raise the right kind. Here's your chance to get them. Imported Canadian Seed Oats for sale; extra fine. Send for free sample. It speaks for itself. This same oat we sold last year in the United States and proved their merit and our statement that the farmers need a change of seed in this country. We make a specialty of growing extra fine seed oats on our big Canadian farm; new, clean land; no weeds. Have best known varieties. Regenerated Swedish Select went 116 bushels to acre this year; Early New Market, Canada's favorite, 110 bushels to acre. Both of these are big, early yielders. I believe it will pay you to get a change of seed. Try some of these oats. The average oats are inbred and run out. Canadian Government Grain Inspector graded this grain No. 1 White. Have stiff straw, white berry, thin husk, enormous yielder. It is as easy to put in and harvest a big crop as a small one. The reason your oat crop is not bigger is because your seed is run out. This has been proven. Look at this cut. Taken from photograph of two stalks from Galloway Brothers' field, over 200 kernels to the stalk. Write early for free sample, or send ten cents for packet. Will also send you free booklet entitled "Big Money in Oats and How to Grow Them," by Galloway Bros. and Prof. M. L. Bowman, former professor of farm crops Iowa Agricultural College. Information in this book is priceless. Get it free.

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You Can See Dan Shake His Head To Let His Driver Know That He Is Ready And Then You Can Watch Every Motion Of His Legs As He Flies Through The Air With His Tremendous Stride Of 29 Feet. As A Study Of Horse Motion Alone This Is Better Than If You Saw The Actual Speed Mile Because You Can See Dan Patch Right Before You For Every Foot Of The Entire Mile And Not A Single Motion Of His Legs, Body Or Head Can Escape You.

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You can see his Thrilling Finish as he strains every nerve and muscle to reach the wire in record breaking time, you can see his driver dismount and look at his watch while thousands of people crowd around, you can see his caretaker force his way through the crowds, uncheck Dan and then throw a beautiful woolen blanket over him to prevent catching cold and

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1 MILE IN . . . . .	1:55 1/2
2 MILES IN . . . . .	1:56
14 MILES AVERAGING . . . . .	1:56 1/2
30 MILES AVERAGING . . . . .	1:57 1/2
45 MILES AVERAGING . . . . .	1:58
73 MILES AVERAGING . . . . .	1:59 1/2
120 MILES AVERAGING . . . . .	2:02 1/2

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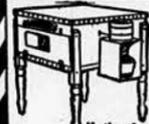
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Topeka,

**THOMAS OWEN,**

Kansas.

# POULTRY



This is a good time to be thinking of grading up your flock of fowls.

This can be done by purchasing a pure bred cockerel of some utility breed and crossing on your common hens.

But a better plan would be to make up your mind to breed pure bred fowls exclusively and discard the scrub stock.

If your means are limited, you need not go to the expense of doing this all in one season. Go at it gradually, according to your pocketbook.

The cheapest way to get a start in pure bred fowls, is to buy eggs from some reliable breeder of the fowls you have determined to raise.

A quicker way would be to buy two or more pure bred fowls this season and raise all the chickens from them this year and sell off your common stock this fall.

But whichever way you go at it, buy only the best you can afford. Better buy only a trio of good fowls, than a dozen inferior ones, for there is nothing so compensating in the long run as a good foundation for your flock.

In feeding oats to hens it is better to soak them over night in hot water than to feed them dry. The husks are very irritating to the fowls' crops. It would be a change of feed to occasionally soak other grains for the hens. They would relish them after a long spell of dry feed.

Spade up the poultry yards as early in the spring as possible. Nothing purifies the ground so much as turning under the foul dirt. It would be well to scatter wheat or rye on the dug-up ground, some of it will sprout and it will give the hens good exercise in scratching it out.

Eggs that are intended for hatching purposes should be gathered several times a day, both in cold and warm weather. In cold weather, because if the eggs are left in the nest too long, they are liable to get chilled and eggs for incubation should not be subjected to a lower temperature than 45 degrees; in warm weather because if eggs are left in the nest and hen after hen sits on them they are liable to start to incubating before you are ready for them. If eggs once start to incubate, then are cooled, the germ dies and of course the egg is infertile. If it is desired to keep eggs intended for incubation for some time,

they should be kept at a temperature between 50 and 60 degrees and be turned over once a day.

According to a report just issued by the state department of labor of Oklahoma, the hens in that state have been doing remarkably well the past year. The report shows that 10,654,109 dozens of eggs were produced and the amount paid for them was over \$2,000,000. In addition to this during the fiscal year, Oklahoma produced over 14,000,000 pounds of live poultry, valued at \$1,450,000 and of dressed poultry 1,970,452 pounds, valued at \$240,395. This is doing pretty well for the youngest state in the Union.

Prof. W. F. Shoppe, in charge of the experiment station at Bozeman, Mont., has commenced some important experiments to find the cost of production of eggs in Montana. Ten different breeds of chickens are to be used and each breed tested separately, so that comparisons may be made. The amount of feed required for each hen, together with the number of eggs which each fowl will produce in a year, will be carefully recorded. Each variety of birds is kept separately in a pen by itself, and trap nests are provided for the chickens so that it will be possible to tell exactly which one lays. Other minor experiments are constantly going on. Breeding tests are an important part of the work done by Professor Shoppe. In each case the purpose in view is to improve the fowl, either as an egg producer or to better the meat varieties.

### Keeping Lice Out of the Flock.

There are two general means of ridding your fowls of lice. One is by means of the dust bath and the other by the liquid lice killers. Press bulletin No. 18 of the Ames, Iowa, station says:

If fowls have easy access to a dusty earth wallow where they can work the fine dry particles of dust into their feathers they will keep themselves fairly free from lice, but eradication will not be entirely complete in the majority of cases. A good dust wallow may be made of equal parts sifted dry loam and coal ashes. Wood ashes should not be used, as they may burn or bleach the shanks and feathers.

For the eradication of lice quickly, as upon show birds and sitting hens, it is usually necessary to work a fine dusty powder into the feathers. The method of application is to hold the fowl with one hand by the legs, head downward, and work the powder into the fluffy feathers around the vent.



An Imported Percheron stallion owned by Watson, Woods Bros. & Kelly Co., Lincoln, Neb. See their advertisement on another page.

**\$7.55 Buys Best 140-Egg Incubator**

Double case all over; best copper tank; nursery self-regulator. Best 140-chick brooder, \$4.50. Both ordered together \$11.50. Freight prepaid. No machines at a ny price are better. Write for book today or send price and save waiting. Satisfaction guaranteed.

**BELLE CITY INCUBATOR CO., Box 19 Racine, Wis.**

**On My Plan or Yours?**

Tell me you will try, on my plan, a "QUEEN" or say what other plan you prefer. We'll fix it up. Best incubator, low price; 1 pay freight. Three months' trial! Five years' legal guarantee. NOW send for catalogue. Wickstrom, Queen Incubator Man, Box 28, Lincoln, Neb.

**125 Egg Incubator and Brooder Both \$10**

If ordered together we send both for \$10. Freight paid east of Rock-Is. Hot water, copper tanks, double walls, double glass doors. Free catalog describes them.

**Wisconsin Incubator Co., Box 129, Racine, Wis.**

**S. L. WYANDOTTES.** We have a few more birds for sale. Eggs \$3 for 15; \$5 for 45. Incubator eggs \$5 per hundred. M. B. Caldwell, Broughton, Kan.

**S. C. REDS,** winners 40 prizes, heavy layers; stock and egg circular free. Chas. Ross, Box 24, Blair, Neb.

**BUFF ROCKS**—Vigorous farm raised prize winners. Eggs by the setting or hundred. Circular free W. T. and Mrs. C. W. Ferris, Box 406, Effingham, Kan.

**BARRED PLYMOUTH ROCKS.** Bred for beauty and profit; 33 regular premiums. Eggs: 15, \$2.50; 30, \$4.50; 60, \$8.00; 15, \$1.00; 60, \$3.25; 100, \$5.00. Mrs. D. M. Gillespie, Clay Center, Kan.

**BUFF COCHINS** For sale, cockrels, \$5 up. Females, \$2.50. Trios, \$10.00. Won 27 prizes in 1909. J. C. BAUGHMAN, Topeka, Kansas.

**S. C. R. REDS**—First pen headed by first cockerel at Kan. state show; 2nd by winner at Mo's. best show. Eggs from either pen, \$3 per 15. Third pen, \$2 per setting. DeLoss Chapin, Green (Clay County), Kan.

**BARRED ROCKS**—High class show and utility stock. Fen eggs \$3 per 15 \$5 per 30; utility \$4 per hundred. Send for circular. No stock for sale. C. C. Lindamood, Harvey County, Walton, Kan.

**THIS ADVERTISEMENT IS GOOD** for 25 cents on two settings of eggs from four leading utility breeds. Send postal card for prices and score of birds. J. S. McClelland, Clay Center, Kan.

**EGGS FOR SALE** from fancy S. C. Buff Orpingtons. Pen 1, \$8 for 15; pen 2, \$2 for 15; farm range, \$1 for 15; incubator rates, \$5 per hundred. MRS. S. T. WHITE OF WHITE BROS., R. No. 1, Buffalo, Kan.

**D. W. YOUNG STRAIN** of S. C. White Leghorns, prize winners at three state shows. Eggs \$1.50 for 15; \$3 per 100. Barred Rocks, "Ringlet" strain, \$2 for 15 eggs. Eggs packed with care. U. H. McALLISTER, Carmen, Oklahoma.

**S. C. BUFF LEGHORNS** No more stock for sale, but eggs from prize winners. Pen 1, \$2 per 15; pen 2, \$1.50 for 15; incubator lots, \$3 per hundred. CEDAR GROVE POULTRY FARM, M. KLEIN & WIFE, Props., Clay Center, Kansas.

**THE EGG SEASON IS ON.** We are shipping every day from all the leading varieties of poultry. Large flocks on free range; orders filled promptly. My own special egg crate used. Price \$6.00 per 100. M. B. turkey eggs \$2.25 per 9. Write for circular. Address Walter Hegue, Fairfield, Neb.

**EGGS! EGGS! EGGS!** from 59 of the leading varieties of land and water fowls; stock for sale. Send 2 cents for my big 1910 catalogue. Henry Pflie, Box 754, Freeport, Ill.

**EGGS EXTRA WELL PACKED.** \$1.00 for 15; \$5.00 per 100. From White Faced Black Spanish, Leghorns, Wyandottes, Rocks, Rhode Island Reds, Light Brahmas, Black Langshans and Black Tailed Japanese Bantams. Each bred on separate farms. Circular free. H. W. CHESTNUT, Centralia, Kansas.

**EGGS, CHICKS.** S. C. White, Brown and Buff Leghorns and R. C. R. I. Reds. Bred from heaviest laying and winning strains. Eggs for hatching and day-old baby chicks. Book your orders now for future delivery. Write for circular and prices. PROSPERITY POULTRY FARM, Barnes, Route 2, Kansas.

**TWENTY-ONE VARIETIES TO SELECT FROM.** Won \$1,500 in cash prizes this season at American Royal, Pratt, St. John, McPherson, Larned, Hutchinson, Electric Park, Enid, Garden City, Shawnee and Kansas State Poultry Show, Wichita, 1910. Stock from 3,600 eggs to select from. Write MR. AND MRS. OTIS H. CROW, Hutchinson, Kansas.

**WE LAY FOR YOU** Smith's Barred and White Rocks. Send for mating and price list. CHAS. E. SMITH, Baynesville, Box 8, Kansas.

**BARRED PLYMOUTH ROCK EGGS.** Pen 1, \$2 per 15; 3 settings, \$5. Pens 2 and 3, \$1.50 per 15. Range, \$1 per 15 or \$5 per 100. MRS. CHAS. OSBORN, Member A. P. A., Eureka, Kan.

on the body, under the wings and on the neck with the free hand. There are several lice powders upon the market. Most of these do satisfactory work, although they are usually expensive.

Liquid lice killers are used primarily to paint the roosts and dropping boards. Their fumes rising through the feathers of the birds cause the lice to drop off. The practice is to paint the roosts about four o'clock in the afternoon before the fowls go to roost. This also prevents miles from attacking the fowls. Most of the liquid lice killers are coal tar products and are sold as coal tar disinfectants. Some of them do cause the lice to drop from the fowls, but whether or not they always kill the lice is not certain.

It has been found that when a fowl was placed on a roost coated with cresol the lice would drop in large numbers and could be caught upon a paper spread beneath the roost. In the majority of cases, however, the parasites were not killed. When this method is used the droppings should be removed and the dripping boards cleaned early the following morning to prevent the lice from reaching the fowls again.

Some poultry raisers have rid their fowls of lice by dipping the birds in a diluted stock dip. This is, however, no more satisfactory than a thorough dusting and is much harder upon the fowls. If it is deemed advisable to dip the fowls, the cresol formula diluted with fifty parts of water, makes a good solution. Dipping should be done in the morning of a bright warm, sunny day, in order that the birds may become thoroughly dry before night.

**Strawberries.**

The growing of the strawberry is important on the farm because it is one of the earliest fruits and it is one of the best fruits that can be grown, coming in at a time of the year when it will supply the place that nothing else will supply on the table, and we, as farmers, ought to have the best we can grow upon the farm, and a liberal supply of strawberries every year, a good, liberal planting every year, will do much toward making farm life more pleasant, more congenial, and give us something that is valuable on the table for three or four weeks.

Now, it is necessary in order to make a success of growing strawberries to have the soil well drained. The strawberry can be grown on almost any soil, any farm that will grow wheat, oats, corn and potatoes, or any of the farm crops, will grow strawberries. I say it is necessary to get the land well drained, that is, with reference to air drainage, as well as surface drainage, in order to be sure of being freer from spring frosts and escape failures in the crop. It is necessary to get the soil in a good condition before planting. The strawberry is a plant that can be made to produce anything from one hundred to one thousand dollar's worth of fruit per acre, according to the kind of work you put on it. If you choose a good rich soil, say plowing under a crop of clover, then heavily fertilizing with well composted manure and giving it careful cultivation through the entire season, you will have your ground in a condition to produce any amount of fruit.

Several years ago the county commissioners of Finney county leased a half section of farm land to the state for the purpose of carrying on experimental and demonstration work. This work has been carried on jointly by the United States Department of Agriculture and the Kansas Experiment Station, and plans are now under way for its enlargement and continuance. It is understood that the people in the western part of the state take a great deal of interest in the work being done at this point.

The dairy department of the Agricultural College announces three more special short courses of four days each in cream and milk testing and handling. These courses are provided especially for those who desire to qualify under the laws of the state as official cream buyers but they are equally valuable for farmers who are engaged in the milk business. The dates set for these three courses are March 22 to 25, March 29 to April 1, and April 5 to 8. On the Saturday following the completion of each course the state dairy commissioner will conduct an examination.

**More Joy in Living**

Consider the pleasures to be obtained from a real farm waterworks. Running water in your house, stables and stock troughs—everywhere you want it—all the water privileges of the city. It is not expensive—you can have one if you will.

**DOUBLE ACTING Red Jacket FORCE PUMPS**

of the regulating type can be operated by windmill or gasoline engine. When used in connection with a windmill and the Red Jacket float valve your waterworks system becomes absolutely self-operating—no possible chance for overflow or trouble.

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Red Jacket "QUICK REPAIR" Force Pumps are made for deep or shallow wells—for hand or mechanical pumping and will save nearly one-half of pumping labor. They are so "Easy-to-Fix"—you can repair them yourself.

Red Jacket pumps are sold by leading pump dealers. Write today, giving name and address of your dealer, and we will mail you interesting booklet, "Your Water Supply."

**Red Jacket Mfg. Company, Davenport, Iowa**  
Largest Exclusive Manufacturer of Pumps in the World

**YOUR WATER SUPPLY**

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**HOVER CLOSE-TO-NATURE BROODER**

A scientific invention very close to nature. Three life principles found in no other: Warmth by Conduction; Ventilation by Induction; Non-Filling-up by Construction. Brooders for orchard and field and Independent Hovers for instant use in box or shed. Not playthings or dollar "Systems" but big double brooders and Hovers. Practical and successful. Double tops, triple floors and many other great improvements. Need little attention. Eminent poultrymen and the farmer. Given a most remarkable reception by scientific and successful poultrymen. Brooder Book Free.

**CLOSE-TO-NATURE COMPANY, COLFAX, IOWA.**

Do not buy a cream separator of too small capacity. If you think one of 500 pounds' capacity per hour will answer your purpose add a few more dollars to the first cost and buy a 700 or 900 pounds machine. The larger sizes save wear on the separator and save time in doing the work.

**A Sample of PAGE FENCE-FREE!**

Let us send you an actual sample of Page Woven Wire Fence and our valuable Quarter Centennial Catalog Free. See the real Page Wire! Examine the method of weaving the wonderful Page Knot—the Knot that can't come off! Study the many styles of Page Fence and the Panorama of Pictures showing extreme tests which this splendid fence withstands. Read how, in our great mills and factories, we put elasticity, tensile strength and durability into High Carbon, Basic Open Hearth Steel Wire. Learn what this means in economy, specified by U.S. Government as standard of quality. Approved by a million farmers. Write at once for Free Sample of Page Fence and Grand Quarter Centennial Catalog.

**Page Woven Wire Fence Co., Box 21, 2A, Adrian, Mich.**

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for 24-inch dog fence. Send for catalog showing many styles. Save freight by buying nearer home.

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For Rabbits, Chickens, Hogs, Sheep, Horses Cattle. 160 styles. Big heavy No. 9 galvanized Coiled Spring rust proof wires. Will defy stock, wind and weather. Free sample & cat'g. 15 to 35c per rod. We pay freight.

**The Brown Fence & Wire Co., DEPT. 39 Cleveland, O.**

**14 1/2 Cents a Rod**

For 24-in. Hog Fence; 15 1/2-4c for 24-in.; 15 1/2-4c for 24-in.; \$3c for 24-in.; \$2c for 24-in. Poultry Fence \$2. Sold on 30 days trial. 30 rod spool Ideal Barb Wire \$1.55 Catalogue free.

**KITSELMAN BROS., Box 81, Muncie, Ind.**

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**KITSELMAN BROS., Box 898 Muncie, Indiana.**

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**INEXPENSIVE ARTISTIC DURABLE** **CONVENIENT STRONG LIGHT**

There is no improvement you can make that will pay you better in satisfaction and in dollars than to surround your yard and garden with a neat and attractive **Cyclone Ornamental Fence**.

They are made in many artistic patterns, of rust-resistant materials, and are so strong that they will require no repairs for years.

Our special construction—cabled line wires and corrugated pickets—absolutely prevents the fabric from becoming unsightly on account of sagging or slipping of joints.

**Cyclone Farm Gates** are made of the strongest material possible to secure for this purpose—special high carbon tubular steel. This makes a rigid durable gate that is light on hinges. The hinges, latches and all fittings are of malleable iron to insure against any need of repairs.

By writing today for our catalogue you will obtain proof that it will pay you to buy **Cyclone Fences and Gates**.

**OYOLONE FENCE COMPANY, Dept. 131, WAUKEGAN, ILLINOIS.**

On AUG. 30 we shipped six automatic gates to Lebanon, Va., for the rural routes.

On NOV. 8 we received an order for eight more from the same place for the routes.

On JUNE 16 we received an order for an automatic gate for the fort at Fort Oglethorpe, Ga.

On NOV. 26 five more were ordered.

If they are good enough for the Government are they not good enough for you?

**BALL BEARING AUTOMATIC GATE**

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**ADAMS GATE CO., 1003-N. Kan. Ave., Topeka, Kan.**

**Mayer Special Merit SCHOOL SHOES**

**"WEAR LIKE IRON"**

They wear best where the wear is hardest. Made of selected leather specially tanned to resist exactly the kind of wear a healthy boy or girl will give them.

Two layers of leather are sewed in at the tip instead of one, to prevent the toes kicking out. The soles are of extreme toughness.

**Mayer Special Merit School Shoes** are made to fit a child's foot in a comfortable, natural way that will prevent foot trouble in later years, yet they are stylish and good looking. Only the genuine have the Mayer Trade Mark stamped on the sole.

**FREE**—If you will send us the name of a dealer who does not handle Special Merit School Shoes, we will send you, free, post-paid, a handsome picture, size 15x20, of George Washington.

We also make Honorbilt Shoes for men, Leading Lady Shoes, Martha Washington Comfort Shoes, Yerma Cushion Shoes and Work Shoes.

**F. MAYER BOOT & SHOE CO. MILWAUKEE WISCONSIN**

THEY WEAR LIKE IRON



# A P I A R Y

**Straws from Dodge City.**

How many beekeepers really know the importance of a good queen in every hive and can judge between a poor and a good one by appearances only?

Farmer beekeepers, quit the box hive and put your bees in moveable hives. Give the bees attention as you do your stock and you will have honey.

comb honey. No wonder they are disappointed when the honey fails to be there and the bees fall a prey to robber bees and web worms, or die of diseases caused by neglect. No one should enter the bee business without the best of bees and hives, and other things that bees must have. The first consideration is the selection of healthy bees, and this can not be done too carefully. Diseased bees should be avoided, for it is a waste of both time and money to fool with them. It is true that more of them can be bought with a smaller amount of money than would be the case with pure, and healthy bees, but they cause more trouble and give less returns, if any at all, than a smaller number of improved stock.—J. C. Frank, Dodge City, Kan.

We are often amused at people who have a few bees, without any knowledge of their culture, making this remark: "Oh, this country is no good for bees because the winds are so bad." The fact of the business is they do not know anything about bees, and most of them are too stingy to subscribe for a bee journal and learn how to keep bees.

### Practical Points for Bee Men.

At beekeepers' conventions one hears much talk about different kinds of bees and their comparative points of excellence or superiority. During these debates a critical listener will soon discover that some of the opinions advanced, supposed facts, are more fanciful and theoretical than practical and useful. It may be regarded as strictly true that controversial debates are, nearly without exception, of no practical value to those who go to such conventions for the good they can get out of them in money value. A man who looks at beekeeping as a business proposition cares more about learning how to get the largest possible yield of honey from "blacks" or "hybrids" than how to produce yellow banded and long tongued Italian queens. If he already has an apiary of such fancy bees, or has money and time enough to get such an outfit under paying headway, he would need to find the practical answer to the question, "How can I make it pay?"

The question has often been raised as to the right of a beekeeper to enter the premises of somebody else to take possession of some swarm of his which has chosen to settle there. The French courts have decided that the right to follow and take possession of a swarm implies the right to go on or in the property to get it. Furthermore, if the owner of the property refuses to permit the entrance, which he has a right to do, he must be willing to pay the beekeeper the value of his swarm. It is understood that the beekeeper is liable for any damage he may do to the tree on which the swarm has alighted or in any other way.

Some things you can do in the winter months: Subscribe for two or three good bee journals, if you are not already taking them. Read carefully, and store all valuable points in your memory, so that when the busy spring comes and bees need your constant attention and the problems of bee culture present themselves, you will be able to cope with them.

An old queen with her aches and pains and rheumatic pains that has survived the frosts of several winters, does not in any way feel as spry as the young queen in her neighbor colony that may perhaps be her great-great-granddaughter. The queen herself feel her inability to repopulate her colony in time for the harvest. Her bees also recognize her infirmities, but she is "mammy" and we love her and it is only when the entire life of the colony is in danger that the bees consent to supercede that queen. Now, mister, she is not you "mammy" or are you, like the bees, so much attached to her that you will risk a crop of honey rather than place a young queen in her stead. If you have a favorite queen, and you wish to preserve her for what she has done, place her on a pension by putting her in a three frame nucleus in a hive where her duties will not be so arduous. See to it that they do not starve, and in the fall they will probably build to a full colony and will go into winter quarters with a young queen you may be proud of.

Of course, he knows at the outset that the best evidence of success is honey, and the more of it the stronger the evidence. Here, then, is the whole problem in a nutshell, and the matter of bands or no bands, and long tongues or short tongues becomes a secondary proposition. No one who is well posted on both sides of the question would deny that Italian bees are better honey gatherers than black bees, but that some knowledge of the superiority of the one kind would also include knowledge of the fact that the other kind excel in comb building, and that they are not far behind the others in honey gathering when conditions are equal. I don't think any intelligent beekeeper who has fairly tried both Italian and black bees, as honey producers, comb honey especially, would want to contradict the above statement.

It should be expected, as a matter of course, that a professional breeder of queen bees of the yellow banded and long tongued variety would be careful to inform progressive beekeepers that his kind of bees can get honey out of places that a short tongued bee can not reach. He tells them about the hundreds of tons of Red clover honey going to waste every year just because ordinary bees haven't tongues long enough to reach the nectar in the blossoms. Some of these long tongued queen bee men claim that, although Italian bees have longer tongues than any other breed heretofore known, not all of them can gather honey nectar from Red clover, because their tongues are not alike long. But this defect, they tell us, has now been nearly overcome by breeding the long tongued queens from queens whose ancestors, on both sides, were known to have tongues long enough to get honey from Red clover blossoms.

Very well, I say, such long tongues are all right, and surely valuable in an apiary, but from my viewpoint I can't see them to be long enough to reach to the bottom of the honey problem in beekeeping. Besides, not all keepers of bees are beekeepers. Neither are all beekeepers also successful honey producers. There is a lot of difference between beekeepers as men. I've noticed this especially when I saw and heard them at conventions.—J. D. Gehring, Douglas Co., Kan.

A wouldbe up-to-date beekeeper, when asked about his queens, stated that he always allowed the bees to take care of that part of the business themselves. His bees were swarming in the middle of the honey flow, and he said they were swarming every day. Upon examination of a swarm he was returning to the parent colony, we found seemingly twenty per cent of the bees were drones, and the brood nest of the hive filled with honey, a little scattering brood and an empty super on top of all. This showed the condition of fully one-half of his yard. Old queens were being superceded in the middle of the honey flow, while right beside the same worthless queens were large, populous colonies with two or three supers being filled and a young queen doing her full duty.

All over the country, people become afflicted with that dreadful disease called the "bee fever" about the beginning of spring. Some have had a little experience, perhaps others have had none, and the latter class labor under the delusion that all that is necessary to make a success of the business is to buy up a few old box or log hives of bees, put them in the back yard, go out once or twice a week and rake in the nice, white

# CONCRETE



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SAVE from \$50 to \$300 by buying your gasoline engine of 2 to 22-horse-power from a real engine factory. Save dealer, jobber and catalogue house profit. No such offer as I make on the class of engine I sell has ever been made before in all Gasoline Engine history. Here is the secret and reason: I turn them out all alike by the thousands in my enormous modern factory, equipped with automatic machinery. I sell them direct to you for less money than some factories can make them at actual shop cost.

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Anybody can afford and might just as well have a high grade engine when he can get in on a wholesale deal of this kind. I'm doing something that never was done before. Think of it! A price to you that is lower than dealers and jobbers can buy similar engines for, in carload lots, for spot cash.

An engine that is made so good in the factory that I will send it out anywhere in the U. S. without an expert to any inexperienced users, on 30 days' free trial, to test against any engine made of similar horse-power that sells for twice as much, and let him be the judge. Sell your poorest horse and buy a

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**Wm. Galloway, Pres., Wm. Galloway Co.**  
385 Galloway Station, Waterloo, Iowa



We are receiving many complaints that bees are not wintering well. The main cause seems to be shortage of stores. Do not wait until spring to

40 60 or 90 Days or 01

see how they are coming out, but examine them at once and if there is any doubt, feed them. Do not open the top of the hive to feed them but open from the bottom, as this is the only safe way in cold weather.

The foul brood inspector of Shawnee county would like to hear from every beekeeper in the county as to the condition of his bees so as to be ready to go to work in the spring. If you have foul brood in your apiary or think you have it, do not be afraid to report it, as it is no disgrace to have foul brood. But it is a disgrace to have foul brood and not report it.

**HONEY RECIPES.**  
Honey Nut Cake.

**Honey Ginger Snaps.**

One pint honey, 3/4 pounds butter, 2 teaspoonfuls ginger. Boil together a few minutes and when nearly cold out in flour until it is stiff. Roll out thin and bake quickly.

Eight cups sugar, 2 cups honey, 4 cups milk or water, 1 pound almonds, 1 pound English walnuts, 3 cents worth each of candied lemon and orange peel, 5 cents worth citron, the last three cut fine, 2 large table-spoonful of soda, 2 teaspoonfuls cinnamon, 2 teaspoonfuls ground cloves. Put the milk, sugar, and honey on the stove to boil 15 minutes. Skim off the scum and take from the stove; put in the nuts, spices and candied fruits; stir in as much flour as can be done with a spoon, set away to cool, then mix in the soda, cover up and let stand over night. Then work in enough flour to make a stiff dough. Bake when you get ready. It is well to let it stand a few days, as it will not stick so badly. Roll out a little thicker than common cookies, cut in any shape you like. This recipe originated in Germany, is old and tried, and the cake will keep a year or more.

One by one the oracular statements of so-called alfalfa experts have been shown at fault. One said, "It will grow wherever corn will grow;" and as promptly men from New York and Louisiana rise and say that they are growing it where corn will not grow. Another declares, "It will grow over a hardpan or gumbo subsoil;" at once a New York man reports a good field of alfalfa with root 15 feet long that passed through six inches of hardpan so hard that it had to be broken with a pick axe in following the root. A Kansas man writes that he has 80 acres that has stood five years and promises to continue indefinitely, yielding 4 1/2 tons from three cuttings a year, and the whole of it on gumbo soil where corn raising was a failure. Another declares, "It must have a rich sandy loam," and forthwith from the deserts of Nevada, the sand hills of Nebraska and the thin, worn, clay soils of the south come reports of satisfactory yields. Such results are significant, indicating better returns than any other crop brings from these varied soils, and that few farmers are justified in postponing the addition of alfalfa to their agriculture because of supposed hindrance of soil and climate.—F. D. Coburn.

**Getting Results.**

An average yield of 19.3 bushels of corn for which the farmer was receiving practically no profit for his work was increased to 45 bushels, with a net profit of \$7.68 per acre, upon a farm at Lamar, Mo., by the application of the most approved methods of agriculture. The application of the same methods increased the production of a field of wheat from 12 bushels to 26 bushels an acre with a corresponding net profit of \$7.38 where there was practically no profit before.

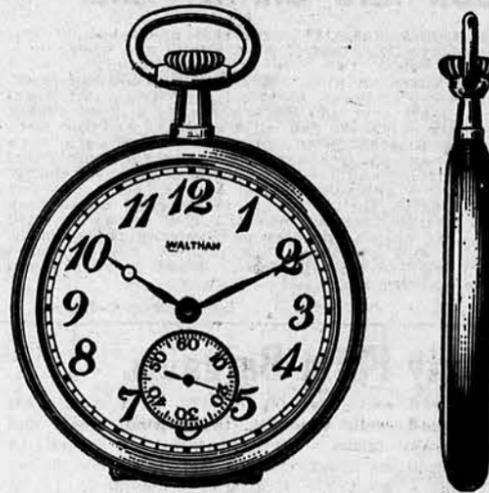
Bulletin No. 84, describing these experiments in detail, may be had by writing to F. B. Mumford, Director of the Missouri Agricultural Experiment Station, Columbia, Mo.

**Legality of Wills.**

Every person is interested in the disposition of his property at his death and should know absolutely that it will be received by those whom he desires to have it, without trouble or expense. Nathan Q. Tanquary, Continental Bldg., Denver, Colo., for more than 20 years has made a specialty of the law concerning wills, estates and diversion of property. No will drawn by Mr. Tanquary has ever been broken. All inquiries by mail or in person are treated with the utmost confidence and given careful personal attention.

**WALTHAM WATCHES**

The Authentic American Watch



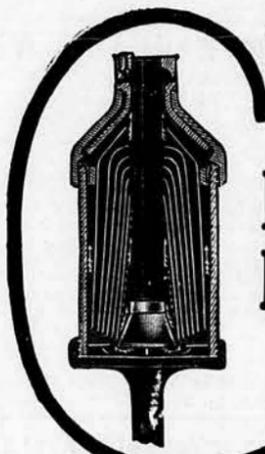
It is universally acknowledged that the United States has produced the best machinery in the World. American agricultural implements, electrical machinery, locomotives, clocks and Waltham Watches lead in the markets of the World. As long ago as the Centennial Exhibition in 1876, the Commissioner from Switzerland visited the Waltham Watch factory and picked out a watch at random from a lot of others. When he returned to Switzerland he told the Swiss Watch Manufacturers that not one Swiss watch in 50,000 would compare with that Waltham watch he had picked up haphazard at the Waltham Factory. A statement even more true now than then.

We advise you to buy a Waltham Watch *adjusted to temperature and position* and to buy only from a jeweler because he can regulate it to your personal habit and occupation. Never buy from Mail Order Houses. They cannot have the thorough knowledge or the equipment for regulating high grade watches.

**WALTHAM WATCH COMPANY,**

**WALTHAM, MASS.**

Send for the "Perfected American Watch," our book about watches.



**Easy To Clean, Sanitary  
Insures Quality Cream  
Largest Profits**

To meet the severe rules of Dairy Commissioners and the demands of high-class trade, you must have a cream separator that can be thoroughly cleaned after every skimming. Some machines are practically impossible to clean. These will soon be out of business. Others are so complicated with slots, corners and crevices in the bowl device that it means an everlasting task, twice a day, to keep them free from taint. Don't take any chance on this point of cleanliness. Cleanliness means first grade products, highest prices, big profits; lack of it—second grade products, low prices, loss. Be sure of cleanliness, an absolutely sanitary, sweet machine at every skimming, with least work and time needed for cleaning, by choosing from—



**The Empire Line of Cream Separators**

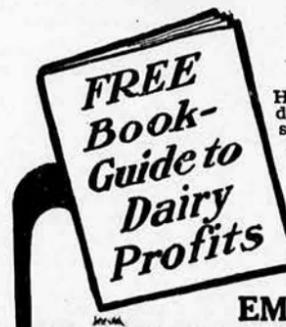
Different Styles—All Sizes In Each Style—Widest Choice

Here we show an inside view of the famous Frictionless Empire Bowl, the simplest, most Sanitary skimming device ever put in a separator. The six light, smooth cones are as easily and thoroughly cleaned as so many saucers. There are no cracks crevices or slots, as in other machines, where specks of impurities or cream can lodge in spite of the washing and spoil the next skimming.

All the surface of every part in an Empire bowl is smooth and get-at-able. Choose the Frictionless Empire, with cone bowl, or the Center-Feed Empire Disc—either one will insure top price for your cream or butter and will save you hours of cleaning every month. Besides, Empires are the only easy-to-turn separators. Ball bearings at top and bottom, lightest bowl, truest adjustment, finest materials, best workmanship—these are reasons why Empires run perfectly for many years, paying for themselves over and over again.

**Dairyman's Guide To Dollars, Free** That's what the 1910 Empire Book is. The finest, most instructive separator catalog printed. Tells the facts about different styles. We have no one hobby to push. A Style, Size and Price to suit everyone. Send postal or letter for book by next mail.

**EMPIRE CREAM SEPARATOR CO. Dept. J 1225 Wabash Ave., Chicago, Ill. Factory—Bloomfield, New Jersey**



**It Pays to Read the Advertisements in Kansas Farmer**

# KANSAS LAND

### REAL ESTATE DEALERS, ATTENTION.

If you want to know how and where to buy advertising space in a big farm paper and a daily paper covering the richest agricultural section of the United States for less than a half cent a line per thousand circulation write

ROY O. HOUSEL, Topeka, Kansas.  
625 1/2 Jackson Street,

## 800 ACRE STOCK AND GRAIN FARM

two miles of two railroads and near trolley line, 480 acres rich creek bottom and second bottom, black loam soil, does not overflow, best of corn, alfalfa and wheat land, 300 a. fenced hog tight with good cross fence, two sets of improvements, No. 1 seven room house, three good barns, all good condition, will care for 54 head of stock, tied, never falling well, soft water, three water tanks, 18 barrel capacity; plenty bearing fruit trees, good stock scales, with house over and stock yards, 20 a. good timber last a life time, never falling supply natural gas to run all machinery and for light and fuel. No. 2 improvements, good seven room house, good water, good barn, barn 30x40, capacity 3,500 bu. grain, 12 tons hay, oat granary and cow shed, some fruit, one-half section pasture land, 200 a. lime stone and 120 a. sand stone, grass suitable to be made into a good farm, fenced with 4 galvanized wire, hedges, posts one rod apart, good water. The natural gas sold from the 800 a. is \$1,000 cash in advance each year and free fuel for house, 175 a. fine growing wheat. The crops for 1909 will show the real value of this farm. It will be priced on good interest paying basis, one-half cash, balance time if desired, to suit purchaser, low interest, 200 registered cattle, 300 head hogs, all stock priced with or without farm. Want to retire from business. No trades considered. Come and see me.

R. M. DOBSON, Owner, Independence, Kansas.

## Comanche County Farm Bargains.

Half section, 1 mile Coldwater, fenced and cross fenced, 220 acres good plow land, 60 in wheat, balance pasture; good well, windmill, tank, wind break and corral. Price \$12,000, 1/2 cash, balance easy terms. 800 acre farm and ranch, 10 miles Coldwater, fenced and cross fenced, living creek through center, 5 room house, 200 acres under plow, 25 in alfalfa, 80 more good for alfalfa, soft water 5 to 25 feet. Price \$16,000; 1/2 cash, balance 3 and 5 years at 5 per cent.

Coldwater, FRANK A. KIMPLE, Owner, Kansas.

## A HOME

For you at a bargain price. 320 acres fine level land. For particulars write to Winn Realty Co., Jetmore, Kan.

## KINGMAN CO. LANDS

Banner wheat and corn county of the state. Write for selected list. BROWN REAL ESTATE CO. KINGMAN, KAN.

## Good Bargains

Six room house, eighty acres of valley land, balance good mow land and good pasture and orchard for family use. Price \$4,000. And I have several other good 80-acre and 160-acre and so on up to 640 acres and several large ranches. Wm. Forbes, Fall River, Kan.

## BARGAIN

160 acres 1 mile from the county seat, 100 acres in cultivation 80 acres of good alfalfa land, nice, smooth land, good location. Price \$4,000. Three years time on \$1,500 at 6 per cent. Bal. cash. LOIHINES & CASON, Ness City, Kansas.

## HOMESEEKERS

Send for a copy of the Southwestern Kansas Homeseeker, the best land journal published. It's free to those wanting homes or investments. We make a specialty of lands on small payments and easy terms. Address The Allen County Investment Co., Longton, Kansas.

## IT IS LAND WE SELL KANSAS AND OKLAHOMA FARMS

We are centrally located and are the headquarters for homeseekers. Let us know your wants. All information gladly furnished. Correspondence solicited. SALTER REALTY & LOAN CO., 1182 East Douglas Ave., Wichita, Kan.

## SNAPS!

35,000 acres in McMullen Co., Texas, all good, level land, black, sandy loam; price \$10.00 per acre. 75,000 acres in southwestern Texas, \$1.35 per acre. 200 acres near Marquette McPherson Co., Kansas. Well improved. Price \$10,000. CHAS. PETERSON, Hutchinson, Kansas.

## Ottawa Co. Bargain.

160 acres, 3 miles town, 110 cultivation, balance pasture, 4 room house, barn, 65 acres wheat, all goes with possession. \$6,500. Easy terms. New list free. J. S. Boyle, Bennington, Kan.

## ACT QUICK!

880 acre ranch, 250 in cult., bal. good grass, pasture fenced, living water in pasture, house 7 rooms, granary 30x34, stable for four teams, cow barn, shed, lots, well, windmill, tank, 10 a. timber, 6 ml. Spearville; price \$7,000 acre; terms; no trades; write for big list. Address STINSON & WEYAND, Spearville, Kansas.

## GOOD FARM.

344 acres adjoining town, highly improved, 6 acres alfalfa, 5 miles fence, mostly woven wire. Further particulars write J. C. ELVIN, Harper, Kansas.

### HELLO, FARMERS!

Have you read my list of GREENWOOD CO. FARMS? The best corn, alfalfa, clover, cattle and hog country in the west. Fine blue stem pastures. Write for list and prices to F. D. Stoughton, Madison, Kan.

560 ACRES 1/2 mile St. Marys on main line U. P. R. R., 90 miles west of Kansas City; 200 acres under cultivation; 115 fine alfalfa, 85 corn, balance grass, fine improvements; \$55.00 per acre, easy terms. J. M. Conlan, St. Marys, Kan.

DICKINSON COUNTY FARMS. Do you want a farm in the best county in Central Kansas? I am the pioneer land man and will give you a square deal. Booklet describing fine alfalfa, corn and wheat farms free. R. G. Tonkin, Abilene, Kan.

DICKINSON COUNTY FARMS. Good water, good climate, corn, alfalfa and wheat produce mammoth crops. We sell these lands at prices that will produce big interest on the investment. Write us for full information. Murphy & Fenton, Abilene, Kan.

640 ACRES. 400 wheat, all goes, 40 alfalfa, all alfalfa, barn, new granaries, fine orchard and grove, watered by creek, \$40 per acre. Terms. Other farms, Bluff Creek Valley Real Estate Co., Protection, Kan.

CORN AND ALFALFA FARM. 53 acres river bottom, 6 room house, good new barn, 2 wells, windmill, family orchard, double granary, abundance large shade trees, 2 1/2 miles good market, some alfalfa. Write for price and full description free. Box 114, Minneapolis, Kan.

400 ACRES, 2 1/2 miles from Cedar Point, Chase county, Kansas, on the main line of the Santa Fe, 100 acres creek bottom, all in fine alfalfa, nice creek and timber, 300 acres pasture, fair orchard, rather poor buildings, close to school, daily mail, telephone. The best thing in the county at the price, \$14,000. Pasture lands a specialty. J. E. Bock, Cottonwood Falls, Kan.

SOLOMON VALLEY LAND. 80 a. improved, 3 ml. to market, 40 a. pasture, 40 a. tilled, \$2,000. 640 a. 320 a. can be plowed, creek through this section, 5 ml. to market, \$12,800. 400 a. all grass, one-half tillable, 5 ml. to market; terms; \$6,000. 160 a., 4 1/2 ml. out, all good land, 80 a. broke, terms, \$8,800. Other farms for sale and exchange. List free. A. E. ROBINSON LAND CO., Minneapolis, Kansas.

NEMAH CO. corn and alfalfa land, 80 a. of as good corn and alfalfa land as can be found in Nemaha Co., has recently been placed on the market and any one wanting to take advantage of one year's advance in prices will have an opportunity. This farm can be bought now and get a March 1st 1911, settlement. This place is located 3 miles S. E. of Corning. It is well fenced, but has no other improvements. C. E. Tinklin, Corning, Kan.

Mr. Poor Man, Just Listed One for You, Move Right In—\$5,200—Terms. 160, lays nice, all tillable, well fenced and cross fenced, dandy barn, 3 room house, 2 1/2 to town, 1 1/2 to school, owner is non-resident and wants to sell rather than rent. It is a nice home, priced right, \$5,200—and you can buy it with \$1,000 cash, balance to suit at 6 per cent. Quit renting come and see it at once. DONAHUE & WALLINGFORD, Mound Valley, Kansas.

Jas. M. Wilson & Son of Harrisonville, Mo., who are old advertisers in Kansas papers have an advertisement in this issue of Kansas Farmer that it will pay you to read. This firm sells highly improved Cass Co., Mo., farms right in the corn, clover and timothy region at \$50 to \$75 an acre. Kindly mention Kansas Farmer when you write them about these bargains.

This letter shows how KANSAS FARMER classified ads bring results: The little 18-word classified ad I had in Kansas Farmer a week or so ago, advertising two Percheron mares for sale, brought me 65 replies and sold them both at my prices. When I have anything more to sell I will be sure to remember Kansas Farmer. —Jno. H. Peak, Manhattan, Kan., March 5, 1910.

FINE IMPROVED 160, 5 miles out, \$5,700. Terms, L. E. Thompson, Norwich, Kan.

HARPER COUNTY. Home of corn, alfalfa and wheat. Lands \$25 to \$75 per acre, that would be cheap at twice the money. Values advancing rapidly. Now is the time to buy. Descriptions and full information free. HEACOCK REALTY CO., Kansas. Anthony, Kansas.

FOR SALE. 300 of the best farms in northeast Kansas. We also make a specialty of selling Woodston Co. lands; have many bargains. Write for price list to MANVILLE & BAILEY, Jackson Co., Kansas. Holton, Kansas.

160 ACRE SNAP. One-half in cultivation, bal. pasture, fenced, has small 2 room house, good frame barn, granary and chicken house, well a steel wind mill, lots of good water, tank, etc. Price \$2,800; \$1,800 cash, balance time. Dirt cheap. Level land. Send for our land list. Kirberg & Miller, Ness City, Kan.

BARGAINS NEAR EMPORIA. 400 acres, 13 miles Emporia, good upland, 2 sets improvements, \$35. 480 near Emporia, fair set improvements, \$60. Good 80 near school, \$75. 320 good upland, well improved and located, \$40. These are genuine bargains and we have sold 14,000 acres this season. Our prices talk. See or write us at once. H. L. DWELLE & CO., Emporia, Kan. 6th and Commercial.

EAST KANSAS FARM BARGAINS. 90 acres Franklin Co., Kan., 65 a. in cultivation, 25 a. native grass, 2 a. orchard, new 7 room house, barn for 4 horses, other outbuildings, 8 ml. to Ottawa, R. F. D. Enc. \$2,000. Price \$60 per acre. 84 a. Franklin Co. Kan., 59 a. in cultivation, 25 a. native grass, 3 room house, stable for 4 horses other outbuildings, 8 ml. to Ottawa, R. F. D. Enc. \$2,200. Price \$61.50. For full particulars write Mansfield Land Co., Ottawa, Kan.

KANSAS FARM BARGAIN. 160 acres nice, smooth land, 2 1/2 miles city limits of Parsons, Labette county, 5 room house, good barn, 6 acre family orchard, 8 fenced hog tight, 50 prairie meadow, 20 blue grass and blue stem pasture, balance in cultivation, R. F. D. and telephone line, \$50 per acre. Good terms. Also 320 acre stock and grain farm, Linn Co., \$25.00 per acre; easy terms. Other Missouri and Kansas farms. THE STANDARD LAND CO., Room 4 Rickseker Bldg., Kansas City, Mo.

CAN GIVE IMMEDIATE POSSESSION of 120 acres, 4 miles out, 7 miles to county seat, good roads, 75 a. in cult., 45 a. pasture, 2 a. alfalfa, some orchard, land lies fine, 2 a. hog tight, good well, windmill and tank, pond in pasture, 1 1/2 story frame house 16x24, barn for 8 head, cow barn, hen house, granary, etc.; 30 a. wheat, 1-3 goes to purchaser. This farm can all be put in cultivation except about 10 acres; good soil, fine location, on R. F. D. and telephone. A bargain at \$46 per acre. Terms on part. Get our list. Shepard & Hoskins, Bennington, Kan.

FOR QUICK SALE. 400 acres, 200 in cultivation, 80 in wheat, 5 alfalfa well improved, 180 pasture, 20 hay, 3 1/2 miles from good trading point, \$40 per acre. W. J. Gordon, Washington, Kan.

## Labette Co. Bargain.

80 a., 1 1/2 ml. from Coffeyville, new 8 room house barn, granaries, etc.; plenty water, lays nice, gas, telephone, R. R., short time for \$4,000. Also sell implements, hay, grain, if desired, etc.

BOWMAN REALTY CO., Coffeyville, Kansas.

## FARM BARGAINS NEAR TOPEKA.

160 acres, 8 1/2 miles from city, all smooth good land, fair improvements, good location; a snap; \$50 per acre. 160 acres, 10 ml. Topeka, 4 ml. good R. R. town, good imp., all smooth except 15 acres, 100 acres meadow, bal. cultivation, \$60 per acre. 320 acres, 10 ml. from Topeka, near small town, highly improved, all good, smooth land, 225 acres under cultivation, 100 acres wheat, 100 acres hog tight, plenty of fruit, fine location (the best upland half section in Shawnee county), \$70 per acre. We have a fine list of farms and can suit you. GILLETT & GILLETT, 104 West Fifth St., Topeka, Kan.

160 acres, 8 1/2 miles from city, all smooth good land, fair improvements, good location; a snap; \$50 per acre. 160 acres, 10 ml. Topeka, 4 ml. good R. R. town, good imp., all smooth except 15 acres, 100 acres meadow, bal. cultivation, \$60 per acre. 320 acres, 10 ml. from Topeka, near small town, highly improved, all good, smooth land, 225 acres under cultivation, 100 acres wheat, 100 acres hog tight, plenty of fruit, fine location (the best upland half section in Shawnee county), \$70 per acre. We have a fine list of farms and can suit you. GILLETT & GILLETT, 104 West Fifth St., Topeka, Kan.

160 acres, 8 1/2 miles from city, all smooth good land, fair improvements, good location; a snap; \$50 per acre. 160 acres, 10 ml. Topeka, 4 ml. good R. R. town, good imp., all smooth except 15 acres, 100 acres meadow, bal. cultivation, \$60 per acre. 320 acres, 10 ml. from Topeka, near small town, highly improved, all good, smooth land, 225 acres under cultivation, 100 acres wheat, 100 acres hog tight, plenty of fruit, fine location (the best upland half section in Shawnee county), \$70 per acre. We have a fine list of farms and can suit you. GILLETT & GILLETT, 104 West Fifth St., Topeka, Kan.

## RENO COUNTY FARM

160 a., 4 1/2 ml. from Langdon, good bldgs., 120 a. cult., 40 a. pasture, best soil. Price \$8,800. Terms. 80 a., 4 ml. from Hutchinson, 80 a. cult., no bldgs., black sandy loam soil. Snap at \$6,000. Terms. Other farms. Chas N. Payne, Hutchinson, Kan.

The Adams Automatic Gate. One of the most successful inventions that has been placed on the market in recent years is the Adams Automatic Gate and this labor and patience saving device was invented by a Kansas man. This man is E. W. Adams of Topeka and his gates are so successful and so highly appreciated that they have a more than statewide reputation. They are so constructed that they open away from the team while the driver sits in the wagon and do not frighten the horses. They are covered with wire netting and are hog tight. The frame is of steel tubing and they are built to last. Notice the advertisement in another column and ask for one of their free catalogs. These gates are worth the price.

200 ACRES, 3 1/2 miles town, Jefferson county, Kansas, 140 in cultivation, 40 meadow, some timber, fair improvements, good orchard, price \$12,000; incumbrance \$6,000 at 6 per cent. Want western land or town property. Garrison & Studebaker McPherson, Kan.

WILSON COUNTY BARGAIN. 160 acres, 36 in cultivation, 25 prairie meadow 8 alfalfa, balance pasture. Good orchard, 5 room house and barn. Free gas, near school, R. F. D. Price \$35.00 per acre. For further particulars write Shannon & Harshfield, Fredonia, Kan.

GOOD 160, six miles Minneapolis, 85 ac., wheat all goes, 15 acres meadow, balance for spring crop, R. F. D. and telephone. Price \$6,000. Possession in 30 days. We have other farms for sale and exchange. Write for free list. Frank Miller & Co., Minneapolis, Kan.

A BARGAIN. 320 acres, 150 acres in cultivation, 40 acres nice smooth hay land, balance pasture, 4 room house, barn, good well and windmill. Grove of forest trees around buildings, 6 miles of Norwich. Price \$30.00 per acre, easy terms. DOZE & ROBBINS, Norwich, Kansas.

A SNAP! 160 acres 3 miles of station, fair improvements, good orchard, running water, 60 acres cultivated, 40 acres good hay ground, 60 acres pasture, all fenced. Good grove. All for \$4,500. Write for list. Also consider good trades. J. H. McClure, Norwich, Kan.

LAND FOR TRADERS—All of sec. 1-14-36, Logan county, Kansas, for \$3,000 for the section. There is about \$1,500 still due the company and the equity would have to be cash. If you would like something for an investment this is a "peach." This railroad contract has about six years to run after March this coming year at 6 per cent. C. E. TINKLIN, Corning, Kan.

HAVE YOU ANYTHING TO TRADE? If you have list it with Howard, the Land Man, and he will get you something in short order that will suit you. I have farms to trade, automobiles, houses and lots, in fact, everything you can think of, that you are likely to want. Talk It Over With Howard, the Land Man, Room 15 Turner Bldg., Wichita Kan.

## CHEAP FARM FOR SALE IN SALINE COUNTY, KANSAS.

160 acres, splendidly improved, 8 room house, good new barn, cost \$500, granary, new cow shed, 2 chicken houses and other outbuildings, good orchard, farm fenced, 35 acres pasture, balance in cultivation, 20 acres alfalfa, 80 acres bottom, plenty of good water. Possession this spring if sold now. Price \$60 per acre. R. P. CRAVENS, Salina, Kansas.

HALF SECTION. Gently rolling, 250 acres good farm land, 20 ft. to water, six miles to town. Small improvements, \$2,400. Cash \$1,000, balance five yrs. at 5 1/2 per cent. Worth the money for use or speculation. M. G. STEVENSON, Ashland, Kan.

COWLEY COUNTY BARGAIN. 284 acres 2 1/2 miles of Arkansas City, 160 acres in Arkansas river bottom land, 40 acres in alfalfa, 120 for corn, 9 room house, bank barn 36x40, small orchard and wind mill. Price \$57.50 per acre. Write R. A. GILMER, Arkansas City, Kan.

EASTERN KANSAS LAND. Where wheat, corn, clover and timothy grow to perfection. A 75 bu. per acre corn farm of 210 acres, half cultivated, balance pasture and meadow. Fine improvements, 70 acres bottom, \$72.50 per acre. F. C. BRACKNEY, Burlingame, Kansas.

FOR SALE TO SETTLE ESTATE. Improved farm 160 acres rich land near Pittsburg, Kan., with excellent market for all farm produce. The best town in southeastern Kansas. Also for sale a Corn Mill in Pittsburg with a large and money making business in flour and feed. Another corn mill in Weir City Kan. with a good business in flour and feed. 160 acres unimproved in Haskell Co., Kan. Good wheat land. Address L. BELKNAP, Pittsburg, Kan.

IDEAL STOCK AND GRAIN FARM. 640 acres of rich chocolate loam soil, 384 acres under cultivation, balance rough but fine grass land, fair improvements, plenty good water, near town, on rural route and telephone. Best general stock, alfalfa and grain farm in the country at the price, \$32.50 per acre with good terms. SMITHSON-HOLADAY REALTY CO., Anthony, Kansas.

## MEXICAN LAND

## San Juan Co., New Mexico

For sale or exchange for land in the wheat belt of Kansas, 17 acres with fine irrigation water rights, situated one mile from Farmington. Good 5 room residence, well, cellar, etc. 5 acres set to one year old fruit trees. Price \$3,000, worth \$5,000. Submit propositions at once. General information free.

## The Farmington Land & Investment Co., T. J. SKAGGS FARMINGTON, N. M.

You can make \$3,000 in 3 months raising vegetables in Florida. Write for our book of FACTS, Florida Land Co., P. O. Box 500, Chipley, Florida.

**HIDES** Classified price list, with much information, mailed regularly free on request. Shipments invited, large or small. Every detail carefully looked after. Quick returns. Top prices. Fair selection. These are the points that count with a shipper. Satisfactory results assured. Our liberal methods have made us thousands of loyal friends throughout the great West and Southwestern field. We can satisfy you. Try us. Established 1870. Address **M. LYON & CO., 238 Delaware St., KANSAS CITY, MO.**

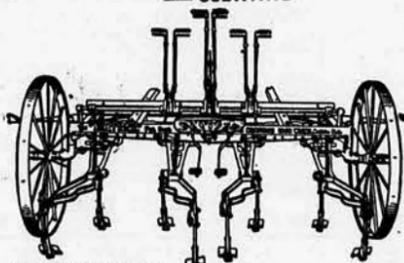
### \$1.00 for 90 Cents

Here is a chance for some one wanting to go into business. If you will hurry, a \$10,000 stock of goods for sale at 90 cents on the dollar. Have to sell on account of health. Located in a town of 2,000 people, surrounded by farming country. **Trumby & Barrett, Ponca City, Okla.**

#### Good Reliable Men

Wanted to sell Road Drags. Our Drags are constructed on sound and reasonable principles, and have points of advantage that would seem unreasonable only to those, who have given the matter a great deal of thought. There is side draft, flexibility, alignment, soil condition, draft, convenience in handling, durability and numerous other things to be taken into consideration. We want a good, practical man in each locality to learn our Drag and its many good points. Men who want good roads and men who want to make money. We have the article: the public wants good roads; do you want the money? If you do get with us by return mail. We manufacture Road Drags, Street Sweepers, and Automobiles. Yours for better roads. **E. B. Winters, Coffeyville, Kansas.**

#### CULTIVATORS THAT CULTIVATE



"BEATRICE" 2-ROW "LITTLE BEATRICE" 1-ROW  
SHOVELS AND DISC ATTACHMENT

Balanced FRAME, PIVOT AXLE, Positive EQUALIZER, DUST-PROOF BOXES and DISC-BEARINGS, SHIFTING-DEVICE with largest possible range, LEVERS so handy, BEST MATERIAL and FINISH, REASONABLE PRICE. ASK YOUR DEALER or write us for BOOKLET and PRICE. **BEATRICE IRON WORKS**  
Manufacturers  
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for South  
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Traction or  
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**A DRY SADDLE  
WHEN IT RAINS  
IF YOU WEAR  
TOWER'S  
FISH BRAND  
POMMEL  
SLICKER**

THE LONG SERVICE AND THE  
COMFORT IT GIVES MAKES IT  
THE SLICKER OF QUALITY

\$3.50 EVERYWHERE

**A. J. TOWER CO. BOSTON.  
TOWER CANADIAN CO., LTD. TORONTO.**

Impregnators for mares and cows from \$2.50 up. Artificial impregnation is fully explained in our Veterinary Instrument Catalogue. Write for one.

**SHARP & SMITH, 82 Wabash Ave., Chicago.**

When writing advertisers please mention **Kansas Farmer.**

#### State Forestry Work in Kansas.

Prof. Albert Dickens of the State Agricultural College has been acting as state forester since the passage of the new law by the Legislature. During his term of office he has devoted time and attention to the gathering of statistics concerning the present forest conditions in the state. The forestry problems of Kansas are naturally divided into two groups, the maintenance and extension of the present forest area, and the creation of artificial forests by planting. At the present time the forest areas of the state are to be found generally along the streams, upon the hillside and in ravines where a cover of trees is necessary for soil protection. Professor Dickens calls attention to the fact that it is practically useless to attempt plantations of forest trees unless the land has been in crops for two or more seasons. Freshly plowed sod land does not contain enough moisture to maintain forest tree growth; hence the total failure of the timber claims which were once so conspicuous on the Kansas prairies.

He also calls attention to the fact that after the soil has been tamed by a few years of good farming and the trees are set out, they must be cultivated frequently and thoroughly. If the soil is likely to blow it should be covered with a light mulch in the fall which must be worked into the soil the following spring. The area selected for forest trees should be large enough so that the trees will protect each other, and in exposed locations, those having a low habit of growth are the only kinds that can long survive.

One year old seedlings are best for transplanting though in very exposed localities, seed planted where the tree is to stand will have a better chance of long life. These will require greater care during the first season.

Among the species adapted for high dry soil he recommends honey locust, osage orange, white elm, hackberry, Russian olive, red cedar, Austrian pine and Scotch pine. For sandy soils and sandy creek bottoms cottonwood and Russian mulberry; for good soil that is moist and rich, catalpa speciosa is permanently the most valuable.

The forestry stations will be continued as demonstration plantations, while nurseries for experimental and cooperative purposes will be maintained. Where possible the State Forester will visit plantations and inspect the soil conditions and will prepare planting plans for co-operative work. While every effort will be made to assist those who plant forest trees he does not promise plans for any area smaller than two acres, except in the case of school districts wishing to ornament their grounds.

#### Can Hogs Have Cholera the Second Time?

Will hogs have the cholera the second time? Will pigs have cholera farrowed from sows that have had the disease and gotten well? I have been told that they would not. In the month of May I lost 96 head but saved 15 old sows that are farrowing now. As cholera is in my neighborhood now I would like to know if my sows are in danger.—H. F. Ayers, Mankato, Kan.

The hog is not supposed to have the cholera the second time. When they once have the disease they are immune to the second attack. It does not affect the susceptibility of the offspring of these animals. In some cases the pigs of immune sows seem to have a little more resistance to the disease, but they are not immune.—F. S. Schoenleber, K. S. A. C.

The newly elected state forester has some large plans for his work in Kansas. A considerable amount of preliminary work has been done in the forestry department in gathering information about forestry conditions in the state and the ultimate aim of the new forester is said to be the planting of a wood lot on every farm in the state where one does not already exist. There is comparatively little of the area of Kansas that is not adapted to some form of forest tree cultivation and when the farmers of the state understand more fully that trees are a money producing crop there will doubtless be a greater interest taken in the work of the forestry department.

# SEED CORN 153 BU. ACRE

**Diamond Joe's Big White**—A strictly new variety. None like it. It is the Earliest and Best Big White Corn in the World—Because it was bred for most Big Bushels, not fancy show points; because grown from thoroughbred inherited stock; every stalk bears one or more good ears, because scientifically handled, thoroughly dried and properly cured and had the most rigid examination. Big Seed Catalog FREE. It tells about all best farm, grass, garden and flower seeds grown. Write for it today. Address **RATEKIN'S SEED HOUSE, Shenandoah, Iowa.**

## FRANK IAM'S

new importation of draft stallions and mares arrived September 30, 1909, by "Iams' own Special train" of "ten express cars." They are "business propositions" that "jar th cherries" on a "wide-awake" "horseman's hat." Iams' "Peaches and Cream" stallions and mares are "eye-openers." They are "diamonds," sold "at fifty cents on the dollar." They are "winners" and "sons of winners," having won "eighty prizes and medals" at Paris and Brussels and leading European horse shows. Iams makes buyers.

### "SIT UP AND TAKE NOTICE"

"Ikey Boys" get into Iams' "money-saving game." Buy a stallion and mare today—save \$300.00. Iams "tickles" buyers with "Rippers" at "Let Live Prices." Owing to bad crops, panic—Iam, cash, his 27 years' successful business, he bought and sells better horses cheaper than ever. Mamma, Iams is a "hot advertiser," but, "he has the goods" and sells horses at his barns only. Buyers get the "middlemen's profits" at Iams'. Iams has

### 200--PERCHERONS AND BELGIANS--200

two to six years old, weighing 1,700 to 2,500 pounds; 90 per cent blacks, 50 per cent ton stallions. All registered and branded. He sells "toppers" at \$1,000 and \$1,400 (few higher), mares \$700 to \$1,000, so good they need not be "peddled" or put on the "auction block" to be sold. Iams "selling clothes" fit all buyers. No man with money or bankable notes gets away from Iams. He buys, owns and sells more stallions than any man in the United States; saves thousands of dollars to stallion buyers. Iams is not in the stallion trust. Iams places \$1,500 insurance.

### \$1,000---SAVED AT IAM'S'---\$1,000

Ikey, what "a graft" these "stallion salesmen" are working on the farmer, selling fourth-rate stallions at \$4,000 and \$5,000! Mr. Buyer, see Iams' stallions yourself. Take no stallion salesman's word. "Iams has the goods you read about." His establishment is worth going 2,000 miles to see. Iams' competitors "holler." He is knocking "high prices" out of the Xmas tree. Iams saws wood, "butts in," sells more stallions each year. He makes every statement good. Big Bill, buy a stallion of Iams. His \$1,200 stallions are much better than our neighbors paid those Ohio men \$4,000 for. Then I can wear diamonds. Iams speaks the languages, buys direct from breeders, pays no buyers, salesmen or interpreters; has no two to ten men as partners to share profits with. Iams guarantees to sell you a better stallion at \$1,000 to \$1,500 than are sold to stock companies at \$2,500 to \$5,000 by slick salesmen, or pay you \$500 for your trouble, you the judge. Iams pays horses' freight and buyers' fare; gives 60 per cent breeding guarantee. Iams' guarantee is backed by one-half million dollars.

Write for Million Dollar Horse Catalog. Greatest on Earth.  
References—St. Paul State Bank and Citizens' National Bank.

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# DUROC JERSEY BROOD SOW SALE

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MAR. 24, 1910.**

Send for catalog. This positively will be one of the best bunch of brood sows and gilts to be sold this spring. Don't fail to attend or send a bid to O. W. Devine, representing the Kansas Farmer. Remember the new location is Enid, Okla.

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I want you if you're a hustler and acquainted in your territory. You may be a retired farmer; you may be thinking of renting your farm; or if you are a hardware or implement dealer it will pay you to investigate my proposition. It's fair and square and gives you an opportunity to make from \$1,000 to \$3,000 in a few months like my other agents.

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and require little care. All the little honey-gatherers and money-makers demand of you is to provide a home for them. They make the honey and you get the profit. What little work you must do can be made 100 per cent. easier and your profit 100 per cent. bigger if you have the **RIGHT KIND OF SUPPLIES**

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Out out the backaches, strains and ruptures by using low Empire Steel Wheels for your farm hauling. You can put on a bigger load. Half the work. Half the time. Save your team. Don't out up your fields.

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# BUILDING PLANS

Send me outline of your needed improvements and 25 cents and I will send pencil sketches and estimates of cost, etc. Round barns a specialty.

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Burning common kerosene the ALADDIN MANTLE LAMP generates gas that gives a light more brilliant than city gas, gasoline or electricity. Simple, odorless, clean, safe and durable.

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Send for this new 224-page book on Silos and Silage. 1908 edition—size 5 1/2 x 7 1/2 in.—indexed—over 40 illus. Used as a text book in many Agricultural Colleges. Contents by chapters follow: "Advantages of Silo," 25 pages; "Silos: How to Build," 76 pp.; "Concrete or Cement Silos," 10 pp.; "Silage Crops," 16 pp.; "How to Make Silage," 19 pp.; "How to Feed Silage," 22 pp.; "Feeder's Guide," etc. 66 pp. A vast amount of knowledge boiled down—nothing so complete ever published—answers every silage question. Mailed for 10c, coin or stamps, if you mention this paper.

**SILVER MFG. CO.,**  
Salem, Ohio

**Road Improvement.**

It is well known that much of the money spent on road improvement in the country is wasted. This is partly because of neighborhood jealousies and cross-road grafts, but largely through plain, honest ignorance. It is hardly to be expected that every road overseer in a country town will be a graduate engineer with up-to-date knowledge of Macadam, Telford, and Tarvia. Those states, therefore, which have county road overseers, or state highway commissioners with good engineers at public service, are in the position to get the best roads. Every effort ought to be made to place the services of these experts within reach of the country neighborhoods where road appropriations, always pitifully small, most need to be economized. Country roads ought to be better built, and any scheme which will build them better is to be encouraged.

Very many country roads not only need to be rebuilt, but they ought to be entirely relocated. Present locations were usually determined many years ago, at the time when the country was first settled. Commonly roads were placed along farm boundaries, not because that was the best location, but because it was customary, and at the time it made little difference. There is probably not a town in New York state or New England in which considerable portions of the main roads could not be relocated to advantage. Any intelligent man could sit down with a map of the town spread on the table and do it after supper. More direct routes could be found between important points, steep hills avoided, swamps and sandy stretches left to one side. In most places there is absolutely nothing left to interfere with such radical and far-reaching improvements. Land is cheap, and condemnation proceedings are easy. In many instances the owners would be glad to give the land.

Thus far I have spoken chiefly of the North Atlantic states, where land is hilly and roads crooked. The complacent dwellers on the flat interior plains, with their checker-board section-line highways, often imagine that their system is beyond improvement. This is where they are worse off than the New Englander, who knows that his roads are imperfect. The most thoroughly inconvenient system possible is the rectangular layout, whether applied to cities or to farming districts. City builders have learned this and are trying to bring city plans more to the style of Washington and Paris.

It would be a very great practical benefit to McPherson, Kan., for example, if a good public thoroughfare could be established running 15 miles directly northwest from town. If, then, with slight deviations to avoid rough land, it could be continued straight to the village of Marquette, so much the better. A similar diagonal road could be run to the southeast of the city, another to the northeast, and another to the southwest, with equally good effect. For 20 years I lived four miles north and four miles west of McPherson. We called it eight miles to town and traveled the distance without complaint three times a week. As a matter of fact, we were less than six miles from town as the bee flies and were wasting five miles of hard work every trip. I figure that at five miles a trip, three trips weekly, for 20 years I traveled over fifteen thousand highly unnecessary miles, and the thought of it disgusts me so I would like to go back now and sue the county for damages.

Just consider that there are 100 busy, hard-working people today in that same neighborhood, going to McPherson, say, twice a week the year round. There are twelve thousand miles of travel wasted every year by just those few men and women of that neighborhood. Was such economic waste ever tolerated in anything else? Yet there are thousands of cities and towns in Kansas, Nebraska, the Dakotas, Iowa, Missouri and adjoining states where no diagonal highways exist or were ever thought of. Surely rural improvement finds it easy at this point to propose something better.—Prof. Frank A. Waugh, in The Landscape Beautiful.

The KANSAS FARMER has brought me a great many customers during the past six years that I have used it in advertising my Alysedale herd of Shorthorn cattle, and I regard it a very valuable publication for this purpose.—Chas. W. Merriam, Topeka.

# KANSAS LAND

## IF YOU WANT

The right land, at the right price, in the right place, from the right man, write right now to **H. D. HUGHES,** **McDONALD, KAN.**

**CHOICE KANSAS FARMS** in Smoky Valley, Saline and McPherson counties, where you can raise alfalfa, corn and wheat with profit. Write for information and list **David Bachman,** **Lindsborg, Kan.**

**EASTERN KANSAS BARGAINS.**

1.—320 a. well improved, near town. \$45 a. 2.—160 a., good improvements, close in. \$45 a. 3.—160 a., finely improved, \$9,600. 1,162 a., great ranch finely improved, easy payments, \$28 a. Write for list.

**JOHN TAGGART & SON,**  
**White City, Kansas.**

**LIVE AGENT WANTED**

In your locality to assist in selling corn, wheat and alfalfa land. We own thousands of acres in Pawnee and adjoining counties. Write us for a proposition on our own ranches.

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**RENO COUNTY FARM**—320 acres highly improved, fine new house with gas and water in, sandy loam soil, best kind corn and wheat land; price \$4,000. Other bargains.

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**160 ACRES.**

small improvements, good sandy loam soil, 8 1/2 miles from market 1/4 mile school, telephone, R. F. D. and church facilities. Price \$6,500. Good terms. I have one or two other special bargains.

**Ed. Boots, Pres. Isabel State Bank, Isabel, Kansas.**

**240 ACRES VALLEY LAND.**

Good improvements, near school, 4 miles town, several acres orchard, fine grove forest trees, water at 12 to 30 feet, \$30 per acre. Good terms. Big list and booklet free. **PARK H. THORNTON,** **Coldwater, Kansas.**

**BARGAIN.**

Improved 1/4 section level farm land. 1/4 mi. P. O. and school, 250 a. in cultivation, 100 a. wheat, 1-2 crop goes with place. Price \$30 a.; make very reasonable and long time terms. **W. B. GRIMES, Ownes, Ashland, Kan.**

**ALFALFA FARM.**

160 acres, 70 alfalfa, 3 miles of Saxman. Rice county, 8 room house, large barn, R. F. D., near school, telephone, complete system of waterworks, splendid improvements, 3 miles woven wire fence. Price \$14,500; terms; write.

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**200 ACRES** in Marshall County, Kan., three-fourths mile from town. 100 acres in second bottom land, 160 acres in cultivation, balance pasture, 7-room house cellar, small barn, cattle shed, hog house, orchard, well and windmill. A bargain at \$90 per acre. Good terms.

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**BUY WESTERN KANSAS LAND.**

Should you want to buy any Western Kansas land for speculation or for a home, don't fail to write me. I am selling land throughout all counties in Western Kansas. I am myself farming extensively on the kind of land I offer for sale. I can sell you land that will make you money. Write me at once for prices. Address **Eugene Williams,** **Minneapolis, Kan.**

**EVERY MAN IS ENTITLED TO A SLICE OF THIS GOOD OLD EARTH.**

Some Are Getting It; Some Are Not.

Are you one that is not? You can get a slice from \$10 to \$20 per acre in the wheat belt where they have fine soil, fine climate and plenty of water. If you will write **TEED & ORBISON, Jetmore, Kan.,** for their list of farm lands. They have something good.

**BEST FARM IN KANSAS.**

560 acres bottom valley land, all smooth, fine, black sandy loam, no waste land, small orchard, 20 acres fine alfalfa land, new 10 room house, hot and cold water, lighted with acetylene gas, bath and toilet, 500-barrel cistern, power system, R. F. D., telephone, 5 1/2 miles to two railroad towns. Price \$65 per acre. For further particulars write **Neal A. Pickett** **Arkansas City, Kan.**

**FOR SALE.**

I offer a special bargain this week in a half section of smooth land, 1 1/4 miles from Colby, Kansas, the county seat, all broke out and seeded to winter wheat, in good season, all the wheat to go with the land. This wheat crop will go a long ways toward paying for the land. Price \$25 per acre. It will pay you to investigate this by writing the owner.

**IKE W. CRUMLEY,** **Kansas.**  
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**PRICED TOO CHEAP**

at \$35.00 per acre, but the owner, who has rented it for a number of years, has moved to Wichita and cannot look after it; 160 acres in Cowley Co., 5 miles from R. R. town, good roads, 1 mile from inland town with church and school; all smooth, level land without a rock or foot of waste; fenced and cross fenced; 80 acres in cultivation, 5 acres hog lot, balance pasture, small orchard, fair improvements, telephone and R. F. D., alfalfa land, 8 to 20 feet to water. If you are looking for a good cheap farm, don't let this get away. \$2,100 will handle.

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**AN IDEAL FARM FOR SALE.**

Kansas farm of 300 acres, adjoining a flourishing railroad town, forty miles west of St. Joseph, Mo. The soil naturally rich has been made more fertile by twenty years of judicious crop rotation and by the liberal application of manure; well watered, fine walnut timber, finest blue grass pastures, alfalfa, timothy and clover meadows; finest corn and wheat land; well fenced; hay, cattle and horse barn for a large amount of live stock; large silo, water tanks, granary, fine mill, etc. A model stock or grain farm, ready for use. An excellent opportunity. For complete information address **K 235, care Kansas Farmer, Topeka, Kan.**

**FOR FREE INFORMATION** about Allen county lands write **F. W. Frevert** 51 years a Kansan, **Gas City, Kan.**

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Dickinson county corn wheat and alfalfa farms. Write today. **Baumgarth & LaPort,** **Abilene, Kan.**

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Montgomery county is second in population and 5th in wealth in Kansas. Write for list of choice farm bargains and prices. **W. J. Brown & Co., Independence, Kan.**

**NESS COUNTY, KANSAS LAND.**

Good soil as any in the state at \$10 to \$15 per acre, well improved land \$15 to \$25 per acre. Partly rough at \$5 to \$8 per acre. Come before the new railroad gets here or write **J. G. COLLINS** **Ness City, Kan.**

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160 acres black, splendid corn land, 120 under plow, 40 pasture, fine maple grove, orchard, extra good improvements, at bottom land, 3 miles town, Reno Co. A beautiful farm for \$12,000; terms. Get full description, **Smith & Glenn, over McBurney's.**

**WHEAT, CORN, ALFALFA AND OATS** produce mammoth crops in Barber Co., Kan., adjoining the famous Alfalfa county, Oklahoma. I have many good farms and ranches for sale at less than their actual value. Write for full information.

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\$4,000 will buy a quarter section of fine smooth land, 1/4 mile from center of Ness City, all fenced and in cultivation. Fifty acres in wheat. Other good corn, alfalfa and wheat land at \$15 to \$35 per acre. Write for information.

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**GREENWOOD COUNTY STOCK FARM.**

Nicely improved 480 acres, 180 under plow, 225 slightly rolling pasture, balance nice level meadow. Price \$15,000. Will carry \$3,000 at 6 per cent. Send for free list and descriptive literature.

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**IMPROVED FARMS.**

\$35 to \$60. Producing immense crops corn, wheat and alfalfa. Nearly every farmer has 10 to 100 acres alfalfa. Fruits of all kinds and vegetables do well. List free.

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**FINE HOG FARM.**

160 acres, 25 alfalfa, 20 pasture, splendidly located, well improved, running water, deep, black soil, splendid neighborhood, \$60. Liberal terms. 150 other farms. List and literature free to buyers.

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**FOR HOMESEKER OR INVESTOR.**

Kiowa and Cavalry Creek Valleys, Comanche county, Kansas. Alfalfa land \$20 to \$35; rapidly advancing. Great opportunities for homeseeker or investor. Write for our large list of bargains, mailed free and postpaid.

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If you would like to live in the most beautiful city in the West, with unsurpassed education, business and religious advantages, in a city clean, progressive, where real estate values are low, but steadily advancing, where living expenses are reasonable, a city with natural gas at lowest prices, address the Secretary of the Commercial Club, **Topeka, Kan.**

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Do you want to buy a farm? Send for our list of farms for sale in the best county in state. Make early selections before prices go higher.

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**Whitewater,**

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Offers bargains in wheat and alfalfa ranches at \$10 to \$20 per acre. Write for my price list and investigate at once.

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**SEDGWICK COUNTY FARM BARGAINS.**

160 acre farm, all level, black soil, no waste land, corn, wheat and alfalfa land; 90 acres in cultivation, 70 acres in native grass, fenced with hedge and wire and cross fenced; one of the best producing farms in the county; only 15 miles from Wichita and 4 miles from a good grain shipping point with two elevators and two railroads. Possession given at once. For quick sale, \$55 per acre.

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CORRESPOND with us about Garfield Co. lands. McCarty & Plumley, Enid, Okla.

MAJOR COUNTY corn, wheat and alfalfa lands. Lowest prices. Best terms. Information free. J. Nile Godfrey Fairview, Okla.

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From \$10 to \$60 per acre offer great opportunities for investment. They are well located near railroads, towns churches and schools. Write for further information. JOSEPH F. LOCKE LAND & LOAN CO., Wynnewood, Oklahoma.

480 ACRE FARM.

Five miles from Medford, the county seat, this farm is in a good state of cultivation and if sold at once 1-3 of crops will go with the place. Price \$42.50 per acre. Come quick. J. H. FUSS & COMPANY, Medford, Okla.

MAJOR CO., OKLA., LAND.

No. 509-180 acres, 85 acres in cultivation, all good plow land, all under wire fence, good orchard and vineyard, small log and frame house of two rooms, fine well with windmill, 6 miles from railroad town, on free rural delivery. Price \$4000. Will J. Graves, Fairview, Okla.

BECKHAM COUNTY, OKLA.

160 acres, 3 miles Doney, railroad town, house, barn, 100 in cultivation, 700 peach and apple trees four years old, 140 tillable, \$3,000. Terms. Other farms. Will sell at extremely reasonable prices.

SECURITY INV. CO., Oklahoma.

FINE ALFALFA FARM.

480 acres rich, alluvial valley soil, 260 under plow, 25 alfalfa fair improvements, living water good well, 7 miles railroad, \$38.00 per acre. Terms. Many other snaps. W. C. ATKINSON, Gotebo, Oklahoma.

REAL ESTATE BROKERS.

Mangum, Okla. Lands that produce big crops of cotton, alfalfa, corn, wheat and all other staples at very reasonable prices. Write for free list of bargains. McMillan & Lanford, Oklahoma.

ALFALFA RANCH, KIOWA COUNTY.

160 acres, dark loam valley land, sub-irrigated, 10 ft. to water, 2 miles good town, all tillable, 130 cultivation, 25 alfalfa, fenced, well, good buildings, clear. Price \$6,250. \$1,250 cash, balance easy terms. Other farms. H. H. ANDERSON, Gotebo, Oklahoma.

IMPROVED FARMS.

180 acres, 140 in cultivation, good 9 room house, barn 45x65, tool shed and granary, 40x40, orchard, telephone, R. F. D., near school, 4 miles county seat. Price \$9,000. Write, J. T. RAGAN, Vinita, Oklahoma.

McLEAN COUNTY.

Timber and prairie lands \$10 to \$50 acre, mostly on good terms. Lands have never been boomed; will undoubtedly double in value soon. For a good investment or speculation write us.

BYARS REAL ESTATE CO., Oklahoma.

WASHITA VALLEY LANDS.

Good corn and alfalfa farm four miles Pauls Valley, one mile State Industrial School, 170 acres, 150 under cultivation, 150 acres Washita Valley, 6 room house, above overflow. Electric line soon. Price \$10,000. O. W. JONES, Pauls Valley, Oklahoma.

320 ACRES 1/2 mile from Numa, a small town on the Santa Fe, 90 acres in wheat, 25 acres oats, 120 acres to be planted to corn, 1-3 of all crops to go with the farm. Two sets of improvements, good wells and windmills on each quarter, all smooth land. Price \$18,000.00; will sell separate or together, come quick if you want this. J. H. Fuss & Co., Medford, Okla.

OKLAHOMA LAND

Where corn, wheat, alfalfa and cotton are making the farmers rich. We specialize on Oklahoma, Cleveland, Logan and Washita counties. Fine alfalfa lands, \$30 and upward. Write for list and printed matter, mailed free. We also lead all in Oklahoma City property. FARM & HOME INV. CO., Cuthbertson Bldg., Oklahoma City, Okla.

OKLAHOMA FOR HEALTH AND WEALTH.

320 acres, 7 miles from Texola, Okla., R. F. D., school 1/2 mile, 200 acres lies nearly level and all tillable, 140 acres under cultivation 120 acres fine pasture land, supplied with plenty of living water and good grass. Has small house, sheds and out-buildings. Well and windmill. If you want a farm where you can raise good crops and keep a bunch of stock, you should see this one. A farm and ranch combined. \$2,500, on liberal terms. Send for our catalogue. Texas-Oklahoma Realty Co., Texola, Okla.

SNAPS IN GRANT CO., OKLAHOMA.

1/2 section, 2 miles of Medford (county seat), 1/4 deeded and 1/4 school land, 135 a. in cultivation 110 a. in wheat, 25 a. fine alfalfa, balance pasture, 6 room house, barn 56x60, granary for 3,000 bu., 2 good wells about 20 ft., also mill, 1 mile to school and good high school in town, creek bottom, deep black loose soil, 1/2 all crops in granary and possession next Aug. 1. Price until April 1, 1910, \$11,500. BATTEN REALTY CO., Medford, Oklahoma.

FINE SECOND BOTTOM FARM

360 acres fine second bottom, practically all in cultivation, 3 miles from railroad town, three sets of buildings, telephone, rural mail, school in one corner; this land will raise 75 bushels of corn or a bale of cotton to the acre. Price \$55 per acre; terms on part. R. B. BEARD, Muskogee, Okla.

"HOUGH SELLS THE EARTH"

In Caddo county, fertile, rich, cheap. Send 10 cents in stamps for handsome colored county map of Oklahoma, circulars and list. Letters answered in German or English. W. R. Hough, Apache, Okla.

Breeding Agricultural Plants.

(Continued from page 1.)

back to a single close-pollinated alfalfa plant. In a preliminary test of their relative forage yield, we find two of them to be immensely superior to all of the others. These will be extensively propagated. The field of alfalfa breeding by systematic and intelligent crossing, is a new one, and we expect to enter extensively into this work this summer. The writer has quite an array of species and varieties of alfalfa now available for this purpose. We need more drouth-resistant alfalfas for the far west, and we need new races that are resistant to leaf-spot and root-rot and other diseases for the eastern part of the state. We are trying to breed these, and we will ultimately get them.

In southeastern Kansas is a great area where a layer of hard-pan prevents the deep tap root of alfalfa from going down. Within two or three years, alfalfa planted on this soil dies out. The proper legume for this soil is sweet clover, which grows rankly, and has exactly the same feeding value as alfalfa; is a shallow-rooted biennial, and consequently is not restricted by the soil condition; is as rich a soil fertilizer as alfalfa; is an everlasting to the contrary notwithstanding, this rich, luscious, succulent legume, is sedulously avoided by most grazing animals. Why? Because the leaves and stalks are bitter with the alkaloid cumarin. How can we get rid of this cumarin? Maybe we can find a cumarin-free race of sweet clover, just as we have found thornless honeylocusts, seedless oranges and persimmons and so on. It is not incredible to believe that somewhere there is a sweet clover plant that can get along without its cumarin. Well, we want everybody in the country in Kansas to help us find this plant. In the mean time the writer is getting together all of the 50 to 60 species of the sweet clover group that he can lay his hands upon, through importation from dealers and seed collectors and through the office of Seed and Plant Introduction at Washington. Perhaps some one of these may be devoid of cumarin. If so, it will be crossed upon the sweet clover itself and we will see what we can do with the hybrids. The writer is also going to see what can be done with alfalfa-sweet clover crosses. Perhaps we can get out of the difficulty in that way. It is a very interesting problem, and we are going to do our best to solve it somehow.

There is one problem with relation to corn that is going to be worked upon this summer, the production of a more drouth-resistant race for western Kansas. Just exactly what the plans are, cannot be made public yet, but it is sufficient to say that the plan is a rational one, scientifically possible, indeed it is actually the first time that it has really become possible to improve corn in this direction, along scientific lines of breeding. The experiments will be conducted at the Hays Branch Station.

There are also under way in the writer's hands, some lines of work for the improvement of the cow pea and the soy-bean to make them both more practically useful plants than they now are. Great possibilities underlie these two species of agricultural plants, and we are going to work upon them.

A wealth of unharvested opportunities for breeding lie concealed, and not deeply concealed either, in the sorghum tribe. Three lines of breeding open up here, for syrup, for fodder, for seed, and for broom-fibre. In the welter of hundreds of 'varieties,' of saccharine and non-saccharine sorghums, well defined types are beginning to emerge, and in some cases are getting pretty well established, along these four principal lines of value. We need to get into these strains and see what can be done to further improve them and how.

In a word, there is not a single agricultural species that we are growing in Kansas that cannot be improved. The people of Kansas should give this station enough money to enable a division of plant breeding to be definitely established, so that men can spend their lives at this work and at this work alone. Then, and then only, we will realize the full measure of progress. At present, we are doing the best we can under our limitations. Our work and our plans the writer has to some extent laid before you.

OKLAHOMA LAND

A RARE SNAP.

160 acres adjoining town, all in cultivation; good house, barn, granary, good orchard of all kinds of fruit, fenced and cross fenced. This is one of our best bargains and if you are interested do not delay. Price \$48.50 per acre. (First come first served.) HUNTER REALTY COMPANY (Est. 1893), ENID, OKLA.

"WE SELL THE EARTH."

Farmers grow wealthy in a short time in Custer and adjoining counties in Oklahoma growing hogs, corn and alfalfa. Farms at from \$30 to \$50 per a. Write us for land list. Clinton, Oklahoma.

DULANY & RANDOL, Oklahoma.

IF YOU have money to loan on good farm and city security, write John Hankins, Chickasha, Okla.

Alfalfa County Farms for sale at less than their actual producing value. Write Hood & McFadden, Cherokee, Okla.

WRITE FOR FREE LIST of Caddo county farms and descriptive literature. Many big bargains. E. C. SCHLITT, Anadarko, Okla.

FREE INFORMATION about Oklahoma. Homer H. Wilson, Here since 1893. Enid, Okla.

CADDO CO. FARMS.

Best in Oklahoma for homes or investment. Your address on postal card will bring descriptive list and literature.

BALDWIN & GIBBS CO., Oklahoma.

OKLAHOMA FARMS.

Best county for corn, wheat, oats, alfalfa and tame grass. 50 acres \$3,500. 180 acres fair improvements, \$4,000. Write for list of bargains. VOGELE & WOOD, Newkirk, Okla.

A CUSTER COUNTY BARGAIN.

160 acres, 2 miles R. R. station, 80 in cultivation, 65 fenced in pasture, fine water, four-room house. Price \$2,800; easy terms. Many other bargains. New list free. HUGHES & SORTER, Custer City, Oklahoma.

CORN, OATS, WHEAT

and alfalfa and all staple crops grow to perfection here in the garden of Oklahoma. Prices reasonable. Write for list and descriptive literature. C. E. POCHEL, Newkirk, Oklahoma.

EASTERN OKLAHOMA.

Improved farm, 160 acres, good, new house. Half section of unimproved land, very fine. Several other good bargains. Write me if you want to know about Eastern Oklahoma. T. C. BOWLING, Owner, Fryer Creek, Oklahoma.

BLAINE COUNTY, OKLAHOMA.

320 acres, level, all tillable, all alfalfa land, house, barn, granary, orchard, fenced, 5 miles from 3 railroad towns, 1-3 200 acres growing wheat goes; \$12,800. Easy terms. Own other farms. ED BAKER, Owner, Watonga, Okla.

CADDO COUNTY, OKLAHOMA.

corn, wheat, cotton and alfalfa lands. \$20.00 to \$75.00 per acre, according to improvements and distance from towns. Lands are advancing rapidly. Now is the time to buy. Write for full information. J. ELZIA JOHNSON, Hinton, Okla.

BARGAINS.

Chicken and garden farm, 2 1/2 acres, new five room house, new barn and yards, close in, Enid property; \$3,000; easy terms.

Large seven room house, new, modern, close to school, best residence part of Enid, Okla., \$3,900; terms.

TEXAS & OKLAHOMA LAND CO., Enid, Oklahoma.

NOTICE TO RENTERS.

Here is something you may never see advertised again. No. 240-180 acres, 3 miles from good town, 17 mi. from R. R., 152 a. tillable, 85 a. in cultivation, 140 fruit trees, 2 room house, \$2,500. Terms \$1,000 cash, bal. terms. Write us when you can come. The Grant Investment Co., Thomas, Okla.

GOOD FARM.

160 acres, 6 miles Tecumseh, 80 in cultivation, good buildings, 6 acre orchard in fine good bearing condition, marketed 1,000 bushels in 1909. Price \$2,500; easy terms. Other farms for sale on small payments and long time. E. J. DICKERSON, Tecumseh, Oklahoma.

WHEAT, OATS, ALFALFA, COTTON.

Good lands \$30 to \$60; produce big interest on capital invested. Well located, near thriving and growing city. Prices and descriptions free. Correspondence answered in either German or English. LONE WOLF REAL ESTATE & INVESTMENT CO., Lone Wolf, Oklahoma.

TWO EXCEPTIONAL BARGAINS.

560 acres fine second bottom, above overflow, 3 mi. Wagoner, 175 acres cultivation, 25 acres good timber, balance good grass, all tillable and smooth, at \$35.00 per acre. Adjoins land sold at \$42.50.

160, 3 1/2 S. W. Wagoner, good new 5-room house, fair barn, nice young orchard, 30 acres cultivation, balance good hay meadow at \$35 per acre. Write for information. W. H. LAWRENCE, The Land Man, Wagoner, Okla.

640 ACRES OF DEEDED LAND; 300 acres of this is first class farming land; 400 acres of Indian land, leased and under cultivation; 3,000 acres of first class grazing land (Indian) leased for term of years; excellent water and good grass; very cheap lease. Good two story house of 8 rooms; water in house; hen house, cave, good grain elevator, scales, corrals and everything in first class shape, and the farm land is of the richest. Plenty of timber for wood and plenty of shelter for stock, and is an ideal farm and cattle ranch very desirably located; 2 miles to railroad. Steam plows, farming tools, horses and everything in connection with this ranch goes. First Loan & Mortgage Co., Watonga, Okla.

The Knox Seed Co. of Garden City, Kan., would be pleased to send you a sample and price of alfalfa seed grown in Finney county in 1909. This firm is a responsible one. Ask any bank in Garden City about them.

OKLAHOMA LAND

MISSOURI LAND

SPECIAL PRICES on Bates county corn, clover and bluegrass farms; best county in the state. F. R. ALLEN, Adrian, Mo.

IMPROVED corn, clover and bluegrass farms, 40 miles south Kansas City, \$50.00 to \$75.00 per acre. Jot M. Wilson & Son, Harrisonville, Mo.

NORTH MISSOURI farms for sale and exchange. Home of blue grass, corn and clover. Booklet and state map free. Broyles Land Co., Chillicothe, Mo.

FOR SALE OR EXCHANGE—Corn, clover and blue grass farms in northwest Missouri, stocks of merchandise and city property. C. F. Wikoff, Chillicothe, Mo.

KORN, KLOVER and bluegrass farms, \$40.00 and up. Write for description and further information. Ward-Sturges Land Co., Leeton, Johnson Co., Mo.

DID YOU GO TOO FAR?

Do you want to have a clover, bluegrass and timothy farm again? If so, write us. We sell well improved Johnson county farms for \$40.00 up. Write for our list, mailed free and postpaid. LEETON LAND CO., Leeton, Mo.

80 ACRES IN JASPER CO., MO.

3 1/2 miles from inland town, 6 miles from R. R., on R. F. D., 1/2 mile to good school, 8 acres of timber fenced for hog pasture, good 5-room house, good barn, well and spring. Price \$50 per acre. For further particulars write A. C. Stemmons Carthage, Mo.

580 ACRES FINE TIMBER LAND.

Abundant living spring, makes ideal ranch; if cleared would be good agricultural; farms adjoining all sides cannot be bought for \$50 per acre; near county seat; price \$75 per acre; no incumbrance; will take some trade. J. H. McQuay Realty Co., 420 Commerce Bldg., Kansas City, Mo.

KANSAS, MISSOURI, ARKANSAS AND OKLAHOMA FARMS

for sale at lowest prices on best terms. Opportunities for either homeseeker or investor unexcelled. If you are either, you should have my new list. It's free. Also some exchange propositions. JOHN A. HARVEY, 613 Century Bldg., Kansas City, Mo.

STOCK FARM SPECIAL.

350 acres, 1/2 mile from station 50 acres in cultivation, 310 acres pasture, 3 good springs, plenty of good timber, good house and barn, good well, R. F. D., telephone. A fine stock farm. Price \$20.00 per acre, half cash, balance to suit purchaser. Call or write AURORA REALTY & INVESTMENT CO., Aurora, Missouri.

NORTHWESTERN MISSOURI FARMS.

610 acres, 9 miles town, second bottom, under fence, 70 acres timber, fine water, 10 room two story house, two large barns; all kinds other outbuildings, \$65 per acre. 320 acres, well improved, 7 miles depot, 30 acres timber, 55 corn, balance grass, \$75 per acre. Other farms. G. W. TONER Cameron, Missouri.

SOUTHERN MISSOURI LANDS.

Howell, McDonald, Stone and other counties. We have several thousand acres, \$2.50 to \$8.00 per acre, in best part of fruit country. Also improved farms, \$10.00 to \$40.00 per acre. Will exchange. Write us what you want. LOCATOR REALTY CO., 342 Ridge Building, Kansas City, Mo.

FARMS ON AND NEAR ROCK ROADS.

In Southern Jackson and Northern Cass Counties, Missouri, only 20 to 30 miles out from Kansas City, of 40 acres or more, at \$30 and up per acre. Jackson County has 200 miles of rock roads. No trades. For particulars, address FRED B. GLOVER, Gumbel Bldg., Kansas City, Mo.

MISSOURI FARMS.

Why not come to Cass county, Mo., where the blue grass, white clover, red clover and timothy grows in abundance? I have a few good farms for sale only a few miles from Harrisonville, the county seat, one of the very best towns in the state, of two thousand population. We are only forty-five miles due south of Kansas City. CLARENCE F. GILBERT, Harrisonville, Cass Co., Missouri.

Land Sale!

Did you ever own a farm in the Bluegrass, Corn and Clover belt? Did you go a little too far? If so, write me. I have Corn, Clover and Bluegrass Land, temperate climate, good improvements, schools and churches paid for, low taxes, good market towns and railway facilities. State and soil map free. Full particulars sent on application. BAZEL J. MEEK, Chillicothe, Missouri.

# TEXAS LAND

## FREE TRIP TO TEXAS

If you want to take a free trip to the Sunny Pecos Valley of Texas where they cut six crops of alfalfa and raise all kinds of fruits and vegetables, write us for further information  
The Heath Company, Topeka, Kan.

# A PARADISE RECLAIMED

15,000 Acres Actually Irrigated in the BEAUTIFUL PECOS RIVER VALLEY OF TEXAS.  
Deep, rich soil. Abundance of water. Delightful climate. Right on Santa Fe Railroad station in center of tract.  
DAM RESERVOIR, CANALS ALL COMPLETE NOW.  
Free water with every acre. Selling fast. Act quick if you want an actually irrigated farm cheap, or an investment that will pay you 50 per cent annually. Excursions and cheap rates first and third Tuesdays of each month.  
Most desirable irrigated land and townsites proposition on the market today. Send for interesting booklet. Tells you about it. Good live agents wanted in every locality.  
ARNO IRRIGATED LAND CO., Topeka, Kansas.

**GOOD RANCH.**  
3,368 acre ranch, improved, \$5.00 acre. Robertson Co., 7 miles county seat. Adjoining land couldn't be had for twice our price. Would sell part or all. All fine grass and much first class farm land. Detailed description and plat free.  
C. A. BABCOCK, Harper, Kansas.

**NEAR OKLAHOMA.**  
Seven sections Wheeler county, Texas—practically all tillable, raises big crops, corn, wheat, Kafir, milo maize, broom corn, melons and all staples. Good crops here last year. Goes in section lots; extremely reasonable prices.  
CAINE & BINKLEY, Cotton Dealers and Owners, Oklahoma City, Oklahoma.

**Dalhart Texas** is where we are located and we have some land bargains for the buyer. Write for our free, handsomely illustrated book or come to Dalhart and let us show you a country without a fault.  
J. N. JOHNSON LAND COMPANY, Dalhart, Texas.

**Sweet Potato Plants.**  
Notice the special advertisement for sweet potatoes by the Hayes Produce Co., North Topeka, Kan., in this issue of Kansas Farmer. This enterprising firm has built up a big business in handling seed potatoes, corn and produce of all kinds. There is good money in sweet potatoes and the Hayes Produce Co. can furnish a choice assortment of different varieties at very reasonable prices. Write them for particulars and mention Kansas Farmer.

# FIELD NOTES

## FIELD MEN.

O. W. Devine.....Topeka, Kan.  
Jesse R. Johnson.....Clay Center, Kan.  
R. G. Sollenberger.....Woodston, Kan.

## PURE BRED STOCK SALES.

**Shortborns.**  
March 29—C. W. Daugherty, Sedalla, Mo.  
June 10—C. S. Nevius, Chiles, Kan.  
**Poland Chinas.**  
May 17—Roy Johnston, South Mound, Kan.  
Oct. 20—Roy Johnston, South Mound, Kan.  
Oct. 26—G. M. Hull, Garnett, Kan.  
Nov. 1—H. B. Walter, Effingham, Kan.  
**Duroc Jerseys.**  
March 22—S. W. Alfred & Son Sharon, Kan., sale at Enid, Okla.

Jesse R. Johnson, Care Kansas Farmer: I wish to thank you very much for making the purchase of the Poland China sow. I could not have made a choice that would have suited me better if I had been there. The sow is a good individual.—G. E. Morton, Professor Animal Husbandry Colorado Agricultural College.

The Percheron Registry Company of Columbus, O., has issued a small booklet containing a list of names of horses that have been registered under wrong numbers or wrong names, or in whose registration some serious flaw has been found which will prevent this company from accepting these horses for registration in the Percheron stud book of America. A postal card addressed to Sec'y, Chas. C. Glenn, Columbus, O., will bring you a copy of this booklet.

H. L. Faulkner, owner of the Highview herd of big spotted Poland Chinas at Jamesport, Mo., writes: "Please continue my advertising. My sale did very well, and I have had a lot of inquiries for bred stuff and have sold a number of spring pigs to be shipped when weaned. We now have about 100 February and March pigs that are the best that were ever raised on Highview Farm. They have more size, more bone and more spots. Most of them are out of extra large litters from 10 to 11 in the litter. I think this will be an extra good year for hog breeders and they surely need it if anyone does."

Volume 73 of the American Shorthorn Herd Book contains the pedigrees of 8,000 bulls numbered from 29901 to 307000, and of 12,000 cows numbered from 35001 to 47000. Volume 74 contains the pedigrees of 9,000 bulls and 11,000 cows and is now in the hands of the printer. Volume 75 has been filled and Volume 76 is now being filled with pedigrees. A reduction has been made in the selling prices of certain volumes of the Herd Book. Those numbered below 30 will cost \$1.30 prepaid. Those from 31 to 73 inclusive, cost non-members \$2.30 prepaid. Address Secretary John W. Groves, Stock Yards Station, Chicago, for further information.

**Last Call for Alfred & Son's Duroc Sale.**  
Don't overlook the grand opportunity to buy good Durocs on March 24 at S. W. Alfred & Son's Duroc bred sow sale, near Enid, Okla. The offering is first class and this is about the last bred sow sale of the season to be held in this locality. Send for catalog and come to the sale.

**Get a Catalog of the Greenwood Co. Breeders' Sale.**  
On March 29 and 30 will be a two days' sale of cattle and hogs. This will be the last chance to buy at public auction this season in this locality. It will be one of the best offerings ever sold at public auction in this county. Get your name in early for a catalog.

**Another Col. Boar Sells Well.**  
Oit Bros., proprietors of the well known Duroc Jersey herd formerly owned by John W. Jones, of Concordia, Kan., have recently purchased from Chapin & Nordstrom an excellent line bred Col. boar for use in their herd. This is the last outstanding good boar this firm has to offer but they have a fine lot of bred sows and gilts for sale. See their card in this issue and write, mentioning Kansas Farmer.

**Elder Bred Sows for Sale.**  
Frank Elder, proprietor of the famous Highland Duroc Jersey herd, located at Green, Kan., changes his advertisement and offers for sale, privately, 20 bred sows and gilts carrying the blood of the greatest Col. boars living. He needs the room for the spring pigs and is pricing these worth the money. Write him and mention Kansas Farmer.

**J. F. Cook & Co. Make Good Sales.**  
The Cook Farms, at Lexington, Ky., report the best sales this season since they have been in business. Following is a list of sales for the last 10 days: R. S. England, Mercer, Mo., bought the two-year-old Mammoth Jack General Morgan and a two-year-old saddle stallion; Elmer Reagan, Riley, Kan., a four-year-old jack; J. S. Burdette, Hurricane, W. Va., a two-year-old Mammoth jack and a two-year-old registered saddle stallion; T. H. Barrett, Newsoms, Va., a three-year-old Kentucky Mammoth jack; S. C. Danehower, Forrest City, Ark., a three-year-old Kentucky Mammoth jack and a yearling jennet; C. H. Hoag, Judsonia, Ark., a three-year-old Kentucky Mammoth jack; German Coach Horse Company, Waldron, Ark., a three-year-old Mammoth jack of the Dr. Hartman family; Joe Bogart, Cadiz, Ky., a registered saddle colt by High Order and two saddle fillies; J. R. Munson, Tennessee, a three-year-old jack of the Dr. Hartman family; Colonel H. B. Duryea, New York City, for his Tennessee farm, a two-year-old jack; J. H. Johnson, Nashport, O., a six-year-old jack; J. C. Jones, Little Falls, N. Y., a pair of three-year-old mules for \$500.00. This firm has brought up from their lower farm to their sales barns in Lexington two car loads of jacks the past week and they say that their barns are full of the best lot of jacks that they have ever shown. They are all fresh and A. No. 1 and have never been picked over. Besides, they have 32 colts 15 to 20 months old, which they say are the best and biggest that they have ever raised.

# NEBRASKA LAND

**IRRIGATED HOMESTEADS.**  
In the famous North Platte Valley, where Uncle Sam furnishes the water on ten years time without interest. Crops yield \$25 to \$100 per acre. Homesteads at from \$700 to \$3,500, according to improvements. Deeded land \$75 to \$100 per acre. Free rural mail delivery, telephone and all modern farm conveniences. These lands in splendid settlement of fine homes near town. For particulars write or see  
CARPENTER, FLUMMER & MURPHY, Morrill, Neb.

**THE BEST HOG FARM**  
in the west for sale. 80 acres one and one-half miles from Pawnee City, Neb., fenced and cross fenced hog tight with spring water piped for greatest convenience. Full equipment, buildings, alfalfa and other tame grasses. I have raised and sold off this farm \$40,000 worth of pure bred hogs during the past seven years, but have decided for various reasons to retire, have already sold stock and the farm is too good to rent. Price \$8,000. Write to me and save commissions.  
JOHN BLAIN, Pawnee City, Neb.

**45 BUSHEL WHEAT LAND, \$25 PER ACRE.**  
We own and control 20,000 acres of Cheyenne county, Nebraska's choicest farm land now on the market. The heaviest crop yielding county in Nebraska for ten years; alfalfa also a leading crop. Ask for folders and full particulars. Agents wanted everywhere. Write for our proposition at once. Railroad fares refunded if things not as represented.  
FUNDINGSLAND & SEVERSON, Sidney, Nebraska.

**TWO SPLENDID FARM BARGAINS.**  
400 acre farm in Red Willow county, Neb., 2 1/2 miles from McCook, good 3 room house, good barn and other good improvements; 160 acres choice valley alfalfa land, 55 acres now growing; 100 acres bottom and 40 acres upland, cultivated, balance pasture; well watered, some timber and abundance of choice fruit trees, bearing. Actual value of land over \$20,000 but belongs to non-resident, who will take \$16,000 if sold soon—only \$40 per acre. Act quick; don't miss this.  
560 acres 12 miles from McCook, 7 miles from Troyer, Kan.; 400 acres choice smooth farm land, balance good pasture, half cultivated, slight improvements. A splendid bargain at \$16 per acre.  
For other snaps in farm and ranch lands write or see  
ACKERMAN & STEPHENS, McCook, Nebraska.

## Kimball County, Nebraska.

has excellent farm lands. Produces alfalfa and all kinds of small grain. Prices \$10.00 to \$20.00 per acre. State amount of land wanted.  
KIMBALL LAND CO., Kimball, Nebraska.

## EXCHANGE COLUMN

**FOR EXCHANGE**—Farms and city property in various states. List your exchanges with us. Western Investment Co., 406 R. A. Long Bldg., Kansas City, Mo.

**FOR EXCHANGE**—Missouri and Kansas farms and city property. List free. Est. 20 years. G. W. Hardy Investment Co., 301 Commerce Bldg., Kansas City, Mo.

**SALE OR EXCHANGE**—Texas, Missouri, Kansas, Oklahoma farms, stocks merchandise for good propositions. Cash considered. Western Land Exchange 404-5 Ridge Building, Kansas City, Mo.

**FOR EXCHANGE OR SALE**—Kansas, Missouri, Oklahoma, Texas farms, city property, stocks merchandise for other good propositions. McNeal, 211-15 Finance Bldg., Kansas City, Mo.

**920 ACRES PASTURE LAND.**  
Elk county, Kansas, under good wire fence; five miles railroad station. \$20.00 acre. Incomparable. \$5,500. Want merchandise in country town for equity. Other exchanges. B. F. Carter, 1216 Commerce Bldg., Kansas City, Mo.

**FOR SALE OR EXCHANGE.**  
Western Kansas lands. Will exchange for other land, stocks, merchandise, income property, etc. If you have a good trade to offer, write us.  
THE INTERSTATE LAND & TRUST CO., Central Office Bldg., Salina, Kan.

**BARGAINS FOR CASH OR TRADE.**  
Of all kinds direct from owners of farms, ranches mdse., hardware, hotels, livery barns. Send for our book of trades or cash list.  
Bersie Real Estate Agency, Eldorado, Kan.

**FOR SALE OR EXCHANGE, WEST CENTRAL KANSAS LAND.**

Wheat, corn and alfalfa lands, Lane and Gove counties, \$15.00 to \$25.00 acre. Prices advancing rapidly. If you have a good trade to offer write us.  
W. H. Dayton Land Co., Abilene, Kan.

**WE WANT WESTERN KANSAS LANDS.**  
We have eastern Kansas lands to exchange. Give legal description, stating distance from town, size of town, lowest cash price and what you will exchange for.  
McNeill-Martin Inv. Co., Merchants Nat'l Bank Bldg., Lawrence, Kan.

**TO EXCHANGE FOR KANSAS FARM.**  
Suburban grocery stock, will invoice about \$3,000. Will assume some on farm. Residence properties in Kansas City and 20 farms, Kansas and Missouri, ranking from 80 to 400 acres each, to exchange.  
J. E. REED REALTY CO., 628 N. Y. Life, Kansas City, Mo.

**TO EXCHANGE FOR FARMS.**  
\$10,000 clothing and furnishing goods.  
\$16,000 clothing and furnishing goods.  
\$25,000 clothing and furnishing goods.  
\$20,000 general merchandise.  
\$16,000 general merchandise.  
\$12,000 general merchandise.  
\$15,000 hardware and groceries.  
\$15,000 hardware and building.  
G. W. Goldman, N. Y. Life, Kan. City, Mo.

# Colorado Land

## CALL OF THE WEST

Why do you rent? Why give the best years of your life working for others? Own your own farm—you can do it on payments less than the rents you are now giving.  
**BE INDEPENDENT—DO IT NOW.**

We have plenty of choice smooth, fertile lands, such as are now producing from 25 to 45 bushels of wheat per acre and yield abundantly of corn, alfalfa, oats, potatoes and other crops, we can sell you at from \$10 to \$25 per acre on good terms.

Write us at once for information as to the splendid opportunities for investment in lands, both irrigated and irrigable, or choice farming uplands.

These lands are in Logan and Weld counties and the famous Crow Creek Valley.

**THE BEST OF NORTHWESTERN COLORADO.**  
Act now and get the benefit of the rapid rise in values. Some good homestead lands subject to filing.

**THE WESTERN LAND CO.**  
STERLING, COLORADO.

## Kiowa County, Colo., Land.

12,000 acres of choice wheat land offered in quarters and half sections. On line of Mo. Pac. R. R., close to three good towns. Prices range from \$5.00 per acre upward. Write for terms and descriptions.

ALBERT E. KING, McPherson, Kansas.

## COLORADO LAND AND SUNSHINE.

If you are looking for a home, investment or health, where the climate is perfect, where there is the best class of people, churches, schools and no saloons, where there are thousands of acres of choice land coming under irrigation and selling very cheap, you will do well to write us for new printed matter on Morgan Co., Colo. Address  
THE B. W. JACKSON REALTY CO., Fort Morgan, Colorado.

**DO YOU WANT A HOME?**  
Buy now in Washington county, Colo., where choice land, with best of soil, can be had; where good farmers raise from 20 to 45 bu. wheat per acre and oats, barley, corn, speltz, potatoes and alfalfa grow abundantly on upland, without irrigation; in a county rapidly settling and being improved by good thrifty farmers. We have many tracts of choice, smooth, fertile farm land, healthful climate and abundance of good water, at prices ranging from \$8 to \$15 per acre. If you are looking for good investments write or see  
Vanderhoof & McDonald, Otis, Colo.

**MUNTZING PAYS THE FREIGHT.**  
FARMS, SHEEP and also CATTLE AND HORSE RANCHES.

I own 40,000 acres of choice lands in Washington and Yuma counties, and am offering both improved and raw lands at prices far below all others and on terms to suit all purchasers. Monthly payments if desired. 160 and 320 acres relinquishments adjoining lands offered for sale. Best of wheat, oats, cane, corn, potatoes and alfalfa lands. I refund railroad fare and hotel bills for those who purchase of me. All lands are level, smooth and rich farm lands, NONE better, COME NOW and buy homes and get the free ride. Why pay big commission when you can buy direct from the owner? Write for maps, plats, price lists and explanations and proofs to  
AUGUST MUNTZING, Akron, Colo.

**\$1 MAKES ANOTHER -- WHERE**

In the South Platte Valley, Morgan county, Colo. Money invested in land here will double itself in 3 years. Write for full particulars to  
E. E. SEAMAN, Brush, Colorado.

## YUMA COUNTY, COLORADO.

We own and have for sale 3 160-acre tracts, unimproved, nice laying land, 8 miles from Yuma, Colo., \$15; also 1/4 section and single 160 acres 15 miles from same town, fine soil, \$12.50. These are bargains. We buy, sell or trade.

YUMA CO. REAL ESTATE CO., Wray, Colorado.

**COLORADO ALFALFA**  
was first prize among standard farm crops in Eastern Colorado, near Denver. One year's alfalfa crop more than pays for land now selling from \$15 to \$25 per acre. Wheat, oats, potatoes do equally well on these low price subirrigated lands. Map of Colorado and alfalfa literature sent free.  
Ask COLORADO FARM LAND ASSOCIATION, 879 Dearborn St., Chicago, Ill.

## KANSAS LAND

**FOR SALE**—Very desirable business property on the main street close to business center, Junction City, Kan., now occupied by a butcher shop and grocery. Commands a good rental. Street cars run by to Fort Riley. Price \$10,000.00.  
John T. Dixon, Junction City, Kan.

**\$1,600 TIES THIS.**  
Level section, Logan county, Kansas land, 250 acres under plow, good well, new 200 bu. granary, cut stone on farm for house and barn, all under fence; price \$11 per acre.  
T. E. HALE, Solomon, Kansas.

**"A FEW SNAPS."**  
In McPherson Co. farms, which it will pay you to investigate. 160 a. 2 miles from Lindsborg—valley land. 15 a. alfalfa, can all be cultivated, good buildings. Price \$11,000. Terms will be given. For full particulars, and full list write Joseph A. Brandt, Lindsborg, Kan.

240 ACRES, 200 acres in cultivation, 50 acres in wheat, 1-3 goes to purchaser, balance for spring crop. This is good corn and wheat land, dark, sandy loam soil. This land is practically level, good water, 3 room house, stable for six head of horses. This land is 3 1/4 miles to R. R. town in Harper Co., Kan., and 1 1/2 miles to school. Price \$7,500. For further information write Hilton & Garrison, Attica, Kan.

**FOR SALE OR EXCHANGE**—Farms and stocks of merchandise in Kansas, Missouri and Oklahoma. Write me. **FRANK SEELY**, 402 Ridge Bldg., Kansas City, Mo.

**FOR SALE OR EXCHANGE.** 4700 acres in Ness County; 20 quarters in Ford County; farms and ranches in Pratt and Barber, in the wheat belt; general mds., hardware, blacksmith for sale. Write us today if you mean business. **I. L. Chinn & Co.,** Coats, Kan.

**NICE HOMES, GOOD BARGAINS.** 40 acres close to Emporia, choice land, good improvements, close to school, \$6,000; 184 acres, half good creek bottom, living water, good improvements, \$65 per acre; 320 Greenwood county, well improved, splendid land, fine orchard, \$45 per acre, would take smaller farm on this. **J. M. McCown,** Emporia, Kan.

**FOR SALE AND EXCHANGE** Missouri, Kansas, Colorado, Arkansas, Texas lands. List your exchanges with me. Will try to get you a good deal. Describe what you have to offer fully. I will try to match it. **Ronemus, 456 Sheldley Bldg., Kansas City, Missouri.**

**BEST 640 acre farm in Missouri 4 miles Lamar, Barton Co., all rich black prairie land in cultivation, well improved, living stock water, \$85.00 per acre; \$15,000 long time loan. Owner would trade for mds. Exchange list free.**  
**C. B. Rhodes Real Estate & Investment Co., 400 Helst Bldg., Kansas City, Mo.**

We have selected list good farms to exchange for mds. Full information wanted. We'll exchange your property. Let us know what you have and what you want. Good running stocks merchandise to exchange for farms and ranches.  
**Ernest Lovan Investment Co., 517-21 Finance Bldg., Kansas City, Mo.**

**FOR SALE AND EXCHANGE.** Kansas and Missouri farms for city property, stocks merchandise and other farms. Describe what you have, will make you a good trade. List your farms for exchange with us. **B. E. Woodward Real Estate & Investment Company, 264 N. Y. Life Bldg., Kansas City, Mo.**

**THE STRAY LIST**

**Woodson County**—John E. Barrett, Clerk. Taken up, on Oct. 29, 1909, by W. M. Hays, Everett tp., Woodson Co., one white face red steer. H on right hip. Value \$15.

**Woodson County**—John E. Barrett, Clerk. HEIFER—Taken up March 10, 1910, by Geo. Ibbetson, Eminence, 1 light red heifer, one year old, value \$16.

**Greenwood Co.**—W. O. Blackburn Clerk. HEIFER—Taken up, by W. O. Smith, in Janesville tp., 1 heifer, red with white face, under bit in both ears, value \$20.

**Osage County**—Geo. E. McGrath, Clerk. TAKEN UP—By Charles Leonard, in Junction tp., 1 bay horse, 5 feet tall, star in forehead and white left hind foot, value \$50; 1 dark gray horse, star in forehead, value \$50.

**THE ELLINWOOD DISC SLED**

The only one manufactured with a dust proof bearing and retains the oil for a long time. It is adapted for the cultivation of corn and the working down of hilly ridges for wheat. Every one guaranteed. Ask your dealer if he does not handle it. Write for prices. Address

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**BUY YOUR AUTOMOBILE SUPPLIES DIRECT**  
WE PAY FREIGHT on shipments of 100 lbs. or over  
Every Shipment GUARANTEED to satisfy you or your money back.  
REFERENCE—Any bank in Kansas City  
SEND for our 225 page AUTOLOG. Full of useful information and money saving prices.  
**Kansas City Auto Supply Co., 1519 Grand Ave. Kansas City, Mo.**

**FREE BOOK of GRIB PLANS**  
—Save \$100 to \$500 on the grain you crib. Our books tell how. Your old cribs are O.K. to use a "Little Giant" Elevator with, but write for this new big book. Sent free with our catalog. Gives complete working plans and specifications for building or remodeling most practical used cribs and graineries.  
**LITTLE GIANT PORTABLE GRAIN ELEVATOR**  
—Saves its price quickly in time, labor and money. No hand work. Drive right on wagon dump or jack, throw clutch, start horse-power or your engine, and grain is distributed evenly by conveyor at any height. All automatic and quick. Unloads 50 bu. in under five minutes. Investigate thousands in use. Write  
**PORTABLE ELEVATOR MFG. CO., 017 McClum St., Bloomington, Ill.**  
**FREE CATALOG**

A. G. Dorr breeder of S. C. Brown Leg-horns at Osage City, Kan., desires to announce to his customers, both new and old, that he is ready to supply pure bred eggs. Mr. Dorr has mated his 300 hens with cocks that are out of the prize flock at the Iowa State fair and makes it his business to ship only first class and strictly first class eggs well packed. Can supply for incubators or for single sittings at \$4.00 per 100 or \$1.50 for 30 eggs. Mention Kansas Farmer when you write.

**Wolfersperger Makes Another Good Sale.** D. A. Wolfersperger, who made a very successful sale Feb. 8, did the same thing over again just a month later. The March 9 sale was composed entirely of gilts, either bred very late or open. The demand was strong and good prices were received considering the age, etc., of the offering. Thirty head averaged \$30, lacking just a little, and the entire lot of 50 head, many of which were mere pigs, averaged \$25. L. M. Shives, of Iuka, Kan., topped the sale at \$50 buying the fine gilt by Perfection's Likeness, lot 6 in catalog. A partial list of sales follows:  
1—Samuel White, Ada Kan. .... 48.00  
2—E. C. Logan, Beloit, Kan. .... 38.00  
3—P. M. King, Bennington, Kan. .... 35.00  
4—B. M. Lyne, Oak Hill, Kan. .... 37.00  
5—W. M. Norris, Minneapolis, Kan. .... 40.00  
6—L. M. Shives, Iuka, Kan. .... 50.00  
7—P. M. King, Bennington, Kan. .... 35.00  
8—H. C. McCollum, Wakenav, Kan. .... 26.00  
9—H. Novis, Minneapolis, Kan. .... 40.00  
10—John Stratton, Minneapolis, Kan. .... 30.00  
11—John Stratton, Minneapolis, Kan. .... 30.00  
12—E. C. Logan, Beloit, Kan. .... 26.00  
13—H. L. Peters, Minneapolis, Kan. .... 22.50  
14—W. R. Brown, Minneapolis, Kan. .... 26.00  
15—C. N. Miller, Lindsey, Kan. .... 20.50  
16—O. Benedict, Lindsey, Kan. .... 21.50  
17—H. C. McCollum, Wakenav, Kan. .... 35.00  
18—W. W. Powell, Minneapolis, Kan. .... 20.00

**Frank Iams.** The "Live Wire Horseman" is cutting the "middle out" of high prices on "show and business stallions" and mares. Foxy Ikey the big "live wire" procession is headed for "Frank Iams' Horse Emporium" where a boy or a lady can buy as cheap as a man. Iams will positively close out his "show and business" stallions. He is using the "big stick," "cutting prices" on "show horses." He has opened his barn of "top notchers." The "1908 show horses," the stallions bought for 1909 "show horses," and a "select bundle" or "Peaches and Cream" business stallions. These stallions and mares are winners of 40 prizes at Nebraska, Illinois state fairs, and St. Joe fair (over some International Champions), and Iowa and Wisconsin first winners. These Champion stallions and mares will positively be sold by June first at biggest bargains ever offered before. Ikey buyers, get into Iams' buying stallion game. He has lifted the lid, reduced prices from \$200 to \$700 on "show horses." Iams tickles buyers with "Champion stallions" at \$1,000 to \$1,500 for choice of "show horses" (bar two horses). Mamma, Iams is a "hot advertiser." But he "makes good." Has the goods, sells "show stallions" for 30 days at same price as others. His low price knock the persimmons or middle-men's profits. Iams has 40 Percherons, Belgians and Coaches, 2 to 6 years old, weight 1700 to 2500 lbs., 90 per cent blacks, 80 per cent ton horses. All registered and branded. Live Wire Ikey, be a stallion buyer. Don't be side-tracked by any "hammer knocker." Iams advertises and tells you what he has and what he will do for you. He don't hire fifty "con talk horse salesmen" or "auction block hot air dispensers." Iams gets busy with "Peaches and Cream" imported stallions and mares at farmers' prices. Sells the big-boned high action "black boys" with two good ends and a middle. Makes a daily "horse show." Better than a "state fair" and his "horse emporium" shows you "more pointers" in breeding, feeding, rearing, fattening, grooming, educating, finishing and showing horses than you can learn in a year elsewhere real experience that can't be got at a college farm. Iams offers forty show stallions and mares for sale. All his 1908 Champions first and second prize winners must be sold at reduced prices of from \$100 to \$500 less than ever offered before. You say "Why can Iams sell better horses at half the price of others?" Iams buys and

**MORE BUTTER MONEY \$14.85 AND UPWARD**  
Whether you keep one cow or fifty, you are now losing at least ONE-FOURTH of your butter money. You can't possibly get more than three-fourths of the cream by hand skimming or water separators. You lose enough butter money every few months to more than pay our factory price for the size of cream separator you need. A New Butterfly Jr. No. 1 now costs you only \$14.85 and gets all the cream as soon as the milking is done, just the same as any \$100.00 machine. It purifies the milk for your table, does away with washing dirty pans and crocks, gives warm, fresh skim milk to feed the calves, pigs and chickens; skims 1 quart of milk per minute; runs so smoothly and easily a child can operate it; cleans more quickly and perfectly than any other cream separator. Read why in our free 1910 catalog just printed. Every New Butterfly Cream Separator made in our own factory, shipped direct to you on 30 days' free trial and guaranteed a lifetime. Write for catalog today. It is free. Address **ALBAUGH-DOVER CO., 2109 Marshall Blvd., CHICAGO** Write now for 1910 Catalog.

**READ THESE ROOFING BARGAINS and Remember That We Sell Only the Most Dependable Grades of ROOFING**

Dealers' Prices		Our Prices
\$1.00	Rolls of Two-Ply Tarred Felt Roofing, containing 108 square feet	\$0.54
1.50	Rolls of Asphalt Felt Composition Sanded or Rubber Roofing - -	.89
2.00	Rolls of the highest grade of wool felt asphalt Best-ov-al Rubber Roofing - - - - -	1.25
2.75	Rolls of the highest grade of wool felt asphalt Best-ov-al Rubber Roofing - - - - -	1.50
3.50	Rolls of the highest grade of wool felt asphalt Best-ov-al Rubber Roofing - - - - -	1.80

**Send for These Free Samples and This Free Roofing Catalog**  
It quotes the very lowest prices on every kind of roofing, showing also a full line of steel roofing, painted or galvanized finish, at prices 25 per cent below market quotations. Every roofing sample is marked with the number and price, making it easy for you to compare values with what you can obtain locally. Our Roofing Catalog tells exactly why we give you better roofing for your money than you can obtain elsewhere.  
Write your name and address plainly in the coupon below and as soon as we receive it we will send you by return mail our free Roofing Catalog and our complete line of roofing samples.

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**Sears, Roebuck and Co., Chicago**

CUT OUT COUPON AND MAIL TO US.

sells every stallion himself at his home barns. He buys stallions by "special trainload," 200 at a time. He speaks the languages saving 30 per cent. Iams is not in the "Stallion Trust," saving you \$300. He pays no "slick salesmen" \$1,000 to sell you a 4th rate stallion. He gets busy himself and sells more stallions than any ten men in the U. S. He does not hire 50 horse salesmen, he sells every stallion himself. He has no two to ten partners to share profits with. He pays spot cash for his stallion, owns his farms, houses, barns, stocks and stallions. He sells stallions by "hot advertising" and having the goods to make "every statement" good. Iams sells stallions so good they do not need a "slick peddler" or the "auction block" to sell them. Iams will save you \$1,000 or more in middlemen's profits. All Iams' "show horses" and "pets" are for sale None reserved. You won't get away from Iams with money or bankable notes. He has his "selling clothes" on daily.

**IAMS AND PRIZE BELGIAN AND PERCHERON 3 YR OLDS, KINGS AMONG TOPNOTCHERS.**

LOU BURK

# SWEET POTATOES

of all kinds and all kinds of plants lowest prices Yellow Jersey per bu. 70 cts.; Yellow Nansmond per bu. 70 cts. We have Red Bermuda, So. Queens, Black Spanish, Red Jersey, Red Nansmond So. Yams and others, \$1.50 per bu. Write for our list.

HAYES PRODUCE CO.,  
524-526 N. Kansas Ave., Topeka, Kansas.

## Greenwood Co. Improved Stock Breeders' Sale

At Eureka, Kansas, Tuesday and Wednesday, March 29 and 30

TUESDAY, MARCH 29

### 40 -- Duroc Jersey and Poland China Hogs -- 40

#### DUROC-JERSEYS.

R. D. Martin & Sons, Eureka, Kan., consign six sows and gilts, mostly by Dandy Duke, Reserve Champion at American Royal, 1907, and they are safe in pig to Tatarax Model. Charles Stith, Eureka, Kan., consigns five head, three open gilts and two bred to Dew Drop Commodore, a grandson of the Grand Champion Commodore. They are out of granddaughters of Kant Be Beat and are show-yard material.

T. I. Woodall, Fall River, Kan., consigns five head, four spring gilts and one fall yearling—one Tatarax, two Col's, one J. D.'s Improver and one Bell's Chief.

#### POLAND CHINAS.

A number of excellent Poland Chinas will be consigned by A. B. Huffman and others. Only high class stock entered for sale.

Don't miss this sale; send your name today for catalog. Address Sec. Geo. Tucker, Eureka, Kan., or Pres. B. M. Brown, Fall River, Kan. Auctioneers—Lafe Burger and Lon Smethers. O. W. Devine representing the Kansas Farmer.

WEDNESDAY, MARCH 30

### 40 -- Shorthorn and Hereford Cattle -- 40

#### SHORTHORNS.

H. M. Hill, La Fontaine, Kan., consigns a few cows and 5 pure Scotch bulls sired by Imp. Collyne. H. G. Bookover, Eureka, Kan., contributes some good young stock Wm. F. Hodgson, E. E. Gilliland, D. Badger, Eureka, Kan.; J. T. Bunch, Lacygne, Kan., and others will consign Shorthorns.

#### HEREFORDS.

B. M. & W. J. Brown, Fall River, Kan., consign six young bulls by Advance by Lord Saxon and out of cows strong in the blood of Grove 3rd, Corrector and Anxiety. Also four cows, two with calf at side. Robert Simmons, Severy, Kan., and others will contribute.

#### CATTLE.

FOR SALE -- DOUBLE STANDARD Polled Durham bulls of different ages, C. M. Albright, Overbrook, Kan.

FOR SALE—TWO SONS OF THE GREAT Holstein bull, Butter Boy Pietertje 3d, at farmer prices. Get busy, S. E. Stoughton, Route 4, Hutchinson, Kan.

SEE US BEFORE PLACING YOUR stock catalog printing. Western Printing Co., Ptg. Dept., Kansas Farmer, Topeka, Kan.

ALYSDALE SHORTHORNS -- HERD headed by the magnificent Scotch bull Archer Victor No. 292012 for sale now at bargain prices, the following (red) bulls: Chief Burnett No. 311843, dropped December 16, 1908; Santa Claus No. 311849, dropped December 26, 1908. Also some fine young females, all richly bred. Call or write Chas. W. Merriam, Columbian Bldg., Topeka, Kan.

#### SWINE.

FOR SALE—O. I. C. MALES READY for service. Also gilts to farrow in May. Silver strain. Ronald Smith, R. 1, Box 37, Wichita, Kan.

FOR SALE DUROCS—NO WE WON'T sell you bred gilts for \$15 and \$20 each, but if you are on the market for something good, with plenty of size, write us for prices. A few good ones at bargain prices. Herd headers—Illinois Chief 50059 and Oom Paul 35993, a 1,200 pound hog. Harding Bros., breeders of high class Durocs. Richland, Kan., R. F. D. No. 26.

#### HORSES AND MULES.

SHEPHERD PONIES WRITE FOR price list. Charles Clemmons, Waldo, Kan.

REGISTERED MAMMOTH JACKS AS good as grow. H. T. Hineman, Dighton, Kan.

HAVE TWO GOOD JACKS, ONLY NEED one; your choice cheap for cash. Also good draft stallion. L. Cox, Concordia, Kan.

FOR SALE—IMPORTED AND HOME bred black Percheron and Standard bred driving stallions. Joe S. Williams, Edson, Kan.

FOR SALE -- REGISTERED CLYDESDALE and Hackney stallions and mares; also registered Hereford cattle. Thos. Evans, Neosho Rapids, Kan.

MISCELLANEOUS CLASSIFIED ADS. LIVERY STOCK FOR SALE—WOULD trade for land. Earl Wilson, Palmer, Kan.

E. R. BOYTON HAY CO., 1305 WEST Eleventh street, Kansas City, Mo., receivers and shippers of hay. We solicit your business.

20 CAR LOAD HEDGE POSTS FOR sale. All sizes and all prices. Correspondence solicited. W. H. Bitts, Melvern, Kan.

DRY BATTERIES RENEWED BY ANYONE for 10c to 25c per doz. Formula \$1. Will send it this week for 35c. Fairmount Telephone Co., Leightons Corners, N. H.

BOOKS—WE SELL AT BARGAIN prices the books that every family wants and needs. Send today for free illustrated catalogue. Peter V. Wilton Co., Amsterdam, N. Y.

LETTER HEADS AND ENVELOPES—Descriptive of your business. Best prices. Send for samples. Western Printing Co., Ptg. Dept. Kansas Farmer, Topeka, Kan.

TOBACCO HABIT CURED OR NO COST. Safe, pleasant, permanent. Physicians astounded. Great discovery. Send your address at once. King-Ni-Ko 9, Wichita, Kan.

WANTED—PHOTOGRAPHS TO COPY. Send your picture and 25c and I will make you one dozen fine photos from same on mounts 2 1/4 x 3 in. W. E. Cowen, Lyons, Kan.

BUTTERMAKERS, WANT YOUR INITIALS on your product? Stamp them in mold. Send 50 cent money order for complete directions for making and using outfit. You can make easy pin money stamping prints. W. A. Oakley, Beloit, Kan.

#### LAWYERS.

W. T. ROCHE, LAWYER, CLAY CENTER, Kan., will mail you a written opinion of the law on any proposition for one dollar. Send full statement of facts with remittance.

#### The Gifford and McMillan Percheron Sale.

The Gifford and McMillan Percheron sale, recently held at Beloit, was made up of the entire stud of J. A. Gifford of that city, who goes out of business as a Percheron breeder and a consignment from H. G. McMillan of Rock Rapids, Ia. The occasion was a notable one and served to attract the largest crowd ever assembled at a public sale in Mitchell county. The sale was a decided success and the occasion was rendered all the more enjoyable by reason of the semi-annual meeting and banquet of the Mitchell County Breeders Association, to which the visiting breeders were invited. Toasts were given by Col. F. M. Woods, the famous auctioneer of Lincoln Neb., W. S. Cora, Whitehall, Ill., who recently paid \$10,000 for the champion Percheron stallion of the International Live Stock Show, Mr. Gifford and Mr. McMillan, the principals in the sale, and others. The sales were as follows:

- 1—Arthur Colgrove, Girard, Kan. .... \$1575
- 2—C. Geizer, Beloit, Kan. .... 305
- 4—John Vernon, Simpson, Kan. .... 735
- 5—Walter Doggett, Victor, Kan. .... 800
- 6—Bunerwalder Bros., Beloit, Kan. .... 870
- 7—R. Straw, Beloit, Kan. .... 700
- 8—M. Moore, Beloit, Kan. .... 610
- 9—Guy Grey, Jamestown, Kan. .... 275
- 10—Chas. Hillman, Beloit, Kan. .... 600
- 11—W. R. Brown, Minneapolis, Kan. .... 505
- 12—J. Smith, Beloit, Kan. .... 420
- 13—Adolph Sellinger, Beloit, Kan. .... 400
- 14—Frank Lane, Beloit, Kan. .... 300
- 15—Arthur Colgrove, .... 875
- 16—Walter Doggett, .... 600
- 17—W. S. Cora, Whitehall, Ill. .... 625
- 18—Ralph McKinney, Beloit, Kan. .... 755
- 19—Joe McCausland, Beloit, Kan. .... 500
- 20—H. G. Heaton, Concordia, Kan. .... 610
- 21—Arthur Colgrove, .... 715
- 22—H. G. Heaton, .... 655
- 23—Wm. Willman, Beloit, Kan. .... 480
- 24—H. E. Newsbaum, Glen Elder, Kan. .... 400
- 25—W. S. Cora, .... 480
- 26—J. M. Kepple, Beloit, Kan. .... 700
- 27—Ralph McKinney, .... 405
- 28—Ralph McKinney, .... 425
- 29—Ralph McKinney, .... 425
- 30—L. D. Pagett, .... 300
- 31—Ralph McKinney, .... 400
- Extra—Arthur Colgrove, .... 715
- Extra—Thos. Smith, Beloit, Kan. .... 350
- Extra—John Quackenbush, .... 460
- Extra—Frank Cole, Beloit, Kan. .... 340

#### Dingman Made Good Sale.

C. W. Dingman's bred sow sale held at the farm March 10, was a decided success. A large per cent of the sows were bred late, but very satisfactory prices were received. The entire lot sold averaged \$49.72, with a \$117.50 top. Following is a complete list of sales:

- 1—Chas. Martin, Concordia, .... \$102.00
- 2—A. J. Erhardt, Adrian, Mo. .... 117.50
- 3—H. W. Griffiths, Clay Center, .... 94.00
- 4—W. D. Williams, Riley, .... 90.00
- 5—Wm. Tempero, Clay Center, .... 77.00
- 6—A. J. Erhardt, .... 80.00
- 10—T. A. Richards, Clay Center, .... 32.00
- 11—H. W. Griffiths, .... 43.00
- 12—H. W. Griffiths, .... 43.00
- 14—James Iams, Clay Center, .... 50.00
- 15—Schmitz Bros., .... 44.00
- 16—Chas Sparks, Marshall, Mo. .... 47.00
- 17—A. D. Keener, .... 24.00
- 18—James Iams, .... 50.00
- 19—Sam Stone, Leonardville, .... 38.00
- 20—John Griffiths, Riley, .... 55.00
- 21—T. A. Richards, .... 33.00
- 22—James Iams, .... 35.00
- 23—John Griffiths, .... 42.00
- 25—John Griffiths, .... 35.00
- 26—A. A. Tomlinson, .... 30.00
- 27—C. J. Nelson, Leonardville, .... 38.00
- 28—James Iams, .... 33.00
- 29—H. G. F. Omen, Leonardville, .... 39.00
- 30—Schmitz Bros., .... 30.00
- 31—W. C. Opfer, Clay Center, .... 50.00
- 32—E. A. Keener, Belvue, .... 38.00
- 33—James Iams, .... 32.00
- 34—August Brenner, Clay Center, .... 30.00

This pony is a sample of those owned by Clarke Bros., Auburn, Neb., and to be offered in their public sale on Wednesday, March 16. Like other valuable articles, these bits of horse flesh are wrapped up in small packages. They are, however, none



the less great money makers. Auburn is 60 miles south of Omaha and 50 miles east of Beatrice on the Burlington. It is easily reached from Kansas points as it is directly north of Sabetha. Get a catalog and be there as nothing like this sale ever happened west of the Mississippi before.

**LET ME ADD TWO HUNDRED Gladiolus Bulblets**

and 5 blooming size bulbs for 25c.

These are the finest mixture of Field's Giant Flowering Gladiolus. Mailed postpaid anywhere in the United States.

Or 1000 bulblets and 25 bulbs for \$1.00

Full cultural directions with every lot. All the bulbs and some of the bulblets will bloom this year, all next year. Order at once before they are gone. They will grow and bloom anywhere, in any soil and for any one.

My catalog (mailed free) describes over 50 beautiful named varieties besides hundreds of other kinds of flowers and vegetables. Ask for it.

**Henry Field Seed Co.**  
Henry Field, Pres.  
Box 55 Sheasandoh, Iowa.

**TO YOUR GARDEN**

**PURE BRED WHITE WYANDOTTE** eggs, from prize winning strain, \$1 per 15; \$5 for 100. MRS. H. S. ADAMS, Wichita, Kan.

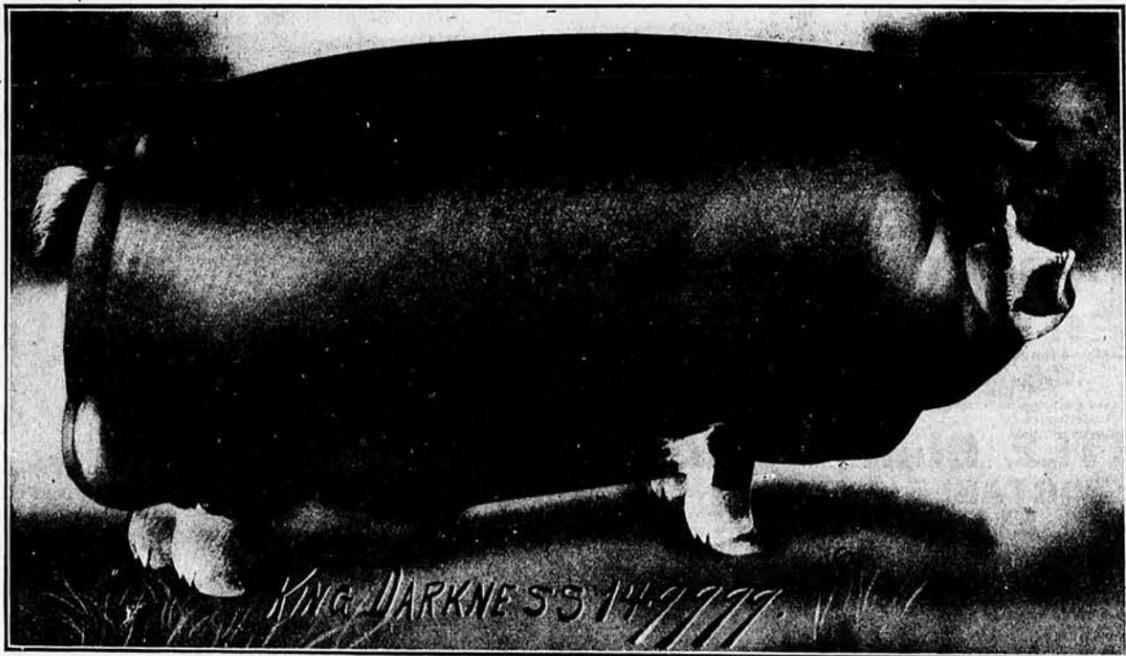
**WHITE PLYMOUTH ROCKS**—10 cockerels and a few pullets for sale. Eggs \$1.50 per 15. \$2.50 per 30. J. C. Bostwick, Route 3, Hoyt, Kan.

Don't Throw it Away

Does Your Granite Dish or Hot Water Bag Leak?

**MENDETS**

They mend all leaks in all utensils—tin, brass, copper, graniteware, hot water bags, etc. No solder, cement or rivet. Any one can use them; fit any surface; three million in use. Send for sample pkg. 10c. Complete pkg. assorted sizes, 25c postpaid. Agents wanted. Collette Mfg. Co., Box 1142 Amsterdam, N. Y.



**KING DARKNESS,** One of the good breeding boars used in the short grass herd of big type hot bloods owned by G. W. Roberts, Larned, Kan.



# STALLIONS

**MR. FARMER,** do you intend to purchase a stallion this spring? We have just received a new importation of 25 head of PERCHERON, ENGLISH SHIRE AND BELGIAN STALLIONS. These stallions have never been shown to the public, but our sale barn containing this new importation will be thrown open to our customers on March 12. If you want to get in on the ground floor and get your pick from this importation you want to make arrangements to visit us at an early date. They are an extra lot of good, heavy-boned, drafty stallions, ranging in age from two to five years and weigh from 1700 pounds up. They are nearly all solid colors.

We also have 40 head of the above named breeds imported last August and October. They are all first class in every respect both as to their breeding and general make-up and will please the most discriminating buyer.

As to our prices, will say that we will give prospective purchasers prices that cannot help but please, breeding and quality considered. We give a straight 60 per cent guarantee without any ifs or ands attached to it. SEND FOR OUR 1910 CATALOG. It is free for the asking. Our sale barns are located opposite the University State Farm. Offices in Lincoln Hotel.

**WATSON, WOODS BROS. & KELLY CO.,**

**LINCOLN, NEB.**

## ROBISON'S PERCHERONS



—FOR SALE NOW—

Twenty-five extra good Imported and American bred Percheron stallions.

PRICES RIGHT.

**J. C. ROBISON.**

**Towanda, Kansas**



## ROSS FARM

Registered

PERCHERON STALLIONS AND MARES, KENTUCKY JACKS, SHORTHORN CATTLE



30 head Imported and American bred mares 2 to 5 years old, several nicely matched teams, a number in foal, 10 head Imported and American bred stallions 2 to 4 years old, all extra good, big boned, smooth fellows fit to head the best herds of registered mares.

Several splendid big boned Kentucky jacks, 30 head pure Scotch Shorthorn cows and helpers. 5 extra good red bulls coming yearlings, pure Scotch and in fine condition.

**GEO. B. ROSS, Aiden, Kan**  
Farm adjoining depot, main line A. T. & S. F. R. R.

## MAASDAM & WHEELER

Breeders and Importers of Percheron Horses.

60 STALLIONS AND MARES to select from. Our stock has size, bone and quality. Stallions and mares from weanlings to 7 years old for sale. Imported and home bred.

**FAIRFIELD, - IOWA.**

**HOMWOOD STOCK FARM, IMPORTERS AND BREEDERS OF PERCHERON, BELGIAN AND SHIRE STALLIONS AND MARES.**

Sixty head of stallions arrived August 10th. 40 head of Percheron mares arrived on Nov. 5th. If in the market for a first class animal of either sex, with size, bone and quality, don't fail to inspect our horses before purchasing elsewhere. No matter what you want in the stallion or mare line, we can suit you, and at a price that will please you. Remember every animal guaranteed a satisfactory breeder. Our Motto: "Prices right, terms to suit, satisfaction guaranteed. No misrepresentations or disappointments on arrival. For the convenience of our Western trade we have established a barn at

Ablene, Kansas.

S. METZ & SONS.

Homewood, Illinois.

## HOLLAND STOCK FARM

IMPORTERS AND BREEDERS OF

Percheron and German Coach Stallions and Mares

Do you want to buy a stallion for cash?

Go to the Holland Stock Farm.

**CHAS. HOLLAND, Prop.**

**Springfield, Mo.**

## HORSE MEN

We want to call your attention to our fine lot of IMPORTED AND AMERICAN BRED STALLIONS AND MARES. SHIRES, PERCHERONS, BELGIANS.

We always have our barn full numbering up to sixty and you would do well to see us before buying elsewhere. Are going to make extra low prices for the next thirty days in order to make room for our spring shipment. We solicit correspondence, and invite you to come and see the grandest lot of horses ever brought together. Will give terms to suit the buyer. Don't buy without looking at these or you will miss a bargain.

**L. R. WILEY & SON, Elmdale, Kansas.**

## BELGIANS and PERCHERONS

I have 22 big Belgian stallions that weigh from 2,000 to 2,500 each. Also have a number of big, heavy, ton Percherons, weighing up to 2,400 each. I am making extremely low prices on big stallions for the next 30 days, and it is to your interest to see them if you want a big boned heavy horse. I can show you the largest Belgians and the best bone and quality that you can find in the United States for the money.

**W. L. DECLAW,**

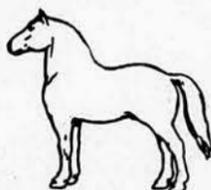
America's Largest Horse Importer.

Cedar Rapids, Iowa.

## Percheron Mares and Stallions Registered

Several matched teams of Percheron mares, all blacks, safe in foal by Imported Stallions. Have both imported and home bred mares. Come and see our horses and satisfy yourself.

Our Motto: Top notch animals, square deal, quick sales, small profits. Make your wants known.



**DANIEL WREN, Manager,**

**EUREKA, - - - KANSAS**

## BLUE RIBBON STOCK FARM

For sale, 20 head of registered Percheron mares. Safe in foal. Color, ages, weights and prices right. Call or write

**LEE BROS., Harveyville, Kan.**  
Farm joins town.



**SHETLAND PONIES FOR SALE**—20 imported stallions and a few bred mares. We have recently returned from Scotland with the finest importation of ponies ever brought to Nebraska. Write for private sale catalog. **CLARK BROS., Auburn, Neb.**

**PERCHERON HORSES, HOLSTEIN-FRIESIAN CATTLE.**

Up-to-date Poland China hogs. Write your wants.

**H. N. HOLDEMAN,**

Meade,

Kansas.

**FOR SALE**—I have a good road or general purpose stallion (Standard bred, but not registered) sired by Douglas Almont (0398) by Alle Gaines, by Almont (23), dam by "Champtonian" by Hambletonian 10. Bred by the present owner, has never been abused and is a sure roal getter and gets good ones. Fine disposition \$300 will buy him Address "H," Box 814, Baldwin, Kan.

**M. H. ROLLER.**

**J. O. ROLLER.**

Breeders of registered jacks and jennets. For sale, 14 jacks and jennets, 14 to 16 hands. All black. We raised all of these jacks and broke them. We are not speculators and you get them first hands if you buy from us. 89 miles N. W. of K. C. 65 miles W. Leavenworth. 6 passenger trains daily except Sunday, 2 Sunday. Write for catalog—free for asking if Kansas Farmer is mentioned. **M. H. & J. O. Roller, Circleville, Kan.**

## Dunham's Percherons

46 splendid stallions and mares arrived Feb. 9. These added to our present stock, afford intending purchasers the finest selection in America. If you want the best horses, horses with bone, quality, size, action and best breeding—if you want fair and liberal treatment, if you want lowest prices consistent with good merchandise visit Oaklawn, headquarters for Percherons in America and renowned for nearly fifty years as the greatest importing and breeding establishment in the world. Catalog shows the place and the horses.

**W. S. J. B., & B. DUNHAM.**

**WAYNE, ILL.**

## Percheron Stallions and Mares.

Several nicely matched teams of registered Percheron mares safe in foal, and a few young stallions for sale, ages from three to five years old. Come and see me.

**F. H. Schrepel,**

Ellinwood, Kan.

## PERCHERONS, SHIRES SADDLERS and JACKS

23 registered jacks and jennets, 12 registered Percheron stallions and mares, 1 Imp Shire stallion, 1 comb. harness and saddle stallion. Good stuff and at prices that will move them. Barns & blocks north depot.

**Fred Poes, Potter, Kan.**

## 35 Jacks & Jennets 35

Few good Percherons and saddle stallions. Jacks 14 1/2 to 16 hands and the very largest that can be found. 40 miles K. C. on U. P. and Santa Fe. Long distance phone.

**AL. E. Smith, Lawrence, Kan**

## H. & H. WOLF and DAVID COOPER

Imported and Home Bred Belgian Stallions.

Branch Barn of H. H. Wolf, Wabash, Ind.

The same terms and insurance will be given at Freeport, Kan., as at Wabash, Ind. Several extra good two, three and four year old stallions, one that weighs a ton and ten pounds at 27 months old. All are good individuals guaranteed as represented. Priced reasonable. Write or call and see me.

**DAVID COOPER, Mgr.,**  
Freeport, Harper County, Kan.

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The Hendershot Way is the Right Way

To get Good Stallions, Mares and Jacks

Write for reduced price on all Stallions, Mares and Jacks Imported and Home bred Percheron and Belgian Stallions.

**O. P. HENDERSHOT,**

**LINCOLN, NEB.**

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C. B. KERN, President.

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Nothing but first class animals offered for sale for breeding purposes.

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**SHORTHORN CATTLE**—50 head registered cattle. Herd headed by Royal Goods 29325, by Select Goods, by Choice Goods. Young bulls ready for service for sale. **MEAIL BROS.**, Cawker City, Kan.

**A YOUNG HERD** of up-to-date breeding. Everything recorded. Our herd bull, Alfonso by Magnet, has produced us some great calves this season. **BRINEY & BRINEY**, Beloit, Kan.

**LOCUST GROVE HERD SHORTHORNS.** Up-to-date breeding with good quality. **ELMER C. CREITZ**, Beloit, Kan.

**BOOKDELL STOCK FARM.** Shorthorn cattle, Poland China hogs, Silver Laced Wyandottes. **E. E. BOOKER & SON**, Beloit, Kansas.

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**HEREFORD BULL CALVES** for sale. Berkshire hogs for sale, spring farrow. Will trade 2 or 3 for gilts. Boars by Commander out of dam by Speculation; grand dam, Alice Majestic, champion sow at Kansas City Royal. **W. B. & J. M. ROGERS**, Beloit, Kan.

**50 HEREFORD CATTLE**, comprising the H. B. Woodbury herd. Some famous cows in this herd; 8 young bulls of serviceable age for sale; 4 miles from Tipton, Kan., 8 from Cawker City. **JOHN SCHMIDT & SONS**, Tipton, Kan.

**100 HEAD OF HEREFORDS**—The home of Caster 259475, the winner in every big show he was ever in. A few choice young heifers and cows for sale. **F. L. BROWN & CO.**, Sylvan Grove, Kan.

## PERCHERON HORSES.

**REGISTERED PERCHERONS**—The home of Vidouque (Imp) 10403, also the brood mare Risetite (Imp.) 51115. Inspection invited. Farm adjoins town. **E. N. WOODBURY**, Cawker City, Kansas.

**REGISTERED PERCHERON HORSES** in stud. Imported Rabelais 42529, by Cosaque by Theidus, who sired Calipso and Casino. Visitors welcome. **C. J. JOHNSON**, Solomon Rapids, Kan.

**THE HOME OF JAQUE W.** 42650 by Tlatrey, dam Imported Risetite. Inspection of my Percherons invited. **RALPH G. MCKINNIE**, Glen Elder, Kansas.

**COLEDALE STOCK FARM**—The home of three first prize winners at the International. Nothing but the best in this herd. Come and see us. **FRANK A. COLE**, Barnard, Kan.

**GRANITE CREEK STOCK FARM.** Percheron and Standard bred horses. Make known your wants to **M. A. SMITH**, Supt., Cawker City, Kansas.

## COACH HORSES.

**LAWDALE STOCK FARM**—Oldenburg German Coach Horses. International prize winning stock. A tried stallion for sale. Inspection invited. **JOSEPH WEAR & SON**, Barnard, Kan.

## POLAND CHINAS.

**LEBAN CREEK STOCK FARM**—Poland Chinas, 100 spring pigs, both sexes, for sale at private treaty. Also a few yearling sows bred for October farrow. **LOGAN & GREGORY**, Beloit, Kan.

**EUREKA HERD POLANDS**—Durocs. I breed both and have a nice lot of serviceable boars of both breeds for sale, and a few choice gilts. Priced right. **W. H. SALES**, Simpson, Kan.

## DUROC JERSEYS.

**GOLDEN RULE STOCK FARM**—Glit edged Duroc Jerseys, 40 spring pigs, both sexes, for sale at private treaty. Farm adjoins town. **LEON CARTER**, Asherville, Kan.

**ALFALFA STOCK FARM.** The home of the best in Duroc Jerseys. Choice boars, fall sows, in fact, most anything you want. **PEARL H. PAGETT**, Beloit, Kan.

## HAMPSHIRE.

**HAMPSHIRE HOGS.** 40 spring pigs both sexes, for sale. Write for prices. **A. B. DOYLE**, Beloit, Kan.

## O. I. C. SWINE.

Tracing to the famous Kerr and Big Mary families. No more males to offer. A few choice bred and open gilts for sale. **T. C. WRENCH**, Beloit, Kan.

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PHONE 434, BELOIT, KAN.

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General and Live Stock Auctioneer.  
PHONE 943, BELOIT, KAN.

STALLIONS.	
Lot 69—Carlo 352002, 6 years old, J. H. Crist, Skidmore, Mo.	\$1,525
Lot 66—Alluebere 57216, 4 years old, R. M. Seever, Merna, Neb.	1,500
Imported—Hibound (not included in catalogue), 3 years old, J. Bernard, Julian, Neb.	1,475
Lot 20—Cyril 58919, 4 years old, W. C. Martin, Pleasant Hill, Mo.	1,405
Imported—Gravols 70807, substitute, Wm. Ferry, Goltry, Okla.	1,400
Imported—Utopa 55272, H. V. Platt, Okarche, Okla.	1,300
Lot 35—Imported Ramasse Tout 49628, 4 years old, J. S. Roth, Seward, Neb.	1,160
Imported—Hochet (not catologued), 3 years old, H. C. Vannoy, Prairie Home, Neb.	1,150
Lot 36—Huhan 78903 3 years old, Chas. Cochran, Ravenna, Neb.	1,130
Lot 4—Brain 58929, 4 years old, Mellor & Johnson, Loup City, Neb.	1,000
Lot 23—Marquis 52511, 4 years old, Thos. Dornan, Shelby, Neb.	1,000
Lot 18—Coco 51520, 2 years old, Wm. Essex, Raymond, Neb.	905
Lot 1—Sir Walter Raleigh 47091, 4 years old, Napier & Holt, Shelby, Neb.	885
Obed (substitute), 2 years old, J. C. Andes, Mountain City, Mo.	825
Lot 19—Gomout 51308, 3 years old, Behrandes & Goecke Diller, Neb.	775
Lot 2—Cabot 53751, 2 years old, Gerald Wilcox, McCook, Neb.	480
Hybeck, horse (substitute), 2 years old, L. C. Stephenson, Malvern Ia.	510

MARES.	
Lot 5—Imported—Hugoline 57889, 2 years old, O. A. Strahan, Malvern, Ia.	1,100
Lot 4—Imported—Hurne 59676, 2 years old, O. A. Strahan, Malvern, Ia.	1,100
Lot 7—Imported—Grevelle 59671, 3 old, Fred Croissant, Osceola, Neb.	800
Lot 8—Imported—Girafe 59671, 3 years old, Fred Croissant, Osceola, Neb.	800
Substitute—Morris mare, 3 years old, Thos. Welch, Julian, Neb.	765
Lot 66—Bona 67359, 3 years old, Thos. Welch, Julian, Neb.	700
Lot 29—Estelle 53904, 5 years old, H. A. Hauptman, Julian, Neb.	665
Lot 30—Erne 58213, 5 years old, H. A. Hauptman, Julian, Neb.	665
Lot 11—Maria II 64999, 4 years old, H. Henning, Hebron, Neb.	600
Lot 12—Kathleen 26430, 9 years old, E. Hennin, C. A. Cook, Wahoo, Neb.	600
Lot 25—Bell 19170, 3 years old, Lot 26—Drd 18905, 5 years old, Lot 27—Queen 17553, 3 years old, C. A. Cook, Wahoo, Neb.	600
Lot 32—Edessa 65255, 2 years old, Mergan & Kaump, Blue Rapids, Kan.	600
Lot 37—Etoile 67561, 4 years old, Morgan & Kaump, Blue Rapids, Kan.	605
Lot 24—Bess 19109, 3 years old, John Bourlier, Julian, Neb.	600
Substitute—157—3 years old, Wood Bros., Sumner, Neb.	575
Substitute—124—8 years old, Wood Bros., Sumner, Neb.	575
Lot 28—Maude 14157, 6 years old, Wood Bros., Sumner, Neb.	505
Lot 11—Uretta 63176, 2 years old, E. R. Mathews, Lincoln, Neb.	545
Lot 14—Easter 48472, 3 years old, E. R. Mathews, Lincoln, Neb.	515
Lot 16—Bonheur 63175, 3 years old, O. A. Strahan, Malvern, Ia.	545
Lot 17—Forsine 58174, 3 years old, O. A. Strahan, Malvern, Ia.	545
Lot 51—Cecile 67558, 5 years old, Frank Hayhurst, Rising City, Neb.	505
Lot 61—Gouda 61306, 7 years old, Frank Hayhurst, Rising City, Neb.	500
Lot 63—Charlotte 66879, 3 years old, L. C. Stephenson, Malvern, Ia.	550
Substitute—Florence, 2 years old, Morgan & Kaump, Blue Rapids, Kan.	445
Substitute—Lindy, 2 years old, Morgan & Kaump, Blue Rapids, Kan.	445
Lot 31—Carrie 55112, 3 years old, Morgan & Kaump, Blue Rapids, Kan.	475
Lot 33—Miss Eva 54734, 2 years old, Morgan & Kaump, Blue Rapids, Kan.	475
Lot 21—Louise 64394, 2 years old, W. Driver, Hill City, S. D.	495
Lot 22—Clara 64393, 2 years old, W. Driver, Hill City, S. D.	485
Lot 67—Junetta 58899, 7 years old, J. H. Crist, Skidmore, Kan.	500
Lot 71—Flora 58853, 2 years old, C. A. Cook, Wahoo, Neb.	435
Substitute—2 years old, C. A. Cook, Wahoo, Neb.	435
Lot 62—Cynthia 66880, 3 years old, J. M. Myers, Durbine, Malvern, Ia.	410
Lot 48—Nettle 65235, 2 years old, Fred Durbine, Malvern, Ia.	450
Lot 57—Colombine 6 years old, J. A. Ollis, Jr., Ord, Neb.	400
Lot 55—Jubine 60237 8 years old, J. A. Ollis, Jr., Ord, Neb.	400
Lot 59—Adra 65254, 5 year old, Ashley Rood, Peabody, Kan.	390
Lot 60—Lenora 60239, 6 years old, Ashley Rood, Peabody, Kan.	390
Lot 64—Nino 67289, 3 years old, Thos. Dorman, Shelby, Neb.	365
Lot 65—Geeta Queen 58517, 2 years old, Thos. Dorman, Shelby, Neb.	365
Lot 47—Ada 37310, 2 years old, Morgan & Kaump, Blue Rapids, Kan.	350
Lot 49—Rosale 67298, 2 years old, Moran & Kaump, Blue Rapids, Kan.	350
Substitute—3 years old, D. R. Briggs, Seward, Neb.	380
Lot 46—Hesther 65238, 2 years old, C. H. Brenninger, Frankfort, Kan.	330
Lot 50—Adelle 67565, 2 years old, C. H. Brenninger, Frankfort, Kan.	330
17 Stallions . . . . . \$18,425	
49 Mares . . . . . 26,455	
Total . . . . . \$44,930	
Stallion average . . . . . \$1,083	
Mares average . . . . . 540	
66 head average . . . . . 680	

SWINE.	
Prof. Wm. Dietrich, Chief of Swine Husbandry at the Illinois Experiment Station, is the author of a book on "Swine," which is published by the Sanders Publishing Co. In this splendid work economical pork production is the author's central thought, and in working that subject into a practical system has incorporated a mass of new and original data. Chapters on feeds and feeding form a large part of the book and the new information developed in these searching studies represents the most thorough and extended experimental swine work ever undertaken. The management of breeding herds, feeding for market, house plans and diseases are adequately treated. Very readably printed on high-grade paper and strongly bound, the physical makeup of the volume is in consonance with the high character of its contents. For breeders, feeders, farmers and students it is the best swine book ever published. Price, \$1.50 pre-paid. Published by Kansas Farmer Co.	

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**L. E. FIFE,**  
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Breeder of Percherons, Shorthorns and Duroc Jersey hogs; posted in pedigrees; terms reasonable. Write or wire for data.

**THOS. DARCEY**  
Thirteen years experience. Special attention given to farm and live stock sales. Satisfaction guaranteed. Dealer in real estate. **OFFERLE, KAN.**

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Sales made everywhere. Write or wire me for dates. Prices reasonable.  
**WINFIELD, KANSAS.**

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Write, phone or wire me for dates.  
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Twenty Years Selling All Breeds.

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PEDIGREED LIVE STOCK  
Write me for dates.  
**BUNCETON, MO.**

**J. H. MOORMAN.**  
Live Stock and General Farm Sale Auctioneer. Satisfaction guaranteed. Long distance phone connection.

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# RED POLLED CATTLE

**AULD RED POLLS.**  
Herd established 7 years. Choice breeding and individuality. Three young bulls for sale.  
**AULD BROS.,**  
Frankfort, Kansas.

# SHORTHORN CATTLE

**SHORTHORNS.**  
If you need a young bull or some females write us; prices right.  
**SHAW BROS.,**  
Phillips Co., Glade, Kan.

**SHORTHORNS AND POLAND CHINAS.**  
The pure Scotch bull Scottish Archer in service. Polands headed by the line bred Expansion boar Bell Expand. Nothing for sale at present. Visitors welcome. S. B. Amcoats, Clay Center, Kan.

**TENNEHOLM SHORTHORNS.**  
Have on hand a few young red bulls ready for service that are of splendid milking dams and have good beef form. No better breeding could be wished. Can spare a few females. Prices moderate.  
**E. S. MYERS**  
Chanute, Kan.

**ALFALFA LEAF SHORTHORNS.**  
Special offering of four bulls. One by Archer 205740, out of a Victoria cow. Three by Nonpareil Star, one a Victoria, one Imp. Eledwells and one Christmas Gift. Also a few choice heifers of equal quality and breeding.  
**JOHN REGIER,**  
Whitewater, Kan.

**EVERGREEN HOME FARM.**  
Milking Shorthorn Cattle, Bred Hornless, Berkshire Hogs, Oxford Down Sheep, Bourbon Red Turkeys.  
**LATHROP, MISSOURI.**

**SCOTCH TOPPED BULLS.**  
We have for sale some choice last spring bull calves sired by our herd bull Pleasant Hill Master, one of the best sons of Master of the Grove. Will make reasonable prices on these.  
**O. A. TILLER,**  
Pawnee, Neb.

**Humboldt National Stock Farm.**  
Shorthorn cattle, large type Poland China hogs, 10 spring boars priced right. Write me your wants. I meet parties at trains. We can do business. Come and see me.  
**H. F. Pelphrey & Son,**  
Humboldt, Kan.

**A CARLOAD SHORTHORN COWS**  
All are bred or have calf at side, 4 good young bulls that I am sure will suit. Everything nicely bred and in good condition. Moderate prices. Come and see us.  
**D. H. FORBES & SONS,**  
R. F. D. No. 3, Bell Phone 31.

**Greenwood Co. Improved Stock Breeders' Sale.**  
Tuesday and Wednesday, March 29 and 30, there will be sold one of the best offerings of fine stock ever consigned to a combination sale in Greenwood county. Eureka, Kan., is one of the prosperous towns in southeastern Kansas. On Tuesday will be sold Duroc Jerseys and Poland Chinas. The

**WITTE ENGINES**  
USE GAS, GASOLINE OR KEROSENE  
Are known by a superior standard of construction. 25 years of service has demonstrated its worth. Does work at lowest cost and is always ready to saw, grind, pump, shell or do any farm or shop work.  
**FIVE YEAR BOND GUARANTEE**  
We build all sizes in stationary or portable type. Hopper jacket or water tank cooling. Inducements to introduce in new localities. Write stating size wanted.  
**WITTE IRON WORKS CO.**  
227 East 15th St., Kansas City, Mo.

# PUBLIC SALE PERCHERON Stallions and Mares

We will sell at Livery Barn in Scranton, Kan., on **Thursday, March 24th, 1910, at 2 o'clock.** Six Percheron stallions from 3 to 5 years old, weighing from 1,500 to 1,900 pounds. These are 2 greys, 3 blacks, and 1 bay. All of them brilliant bred—sired by half brother to Casino. They carry good bone and back—have best of dispositions and are as fine styled horses as you would wish to see. All of them inspected and pronounced sound by State Live Stock Board. One pair Registered Ton Mares. Both greys. Both will foal soon—a great pair of mares. Don't miss this sale. These are good horses and we are going to sell them. Sale on main line A. T. & S. F. Terms cash or bankable notes.

**H. J. Urish and Geo. Beaver**  
Owners  
Col. M. C. Pollard, Auctioneer, Scranton, Kan.

contributors are the well known firm of R. D. Martin & Son, of Eureka, Kan., who consign some of their choice Durocs, a part of them sired by Dandy Duke. A number of the gilts will be bred to Tattarrax Model. One of these gilts is a full sister to the second prize senior sow pig at the Kansas State Fair in 1909. Mr. Chas. Stith, of Eureka, Kan., will consign a number of both bred and open gilts. Mr. Stith has gained quite a reputation among the Duroc breeders, having shown an extra good herd at the state fair last year and taking home a part of the prize money. The consignment of Mr. Stith will be granddaughters of Kant Be Beat; some of them are bred to Dew Drop Commodore, grandson of the noted grand champion Commodore; others to a son of G. M.'s Col. Some of these are show prospects. T. I. Woodall, Fall River, Kan., consigns five Duroc gilts, one Tattarrax, two Col.'s, one J. D.'s Improver and one Belle's Chief. A number of excellent Poland Chinas will be consigned by A. B. Huffman and others. Wednesday will be cattle sales day. Among the Shorthorn contributors are H. M. Hill, Lafontaine, Kan., who will contribute a number of excellent young bulls, some of them good enough to head good herds. Some of them are strong in the blood of Imp. Collyns. Among the other Shorthorn contributors are H. G. Brookover, Eureka, Kan.; William F. Hodgson, E. G. Gilliland, Eureka, Kan.; and L. G. Bunch, La Cygne, Kan. Among the Hereford consignors are B. M. & W. J. Brown, Fall River, Kan., who consign a number of young bulls 12 to 15 months old by Advance by Lord Saxon and out of cows carrying a strong per cent of Grove 3d Corrector and Anxiety blood. They also consign a number of cows, all bred and some with calves at foot by Bonnie Brae 11th. Robt. Simmons, Severy, Kan., and others will consign Herefords to this sale. This will be a splendid opportunity for those needing good breeding stock. Don't fail to attend this combination sale at Eureka, Kan., Tuesday and Wednesday, March 29 and 30. The catalogs are now ready. Send your name today stating whether cattle or hog is desired. Address Secretary George Tucker, Eureka, Kan., or President B. M. Brown, Fall River, Kan. Kindly mention Kansas Farmer when you write.

**Hendershot's Percherons.**  
O. P. Hendershot, the big Percheron breeder of Lincoln, Neb., held another one of his record-breaking sales at Lincoln last week. Although the weather was stormy, a good crowd of buyers was in attendance and they appreciated the good things Mr. Hendershot offered, as was evidenced by the prices paid for the animals. It was conceded on every hand that the offering was one of the best ever seen in the sale ring. Mr. Hendershot has several good stallions and mares, imported and home-bred, which he wishes to sell quick at bargain prices. His advertisement appears on another page in Kansas Farmer, and you will be sure to find something which will please you. Following is a list of sales.

JEWELL SHORTHORNS.

A young herd of up-to-date breeding. Also Percheron and Standard bred horses. In stud, the Percheron stallion Marquis De Wierre (Imp.), also the Standard bred stallion Red Seth 31135. Farm adjoins town. Come and see us. W. T. LOWE, Jewell, Kan.

Prospect Farm Shorthorns

The oldest Shorthorn breeder in Kansas. The largest herd of Crutckshanks in Kansas. Herd headed by Violet Prince 145647 and Orange Commander 220590. Young stock of both sexes and some cows for sale. Quality and prices right. H. W. McAFEE, Topeka, Kan.

Shorthorn Bull

If you are looking for a young Shorthorn Bull to head your herd, right in every way, write us for full particulars at once. C. G. COCHRAN & SONS, Plainville, Kansas.

Center Grove Stock Farm

Scotch Shorthorn cattle and 20 bred sows and a few good spring boars of large type Poland China hogs. Write me what you want. No trouble to answer letters. Bell phone. J. W. Pelphrey & Son, R. 6, Chanute, Kan.

HEREFORD CATTLE

BEAU BRUMMEL

10th 167719. Modern Herefords. Herd bulls, Beau Brummel 10th 167719, Beau Beauty 192235—and Protocol 2d 91715. Robert H. Hazlett Hazford Place, Eldorado, Kansas.

JERSEY CATTLE

LINSCOTT JERSEYS

Offers a few choice cows in milk and some bred heifers. Milk and butter records accurately kept. R. J. LINSCOTT, Holton, Kansas.

DUROC JERSEYS

POLLED DURHAM CATTLE

POLLED DURHAMS. Young bulls, cows and heifers bred to Roan Hero, the double Standard champion. Prices reasonable. Write for terms. C. J. WOODS, Chiles, Kan.

BELVEDERE X2712--195058

Son of the \$1500 Grand Victor X1685 150364 heads my herd of Double Standard Polled Durhams. A few extra good blocky, thick-fleshed young bulls for sale. Inspection invited. Farm adjoins town. D. C. VAN NICE, Richland, Kan.

ANGUS CATTLE

25-BULLS ANGUS 25

Ready for Service. 30-BRED COWS AND HEIFERS—30 Sired by or bred to Champion Ito, sire of 1st Prize Calf Herd at American Royal. 10-SHROPSHIRE EWES IN LAMB—10 To our Imported Show Ram. SUTTON FARMS, LAWRENCE, KAN. 400 Angus in Herd.

VIEW POINT ANGUS HERD.

15 choice cows in age from 3 to 7 years. Representative of the Heroine, Mina, Duchess and Dimple families. All of them raised calves the past season and are bred for March calves by the great Louis of Meadow Brook, sire of champions. Nearly all of these cows were raised on our farms and are only being sold to reduce the size of herd. Low prices. Mention this paper when writing. PAUL M. CULVER, Edgerton, Mo.

HOLSTEIN CATTLE

East Side Dairy Holsteins

Advanced Registry Breeding. My prices are reasonable for cows and heifers bred and open if you consider quality and breeding, a choice lot to choose from. Also some extra well bred young serviceable bulls and bull calves to offer. See the herd or write for particulars. F. J. Searle, Prop., Oskaloosa, Kan.

ROCK BROOK HERD OF REGISTERED HOLSTEIN & FRIESIAN CATTLE.

Special offer for next 30 days in bull calves from 1 month to a year old. A few high class registered cows and heifers, and can also offer a few very high-grade cows and heifers, consigned to me to be sold by parties wishing to secure pure-breds. 100 head in herd. Address HENRY C. GLISSMANN, Sta. B, Omaha, Neb.

DUROC JERSEYS

BARGAINS IN DUROCS.

Big, growthy, spring boars for sale at bargain prices. Bred right and fed right. Priced right. E. M. MYERS, BURR OAK, KAN.

HOWE'S DUROCS.

Special prices on boars and gilts sired by Rex K, champion at Wichita fair this year. Also a few by Perfect Improver, grand champion at Wichita 1907 and 1908. Only a few left. Get busy and send in your order. J. U. HOWE, Wichita, Kan.

GREENWOOD HERD DUROC JERSEYS.

Herd boar Dandy Duke 64663, few choice spring boars for sale and few extra good spring and fall gilts, few tried sows bred for spring litters. Write or come and see me. R. D. Martin & Sons, Eureka, Kan.

FOR SALE.

A few late spring and summer boars of good quality, also some good bred yearling sows and spring gilts priced right. H. A. J. COPPINS, Potwin, Kansas.

"DUROCS GROWN IN THE OZARKS."

Ohio Chief and Col. blood. Litters by Muncie Chief, Model Prince, King of Models, Inventor, The King I Am, Advance; several by Col. Carter, my leading bred boar. They are all grown right, are good and we answer all letters of inquiry. C. L. Carter, Cabool, Mo.

DUROC JERSEY BRED SOWS

Extra good ones sired by King of Cois. 2nd, G. C.'s Col. and other good boars. Bred to G. C.'s Kansas Col. Col. C. and Red Special. CHAPIN & NORDSTROM, Green, Clay Co., Kansas.

20 - BRED GILTS - 20

Daughters of King of Cois. II and G. C.'s Col. These are very choice gilts priced to sell. Also a few choice boars of summer farrow. FRANK ELDER, Green, Kansas.

HAMPSHIRE SWINE

Oldest herd in the West. 30 boars of serviceable age. Also bred sows and gilts. W. F. DAVIS, South St. Joseph, Missouri.

"Uno" is the Best. Benjamin Young Milwaukee, Wis.: Dear Sir—I bought a pair of Young's Uno Self-conforming horse collars from my harness dealer, Mr. E. M. Page, about a year ago and they are the best collars I ever used on my horses. I can recommend them to any one wanting a good collar that will fit a horse perfectly. (Signed) John Innes Deckerville, Mich.

The Arkansas City Business College and School of Telegraphy, located at Arkansas City, Kan., is daily enrolling new students. This college is strictly up-to-date, being equipped with every modern convenience. They have just issued a handsome illustrated catalog, bristling with information which should be in the hands of every farmer who is thinking of giving his boy or girl a business education. It's free.

The Kellogg Switchboard and Supply Company, Congress and Green Sts., Chicago, have issued a little story booklet entitled, "How the Telephone Saved the Farm." This firm manufactures telephone switchboards, telephones of all kinds, intercommunicating systems, interior cables, insulated wires, switchboard lamps and are able to furnish all kinds of construction materials from either their home office or from their Kansas City branch, which is located at 1413 Main street. If you will write them at the branch office they will be glad to send you a copy of their story book.

Northern Seed Potatoes.

The potato grower cannot afford to plant inferior seed potatoes for the potato crop depends largely on the seed. Many farmers do not give the potato crop much consideration. If you will get the pure Northern grown Red River Ohio, you can easily raise double the amount of potatoes you have been growing. We find the A. A. Berry Seed Co., Clarinda, Iowa, have a large stock of this variety, as well as many other varieties and you can depend on their stock. They are making attractive prices and it would be well to write them for their 100 page catalog, which gives full description of each variety. Their ad appears in another column.

A Catalog Worth \$1.00 Free to All Readers of This Paper.

S. B. Telfer, who has been an advertiser in this paper for several years, has just published one of the handsomest catalogs we have ever seen. It contains beautiful color plates of latest pattern rugs, handsome carpets and all the newest designs in lace curtains. Altogether this catalog contains over 2,000 bargains, real money saving opportunities, a chance for every woman to get the newest things, freight prepaid, at prices that cannot be equalled anywhere. Write today and get this catalog. It will be sent free, postage paid. Address S. B. Telfer, President, Telfer Carpet Company, 126 Walnut Street, Des Moines, Iowa.

A Valuable Farm Gate.

The automatic gate manufactured by the Adams Gate Co. as advertised in Kansas Farmer is one of the most successful gates that has been put upon the market. It has been sold for several years under a positive guarantee that money would be refunded if a 30 days' trial failed to prove its claims and not one has yet been returned. The simplicity, perfect operation and attractiveness of the Adams gate is unusual. It is ball bearing, all castings are malleable and only the best of steel tubing and heavy galvanized wire are used in its construction. A child may operate it. It will open against the wind always swinging from the team, and latches open so that it cannot blow shut. Mr. Adams also manufactures a first-class double-latch farm gate which is highly recommended. For prices or catalog write to the Adams Gate Company, 1003 N. Kansas Ave., Topeka, Kan. See their ad on another page and kindly mention Kansas Farmer when you write.

The Belle City Incubator.

One of the incubators that is recognized as the most efficient machine for hatching eggs of all kinds is that made by the Belle City Incubator Co. Racine, Wis. It is guaranteed to hatch duck, turkey and goose eggs as well as hen eggs. It is guaranteed all around and in every part by Pres. J. V. Rohan of the company who states that the guarantee is made to cover his promise that this machine will outmatch any other incubator of equal size when operated under like conditions and according to directions. He guarantees that it will outlast any wooden or metal covered incubator made. He also guarantees to refund the purchase price if any of his incubators do not fulfill all of the guarantees after being given a fair trial through one two or more hatches. He also guarantees that the Belle City brooder will raise more chicks than any other brooder. Write Mr. Rohan for his catalog and note particularly the prices he quotes on the different sizes. Remember that he pays the freight on the incubator so that it will be delivered at your door. Kindly mention Kansas Farmer when writing.

Curphey Makes Good.

Success is a fine thing, but often spoils a fellow. How often we meet some friend of long ago who is the same only in name. He has succeeded, but you think to yourself at what a terrible cost. Maybe he has grown so serious and his time is so much taken up with business cares that he hardly has time to greet you and you feel sorry that business has a greater place in his affections than you who was once his dearest friend. Or perhaps he has succeeded to such a great extent that he is or at least thinks that he is above you he speaks of things that no longer interest you and treats you like some folks do their poor relations. One is always twice glad in instances of this kind, but occasionally there is a fellow who makes a great success, grows bigger and broader and you like him better every time you meet him. His religion is to do good, he knows the world is big and full of mistakes. Others are succeeding as well as himself and he is only a part of the society that makes it possible for him to grow and expand. Such a man is Col. W. C. Curphey, of Salina, Kan. Starting at the bottom and, step by step, making a place for himself and never forgetting his duty to those upon whom he depends for his work and ever cultivating that fellowship and fraternal spirit toward others of his profession he has made hundreds of friends and gained for himself not only the reputation of being one of the leading auctioneers of the state, but one of her best citizens. If you want to know about his ability as an auctioneer or his standing as a man ask anyone for whom he has sold. He will work for you all summer if you let him book you early.

POLAND CHINAS

POLAND CHINAS.

20 early spring Poland China gilts, tracing to the large type Expansion—will sell them bred or open, a few choice spring boars, prices reasonable; satisfaction guaranteed. Oliver & Sons, Danville, Kan.

MELBOURNE HERD POLAND CHINAS.

I have a few choice spring boars and gilts sired by Gold Metal, Hadley Boy and Klever Boy for sale at moderate prices. Let me know your wants. John C. Halderman, Burchard, Neb.

POLANDS! POLANDS! POLANDS!

Capt. Hutch, Moguls Monarch and Toulon Prince in service. Big type clear through. 4 young boars for quick sale. 2 July boars that are hard boar prospects. J. H. HARTER, Westmoreland, Kansas.

EXPANSION POLAND CHINAS.

A choice lot of Expansion bred fall pigs, both sexes, September farrow, for sale. Nice, thrifty pigs and will be sold worth the money. Mostly Expansion blood, though I have other good ones for those who want them. Get your orders in early. W. E. Willey, Steele City, Kan.

STRYKER BROS.' HERD POLAND CHINAS.

The greatest show and breeding herd in the West. Write your wants and they will please you. Hogs any age at reasonable prices. Buy the best and make the most. They breed the kind that win, the kind you want. Address Stryker Bros., Fredonia, Kan.

10 SPRING POLAND BOARS 10

Big, husky fellows, sired by Orphan Chief Jr. and Hutch Jr. out of strictly big type sows; low prices. J. F. Menehan, Burchard, Neb.

FOR SALE

Three boars, May farrow, show prospects of a high class. See these if in need of a junior yearling next fall. JEWELL BROS., Humboldt, Kansas.

SNYDER BROS.' HIGH CLASS POLAND CHINAS.

Either sex, bred sows and bred gilts, priced right for quick sale. Write your wants. Snyder Bros., Winfield, Kan.

SHORT GRASS HERD--BIG TYPE--HOT BLOODS.

6 boars by King Darkness, Sept. farrow. 15 bred gilts, 5 are by King Darkness priced reasonably for quick sale. Write at once. These bargains won't last. G. W. ROBERTS, Iarned, Kansas.

HIGHVIEW BREEDING FARM

Devoted to the raising of Big Boned Spotted Polands, The Farmers' Kind, The Prolific Kind, I am now booking orders for spring pigs to be shipped when weaned in pairs or trios—no kin. H. L. FAULKNER, Box K, Jamesport, Mo.

BERKSHIRES

RIDGEVIEW BERKSHIRES.

2 herd boars for sale. 1 two-year-old by Forest King, other males of different ages. Sows and gilts open. Manwaring Bros., Lawrence, Kan.

MAPLE HEIGHTS BERKSHIRES.

A few extra good, early fall gilts to offer, also several fall boar pigs. Long, smooth bodies and fancy heads. Write your wants. J. M. Nielson, Marysville, Kan.

SUTTON BERKSHIRES

were champions at the American Royal and International Shows. 30 bred gilts, 150 and 350 lbs., sired by or bred to our wonderful sire, Berrington Duke Jr. or Star Duke 4th, junior champion at International Show. Guaranteed strictly choice with short heads, size and quality. Also 10 fancy boars, 125 to 300 lbs. 500 Head in Herd. Sutton Farms, Lawrence, Kan.

HORSES AND MULES

STALLIONS AND JACKS

Several Kentucky jacks from 15 to 16 hands high. One mile from town. BRUCE SAUNDERS, Holton, Kansas.

75 HEAD JACKS AND JENNETS

All ages up to seven years old. Guaranteed as represented and prices reasonable. Special prices for fall trade. Come and see me. PHIL WALKER, MOLINE, KANSAS.

# Lumber and Building Material

AT A SAVING OF FROM 30 TO 50 PER CENT.  
THE CHICAGO HOUSE WRECKING CO'S. Wonderful Offer on Brand New  
Lumber and Building Material—Plumbing—Heating Apparatus—Paint, etc.

## We Furnish Material to Build these Modern Homes & Bungalows



**\$420.00**  
Buys the Material needed to Build this House.  
**House No. 122.**  
This neat and comfortable cottage has six rooms within space of 24 ft by 24 ft., and is very little higher than a one-story house. On the second floor are two fair sized rooms with ample space for closets or store rooms. The first floor has large living room, two bed rooms and a large kitchen. A cozy home.



**\$725.00**  
Buys the Material needed to Build this House.  
**House No. 130.**  
This house, the most popular design ever built. Size 25 ft. 10 in. by 29 ft. 6 in. Pleases a large number and can be economically constructed. Has eight rooms, also bath, pantry, vestibule entrance and large hall connecting with kitchen.



**\$650.00**  
Buys the Material needed to Build this House.  
**House No. 6.**  
House design No. 6 is known practically throughout the U. S. Size 23 ft. wide by 33 1/2 ft. deep. The most popular design ever placed on the market. Contains reception hall, parlor, dining room, kitchen, pantry on first floor; 3 bed rooms and bath on the second floor.



**\$798.00**  
Buys the Material needed to Build this House.  
**House No. 139.**  
The design shown herewith is a modern house of liberal dimensions and extremely handsome effect. Size 29 feet wide by 33 feet 6 inches deep, exclusive of porch, and has every convenience of a strictly up-to-date home.



**\$550.00**  
Buys the Material needed to Build this House.  
**House No. 117.**  
Here is a bungalow intended for a wide city or suburban lot. Size 39 feet 6 in. by 27 feet deep. Living room, dining room, kitchen, pantry, 3 bed rooms and bathroom on one floor. Rooms easy of access. For a summer suburban home this class of house offers many advantages.

### High Grade Bathroom Outfits.



Price of this outfit is \$375.00. Plumber would ask you about \$60.00 for this same outfit. It's only one of ten other complete outfits that we are offering from \$25.00 to \$100.00. Our catalog describes them in detail. You need the book if you want to keep posted on up-to-date business methods. Get our prices on Pipe and Fittings

Strictly new and as good as anyone sells. We have everything needed in Plumbing Material. Our prices mean a saving to you of 30 to 60 per cent. We can easily prove it if you will give us a chance. Here is an illustration of a Bathroom Outfit we are selling at \$37.50. Your Plumber would ask you about \$60.00 for this same outfit. It's only one of ten other complete outfits that we are offering from \$25.00 to \$100.00. Our catalog describes them in detail. You need the book if you want to keep posted on up-to-date business methods. Get our prices on Pipe and Fittings

### PRICES FOR COMPLETE PLUMBING OUTFITS.

We furnish complete plumbing for any of the above houses including Bath Tub, Closet, Lavatory and Kitchen Sink, and all material necessary for "roughing in" work, so as to complete the whole job to the ground line. All material "A" grade, brand new and guaranteed for \$92.50

### PAINT FOR THESE HOUSES.

Double coat inside and outside, except floor and roof paint.  
No. 122. \$17.93 | No. 6. \$26.54  
No. 130. 26.84 | No. 139. 27.54  
No. 117. . . . \$19.70

### PRICES FOR COMPLETE HEATING PLANTS.

We furnish complete Heating Plant guaranteed first class and brand new, for these houses as follows:

Prices for Hot Water Heating Plants.	Prices for Steam Plants.
No. 122. \$152.00	No. 122. \$128.84
No. 130. 222.63	No. 130. 196.84
No. 6. 216.56	No. 6. 180.84
No. 139. 245.77	No. 139. 202.35
No. 117. 176.21	No. 117. 147.84
Prices for Hot Air Plants.	
No. 122. \$ 78.75	No. 6. \$ 99.36
No. 130. 107.10	No. 139. 127.50
No. 117. . . . .	83.05

### Hot Water Heating Plants.



We furnish new complete hot water heating outfits at half the usual prices. Our proposition includes all necessary plans, specifications, blue prints and detailed instructions, so that any ordinary mechanic handy with the use of tools can easily install it. You can't go wrong when you deal with us. We stand back of every sale. You send us today a sketch of your building and we will make you a proposition to furnish you a complete steam or hot water heating outfit. We also have hot air furnaces. Our booklet on heating plants tells every feature of the heating question. We can quote radiators and heaters separately. Whether you buy from us or not it is a valuable book for you to own.

## SEND US YOUR LUMBER BILL FOR OUR ESTIMATE

We carry in stock over 20,000,000 feet of brand new lumber and can furnish mill work of all kinds. Also Structural Iron and Metal and Ready Roofing.

### \$2.00 Buys complete set of Blue Prints

That's the price for the plans for any of the buildings in this advertisement. We send you a set of plans of any of the houses described above including the necessary specifications and a list of material, transportation charges prepaid for the sum of \$2.00, deposit. At this price we will furnish the blue prints and plans including list of material for the designs illustrated and described above. This \$2.00 that we require is only a deposit or guarantee of good faith. Our proposition is as follows: As after you receive these blue prints specifications and list of material and decide to place an order with us for the complete bill of material, we will credit you with the \$2.00 received, so that no charge whatever is made for the blue prints. If you decide to return the plans, specifications and list of material inside of twenty days, we will refund \$1.50, thereby making the total cost only 50 cents.

### Water Supply Outfits.

Modern Air Pressure Water Supply systems at prices ranging from \$48.00 to \$200.00. They are strictly new, first class and complete in every detail. It makes no difference whether you live in the country, you can enjoy every city comfort at little expense. Why not investigate this? We are ready to furnish you with all the facts free of charge. All material fully guaranteed. We also have a complete stock of Pipe, Valves and fittings at 40 to 60 per cent saving. Gasoline engines at low prices.

**\$36.00** BUYS A 2 H. P. GASOLINE ENGINE. We are offering the finest 2 H. P. engine ever produced at a price lower than you can possibly secure it for elsewhere. It is strictly first class and brand new and covered by a binding guarantee.

### Our Free "Book of Plans".

This undoubtedly, is the handsomest Book of Designs ever produced. It is a practical work of art produced by the best architects. We give it away without obligation of any kind to any one who intends to build now, or has any future prospects of building a home or a barn. It contains reproductions of photos and is true to life in every way. It explains in detail Our Wonderful Building Offer whereby we propose to sell at a given price the complete bill of material needed to construct houses, cottages, bungalows, barns etc. We want every reader of this paper who values such a book to write us for a copy. We are leaders in our methods, and our complete building proposition is the most enterprising building offer ever presented to the public. You fill in the coupon shown elsewhere in this advertisement and we will send this "Book of Plans" without any obligations on your part.

#### CLOTHING.

5,000 Brand new men's suits bought by us from a "Hard up" manufacturer. Made in plain black cheviot; unusual retail selling price \$4.95. With each order we include an extra pair of striped trousers without additional cost. Comes in sizes 34 to 44 chest, 30 to 42 waist and 30 to 35 inseam.

#### BOYS' SUITS.

7200 Brand new, handsome Knickerbocker style, Boys suits, made in durable Wagoner Casimere, cut in latest style. With each order we give an extra pair of breeches. Sizes 8 to 16 years. Retail price. . . . \$5.00 Our bargain price. . . . 2.95

#### WIRE AND FENCING.

Best Galvanized Wire Fence made, 6 inch stays, 25 inches high, per rod. . . . 20 1/2c

Extra Heavy Cattle Fencing, 46 inches high, 6 inch stays, per rod. . . . 35c

10,000 R # 10 Galvanized Barbed Wire, 80 rod reels, per reel. . . . \$1.65

4-Point Galvanized Barbed Wire, per 100 lbs. . . . \$2.00

Painted Barbed Wire, per 100 lbs. . . . \$1.75

Galvanized Wire Shorts, brand new No. 12 gauge, per 100 lbs. . . . \$1.50

#### ROOFING.

Steel Corrugated Roofing, per 100 square feet. . . . \$1.85

Galvanized Corrugated Roofing, per square. . . . 3.25

Brick Siding, made of steel imitation brick, per sq. . . . 1.85

Rawhide Rubber Roofing, the finest and best ready roofing made in 1, 2 and 3 plys, guaranteed 6, 9 and 12 years, per sq. \$1.22, \$1.49 and \$1.71.

Rubberized Galvo Roofing, put up in rolls 3 to 5 pieces, 1, 2 and 3 ply, per square. \$0.97, \$1.19 and \$1.36.

Freight Paid to Ill. and Ind. Write for prices freight paid to other states. Send for Roofing Booklet.

#### \$1.95 FOR THESE MEN'S SHOES.

3,000 pair from Receivers' Sales; guaranteed first-class in every particular. Made from genuine patent cowhide. Have dull glove tops, oak tanned soles, swing last with extension soles, Cuban heels. An excellent, perfect up-to-date shoe for any man. All sizes. \$1.95

A thousand pairs of Ladies Colt Blucher shoes at \$1.65 Write for special list.

#### FURNITURE.

Brand new Furniture for the home, the office, the bank and club or the hotel. The greatest opportunity ever offered to save 30 to 50 per cent on staple new, clean articles in this line. We buy our goods at Sheriffs' Receivers' and Manufacturers' Sales. We give the public the benefit of our operations. Our general catalog shows our entire furniture stock and quotes our wonderfully low prices. It makes no difference what your wants may be, write us for our prices. We will save you money. Get our special circular on Refrigerators and Ice Chests.

#### SHINGLES.

Washington Red Cedar Shingles below cost. We have a tremendous stock of all grades in Chicago and can make immediate shipment. Special low prices on straight carloads. We guarantee grades. Write for our quotation. Tell us how many shingles you need. We will quote freight prepaid prices on application.

#### PORCH LUMBER.

Improve your home with a new porch. Send us a sketch of your house and size porch wanted and we will quote you prices that save you 30 to 50 per cent.

#### 9x12 RUGS \$6.00

These handsome Smyrna Rugs in extensive variety of beautiful patterns, oriental or floral designs, rich colors are a bargain at our price of \$6.00. Are reversible; can be used on either side, giving you service of two floor coverings for the price of one. Absolutely new and perfect.

#### LINOLEUM.

Lasts five times as long as oil cloth. Brand new at 29c per square yard. Write for booklet showing Linoleum in natural colors.

### FILL OUT THIS COUPON.

Chicago House Wrecking Co., Chicago.

I saw your ad. in Kansas Farmer.

Send me free of all cost your "Free Book of Plans" and your large General Catalog. I am interested especially in \_\_\_\_\_

Name \_\_\_\_\_

Town \_\_\_\_\_ County \_\_\_\_\_

R. F. D. \_\_\_\_\_ P. O. Box \_\_\_\_\_ State \_\_\_\_\_

If you don't wish to send coupon drop us a postal card, tell us where you saw this ad. and what items interest you.

### Our Mammoth Free Catalog.

The Greatest Price Maker ever Produced. A book of 500 pages profusely illustrated. A demonstration of what the Chicago House Wrecking Co. stands for as a bargain center. It's such a book as every buyer of merchandise must have in his or her possession. It will save you money every day you buy goods. It's a place maker in the bargain world. It shows what vast lines of merchandise are secured by us at Sheriffs' Receivers' and Manufacturers' Sales. It costs \$1.00 to produce each one of these catalogs. We send it to you absolutely without charge of any kind, and without any obligation. It contains a description of our vast stock of Furniture, Household Goods, Office Fixtures, etc. Fill in the coupon shown elsewhere in this advertisement and tell us what lines of merchandise interest you most and we will furnish you with additional information concerning the material you need.

### WE WOULD PAY \$5,000 FOR A NAME.

The Chicago House Wrecking Co. was organized in 1893 for the purpose of dismantling the World's Fair of Chicago, since which time we have purchased all the leading Expositions. At the present time our business consists in the purchase from Sheriffs' Receivers' and Manufacturers' Sales of immense stocks of general merchandise and supplies.

We have spent millions acquainting the public with our wonderful institution and with our vast quantities of new merchandise. Our greatest difficulty has been to impress the fact that our goods are not second-hand; nor anything but first-class, high-grade goods, just the same as you would purchase in any mercantile house. Our name misleads the public into the belief that the goods we offer for sale are not brand new.

If we could discover a name broad enough and general enough to correct these false impressions, we would willingly pay the sum of \$5,000. Address

Business Manager's Office, Dept. No. 61  
CHICAGO HOUSE WRECKING CO., CHICAGO

CHICAGO HOUSE WRECKING COMPANY, 35th and IRON STREETS, CHICAGO.

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