

KANSAS FARMER

For the improvement  of the Farm and Home

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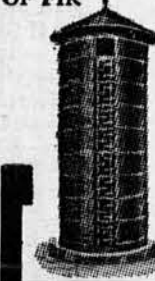
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The Present Oleo Situation

By GEORGE M. WHITAKER
Secretary National Dairy Union

For months the oleomargarine interests have been working assiduously to discredit and defeat the 10 cent tax on imitation butter. Misleading statements have been sent to women's clubs, labor organizations and other societies to create a prejudice against the law, and to induce if possible resolutions against it. Many such resolutions have been adopted and many individual protests against the law have been written, all based on deceptive literature emanating from the oleomargarine people. Erroneous statements have also been made in magazine advertising and in newspaper articles. As a result of all this persistent sophistical agitation considerable opposition to the existing law has been created. Meanwhile there has been an attack on the law from an entirely different source, of entirely different nature, and based on different motives.

This opposition criticizes the law for not being stringent enough, for not protecting against fraud as it should, for giving opportunity for perpetrating great wrong to both consumer and producer, for failure to accomplish what was intended, for promoting deception. This latter attack on the law is largely based on facts furnished by the internal revenue department, and is therefore entitled to more than ordinary consideration. Some of the points of criticism the present law are given below. In the first place some of the courts have held that many of the administrative provisions of the general internal revenue laws—right of search, etc.—do not apply to the oleomargarine laws. This has materially weakened their enforcement and done much to nullify them. A recent decision of the supreme court removes some of this trouble, but the fact remains that the law has intrinsic weakness in this direction. Secondly the law has been further emasculated by action of the courts in holding that "essential ingredients," no matter how yellow, are not "artificial" color; therefore much oleomargarine of a high color is made from ingredients which the manufacturers claim to be "essential" or "necessary," but such stuff is "uncolored" oleo and pays only a quarter cent tax. A third fault which the internal revenue department finds with the present law is that the 10 cent tax, forty times as much as the tax on uncolored oleo, is so high as to stimulate deception rather than prevent it, just as an excessive tariff stimulates smuggling. Out of 115,000,000 pounds of uncolored oleo

which paid a quarter cent tax last year the commissioner of internal revenue estimates that 80,000,000 pounds were stealthily colored and subsequently reappeared on the market as imitation butter, much of it being sold as butter at near-butter prices to the swindling of the consumer as well as the government.

With these two lines of attack upon the present law in mind the congressional agricultural committee appointed a sub-committee to draft a new law. The sub-committee first of all agreed upon this basic principle: That they unanimously favored all reasonable restrictions tending to promote the honest sale of oleomargarine, and any effective checks on dishonest practices; that butter men are entitled to their legitimate market and to be protected in it, and that the same principle should hold as regards oleo; that the weak features of the present law should be strengthened with such additional restrictions as shall cause oleomargarine to be sold for what it is.

The committee seemed to wish to deal fairly by all parties and was influenced much by advice from the internal revenue department. The result is a conservative bill that ignores the extremists on both sides and may displease both. It drops the color line and the 10 cent tax on imitation butter, but requires oleo to be sold only in half pound and pound prints, which are made the manufacturers' original packages and must be sealed by a long, narrow revenue stamp, which must remain on the print till it is sold by the retailer. The oleomargarine interests asked for five and ten-pound prints, but the committee refused the request. The oleo interests asked for a fifth of a cent tax, but the committee multiplied this by five and provided for a cent tax, which is more than double the average tax for the past year and which on last year's production will bring in a little over a million dollars revenue. In several instances penalties for violating the law are increased and more teeth are put into it in matters pertaining to its enforcement. The special taxes on manufacturers and wholesalers are increased above what the oleo people asked for. The name of the commodity is changed to margarin to conform to foreign nomenclature and to get something shorter than the old six-syllable word. The committee felt that regulating sales in hotels and restaurants should be left to the states rather than made a part of a revenue law.

Crop Rotation Notes

Rotation Benefits By A. D. Wilson

The rotation of crops is one of the simplest and most practical ways by which the income of the farm may be increased without greatly adding to the cost of operation.

The rotation of crops is the alternation of the three general classes of farm crops; namely, grain crops, grass crops and cultivated crops, so that a crop from each of the three classes will appear on each field at least once during each cycle of the rotation.

Under "grain crops," such crops as wheat, barley, flax, oats and millet may be classed, in their relation to the soil. Millet, though grown for hay, has practically the same effect on the soil as a grain crop. These crops deplete the soil of vegetable matter, allow weeds to grow, and have a tendency to deplete the productive power of the land.

Under "grass crops" may be included timothy, bromus, clover and alfalfa. Though the clovers are not true grasses, they have heavy root systems, and add vegetable matter to the soil. The clovers also add nitrogen to the soil; but their chief value in the rotation seems to be due to the fact that their heavy root systems fill the soil with vegetable matter, thus making it more hospitable to plants.

Under cultivated crops may be placed corn, potatoes and root crops. Owing to their cultivation during growth, these crops have a cleaning effect on the soil. They are, however, exhaustive of soil fertility, because the constant cultivation encourages the liberation of large quantities of plant food. These

crops leave the soil in good condition for succeeding grain crops.

The rotation of crops keeps the soil supplied with vegetable matter from the roots of the grass crops grown, and from the manure usually applied. When this vegetable matter rots, or decomposes, plant food is liberated. Vegetable matter keeps the soil open so that air can penetrate. It likewise holds moisture, thus exerting desirable chemical and physical influence on the soil.

The rotation of crops has a marked tendency to eradicate weeds. Grass crops are cut early, before weeds can mature seed. The cultivated crops, if properly handled, do not allow weeds to seed. In this way a good system of rotation gradually rids the land of all of the ordinary weeds.

The rotation of crops encourages the keeping of live stock, because it involves the production of grass and pasture crops, and usually corn, which are most economically marketed, as a rule, by feeding to live stock. In this way a large proportion of the crops produced are fed on the farm, and the fertility retained.

The rotation of crops lessens the danger from injury to crops grown, by disease and insects. Good examples to illustrate this point are cutworms and flax wilt. If seed clean from the wilt parasite is used, flax wilt will not trouble, if flax appears but once in a five to eight-year rotation. Cutworms and army worms are not likely to trouble if grass sod is left down no more than two years, which is usually the practice if a rotation is followed.

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EGGS AS MERCHANDISE.

The poultry product of Kansas exceeded \$11,000,000 last year and was a very considerable item in the total income of the Kansas farmer. Much of this total came from the sale of eggs, and these are of the most perishable of farm products, in the handling of which under present laws and conditions there is greater opportunity for fraud than perhaps in any other.

The farmer carries his eggs to market, where they are bought by the local merchant, who packs and ships them to some large dealer, whence they are distributed to other markets or to the retailer. These eggs may be perfectly fresh and in fine condition when sold to the local merchant. They may be and probably are in good condition when shipped to the packing house. They may be injured by the time of their arrival, owing to the fact that they are so frequently shipped in closed freight cars which may have a metal roof.

Eggs will hatch at about 100 degrees, and the temperature in these box cars in the summer time must be considerably over that if the eggs are carried in freight cars or on long journeys by express. They could not, therefore, be expected to arrive in good condition. Here is one source of loss to the farmer, the merchant and the packer which could be prevented by the use of refrigerator cars.

Under present laws and conditions, eggs may be bought or sold by anyone, hence the opportunity for fraud. The farmer may take a large number of eggs to market, and the merchant may have some one go through the process of candling whereby from 25 to 50 per cent may be rejected as not being fresh. The farmer has no assurance that the candling is accurately done, even though the intentions were honest. He does not care to haul home a batch of spoiled eggs, and cases are known where these rejected eggs were packed and shipped with the others, all of which were of the same quality.

The dairy laws of Kansas require that cream buyers and others who are responsible for the purchase and sale of cream shall qualify themselves by passing an expert examination and receiving a certificate showing their ability to do this work properly. This law is very beneficial and has resulted in a vast improvement in the quality in the dairy product of the state.

Eggs are but a little less perishable and little less subject to deterioration than is cream, and they represent an industry that is even greater than the cream business, and perhaps affects more people. Then why should not buyers of eggs be required to work under a law similar to that which controls the acts of the cream buyers? It is no great trouble for one to qualify himself as an egg candler, and when he has done this he should have in his possession a certificate showing his ability and right to do business. This certificate should bear a number, and this number should be stamped on every case of eggs, together with the date. If this were done the inspectors, working under the requirements of the pure food law would at once be able to identify the inspector who had passed upon each case, and careless work or fraud could be promptly checked up to him.

The farmers can generally get what they want at the hands of the Legislature if they stand united in their efforts. If such a law as this were passed it would bring hardship upon none, but would insure fair dealing and larger prices for eggs to the farmer and would be a protection to the dealer, as well. The big packing and commission houses could afford to pay better prices because their losses would be reduced to a minimum and through this means and the use of refrigerator cars for egg shipments the farmer would come more nearly getting what the consumer pays for his breakfast eggs.

THE SMUDGE POTS.

The time is drawing near when the fruit grower will be on the anxious seat because of the possibility of late and damaging frosts. The opening of spring comes early in some seasons and is followed by a short period of frost or even of freezing weather. When this occurs there is always more or less damage to fruit but, though it is believed that the actual freeze rather than a mere frost is the source of the damage.

Various devices have been resorted to in order to secure protection against damage by frost or freezing, but none seems to be more effective or more popular than the so-called smudge pots which burn crude oil. Pots burning coal are effective and possibly as cheap, but may require more attention. In localities where wood is plentiful, smudges made from this material may be effective.

In the minds of some fruit growers the smoke is what furnishes the real protection, while others, perhaps a majority, believe that the heat is the effective agent. This has given rise to some experiments in order to determine just what influence the smudge pots or fires have upon the temperature of the orchard. As ordinarily placed, smudge pots will serve to raise the temperature of the orchard about 6 degrees, and if the mercury falls that much below freezing they will prove entirely effective. At any rate it will appear to be worth while to be prepared for any sudden drop in temperature which may come after the warm weather has started the buds.

Pure-bred live stock does not find a proper home on every farm. There are men engaged in farming who have no right to it. Breeding pure-bred live stock is a privilege which belongs to those who have learned how, and not a right which belongs to any who can command the price of foundation stock. Pure-bred live stock is a necessary part of the working equipment of pure-bred men, and one of the greatest benefits that comes to the farmers of any state is that which is given in the form of agricultural and live stock training by the agricultural colleges, the experiment stations and the farm journals. A poor workman uses poor tools because he would spoil good ones. He cannot afford to invest in an expensive equipment of tools which he is not skilled to use, and the same thing applies in the live stock business. Pure-bred live stock is undoubtedly one of the best means of material advancement and of money making as well as of conservation of the resources of the farm if it is properly handled. If handled ignorantly, however, it is a costly enterprise. A man's brains will work at something, whether he will or no, and he is wise who so develops them that they will work for his own advancement. There is room for thousands of head of pure-bred live stock more than now exists in this country if it had no other use than to better develop so many thousand of men. The influence of live stock upon mankind has always been felt, while the influence of pure-bred live stock has always been potent in the elevation of the man himself. There is no broader field of human endeavor open to the young man of today than that which is offered in the breeding and handling of pure-bred live stock and all that goes with it.

Any soil which has once been rich can be made rich again, and soils which have never been rich can be improved. Depletion of the soil comes through the destruction of organic matter by cultivation or otherwise and this can be restored by the use of barnyard manure or by plowing under green crops like cowpeas, soy beans or alfalfa. Everything grown upon the land that is not of value for food should be returned to the soil for its enrichment.

GET EDUCATION IN YOUTH.

Hundreds of boys and young men refuse to take advantage of their opportunity for acquiring an education. In later years nearly every one of these will regret having fooled his time away while attending school. Very few will ever again have a chance to make up for the time lost and will carry the regret to the grave. Occasionally, though, there is a fellow who in middle age will attempt to make up for the shortcomings of youth. We have a personal acquaintance—a man now nearly 60 years of age—who has recently enrolled in Wesleyan College, at Salina. He had no opportunity, as a boy, to acquire an education. He had the ambition, though, and now is taking the schooling he so long desired. This is the most marked instance of the kind known to us.

The Railsback brothers, of Langdon, Kan., take turns attending the agricultural college. W. J. and R. A. Railsback have a farm near Langdon. They are cattle feeders. The work on the farm will not allow both to attend college at the same time, so they alternate, one running the farm while the other goes to college. Both have entered the two years' farmers' short course. W. J. Railsback is in college now.

The lessons to be learned from these instances is that of making the best use of the schooling offered during the time of school age. If you wait, as have these men, you probably will not have the courage to go to school.

An observer who watches a dog fight will know more of the fight as a whole than will either of the dogs. The city man sees his side of life and gets what enjoyment he may from it, though it is frequently true that he envies some other one, and when he moves it is his ambition to move to a larger city. The man who is country bred thinks his lot is the hardest, and hopes for the time when he can retire to the city on a competence. The observer who watches the fight from both sides has no difficulty in determining which is the better off. During the recent severe weather in Kansas, reports were circulated far and wide about the enormous personal suffering and loss of live stock among the farmers of Kansas. When the real facts came to be known the loss of live stock was not heavy and the suffering was vastly greater and more widespread in the cities and towns than on the farm. The farmer is a worker who must labor with his hands as well as with his mind. If the average of his kind is compared as to financial condition and material comforts with the workers of the city there will be a large fund of good health, keen enjoyment, abundant food, restful sleep, leisure for self-culture placed to his credit which are entirely beyond the reach of a city man who has a similar income. I would rather see the moon rise on my own alfalfa field than to see the electric lights on the paved streets of the city.

Tankage is one of the best known materials for balancing up a ration for hogs and for preventing the depraved appetite which is the cause of pig eating. It is a very concentrated feed, and should find a place on every farm where hogs are kept. We still have inquiries, however, from farmers who have never used it, as well as positive statements in regard to the possibility of hog cholera and other diseases being transmitted and disseminated through the tankage. Let us say again that there is no possibility of hog cholera or any other disease being transmitted in the tankage itself unless, of course, the tankage should have become contaminated after leaving the packing house. Tankage is composed of a refuse of packing house animals, and even of the bodies of those which may have died of disease, but this material is so thoroughly cooked under heavy steam pressure that there is absolutely no chance of any germs remaining alive in it.

COUNTY FARM ADVISOR.

Some six weeks ago KANSAS FARMER featured an article by J. H. Miller, superintendent of College Extension Department of Kansas Agricultural College, in which article the writer set forth the advantages of a county farmer and explained how well the plan has for several years been working in other states. This article was the first printed statement urging upon the Kansas farmer a consideration of this subject. Superintendent Miller has received much encouraging correspondence from nearly every county in this state. The employment of a county farm expert must be treated as a special problem by the farmers of each county. It would be foolish to even think of making it compulsory for all counties. What Kansas county will be the first to adopt the plan and ask the College for a "County Farm Advisor?"

This item from the Farmers' Review of Illinois will be of interest: "Farmers of DeKalb county, Ill., have taken a progressive step in behalf of better farming. They have inaugurated a co-operative movement which should accomplish much in placing agricultural operations of the county upon a more productive and profitable basis. A soil improvement association has been formed and incorporated for the express purpose of providing for the county the services of a soil fertility and crop expert. The proposition has been under serious condition for some months. Prof. Eckhardt, assistant in the Agronomy Department of the University and right hand man of Dr. Hopkins in the soil field work of the state, has been secured for the work. Prof. Eckhardt will devote his entire time to the farming interests of DeKalb county, acting in the capacity of personal counsellor and adviser to every farmer in the county. His services to the county are assured for a three-year period. It is expected that plans for practical crop demonstration work will be perfected and carried out on the county poor farm. Such an experiment field in charge of an experienced director who knows the needs of the county, supplemented by frequent visitations to individual farms and communities can not help but be of inestimable value to all farmers. The work will be conducted with the view of eventually doubling crop yields of the county. Permanent and profitable methods will be studied and encouraged. So far as we know, DeKalb is the first county in the country where the farmers themselves are co-operating in the employment of a farm instructor and demonstrator. It is, however, directly in line with progressive demand from many sections and will no doubt stimulate other counties to similar action. A bill before the present Congress provides for government aid in extending the work of state experiment stations to individual counties desiring demonstration farms and expert directors."

There are so many farm owners who are leasing land to others that the question of landlord and tenant is a prominent one in almost every neighborhood. When this question is under discussion a sharp distinction should be drawn, however, between the real tenant and the cropper. The real tenant is a man who works intelligently and serves his own best interests by caring for the interests of his landlord. Such a man has no difficulty in securing a home, and long leases are relatively easy for him to get. The cropper, on the other hand, is the man who mines the soil, who has an interest in getting everything he possibly can out of it in the one year which he expects to stay, and who does damage to the buildings and fences as well as to the soil. Landlords should bear these two types in mind and do what they can to foster and increase the number of tenants and decrease the number of croppers.

Tractor And Better Farming

Kansas farming, generally speaking, is in need of more plowing, deeper plowing and more seasonal plowing. These I have advocated for years. To accomplish the same I have repeatedly endeavored to show the necessity of more farm horse-power. We cannot plow more acres, plow deeper and plow in better season unless the available power for doing the work is increased. This power must be obtained through one of two sources—either by keeping more and better horses or by the use of the farm tractor. Which of the two it should be is a matter for decision by the individual farmer, and his circumstances and what he intends doing will govern his decision. If his farming is to run more to live stock and less to grain, and his farm is small—a half section or less—I can see why I think he should decide in favor of horses. On the other hand, if on a half section, or more, he will run his operations in the direction of grain farming, I then believe that the farm tractor is the thing, and that within a few years it will force itself upon him.

The tractor has heretofore been regarded as the best power for the man who farms large areas principally to wheat—men like Jim Fike, Colby, Kan., who comes near growing wheat on one-half of Thomas county. For him, unquestionably, the tractor is the machine. It is the cheapest and best power for the man who grows 500 acres of wheat. Regarding such areas there is no question. There has been some doubt, though, about the advantageous use of the tractor by the man who grows 150 to 200 acres of wheat. That doubt, however, is each day growing less. The more we learn about good wheat farming the more we are impressed with the adaptability and, in fact, the necessity of tractor power. KANSAS FARMER has printed and discussed at length the advantages of early and deep plowing for wheat. It has been shown in repeated trials that early plowing for wheat doubles the yield, as compared with plowing done at the time we usually plow in this state. If the tractor—as it will, turning over 15 to 20 acres per day—will double our wheat yield, it at once appears as a necessity to the grower of 100 acres or more of wheat. There are legion of such growers in Kansas, and these men show no disposition to go out of the business, despite some discouraging conditions.

The tractor, of course, is not maintained by plowing alone. It plows, harrows, seeds, harvests, threshes and markets. There are wheat farms in Kansas on which the tractor has for years done these things. Besides these, it furnishes all the power necessary to operate all the stationary machinery on the farm, corn shelling, grinding, etc. For years the stationary gasoline engine has taken the place of horse-power in threshing, shelling and grinding, and is it not logical to conclude that it can replace the horse in the field, where large power is required, to equal advantage?

The use of the tractor is not confined to wheat farming. In the corn belt farmers are learning that the more work done on the corn field the larger the crop. Fifteen years ago the lister was started without the field having had any preparation. Later, the lister was not started until the field had been disced and cross disced, and disced again, if

Need Of More Power On Farm Makes Opening For Farm Tractor

By T. A. BORMAN



TRACTOR PLOWING AND HARROWING AT ONE OPERATION. THE DAY'S PLOWING SHOULD BE HARROWED BEFORE LEAVING THE FIELD. WITH A TRACTOR THE HARROWING IS DONE IMMEDIATELY FOLLOWING THE PLOW.

possible, before planting time. Then came the plan of fall listing and splitting the middles in the spring. Then followed the practice of fall listing, spring disking and lister planting. Now a great deal of fall plowing is done, and every year the plowing is deeper. These are a few of the steps in the progress of corn growing—each of these steps made necessary to increase the yield and increase the acre income. Better preparation of the corn ground and the attendant increased labor points toward the necessity of cheaper and more ex-

have recognized the necessity of building a small farm tractor—and such has been built at prices which will warrant their purchase. I have recently examined a tractor, built quite low, being only 54 inches high, 11 feet 6 inches long, with a 6-foot width over all. The tractor will turn inside a 24-foot circle, which makes it especially suitable to operate in small places. The machine has a pulling capacity equal to four good horses on the draw bar on its high gear and under favorable circumstances will do better than this. I cannot go into

PROFITABLE BERRY GROWING

Answering Ten-Acre Farm Inquiry.

Our subscriber, F. J. Bigham, mayor of the little city of Neosho, Mo., writes as follows answering our Joplin, Mo., subscriber who wanted information regarding the possibilities of his little ten-acre farm described in Kansas Farmer of January 13:

"In 1908 I planted four and one-half acres of Aroma strawberries two miles from Neosho, Mo. In 1909 my crop netted me \$355. In 1910 I made a net profit of \$1,017. The year 1911 was almost a complete failure on account of the drouth, and this was the first failure we have had in the history of the berry business at this point. If it had not been for the drouth, 1911 would certainly have equaled 1910, and have a good prospect for bumper crop this season. I am a merchant and have depended solely on hired labor.

"If your correspondent will plant five acres in berries and cultivate them properly, he can live and put his place in the clear in four years, provided he has sufficient means to carry him through the first year."

pedition preparation. The tractor will fill the want.

In KANSAS FARMER of January 13, I discussed the size of tractors adapted to farms of various sizes. The tractor idea had heretofore been a big idea—the mention of tractor caused the small farmer to think of thousands of acres. He had not thought—or did not know that the 15 horse-power tractor was an engine he could use—that it could turn and operate successfully in his smallest fields. All manufacturers of tractors

detail regarding tractors for the small farm, but a line from you to KANSAS FARMER advertisers, with special mention of KANSAS FARMER, will give you all the information needed. I am sure you will be interested in every line you can read on the subject. Tractor booklets are instructive and will cause you to think on the tractor subject as you have not heretofore thought.

The tractor is a road success for hauling—for doing any kind of hauling. There are tractors, or farm trucks, peculiarly adapted to road work. These

trucks do field work well, too. These are built somewhat on the plan of the motor trucks you see on the city streets marching along with their five or eight tons of freight. Here is what Harvey Shippy, a quarter section farmer of Chapman, Kan., says regarding his truck: "We have been using a farm truck a little over a year and during that time we have used the truck on nearly every kind of work on the farm. Did plowing last year, and this fall plowed about 130 acres. We did all our disking and harrowing that we had to do on our 400-acre farm. Cut about 125 acres of wheat this summer.

"Last year we ran a four-roll shredder, shredding a lot of corn, and had plenty of power, and did other work. Hauled sand and, in fact, did all the work on our farm except plowing corn, which we did with four horses. We graded eight miles of road in a week and did extra fine work; got up to the hedges close where we could not possibly get with horses.

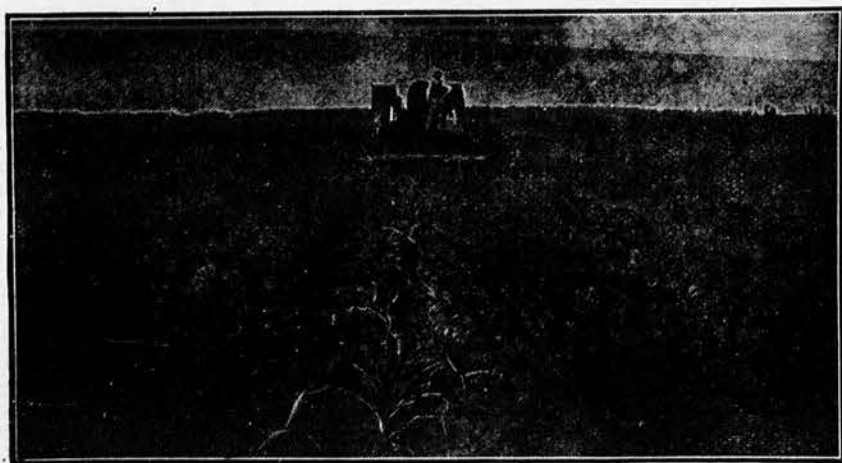
"Our expense during the past year has been for oil and gasoline and one set of little boxes. The gasoline bill for all the time we had the truck has been \$99, which has been ever so much cheaper than hay and feed. The truck is all right on the farm."

John Pishing, Cleburne, Kan., writes: "I bought a farm tractor in the spring of 1911. I plowed 8 and 9 inches deep at the rate of 7 to 8 acres per day, using an Emerson 14-inch triple gang plow. My farm is rolling prairie land and on level land I believe I could easily plow 10 acres per day. For plowing all day I use about 22 gallons of gasoline at 12½ cents and 1½ gallons of lubricating oil at 48 cents, making a total cost per day of \$3.36. For hauling about half this amount is required. I have hauled 160 bushels of wheat to a load over hilly roads, a distance of 9 miles, in 1 hour and 15 minutes."

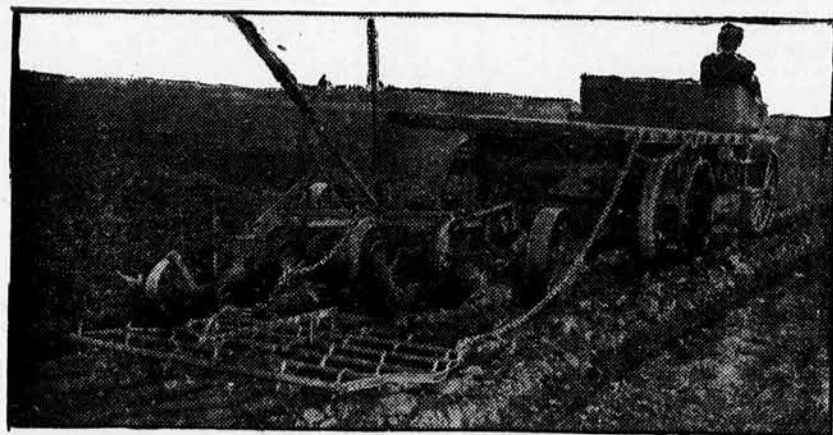
D. C. White, Ford County, Kan., says: "In 1910 I bought a 22-horse-power farm tractor and that same year I plowed 675 acres for myself and 220 for my neighbors at \$1.75 per acre. This paid for all the coal oil, gasoline and lubricating oil, also all repairs and all my hired help from harvest until I got my wheat sowed, which was 800 acres. After I got through plowing I harrowed 300 acres with my engine. The rest I harrowed when plowing by dragging the harrow behind the plow.

"Last year the fuel and lubricating oil cost 20 cents an acre, but we ran it this year on 16 cents. I understand running it much better this year and could be with it all the time myself, while last year I depended a great deal on hired help. I can plow with less cost per acre with my engine than is possible to feed horses."

Dan Kauffman, Moundridge, Kan., writes: "I bought a tractor to do my plowing in order to save my horses and had I known how satisfactorily it does this work I would have bought one sooner than I did. But a man should do some careful figuring before investing in a nengine for plowing. He should estimate what his plowing costs him and then see if it will pay to get an engine. I have used my tractor on fields a quarter of a mile across. As to the cost of plowing I have found it is about 34 cents per acre, for good plowing 6 or 7 inches deep.



CORN PLANTING WITH A GASOLINE TRACTOR.



THE AUTO TRUCK PLOWING AND HARROWING ON "101" RANCH, OKLAHOMA.

Hog Cholera And Serum Treatment

Annual Loss of Fifty Million Dollars May be Reduced by Scientific Treatment

By GEO. F. BABB, D. V. S. Topeka, Kansas



38 38

VIGOROUS HEALTH AND PLENTY OF PASTURE
ARE PROTECTIVE. THE SERUM IS SURE.

34 34

The actual, direct loss in hogs from the ravages of hog cholera in the United States during the year 1911, has been conservatively estimated at not less than \$50,000,000. To this should be added upwards of \$15,000,000 from indirect loss occasioned by the breaking up of herds, decreased returns secured by nasty shipment of animals not ready for market and the cost of means taken to prevent dissemination of the disease (as restrictions on shipment, cost of varied and numerous stock foods, fake cures, etc., cost of treatment when ineffective, cost of agricultural experiment station plants for manufacture of serum and the cost of preparation, distribution and administration of the serum).

As to its prevalence during the past year compared with other years, I may express the belief that notwithstanding the fact that it has probably been more extensive than in the recent past, nevertheless it has not been more so than at some other periods. Granting even this, the disease has been not nearly so deadly, at least in Kansas.

It is generally accepted that there are two types of the disease, distinguished according to the location of the principal points of attack: namely, the lung type and the intestinal type. The former is the type that has been most commonly met with in this state during the recent past, though the intestinal type has been by no means uncommon. Further: cases are divided into three classes—peracute, acute and chronic, according to the length of time that the animal is sick. In the first, no symptoms are usually evident, the animal being found dead. In the second, it may be sick several days, while in the third it may last for several weeks.

Hog cholera is a very malignant and exceedingly infectious disease of swine, one attack of which gives lifelong immunity.

The causative agent, that is the specific germ or virus that causes the disease, has not yet been discovered. In fact, it is of such a nature or so small that it will pass through the finest porcelain filter made for laboratory use and is invisible under the most powerful microscope at our command. There is no other cause of the disease than the cholera virus. Feeding new corn cannot produce cholera, nor will any other disease "run into" cholera. The presence of cholera virus is necessary to the production of cholera.

The interval between the time of infection and the appearance of the symptoms varies between the extremes of four days and two weeks, the usual period being about ten days.

Among secondary causes may be mentioned all those conditions which may tend to lower the vitality or natural individual resisting power of the animal, as exposure to bad weather conditions, insanitary environment, faulty methods of feeding, age, overfatness, high breeding, etc., thus rendering it more susceptible to disease.

The disease producing virus is eliminated from the sick animal through the excretory channels, thus contaminating the soil of the pens. The length of time that this soil will remain infective has not been definitely worked out, but there is every reason to believe that the virus will remain active from several months to a year. Hard freezing or some time will probably destroy its virulence, but this freezing should be continuous.

There are many means by which hog cholera may be introduced into a previously well herd. To sum it all up, we might say that any means by which some of the infected soil from the pens of a sick herd may be carried to the pens of a well herd are means of transmission of the disease. Among some of the worst offenders in this respect might be mentioned pigeons, crows, owls, dogs, rabbits, and even man himself. These get on their feet more or less of the soil containing the infection from the pens of a sick herd, and carry it to other pens in the neighborhood. It has been noted that where cholera-sick hogs have access to streams of water, the infection rapidly spreads to other herds below them on the same stream. The practice of leaving exposed, or improperly disposed of, carcasses of animals that have died of cholera should be severely condemned, as well as the hauling of such dead animals over the highway to rendering plants. Both of these practices are in direct violation of law and ought to be looked after more closely by local

authorities. The best disposition of such carcasses is by burning, though deep burial will suffice.

In discussing the symptoms and post-mortem appearance of animals afflicted with cholera, I may state that these vary widely. So varied are they and at times so obscure that positive diagnosis is by no means as easy a matter as one might think; for often, if a single case only be presented, even a skilled veterinarian is seriously put to it to say positively that it is one of hog cholera. Even post-mortem examination of an isolated case may often fail to reveal sufficient evidence of itself upon which to base a positive decision. However, given several cases, with suitable history, and with cholera more or less prevalent in the neighborhood, especially if one or more autopsies can be held, a well qualified man may be reasonably sure in making a diagnosis.

We can best attempt to consider what might be termed a typical, acute case, and I might say here that this typical case would really be a composite one, for rarely does a single animal present all of these symptoms. The first thing noticed is that the animal is off its feed, failing to come up with the rest at meal time. Then follow more or less rapidly, dullness, desire to lie down, high temperature, moist cough and constipation of the lung type, diarrhoea if of the intestinal type, a peculiar staggering gait behind, showing greater or less weakness in the hind parts, emaciation, a more or less extensive, profuse, red discoloration of the skin, chiefly of the belly and thighs, occasionally increasing to result in sloughing of the skin. Often the eyes are affected and there is copious discharge therefrom with swelling and closure of the lids. Autopsy discloses blood infiltration of the lymphatic glands and bones even to blackness, pneumonic condition, if of the lung type, ulcerative condition of the intestines if of the intestinal type. The kidneys, if affected, show a characteristic appearance of minute, red, pin-point spots scattered over them, which cannot be scraped off with the knife and which are seen to penetrate into the tissues if the organ be cut.

Contact with farmers in treatment of their herds and in discussion of the subject with them and others has provided me with a long and varied list of sure cures and preventives for this disease, a list varying from soft coal to concentrated lye. Permit me to again say, as I have said so many times before, that there is no sure cure for cholera; no medication can cure the disease save in so far as such medication may serve to put the animal in better condition to enable it and assist it to get over the disease himself.

As in all diseases, the best, cheapest, easiest and most satisfactory method of combating hog cholera is by preventive measures. First, don't let the contamination be brought onto your place if you can possibly prevent it. Guard all possible channels of entrance. Second, keep your hogs in good healthy condition. These two methods are at every farmer's command and are the ones that should be expected of every one even though not used as means of fighting disease. The best means by which your animals may be kept in good, healthy condition

are two-fold: namely, a properly balanced ration and sanitary, protected quarters. Many farmers are constantly doting their hogs with this or that advertised or recommended nostrum, and the number of the preventives advocated is legion, including all those advanced as cures and many more. Chief among these come the various stock foods, closely followed by concentrated lye, etc., etc. Feed and house your animals properly and you won't need anything to put or keep them in healthy condition.

Despite all the care that the farmer may exercise to prevent it, cholera will generally, sooner or later, find its way into a herd, and then he is certainly up against it. Perhaps a neighbor has an outbreak of the disease, but quietly disposes of his dead and sick animals and says nothing to anyone, maybe feeling ashamed that despite all his care he has at last become a victim, and his neighbors, all unwittingly, leave open some door of infection and are likewise afflicted. This is all wrong. I would rather my neighbor would take, nay, rather I would give him, my best cow than that he, through concealing the presence of cholera in his herd, should permit me to bring the disease to mine.

Well, suppose we have, by some means, the cholera in our herd. What are we going to do? Alas, too many have sat quietly by and let them all die without taking advantage of the only means science has discovered for affording relief, listening with ready ear, maybe, to this or that disgruntled neighbor who, maybe, as I have often observed, never kept a hog in his life. The only practical way of successfully handling hog cholera is by prevention with anti-hog cholera serum, properly prepared and properly administered. Right here is to be found the chief and probably the sole cause of whatever failures may have been experienced in the use of the serum in the past and of the great opposition to its use on the part of many intelligent and experienced hog-raisers. There are many makes of serum on the market and, in the past, much of it has been worse than worthless. At the present time, however, our state laws preclude the possibility of the sale in Kansas of serum that is not up to standard. Among the best of the serums put out at this time is that prepared at the plant of the veterinary department of our State Agricultural College at Manhattan. The output of this plant has been very limited, at times impossible to secure without a long wait, but by increased facilities they are now enabled to fill all demands at once. They need more funds for added equipment and material with which to work, so that they may be enabled to store up serum for future demands upon their product against the time when such demands come thick and fast, far in excess of the regular daily production. Such storage represents a large amount of money tied up in serum, which brings returns only when shipped out. "Properly administered!" "Aye; there's the rub." Many factors enter into the proper administration of the serum. First, in point of time, at least, is absolute cleanliness. By neglect of this essential, many hogs have died of blood-poisoning caused by the introduction of outside infection along with the inser-

tion of the needle and injection of the serum. Second, and of very great importance, comes a nice, well-trained, discriminating judgment on the part of the operator as to what hogs not to treat or how much serum to use in each individual hog as it comes before him. The treatment of sick hogs or the use of too small a dose of serum will give unsatisfactory results and thus give the use of the serum an undesirable reputation. Often it is difficult or impossible to tell readily whether or not a hog may already be infected, and so error be made in giving the ordinary amount when more should have been used.

The serum is not advocated as a cure for cholera, although I have been told by reliable veterinarians of wonderful results secured by them by repeated large doses of serum in the case of very sick hogs. However, it is believed, and with good reason, that, if the animal have the disease but slightly, a large injection of the serum will greatly aid him in getting well more readily and quickly, and so I sometimes recommend in special individual cases, the administration of increased amounts of serum into sick hogs.

The period of immunity derived from the use of anti-hog cholera serum varies from that of a few weeks to lifelong. The first only is secured if, at about the time of the administration of the serum, the animal does not acquire the disease, the second, if he does so become infected.

The chance of an animal becoming infected at or near the time of treatment with serum is so uncertain, especially if the attack of cholera in the herd be but mild in nature, that we have come to take the stand that it is best to make sure that the hog will be so infected. Hence, wherever possible, we give treatment by the so-called simultaneous or double method. In this method, a small amount of blood taken from a hog about to die of cholera is injected into the subject at the same time that the serum in increased dosage, is given, thus insuring the presence of the disease in the animal, albeit in a mild form and readily counteracted by the serum used, and giving life-long immunity. This simultaneous method is especially applicable in herds where there is no infection and where the immunity derived from the use of the serum alone would be of short duration. The use of this virulent blood is attended with more or less danger and loss of animals which may, perhaps, be weakened from one reason or another, overfatness or high breeding, for example, and in such cases it is recommended that the double treatment be preceded by about ten days, by an injection of serum alone. Thus all danger of loss is eliminated. Here also, but more than in the use of the serum alone, is required the nice, discriminative judgment of the skilled veterinarian, and our law wisely forbids the use of virulent blood excepting by those who have secured special permission therefor from the state live stock sanitary commissioner. Where this double method is used it is claimed that there is no danger of the hogs infecting the premises with cholera unless, perchance, one or more of the hogs so treated should show visible evidence of sickness, but this needs further observation and experiment before being fully accepted.

It has just been announced that experiment shows that pigs born of sows that have been given the simultaneous treatment while heavy with pig, possess a large degree of immunity and it is hoped that further experiment may show that we may soon develop a race of swine that will possess a natural immunity to this dreaded disease.

Now then, what should be done by the farmer to save him this great loss from this veritable scourge to the hog industry of the world? There is but one answer: Keep his hogs immune by means of vaccination by the double method. Do this while they are young and the expense will be small. Save yourself the worry and sleepless nights and money loss by taking the only proper preventive measures, as you have learned to do in the case of blackleg among cattle, and another of the great leaks in the business of the farmer will have been effectually stopped.

A man may work merely to make a living. He may work in the hope of getting rich quickly. He may work for fame and renown, or he may work for the love of it. If he does the latter the others are added unto him.

Silage For Fattening Cattle

Beef Producer On High Priced Land Cannot Do Without Silo

By PROF. F. G. KING, Indiana

There are two distinct advantages of feeding corn silage to fattening cattle. First, there is the conservation of the rough feed produced by the corn plant; and, second, there is a larger profit from the feeding operation.

In the production of corn there must necessarily be produced large quantities of stalks. Chemical analysis shows that approximately two-thirds as much feeding value is locked up in the stalk as is contained in the ear. The food nutrients of the stalk, however, are so locked with fiber that when fed as corn stover or fodder, only a small percentage of their real value is secured. Because the food nutrients of corn stalks are so unavailable for animals, the roughage produced by the corn plant commands on the market a price altogether too small for the soil fertility removed by its sale. Therefore, on account of its chemical content and its abundance on the farm, the more thorough utilization of the roughage from the corn plant must be realized.

One of the great secrets of success in large factories has been the elimination or proper utilization of all the waste. This is now one of the great problems for the successful farmer. The roughage of the farm must be utilized. Corn silage offers the greatest source of improvement with which we are now familiar. When harvested in the ordinary manner, not only is a large part of the food nutrients not available, but the woody portions of the plant are unpalatable, and even when eaten require so much energy in digestion that a large part of their value is lost. When cut early and put into the silo, the entire mass passes through a process of heating and fermenting that reduces the hard, woody portions of the plant to a soft, palatable food which is readily eaten by cattle, horses or sheep. Silage properly made no waste. Corn put into the silo returns the feeder its full value without waste. Not only is there a complete consumption of the plant, but the animals are treated to a feed in winter that is succulent and palatable, with all the thrifty-giving properties of good summer pasture.

The economic side of the question is, however, the most important one from the standpoint of the cattle feeder. The ration used must be one that will return the greatest profit. My presentation of this phase of the subject is based on the results at Purdue experiment station, and in no case are any conclusions drawn from less than two trials on that particular item, and in most cases three or four trials have been made.

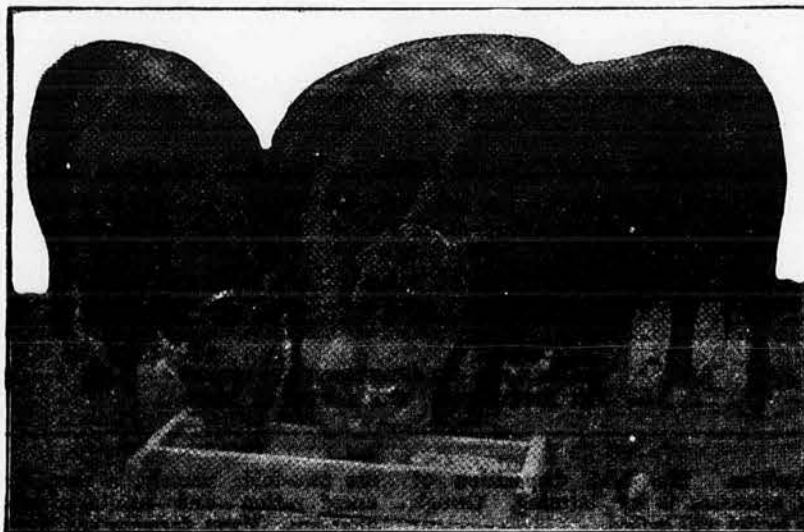
The general effect of adding corn silage to a ration for fattening beef cattle is shown by the following table:

	Clover hay.	Silage once daily, clover.	Silage twice daily, clover.	Silage.
Daily feed—				
Shelled corn, lbs....	18.10	16.80	14.41	14.15
Cottonseed meal, lbs....	2.74	2.82	2.79	2.74
Clover hay, lbs....	11.39	6.75	4.47	—
Corn silage, lbs....	—	17.85	29.38	32.92
Average daily gain, lbs.	2.36	2.68	2.66	2.95
Cash, per hundred-weight gain.....	10.35	9.29	9.14	8.96
Profit per steer, including pork.....	9.00	12.70	15.63	11.54
Additional profit due to silage.....	—	3.70	6.63	2.54

In all rations shelled corn was fed according to the appetites of the cattle. In addition to the corn, cottonseed meal containing 41 per cent protein was fed in the proportion of two and one-half pounds daily per 1,000 pounds live weight of cattle. All lots of cattle were uniform as to size, quality, age and condition when the experiment began, and were treated exactly the same, except that the roughage offered was different.

The figures in the table are averages of two years' work. They are the results secured in the winter of 1909-10, which was a very profitable year, and those secured in the winter of 1910-11, which was a very unsatisfactory year to feed cattle. Corn was worth 54 cents in one case and 37.4 cents in the other; clover hay, \$10 per ton; cottonseed meal, \$28 and \$30 per ton, and corn silage, \$3.50 and \$3 per ton.

The first noticeable effect of the silage was on the appetites of the cattle. It will be noted that the amounts of both hay and grain were reduced by the addition of silage. The grain in the silage evidently replaced approximately the same quantity of dry corn in the ration, thereby decreasing the quantity of dry



EATING ENSILAGE.

International prize winning steers exhibited by the Department of Animal Husbandry, University of Nebraska, at Chicago, Ill., 1910. Beginning with the left: Prince of Viewpoint 2d, first prize Angus calf and champion of the breed; Bobbie Burns, first prize Galloway calf, champion of the breed; Bluebeard, first prize senior grade calf.

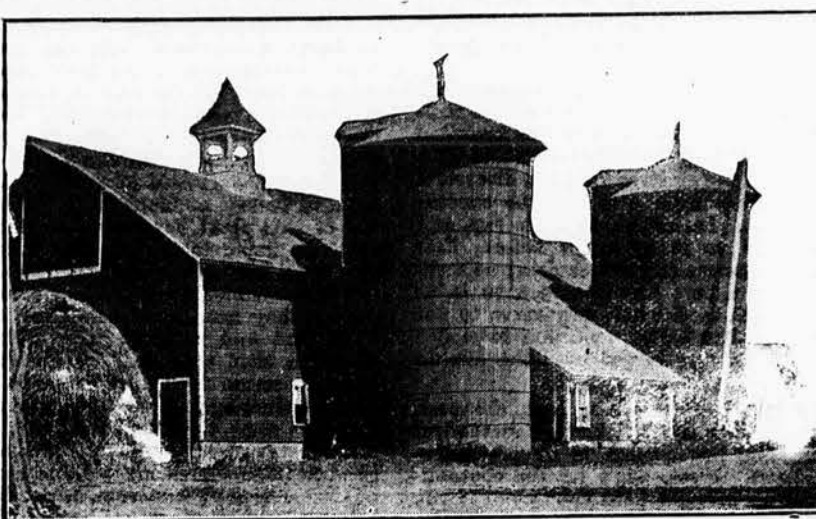
grain consumed by cattle on full feed. This fact, when considered with the rate of gain, is sufficient to successfully contradict any opinion that the corn put into silage is not as valuable as when gathered.

The rate of gain was increased by the addition of the silage to the ration, and not greatly affected by the substitution of silage for clover. Since silage is a cheap roughage and the grain consumption was less when silage was fed, the cost of gain was greatly reduced by the addition of silage to the ration. When silage was fed once daily in connection with clover hay, there was an average reduction in cost per hundred pounds gain of \$1.06; when silage was fed twice daily with clover hay, the reduction in cost amounted to \$1.21 per 100 pounds gain, and when corn silage was the only roughage eaten by the cattle the cost of gains was reduced \$1.39 per hundred pounds. It will be noted that the more nearly the corn silage replaced the clover hay in the ration, the greater was the reduction in the cost of gain, the greatest saving of cost being when no clover hay was fed.

When cost of gain is the basis of comparison, the conclusion would be drawn that the more nearly silage replaced hay in the ration, the greater would be the profit. This is true when a small amount of clover is fed, but not so when silage alone is used as roughage. The profit per steer was increased \$3.70 by adding silage once daily to clover for roughage;

\$6.63 by adding silage twice daily, and \$12.54 by substitution of silage for clover. The reason the profit per steer is not in the same proportion as the saving in cost of gain is that there was a difference in the finish of the cattle. The selling price was not appreciably affected by adding silage once daily, while it was increased an average of 15 cents per hundred by the addition of silage twice daily, and reduced 10 cents per hundred by substitution of silage for clover. With these figures as a basis of comparison, there would be a saving by the use of corn silage on a carload of 20 steers of \$74, \$132.60 and \$50.80, according to the extent to which silage replaced clover as a roughage.

Because corn silage has proven so profitable for fattening cattle, its limitations must not be overlooked. It must be remembered that silage is a roughage and not a grain. Because some corn is contained in silage, the mistake is sometimes made of trying to use it for grain instead of roughage. This practice always results unsatisfactorily. Silage is a roughage and must be so considered. Ordinarily it is not necessary to limit the roughage consumed by fattening cattle. The steer will naturally consume more grain and less roughage as the fattening period advances. Sometimes, however, it is necessary when silage is very palatable, to arbitrarily limit the quantity of silage consumed by the cattle in order to induce sufficient grain consumption to insure satisfactory gains.



KANSAS FARM COW BARN AND TWO 100-TON SILOS. DURING THE FALL OF 1910 BOTH SILOS WERE FILLED. ONE WAS FED OUT AND ONE-FOURTH OTHER. THE SECOND DURING THE FALL AND WINTER OF 1910-1911. DURING THE DRY SPELL AND CONSEQUENT SHORT PASTURES THE FIRST SUMMER, THE SILO THREE-FOURTHS FULL WAS FED OUT AND THE DAIRY COWS AND YOUNG STOCK NEVER KNEW THAT PASTURES WERE SHORT. THIS FALL ENOUGH ROUGHAGE WAS GROWN IN SHAPE OF CORN AND KAFIR AND SORGHUM AS CATCH CROPS TO AGAIN FILL BOTH SILOS.

In fact, the greatest benefit from silage in the ration is much more marked during the early part of the fattening period when roughage comprises a larger proportion of the ration than later in the fattening process.

Another limitation of corn silage is that it is not a balanced ration. It is of somewhat the same nutritive ratio as the corn grain. Therefore, when corn silage replaces clover hay, which balances corn, some form of concentrated protein must be added to make a properly balanced ration. The effect of adding corn silage to the ration of corn and clover, without cottonseed meal, is shown by the following data secured in two trials on the question, made at Purdue:

	Corn and clover.	Corn, clover and silage.	Corn and clover.	Corn, clover and silage.
Daily gain, lbs....	2.01	1.85	1.90	1.80
Cost per 100-wt. gain	\$10.29	\$9.80	\$10.89	\$11.07
Selling value of cattle.....	5.45	5.30	5.95	6.00

It will be noted that the rate of gain was actually decreased and the cost per hundred pounds gain and selling value of the cattle not greatly affected by the addition of corn silage to a ration of corn and clover hay. This data from Purdue is also borne out by experiments at other stations and by individual cattle feeders.

If the best results are to be secured with corn silage, some nitrogenous concentrate must be fed. Since cottonseed meal seems to be as plentiful and as cheap for its worth as any, we have been using it in our experiments. The effect of adding cottonseed meal in the proportion of two and one-half pounds daily per 1,000 pounds, live weight of cattle, to a ration of corn, clover hay and corn silage, is shown by the following table:

	Shelled corn, cottonseed meal and silage.	Shelled corn, clover hay and silage.	Shelled corn, cottonseed meal and silage.	Shelled corn, clover hay and silage.
Initial value.....	\$4.25	\$4.25	\$4.00	\$4.00
Initial weight, lb....	1,010	1,014	1,123	1,125
Aver. daily gain, lbs....	2.57	1.85	2.70	1.80
Cost per 100-wt. gain	\$8.74	\$9.80	\$9.11	\$11.07
Necessary selling price	5.66	5.65	5.35	5.37
Actual value.....	5.60	5.30	6.25	6.00

It will be noted that by the addition of cottonseed meal to the ration, the daily gain was increased in the first case from 1.85 pounds to 2.57 pounds, and in the second case from 1.80 pounds to 2.70 pounds, at a reduction in cost per hundred pounds gain of \$1.06 in the first trial, and \$1.96 in the second. The selling value of the cattle was increased by the use of cottonseed meal, 30 cents and 25 cents per hundredweight.

Since the necessary selling price was practically the same in either case, the excess in selling price due to the addition of the nitrogenous concentrate represents practically clear profit. Therefore, in order to secure the greatest benefits from corn silage, some form of protein must be added to the ration.

In conclusion, therefore, let me again call attention to the facts that, first, when properly supplemented with a nitrogenous concentrate, the addition of corn silage to a ration of corn and clover hay has returned a profit amounting in one ration to \$6.63 for the average of two years' trials; and that in no case was there a smaller profit than \$2.54 per steer by the addition of the silage. Second, the more nearly the silage replaced the hay in the ration, the greater was the reduction in the cost of gain, but when no clover hay was fed, there was a decrease in the selling price. Third, the addition of corn silage to a ration of corn and clover hay not properly supplemented, does not greatly affect the profits. Fourth, the best results can not be secured from feeding corn silage to fattening steers unless the ration is properly balanced by a nitrogenous concentrate.

At the Nebraska Station a comparison was made of wheat bran, linseed meal and cottonseed meal as protein supplements. The profits were largest where alfalfa hay was used as a part of the roughage to furnish the desired amount of protein.

Bermuda for Kansas and Oklahoma

The south central section of Kansas—those counties which in times past were the banner wheat counties of the state—are short on pasture, and many farmers declare that repeated efforts at seeding pastures with different combinations of grasses have failed. This section must have pasture and the farmers realize it. In Elk, Harper and Sumner counties, a few years ago, this editor investigated a number of Bermuda grass pastures and believed the results warranted more general use of that grass. Last fall we investigated it carefully in Oklahoma and for that latitude it is a wonderful grass. We believe Kansas farmers living south of a line drawn east and west through Wichita will find Bermuda the best pasture grass at this time known for that section. North of that line it will not endure the winter. In Oklahoma, Bermuda is usually planted on the poor land. It is a good thin land plant, but will thrive proportionately as soil is deep and fertile. Bermuda grass and Kafir make a combination hard to beat in Northern Oklahoma, and the stockmen of the two southern tiers of Kansas should give each a trial.

Our subscriber, F. A. Mitchell, of Chandler, Okla., writes: "Aside from the roots it will cost between \$1 and \$2 an acre to set Bermuda, and when once set it will last for many years. The land if properly handled will continue to increase in fertility and productiveness. The grass is apt to become root-bound and not do so well. In fact, all ground should be plowed occasionally. Stirring is the life of the ground. I like to plow my Bermuda sod every other year. Plow it in early spring. Pack it with disc and harrow and seed to oats. As soon as the oats are large enough turn on the stock. By the time the oats are eaten the Bermuda will be growing to beat the band, and the stock will be growing to beat all creation."

"The root system of Bermuda is something wonderful. When the sod is plowed it leaves this mass of roots to decay and add humus to the soil. It also opens the soil to air and moisture and in every way prepares it for the production of a still better crop of Bermuda grass."

"With Bermuda grass our land cannot blow away and it cannot wash. With plenty of Bermuda grass pasture our stock will have no desire to run away and neither will we, as it pays."

"This year our corn did not yield over two bushels per acre, but our Bermuda pastured one cow per acre. We had our oats, but our Bermuda grass, by its side, kept spreading and growing and it was relished by all kinds of stock. I have set 70 acres of my quarter to Bermuda and will set more, because it pays better than anything I have tried."

KANSAS FARMER readers who have Bermuda experience are invited to use these columns in telling their neighbors about the plant.

Hints for the Gardener.

Begin to plan now on your spring's work. Send for seed catalogs in order to decide what you are going to plant.

Send for your seeds early and test them long before you plant them, both for purity and germination. Weak seeds are dear at any price, for from them spring weak plants.

If you are going to use any manure purchased from the city, do not fail to pile it up and allow it to rot before it is hauled onto the land. Manure coming from livery stables, or other places where hay is likely to be purchased from several sources, is often a fruitful source of weed infection. If such manure is allowed to ferment well, the most, if not all, of the weed seeds will lose their power of germination. The pile should be turned over from time to time in order to prevent over-heating and the consequent loss in the value of the manure.

Plan your garden in such a way that there will be a good division of labor throughout the season.

Repair your hot-bed sashes. Replace broken panes and fasten the loose ones in. Imbed the panes in putty and nail them in, but do not putty them in, for the rain and frost will crack the putty off if you do. Do not lap panes over one-fourth of an inch; the water and frost will get under and cause you trouble there, too.

Repair or make any crates or boxes that may be needed and see that all the garden tools and machinery are put in good repair for the spring and summer.

When you send for your seeds don't forget the importance of a crop rotation in your garden. Remember that among the many advantages of crop rotation are the avoidance of insect pests and fungus diseases, the ridding of weed pest by intensive cultivation, the balancing of the soil elements by growing crops of different food requirements, and the addition of nitrogen to the soil by growing leguminous crops.

Relation of Type to Profitable Pork Production.

Type? Yes, type, is the much discussed question and yet one that is never settled.

Well, now I have no idea of settling this question of type, but just give a few of my ideas concerning it, and leave each of you to settle definitely for yourself what type of hog you think the most profitable for pork production.

Now, what has "type" to do with profitable pork production? Very much. There must be a certain type that will produce pork cheaper than any other type under the same conditions. We are all agreed as to this, yet are not all agreed as to what type of hog this is. We have many types in every breed—the small, medium and large—and then we may add the extremes either way; thus some of the smaller type degenerate into entirely too small a type, while on the other hand some of the larger type go to the other extreme and are too coarse, rough, and are hard feeders.

My idea is that the average pork producer, in fact all of us, must use cheap feed, such as the different kinds of pasture, preferably alfalfa or clover, in connection with a small amount of grain to produce the frame of our market hog and then feed a heavy grain ration for the finishing process. I do not believe the 200-pound pork hog the most profitable one to produce under these conditions, but believe we, as farmers, get a greater profit from the 250 to 300-pound hog. I know that many claim the 200-pound hog is the most profitable because the younger the hog the greater the gain from a given amount

of feed. That is true, but the 50-pound pig makes a cheaper gain than the 200-pound hog, yet we do not sell him at that weight. Why? Because the cost of keeping the breeding stock and the extra care and loss of pigs up to this time has been so great that we cannot afford to sell what we have left because the cost has been too much, even if they would bring the top market price. Even so with the 200-pound hog. How many men are unsuccessful with pigs, yet can feed the pigs out successfully after they attained 50 to 75 pounds? You see this fact recognized everywhere among feeders, for they are willing to pay a good, big price for shoats rather than try to raise them themselves.

For these reasons and because we can grow the most expensive part of the hog (the frame) from cheap feed, pastures of different kind, is why I believe the larger hog more profitable.

My idea is that this most profitable pork hog, weighing 250 to 300 pounds ready for the market, can be produced the cheapest from the large, long-bodied, heavy-boned type of hog with sows weighing from 500 to 700 pounds, boars 750 to 1000 pounds at maturity and in full flesh. Now, I do not believe in size without quality. No one can feed the extreme rough, long-legged, long-nosed hog with a profit, but with the size I have mentioned I believe it possible to get as much quality and as good feeding qualities as the smaller type of hog possesses. Also I find this large, smooth type far better producers when it comes to farrowing and raising large, thrifty litters of pigs. I also find this kind in demand, not only by breeders but by the best class of farmers and feeders the country over. I have tried both types and know by experience which type I find by far the more profitable.

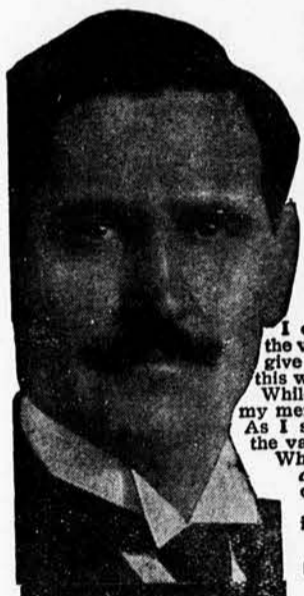
Type? Yes! I believe in type, and I believe every breeder should have a type in view and should try to produce that type to the very best of his ability. Thus alone can we make a success of the business and advance the interests of our chosen breeds.—H. B. WALTER, before the Swine Breeders' Conference.

Keep the hogs well bedded on cold nights and provide sufficient shelter for them so they will not be inclined to crowd each other too much.

LISTEN!

"HOW CAN I MAKE MORE MONEY IN 1912"

That's Just What Confronts You Now. The Question Is—How Can It Be Done? An Intelligent Answer to This Question Is Worth Real Money. I Will Answer That Question and Won't Charge You a Cent Either



10 OR MORE MEN WANTED

I want 10 or more men in every township to write me quick for a very special proposition that will save them big money. Are you one? Write me a postal at once. Do it NOW.

herby agree to redeem the book at your request any time, at \$1.00 in cash. You cannot buy a book with equally valuable information at any price today from any publisher that I know of. So much for the book.

12 Months Use FREE and Interest on Your Money If This Test Fails

Now here's what I am willing to do. You let me send you one of these spreaders to try on your place with any kind of manure, and under any condition. Try it 30, 60, or 90 days if you choose. Then decide whether or not it is the best spreader for you. Sold on five different liberal selling plans, after you decide whether you want it. Remember your credit is good with me. Remember it is good financing to buy a manure spreader on time if you have to. Now listen! The question for you is, how can you make more money? If, at the end of 12 months the spreader I send you has not been a paying investment for you, providing you have as much as 100 loads of manure to haul out, I will, and hereby do agree, to take back the spreader—pay the freight both ways—give you back your money—and pay you interest at 6 per cent from the time you sent me the price of the spreader. Can you beat it? And could I make the offer if I did not have something better than the other fellows' "best"? Just drop me a postal now and say: "Send me your proposition and new book, 'A Streak of Gold,' also your spreader catalog, and all other particulars about this unusual offer that nobody else has ever made." And I believe after you get them you will agree that I have answered the question, how to make more money on your farm in 1912. Just write me right now.

Wm. Galloway, President, THE WILLIAM GALLOWAY COMPANY, 389 A G Galloway Station, Waterloo, Iowa

christen it "A Streak of Gold." Because when I came to figure it out, I found that the extra crop I would get where the manure was spread was a veritable streak of gold, which I could not possibly get at, all without the manure.

Now I could not begin to put before you in this advertisement all the facts I have to give you on this question of how to make more money on your farm in 1912. All I want to say is, just drop a postal and I will send you this wonderful book

"A STREAK OF GOLD"

wherein I prove the big money there is in manure—wherein I prove the actual cash value of manure—wherein I show on highest authority, how to best care for manure—and wherein I give you the tried and proven way to cash in on this great value.

In addition to my own experience, this book contains information carefully gathered from all sources and presented in clear, simple form, easily understood.

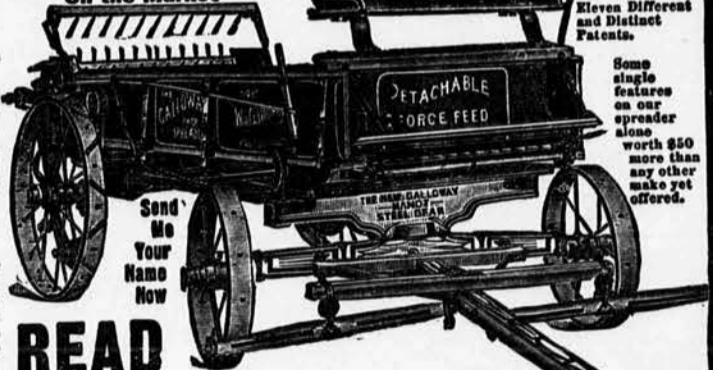
If you read this book and follow its instructions, you are bound to make more money in 1912. And here's a little proposition I will make you just to back up my confidence in this book. If after you get your copy you don't find that the information is worth real money to you, providing you are a farmer, and have manure to haul, providing you should apply its teachings, I do

Now, I have a proposition to make you, Mr. Farmer, that is perhaps entirely different from anything ever offered on manure spreaders. I could not make it if I did not know exactly what I was talking about, and just how the proposition would work out. You see I have made this proposition before, and I know.

Here it is—I make six different sizes of spreaders in my factory here at Waterloo. They are all new in design—modern in construction—original and different and better in every feature. They are made as good as high class materials, high class labor, and high class machinery can make them. And these are the only three things that make QUALITY. There is nothing more than these that can add to quality.

After I get the quality I make the price, as you know, by selling a tremendous quantity.

Only Roller Feed Spreader On the Market



Send Me Your Name Now

What Galloway's Customers Say

A. E. LYMAN, Chardon, Ohio:—The Galloway Manure Spreader is all right—it works fine and is away ahead of the old way. I spread some manure on a piece of meadow last winter and the hay was as heavy again as on the other part.

HENRY KUHLMANN, SR., Chester, Neb.:—I cannot speak highly enough about the Galloway Spreader. It is the best friend I have on the farm and the easiest thing to make money with, as most any farmer can afford to have one at such a reasonable price. Everybody

that sees it agrees that it is the only profitable spreader made.

PAGE WHITAKER, Calhoun, Ill.:—The spreader we bought of you last winter is giving satisfaction. Our corn where we put seven loads (about 1,500 pounds to load) of manure to the acre made (as near as we could estimate) fifteen bushels more per acre than exactly the same land without manure.

PAUL MOUSER, Harper, O.:—I have one of your spreaders and think it the whole thing in that line and I am talking it up right. It will pay for itself this year on twelve acres; six of wheat and six of corn. I've had mine a year now and it never gave me the least trouble. If anyone wants to see the Galloway at work, or rather at play, mine is on exhibition any or all the time.



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FOR MEN
WOMEN AND
CHILDREN

**HONORBILT
SHOES**

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Honor

Mayer Honorbilt
Shoes are leaders.
They lead in style and
are unexcelled in wearing
qualities. The styles are the
very latest. These splendid shoes are not equalled by other
shoes selling at the same price. The choicest leather, tough
soles and the best of everything goes into them. Made with
double leather toes. They are "built on honor."

Look for the
Trade Mark
on the sole

Buy Mayer Honorbilt Shoes and get the greatest shoe values obtainable.

WARNING—Look for the Mayer name and Trade Mark on the
sole—if your dealer cannot supply you, write to us.

We make Mayer Honorbilt Shoes for men, women and children, including
"Leading Lady" and "Special Merit" brands; also Mayer "Yerma Cushion"
and Mayer "Martha Washington Comfort Shoes."

FREE OFFER—Send the name of a dealer who does not handle
Mayer Honorbilt Shoes—we will send free a handsome picture
of George Washington—size 15x20.

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Grain
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Proved**

THINK of it!
99 9-10 per cent Grain Saving Proved by Actual Field Tests—practically perfect.
That's the wonderful record made by Avery "Yellow Fellow" Separators
in 27 Field Tests while operated by owners and regular crews. **Best Grain Saving
Record ever made by any separator.**
An Avery puts the farmer's grain in the wagon and not in the stack. No green straw
stacks after an Avery "Yellow Fellow".

**AVERY "Yellow Fellow"
Separators**

save the grain and do good cleaning. Fast work—thorough work—steady work.
Breakdowns almost unheard of with the "Yellow Fellow". No idle crews lying around
all the time at big expense. Small repair bills. **Teeth guaranteed for life against break-
age.** The Avery gets there and gets away. It is the "on time" thrasher.

Get Big Free Book About Grain Saving And Other Facts

Interests every thresherman because it tells him how to do better work, get more jobs
and make more money. Interests every grain growing farmer because it tells him how to
save more of his grain—get it cleaned better—and get his threshing finished on time.
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and other facts told in this Avery Book. Ask now for Avery Separator Book. Address,
AVERY CO., 1402 Iowa St., Peoria, Ill. Also manufacturers of Avery Gas Farm Trucks,
Undermounted Steam Traction Engines, Gas Traction Engines and "Self Lift" Engine Gang Plows.

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Incubator**

My guarantee is
not just a promise
but an ironclad
document by
which I guaran-
tee my Fairfield
Incubator to be
the best built, simplest,
easiest and cheapest op-
erating machine on the
market, guaranteed to
hatch 90% or better.
Guaranteed to be sat-
isfactory in every respect
or we refund your mon-
ey without quibbling.

**Sam Thompson's
Fairfield Incubator**
Guaranteed to Hatch 90% or Better.

No hen in the world will equal this. No other incubator is good
enough to be sold on such a guarantee, which proves that the Fair-
field way is the best way and that
this is the machine for you to buy.
So far I have received over 3,000 re-
ports from last year's customers
who hatched 90% or better.

**By Actual Test, the World's
Best Hatcher**

Made of the finest
California red-
wood. Has large, roomy egg cham-
ber, perfect heating system. It's the
most perfect machine on the market;
costs no more than the ordinary kind.
Write today for large catalog, price list
and free particulars of guarantee and 45
days' trial offer. Address
**SAM THOMPSON, Pres., Neb. Incubator Co.,
67 Main St., Fairfield, Nebraska.**

**Write for
Special
2-Hatch
Trial Offer**

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MENTION KANSAS FARMER WHEN YOU WRITE.

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MANY SUPERIOR POINTS

The Rayo is truly the Incubator with-
out a fault. It is built upon principles that
are scientifically correct, and which result—always
—in successful hatches. One filling of tank and only one
gallon of oil for entire hatch—eggs always in sight—turn eggs
without removing nest-shaped tray—center heat—these are
a few of the points which spell Rayo supremacy.

We pay the freight and give a 70-day trial. Iron-
clad guarantee. Write for the book today.

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Write today for our
Big Poultry Book
"EGGS TO MONEY"
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THE EFFICIENT SCHOOL FOR BANKS AND RAILROADS.
Furnishes more Bankers, Civil Service help, Commercial Teachers, R. R. Stenogra-
phers, and Telegraphers, than any other school. U. P. contracts to take all our male
operators, and allow salary while learning. We guarantee position for complete course
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NEW FEATURES—Farm Accounting, McCaskey Register, Wireless Telegraphy.
Write for catalog and Free Tuition Prize Offer. No agents out to get you to sign up.
Address, **T. W. ROACH, Pres. 201 S. Santa Fe, Salina, Kansas.**

Live Poultry Organization

Kansas Branch of American Poultry Association
of Great Value to All Poultry Breeders

The largest organization representing
any live stock interest is the American
Poultry Association, which now has a
membership of about 5,000 wide awake
poultry breeders, and is steadily grow-
ing.

The Association became so large and
the work of the officers so heavy that
something had to be done in order for
the Association to look well after the
industry it represented and take proper
care of the interests of its members.
This condition brought about the or-
ganization of state branches so that now
practically every poultry state, Kansas
included, has its branch organization.

of introducing the study of poultry cul-
ture in the public schools of the state.
This is an idea that originated in the
state of Arkansas, being started by G.
C. Watkins, a former well-known Kan-
sasan who is now publishing a poultry
journal at Fort Smith, Ark. The plan
took so well in that state that the work
has been carried into the states of Lou-
isiana, Mississippi and Oklahoma, and in
each of these states is receiving enthusi-
astic support from teachers and school
superintendents.

At the meeting at Leavenworth it was
voted unanimously to encourage a sim-
ilar work in Kansas, and with that ob-



N. R. NYE, OF LEAVENWORTH.
President Kansas Branch American Poultry
Association.



E. D. MARTIN, OF NEWTON.
Secretary Kansas Branch American Poultry
Association.

We have in Kansas about 125 mem-
bers of the American Poultry Associa-
tion, which gives Kansas one of the
strongest branches in the Union. Other
Kansas breeders are daily joining the
ranks, and the officers hope that before
long Kansas will have a larger number
of American Poultry Association mem-
bers than any other state.

One of the objects of the state branch
is to foster every movement intended
to create a still greater interest in pure-
bred poultry, and to improve poultry
conditions in general. A regular meet-
ing of the branch is held once a year,
and at these meetings plans are made
for carrying on the work during the
succeeding year. When it is deemed
necessary, special meetings are held.

A meeting of the Kansas branch was
held recently during the poultry show
at Leavenworth. An important matter
that came before this meeting was that

ject in view a sum of money was appro-
priated and a committee appointed to
get the work under way. The commit-
tee consists of R. H. Searle and G. D.
McClaskey of Topeka and A. L. Withers
of Leavenworth, each of whom would
like to hear from Kansas folks regarding
this matter and learn just how the peo-
ple over the state feel about it.

The work which the above mentioned
committee will undertake is entirely new
in this state, but to teach poultry cul-
ture in the schools is only in line with
other agricultural courses that are be-
ing taught in the schools of Kansas right
now. A number of school men have al-
ready expressed themselves in favor of
the poultry course. What do KANSAS
FARMER readers think about it? Let-
ters addressed to G. D. McClaskey, care
of KANSAS FARMER, will be read and
considered by each member of the com-
mittee.

Feeding Frozen Silage

Several subscribers have heard that the
feeding of frozen silage is detrimental
to the animal eating it, and while none
of our correspondents have reported un-
favorable results, they ask for informa-
tion. The feeding of frozen silage we
do not believe good for any animal.
Frozen silage contains a good deal of
ice. You would not thrive on a meal
of cracked ice or on frozen hash or
beans. Whether such diet killed you
would depend upon how much you ate,
and the amount you ate would depend
upon how hungry you were. I am doubt-
ful if frozen silage has any effect on
the animal more than such a diet would
have on yourself, except that an animal
might eat it in such quantity as to result
in death.

Frozen silage is usually found on the
sides of the silo, and so long as frozen
hangs there. It is a good plan to dig
as much as possible of the frozen silage
off, throw it to the middle of the silo
and it will thaw by next feeding time.
After thawing there is no harm in feed-
ing. Once frozen and, either falling off
the sides or being dug off, silage will
soon mould after thawing, and should
be fed.

Extreme temperatures, such as we had
this winter, will cause silage to freeze
in any kind of silo. We have examined

a number of silos in the country sur-
rounding Topeka, and have seen no silo
entirely free from frozen silage. In
those silos in which the door is not
close fitting or in those of such con-
struction that one door is open all the
time, the frozen silage existed in greater
quantity than in those with close fitting
doors and doors which will permit
closing the silo after each feeding. In
a silo which was not roofed the entire
surface of silage froze between feedings.
So a roof is necessary.

During cold weather it is wise to keep
the edges of the silage in the silo some-
what lower than the center. A good
way to thaw out the frozen material
is to cover it with silage that is not
frozen. Some cover the silage in the
silo with a blanket. Another way to
thaw it is to fill the silage cart and
let it stand in a warm place over night.

Don't feed silage while it is frozen.
Such silage may do harm. Feed thawed
silage as soon as possible after thawing.
Do not permit the report of a little
frozen silage to stand between you and
a good silo.

To buy all the live stock in Kansas,
and all the farm crops raised in the state
last year, a man would have to bring in
practically all of the gold mined in the
whole world in 1911.

THE CLYDESDALE CHOOSING A FARM

By JOHN SPARROWHAWK, Wakefield, Kan.

By L. E. CHILDERS, Idaho, for KANSAS FARMER

It is perhaps unnecessary for me to speak of the breed contests wherein Clydesdales have taken a leading part during the last few years at the International Show in Chicago. These competitions are, doubtless, familiar to all of you. In the six-horse team contest the Clydesdales have won first prize seven out of eleven times, and have never been farther back than second. In all they have won approximately 70 per cent of all the leading honors, and this in open competition with all other breeds. The Percherons have won 25 per cent, and the Shires 5 per cent. Belgians have not scored at all, so far. Of course I don't claim that this represents the comparative merits of the breeds. That would be foolish, and this great victory of the Clydesdales in harness is all the more noteworthy when we consider the fact that there are probably ten times as many of the other draft breeds combined as there are of Clydesdales. I can only account for these numerous victories on the ground of their superiority. While the average Clydesdale may not surpass his competitors very far, I maintain that the best products of the breed—the very tops, so to speak—combine, in a higher degree, the essential excellence of the ideal draft horse than any others. And this, I take it, is evidence of the skillful, laborious and persistent efforts of the Clydesdale breeders. A standard has been set and prizes awarded according as the animals approached that standard. The basis of this standard may be said to be soundness and bottoms. Feet, pasterns, hocks, and close, straight action are the fundamentals on which the Scottish breeder has built his ideal fabric. No matter how perfect a horse may be in his body, or how massive or powerful or handsome, if found defective in any of these named fundamentals he never finds a place in the prize lists of the present or the past generation of

fairs, or shows, as they are called in Europe. Tell a Frenchman what you want and he will try to accommodate you. Tell a Briton what you want and he will waste time trying to convince you that he knows better than you do what is required. He is, of course, sometimes right and sometimes wrong. It is fair, however, to say that it is to Britain that not only Americans, but all foreign nations, are indebted for nearly all our imported breeds of domestic live stock, and the British breeder has never touched any subject in the line of breeding without improving it, whether it be horses, cattle, sheep, or even dogs or poultry.

The Clydesdale, although perhaps not perfect, has many outstanding merits. As a worker in harness he is intelligence itself. His method of drawing heavy loads either on a country road or on a crowded city street is a lesson in mechanics. Setting himself firmly into the collar and utilizing every ounce of power in his frame he takes a steady pull and with long swinging stride and rapid walking gait he soon distances all competitors. The Clydesdale is too restless and ambitious to put on flesh rapidly, but give him plenty of work and he will never disappoint you or be found wanting.

In the last year or two a good many very wealthy eastern men have gone into the breeding of Clydesdales. Mr. Spoor, of the Union Stock Yards, Illinois, has changed from Percheron to Clydesdales; Mr. Fairbairn of New Jersey has established a valuable stud in New Jersey, and such critical judges as Mr. Henry Fairfax of Virginia, Mr. Marshall of New York, and Judge Moore, who has the finest stable of harness horses in the world, are all great admirers of the Clydesdale. It is a compliment to the breed that those equine connoisseurs should show their preference for Clydesdales.

There are two primary considerations in choosing any farm. The first is the location and the second is the character of the farm itself. We shall only write of the location at this time.

Having found your farm, what are its surroundings? Does it have, or is it likely to have rural free delivery? This is important, for nowadays the live farmer must keep daily pace with the market quotations, new agricultural ideas and the progress of the times in general. Is there a railway or trolley line close by? Produce must move, for in the successful disposal of this lies the value of the land. Then, too, the progressive farmer and his family must get away from the farm now and then, not only for a breathing spell, but to mingle with others and to renew their inspiration as well as to gather new ideas from those more successful.

Is there a church close by, and what support does the community give it, or is the devil at work with jealous factions? The public spiritedness of a community will always ray out in the quality of its public buildings, and the interest and intelligence of a community may be judged by the quality of its ministers and teachers. While one may not care to attend church, yet good churches will have a tremendous influence on the character of a neighborhood. Especially will one find good schools in such neighborhoods, possibly a consolidated school if a village is not too close. What other social advantages are there, such as libraries, lecture courses, reading courses and social gatherings? Don't overlook these factors in choosing the place for your business and residence.

What market facilities have you and does the market require the kind of produce which is suited to your soil and climate? The quality of produce is often governed by the kind of customers one is serving. If near a manufacturing center, large quantities of fair quality will be required, but if near a wealthy com-

munity, the quantity of produce will not be large, but the quality must be of the best. Can you accommodate yourself to these requirements?

How distant is your market? If one has to ship, can refrigerator cars and such appurtenances be had? Will the length of haul and the consequent cost of shipping leave a sufficient margin for production? Oftentimes a wagon haul will preclude the production of some commodities. One cannot produce a large acreage of potatoes and team them a distance of ten miles to a shipping point. And if such hauls are to be necessary, what is the character of the wagon roads over which they must pass? This is the most vital consideration of all. Two or three or five or six per cent grades in the road will seriously impede ordinary wagon transportation, while a single 16 per cent grade or a few muddy places will be almost prohibitive. The factor of ingress and egress, or wagon roads, is the most vital consideration when choosing a location to plant your home and business.

A big demand for good seed will exist soon to plant next spring, especially in Western Kansas, where conditions never were more favorable for the planting of spring crops. The Agronomy Department is preparing a list of farmers and seed dealers having good seed oats, barley, corn, flax, Kafir, cane, etc., for sale and is eager to get into touch with all persons having such seed. This list should be ready for distribution within the next two weeks, and will be furnished upon request to persons desiring to obtain good seed. All those who wish to list their seed with W. M. Jardine, head of the Agronomy Department of Kansas Agricultural College, should send in a small representative sample and give the name of the variety, quality and price, and the amount for sale; and, if possible, the source of the seed.

The Flood-Like Advance of No-Rim-Cut Tires—10 Per Cent Oversize

This is what happened when men proved that tire bills could be cut in two:

In 1907 we sold 28,685 tires.
In 1908 we sold 51,542 tires.
In 1909 we sold 105,127 tires.
In 1910 we sold 210,762 tires.
In 1911 we sold 409,521 tires.

That's pneumatic automobile tires alone.
So far this year the demand has run three times that of 1911.

Note how that demand doubles every year—grows and grows with increasing experience.

Today—after 900,000 have been tested out—the demand is growing faster than ever.

Yet for years these tires cost one-fifth more than other standard tires. Now they cost but an equal price.

Can you think these men mistaken—these motor car makers, these tens of thousands of users who have come to this patented tire?

They Sought What You Are Seeking

They sought for a way to cut tire bills in two. We proved that these tires could do it.

They sought tires which can't rim-cut. One glance at these tires proves rim-cutting impossible.

They sought oversize tires, to take care of their extras—to save the blow-outs due to overloading. And they found this oversize without extra cost in No-Rim-Cut tires.

That's why they bought, in the year 1911, 409,521 Goodyear tires.

Loss—\$20 Per Tire

We figure the average loss of men who don't use them at \$20 per tire. It varies, of course, with the sizes. And care or abuse affects it. One can't be exact on these savings.

We figure it this way. Statistics show that 23 per cent of all ruined clincher tires are rim-cut. No-Rim-Cut tires wipe out that loss entirely.

Ten per cent oversize, under average conditions, adds 25 per cent to the tire mileage. And No-Rim-Cut tires, measured by air capacity, aver-

age 16.7 per cent larger than five leading makes of clinchers.

The clincher tire is the old-type tire—the hooked-base tire—which No-Rim-Cut tires are displacing.

This No-Rim-Cut feature, plus the oversize feature, will save motor car owners this year, we figure, a million dollars a month.

The Only No-Rim-Cut Tires

In No-Rim-Cut tires there are three flat bands of 126 braided wires vulcanized into the tire base. These wires make the tire base unstretchable.

These tires stay on without hook-

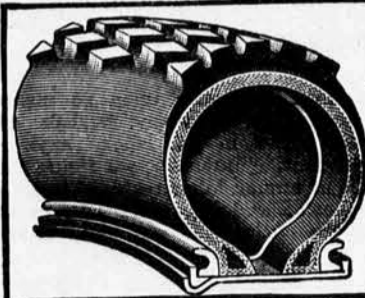
ing to the rims, because nothing can force them off the rim until you remove the removable flange. Then they slip off in an instant.

Your removable rim flanges, when you use this tire, are curved outward instead of inward. That's why they can't cut the tire.

We control by patents the only way to make a practical tire of this type. Other devices, used to meet our competition, have serious shortcomings which we explain in our Tire Book.

That is why the demand for hookless tires centers on Goodyear No-Rim-Cut tires. Nothing else known can take the place of these bands of braided wires. These patented tires now cost no more than other standard tires. They fit any standard rim, quick-detachable or demountable. So, when you give up clinchers, don't adopt experimental tires. More and more, the men who know best are insisting on Goodyear No-Rim-Cut tires. Soon or late, you are bound to come to them.

Our 1912 Tire Book—based on 13 years spent in tire making—is filled with facts you should know. Ask us to mail it to you.



GOODYEAR
No-Rim-Cut Tires
With or Without
Double-Thick Non-Skid Treads
With a Bulldog Grip

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO
Branches and Agencies in 103 Principal Cities We Make All Kinds of Rubber Tires, Tire Accessories and Repair Outfits
Main Canadian Office, Toronto, Ont. Canadian Factory, Bowmanville, Ont. (505)

The Keen Kutter Way Beats the Old Way

Here is one of the biggest labor, time and money savers in the whole line of Keen Kutter tools. Does away with the bar and spade for making post holes. You simply drive the strong, crucible steel blades of the Keen Kutter Post Hole Digger down into the earth, pull the handles apart and yank up a big load of soil. Makes a deep post hole in a jiffy. Has straight grained handles, which insure great strength and durability.

KEEN KUTTER Quality Tools

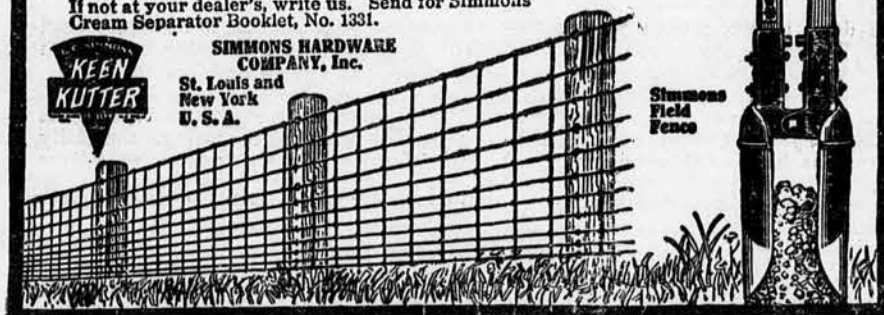
are sold under the positive guarantee that the material and workmanship must be perfect or your money will be refunded. Keen Kutter quality has stood the test of time—45 years on the market and growing in popular favor every day. Look for the famous Keen Kutter trade mark—always.

"The Recollection of Quality Remains
Long After the Price is Forgotten."
Trade Mark Registered. —E. C. SIMMONS.

If not at your dealer's, write us. Send for Simmons
Cream Separator Booklet, No. 1331.



SIMMONS HARDWARE
COMPANY, Inc.
St. Louis and
New York
U. S. A.



POST HOLE DIGGER No. K. Price \$ 1.25

FREE TICKET TO THE KANSAS CITY LAND SHOW

We will entertain several hundred visitors at the Land Show, Colonists' and Tourists' Expositions to be held in Convention Hall, Kansas City, Mo., February 26 to March 9. If you wish to attend we will send you an invitation and FREE TICKET. We will furnish guides to conduct you through the Exposition. REMEMBER there is no expense to you for the invitation and ticket—WE furnish them FREE. Our sections will be the most attractive feature of the Land Show, our guests are requested to make it their headquarters and have their letters, telegrams, etc., directed care of our section. **FILL OUT THE ATTACHED COUPON** and mail it at once; our supply of tickets is limited.

THE GEO. H. PAUL ORCHARD CO., 500 North Main St., Pueblo, Colo.,
Chairman, Entertainment Committee.
Kindly send me an invitation and free ticket to the Kansas City Land Show, also particulars of your plan for entertaining your guests at the Show.

Name.....

KF

Address.....

MAIL US THIS COUPON TODAY

A gas, line tractor
or that puts power
within every
farmer's means.
Costs less than
eight horses and
does their work at less ex-
pense. Weighs only two
tons. Adjustable from 1 to
12 H. P. A general utility
engine that can do any
kind of farm work, the
heaviest to the most deli-
cate.

Heider Tractor

Takes eight horses off of
feed bill. Handle farm
work with less hired men. These
items alone will save the
price of a Heider Tractor
in a very short time. Brings
bigger crops because the
Heider Tractor works faster
than horses and you al-
ways plant on
time. Can be used
for all kinds of
field and belt
work.

The Tractor That Every Farmer Can Afford



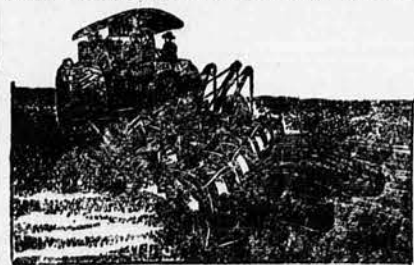
Built Especially
for Farmers of
the Great West

You can afford the Heider Tractor because it's cheaper than horses and extra hired men. Using gasoline for fuel costs only a few cents a day to run, and when you are not busy on your own farm, you can make lots of extra money grading roads or helping your neighbors. Made strong and simple. Easy to operate. Sold under the well-known Heider guarantee. Ask your dealer or write for free literature, "The New and Modern Farm Horse."
HEIDER MANUFACTURING CO.,
470 Main Street, Carroll, Iowa.

When You Write Advertisers Be sure to mention this paper. Our advertisers like to know where their replies come from.

You Can Plow 40 Acres a Day

Forty acres are an easy possibility with the REEVES MULTIPLE GANG PLOW. The only really successful outfit is the **Reeves Flexible-Frame Engine Gang Plow**



because it does perfect work in all conditions of land. Flexible frame and running of plows in pairs gives REEVES PLOWS a great advantage over others. There are a dozen points of Reeves superiority.

WRITE FOR FREE BOOK

telling the whole story of traction plowing. Shows plowing scenes and gives letters from users. Either steam-lift or hand-lift plows can be furnished for either steam or gas tractors.

REEVES & COMPANY

118 5th Street,

COLUMBUS, IND.

THE FARM



Clean up the farm yard. Your neighbors' estimate of you as a farmer is governed to a considerable extent by the order maintained about the yard and farm buildings. It is worth while in dollars and cents that your neighbors think well of you as a farmer. Your farm may be for sale, you may have seed of some sort to sell, you may have a pure-bred pig or calf to sell and the man who comes to buy will think more of your animal if he finds things in good order about the farm. Train yourself and the farm help to do things in an orderly manner. Better farming will be the net result.

The value of milo as a farm crop is demonstrated by this item received from H. M. Cottrell of Colorado: "Horses and mules in Colorado have stood hard work all summer with no grain but milo. Horses doing heavy farm work are given three good feeds of this grain a day. The easiest way to feed milo is in the head. About twice as many heads are given as the number of ears of Indian corn fed at any meal. Some grind the grain in order to prevent loss. Milo meal has proved a good feed for work horses." Kafir gives the same results and is a better crop in the eastern two-thirds of Kansas. These two wonderful crops have made it unnecessary that the farmer in the so-called semi-arid sections be short on grain feed. There is no longer necessity for the painstaking farmer of that section to be without the grain needed to make dairying and live stock farming successful.

Land will be more valuable as the years go by, and you need be in no hurry to "cash in" the old farm. Your land may today represent a small fortune, and so it does if you own a good quarter in a good section of the country. Money in farm lands is safely invested. It is doubtful if you had the value of your farm in cash, if you could make a better investment. Keep right on improving—making the farm better—and the money so invested will bring its adequate return. We do not know how a farmer can better invest his surplus than in bringing a good farm to a high degree of cultivation and improvement. The farm owner may feel like easing up a bit, and if he is in such condition that he can, well and good, if the owner knows how he can ease up and still make the farm pay and increase in value.

Lest you forget, now is the time to get together all the seed for spring planting. Do not delay until the last minute. If you do you will sow and plant a lot of seed which will result in poor stands, small yields and disappointment. Get oats of the variety best adapted to your section. Run them through a fanning mill, taking out the light kernels and the weed seed. Get good Kafir and cane seed. Be sure that it is as pure as you can buy. Get early maturing varieties, fan out the weed seed and plant a handful of the cleaned seed in a box to see that it will grow. Kafir and cane seed heats in the bin and much of it does not grow. Do not forget the seed corn. We have written much about that and will say nothing more about corn here. But, get the seed ready, so that when the frost is out of the ground and you are ready to sow or plant you will not be forced to depend upon the first seed you place your hands on.

"We used to figure upon so many acres producing so many bushels of crop and throw in the labor," says a correspondent. "But now we figure on the time of human labor required to produce a bushel and figure the acre in as part of the outlay. It was quite interesting to me to find out that during the period of 1855 to 1894 mechanical inventions reduced the time of human labor required to produce one bushel of corn on an average from four hours and thirty minutes to thirty-one minutes. That was because the disc harrow, the gang plow, the corn planter, the four-

section harrow, the self-binder, the machine for removing husks from the ear, the corn sheller, and a few other inventions has been given to the world. In the same respect the government tells us that the human labor put into a bushel of wheat in 1830 was three hours and three minutes, while in 1894 it was only 10 minutes. That is because some more machinery was invented."

Southern Kansas and Northern Oklahoma may have an opportunity to observe the results of the Campbell farming system by means of an experimental farm of 640 acres, which it is proposed to establish on the Chillicothe reservation, located on the line between the two states. It is proposed that the government enter into a contract with Campbell to conduct this demonstration for 15 consecutive years, and at the end of that time deed the land to Campbell. It is understood that the Campbell company is willing to enter into such an agreement and to conduct a model farm in improvements, machinery, culture of the soil and commercial truck gardening in the most intense and scientific manner; pure seed, horticulture, fruit and ornamental trees and shrubbery. The idea is to prove to the people, particularly to the farmers, that this system of farming can be carried on as successfully on a large farm as on a small tract.

While talking about better farming methods—testing seed corn, deeper plowing, pure-bred stock, etc.—it is well not to forget the necessity of thorough cultivation and the freeing of the farm from weeds. The loss to the American farmer from weeds is enormous. In the United States it is not far from \$100,000,000 annually, and for the state of Kansas it is claimed the loss is close to \$5,000,000. Such figures, however, mean little. The fact is that on most farms fully one-half of the moisture available for crop production is required to support the weeds, and with this moisture a considerable part of the plant food is utilized. It wears the farm to produce weeds, and many farms of exhausted fertility are so from the growth of weeds more than from the growth of crops. Make a resolution now to keep down the weeds of the field. This is done by good methods of cultivation, by using crops known to every farmer as renovators of the field and by mowing the fence and hedge rows.

There is much that is commendable and gratifying in the recently awakened interest of bankers and business men in improvement of agricultural conditions. The prompting motive is selfish—but that motive can do them no good except as the farmer and community at large is first benefited. If the farmer is not prosperous the banker cannot be prosperous. If the farmer has no money the merchant's business is affected. If some crops do not grow the railroad has no grain or live stock to haul. So each of these businesses—all business, for that matter—is dependent upon the agricultural prosperity of the country surrounding the town or along a line of railroad. This accounts for the activity of the banker and merchant in urging the dozen and one advanced ideas tending to better farming. It is this which has caused the business people of hundreds of Kansas towns to hold corn shows and live stock shows and to offer good premiums for superior quality. This spirit caused bankers last year to loan money without interest to a man here and there to build a silo that the one or two structures in a community might serve as a demonstration. The railroad co-operates with the agricultural college in the running of demonstration and lecture trains for the same reason. Business is not slow to recognize the opportunities for improvement. The business man's training has taught him now and why he must grasp the opportunity. The average farmer's training has not so well taught him these, and herein lies the cause for some of the things the matter with farming.

Walnut Logs.

F. W. S., St. Paul, Kan.: Buyers of walnut logs do their contracting in the fall, the logs being cut at that time and delivered to the railroad point for shipment in the spring. This indicates the desirability of drying and the method of drying. We would not saw very green walnut logs into lumber.

Calls for Cowpea Experience.

Our subscriber, E. L. P., Lucas, Kan., says no cowpeas have, to his knowledge, been grown in his locality, and through KANSAS FARMER experiences has become much interested in their growth. He asks that farmers in the western third of Kansas give their experiences through this paper. KANSAS FARMER has printed much cowpea experience this winter, but will be glad to hear from others. Give this man your experience. He may give you some valuable help on some other matter if he be asked.

Nelson Gets Silver Cup.

In the bi-monthly butter contest held at the Kansas Agricultural College for the year 1911, first place was awarded to Nels O. Nelson of the Continental Creamery Company, Topeka, Kan., with an average score of 92.4, and he becomes the owner of a silver loving cup given by Kansas creamery men. The cup becomes the property of the contestant who wins it three successive years.

George Steffenson of Atchison took second place, with an average score of 91.08; J. A. Beckman of Great Bend received third prize, with an average of 90.5, and William G. Engle of Abilene received the fourth prize, with an average of 89.5. Eighteen buttermakers took part in the contest in 1911.

New Arrangement for Tenant.

Will subscriber whose letter we printed in January 13 issue of KANSAS FARMER regarding his methods of renting, tell through this paper more about his plan, for the benefit of several other subscribers who have asked questions? The tenant writing stated that he receives \$30 per month for all labor done and one-fourth of the annual crop and stock increase. Subscriber desires to know how large the farm is, how many men it requires to work the land, and how many months in the year tenant receives \$30, how much stock is kept and what provision was made for handling milch cows and keeping chickens. Will subscriber who is renting on this plan please answer through this paper? There are a large number of tenants as well as landlords looking for new ideas.

Corn—When Ready for Silage.

These days a large part of our subscribers' inquiries are on some phase of the silo—a thing to which Kansas has recently awakened, and it is well this is so. L. C. H., McPherson, Kan., asks when corn possesses its greatest nutritive value, and when it should be cut for the silo.

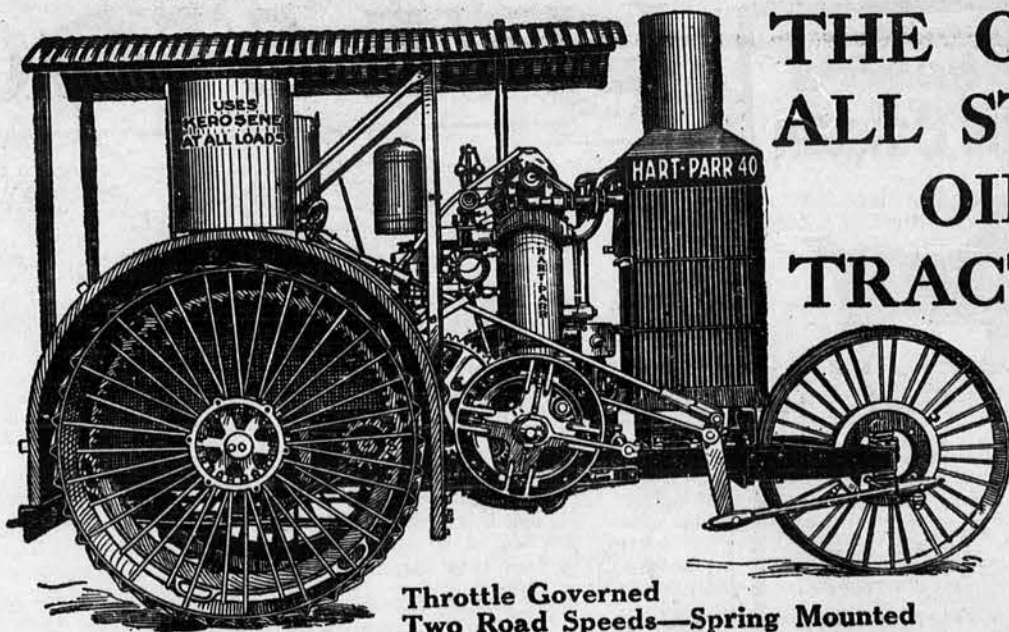
Corn when ripe has the greatest feeding value. The word, "ripe" as here used does not mean when the kernels and stalks are hard and the blades yellow and dry. We would have it apply at that time when the kernels plainly show the dent. However, if the weather is dry and blades are blowing away, cut any time in the dough stage. The point is to save all the stalk and blades possible and at the same time to get as much corn—grain—as possible.

Corn when in silk has twice as much dry matter as when just tasseled out, three times as much when in milk stage, four times as much when glazed and five times as much when ripe.

For Government Farmer.

M. C. R., Abilene, Kan.: Write United States Department of Agriculture for information regarding opening as "government farmer." This department of the government is under civil service rules, and a political pull is not necessary to obtain a position. If government farmers are wanted, your inquiry will bring full particulars regarding date of examination and the subjects on which you will be examined. There will be no examination fee. Your appointment will be made upon the results of your examination and adaptability for the position as shown by questions you will be asked to answer regarding experience, character, etc. The school, the printed matter of which you read, is a reliable correspondence school, and no doubt could give you the technical training necessary. For all government positions of the character to which you aspire a combination of the technical and practical is required. This will answer several similar inquiries we have.

Will Do
More
Work
With
Less Cost
for
Repairs
Than
any
Other
Tractor



THE ONLY
ALL STEEL
OIL
TRACTOR

Throttle Governed
Two Road Speeds—Spring Mounted

Superior HART-PARR Construction

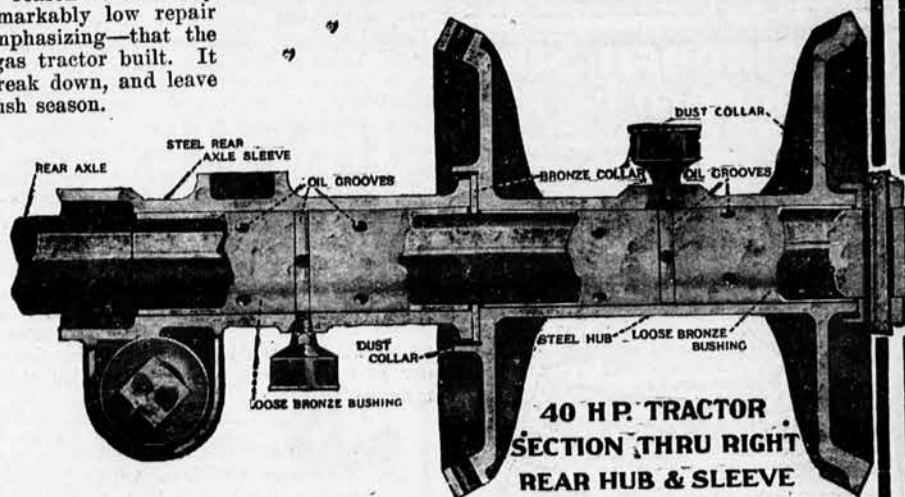
HUNT where you will—up and down in the gas traction market—you'll not find an engine with so many exclusive features—so many superior points of construction. Years of selling—testing in field, years of progress in tractor building have given Hart-Parr the secrets of rational construction. It's one thing for others to mount a gasoline motor on a tractor frame, but it's different when this misnamed "tractor" is put to the test under the racking strains of continuous field work. Watch them break down.

In design—in material—in construction, no tractor can "touch it." It's in a class all its own. It leads—other trail after. Hart-Parrs are a world standard.

Steel Construction the Secret

Steel construction—that's the reason—that's why Hart-Parr owners have such remarkably low repair bills. Remember—it's worth emphasizing—that the Hart-Parr is the only all steel gas tractor built. It will wear out in time, but not break down, and leave you helpless in the middle of a rush season.

Its driving wheels—its crank shaft, its gears will withstand years of jars and tremendous strains with but little sign of wear. Driving wheels are exceptionally strong—built up of steel—hubs and all. The whole tractor is staunch—solid—a veritable giant for strength—compact—well knit together—getting a grip on the ground through its wonderful wave-form wheels, driven by an always ready motor.



An Example of Superior Hart-Parr Construction

The illustration selected from many similar ones in our new 52 page catalog, shows a sectional view of the rear axle of the "40." It proves how faithful we are to our principle that no detail shall be overlooked that will insure giving our buyers a thoroughly dependable tractor.

Long-Life Bearings

The rear axle and differential shaft bearings are bronze bushings, with grease grooves turned in the outer surface, and drilled full of holes for storage of grease. The rear axle is bushed at each end with phosphor-bronze 13 inches long. Bushings turned outside and inside, presenting two bearing surfaces, so that sticking or cutting is impossible. This style of bearings is strictly original with us and found on no other tractor. All other bearings are generous in size and arranged in the form of bushings, and easily replaceable.

The differential gearing is of steel, is enclosed and practically indestructible. The cross shaft runs in Hess Bright Ball Bearings, making it frictionless. The master pinions, as well as driving wheel hubs,

have flanges which form dust collars protecting the differential shaft bearings and rear axle bearings. These parts are unseen, but after the tractor is in the field—plowing, discing, seeding, season after season—the extra care and quality we put into these bearings, and throughout the entire tractor, shows up in years of constant service with few repairs; and saves you a lot of money in the long run.

Hart-Parr Service Follows Hart-Parr Tractors Everywhere

When you buy a piece of machinery you want to know that you can get repair parts and supplies without a lot of bother and delay. That's one great advantage in owning a Modern Farm Horse. Hart-Parr branches or supply headquarters are maintained at 20 points for the convenience of our customers.

Small Repair Bills

The prices on Hart-Parr repairs are lower than on any other tractor, or other farm implement. We do not aim to make a large profit on our repair business, as most machinery builders do. We will sell you every part necessary to build one of our tractors for a little less than the price of the finished tractor. Do you know of any farm implement you can buy out of a repair list for the price of the finished machine? This shows that the prices of our repairs are very moderate and assures you of low repair bills.

A brand new 1912 catalog—52 pages, is yours for the request. It clearly describes the Hart-Parr—tells why you should own it—gives details of construction—demonstrates by illustrations and drawings the superior construction. Send for it and our other literature showing the wonderful possibilities, economy and profit in farming with a Hart-Parr Tractor.

We make four sizes—one will surely fit your farm.

HART-PARR COMPANY, 212 Lawler St., Charles City, Iowa.

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address:

The Lawrence-Williams Co., Cleveland, O.

SPLENDID CROPS

In Saskatchewan (Western Canada)

800 Bushels from 20 Acres

160 ACRE FARM IN WESTERN CANADA FREE

of wheat was the thrasher's return from a Lloydminster farm during one season. Many fields in that as well as other districts yielded from 50 to 85 bushels of wheat to the acre. Other grains in proportion.

Large Profits are thus derived from the FREE HOMESTEAD LANDS of Western Canada. This excellent showing causes prices to advance. Land values should double in two years' time.

Grain growing, mixed farming, cattle raising and dairying are all profitable. Free Homesteads of 160 acres are to be had in the very best districts. 160-acre pre-emption at \$3.00 per acre within certain areas. Schools and churches in every settlement, climate unexcelled, soil the richest; wood, water and building material plentiful.

For settlers' low railway rates and illustrated pamphlet, "Last Best West," and other information, write to Supt. Immigration, Ottawa, Can., or Can. Gov. Agt. Canadian Government Agent 125 W. 9th St. Kansas City, Mo.

The Modern Silo For Modern Farms

Silos are an assured success. The question for you to settle now is what kind of silo to get.

The best is the beginning is the cheapest in the end. Everlasting Silo built of Denison's Angle Cut and Curved Hollow Clay Blocks - is now recognized as the best most modern form of silo construction known.

Rust Proof, Wind Proof, Frost Proof, Moisture Proof, Fire Proof. Needs no painting or repairs.



Thousands built last season. Recommended by Agricultural Colleges.

Denison's Hollow Clay Silo blocks are perfect blocks. Made in 3 styles. Angle cut or curved.

SAMPLE BLOCKS FREE

Go to your dealer and see these blocks. If he has none tell him to write us and we will send sample blocks free.

Hanson City Brick & Tile Co. 635 State St., Mason City, Ia.

Valuable Silo Book FREE. Tell all about it. Give full name, address, and number of construction blocks needed. Shows the styles of Denison's Hollow Clay Silo Blocks. Explain why they are best. Write for book today.

STOP HIGH HARD LIFTS

Electric Low Down Handy Wagons, Complete

Make hauling easy. Carry any load and are best suited to all farm work. Broad tires make good roads, avoid rutting and greatly reduce draft for horses.

Electric Steel Wheels for Your Old Wagon

Best way to make your wagon over, good as new. We send wheels to fit any size axle and make an end of tire setting and repairs. Send for free catalog.

ELECTRIC WHEEL CO., Box 34, Quincy, Ill.

ADAM'S RAPID LUMP JAW CURE

One application guaranteed to cure permanently without scar or money back. Easy to use. Quick and positive. Ten years in successful use. Circular free. Write today.

H. O. ADAMS MFG. CO., Box 82, Algona, Ia.

9 CORDS IN 10 HOURS

RUNS KASY

Backache weighs only 41 lbs. **SAWS DOWN TREES**

SAWS EASILY

BY ONE MAN. It's KING OF THE WOODS. Saves money and backache. Send for FREE catalog No. B40 showing low price and testimonials from thousands. First order gets agency.

Folding Sawing Mach. Co., 161 W. Harrison St., Chicago, Ill.

LIVE STOCK



A tank heater is worth a lot in these cold, stormy days to the man who has a herd of dairy cows. It is all wrong to compel a dairy cow to drink ice water. She will not drink as much cold water as she ought to in order to produce a big flow of milk, but when the chill is off so that her body temperature will not be materially lowered by drinking her fill, she will not only drink more, but she will require less feed for heating that water up to body temperature. The feed thus saved she will turn into milk and butter-fat.

The hog is a home market for the coarser grains and grasses. The hog is a factory which turns these crude products into a highly valuable foodstuff. The hog is a product for which there is always a market. The hog doubles the value of the grains and grasses which are fed to him. The hog is a self-oiling machine, needing only materials and supervision. The hog, as a live animal or as a carcass, is a readily salable commercial product, and the hog is a profit maker in all these capacities.

The presence of a water system on the farm implies the presence of a sewer system as well. But even if the water system is not yet established, the sewer system is necessary. If the buildings are on an elevation the problem is very simple. If they stand on flat ground a septic tank may be necessary. Proper sewerage is essential to good health. An inspection of the back yard of the farm home which does not have a sewer system, if made after the snow has melted, will show plenty of reason for the building of one.

A subscriber who has eight acres of Kafir which he has cut and shocked, and about two-thirds of which was headed out, has a chance to feed this out to a bunch of cattle owned by a neighbor and retain the manure on his own land. He asks what would be a fair price for such fodder. As our subscriber lives in a portion of Shawnee County where there is no great amount of Kafir raised, it is difficult to say. During the severe cold weather when hauling was almost an impossibility, the price quoted for such fodder was \$8 per ton, but over the state the prices seem to range from \$4 to \$5 per ton this winter.

If our subscriber has plenty of help which is not otherwise engaged, and can take the cattle at these prices, it is believed that he will make a good trade, as he will get market value for his fodder and will save the hauling and the manure.

Angus Breeders' New Policy.

The American Aberdeen-Angus Breeders' Association has adopted a new policy which ought to do much for the advancement of the splendid cattle which they represent and set an example for other associations.

This Association announces a series of spring bull sales, to be made up of animals contributed by the members, but sold under the auspices of the Association. Such spring sales of bulls are very successful in England, and they will undoubtedly prove so here.

The unique feature of these spring sales will be found in the judging of the animals and awarding cash prizes before the sale. Twenty-five dollars will be distributed in six prizes, ranging from \$8 for first prize, to \$2 for sixth. Bulls 2 years old or over will be judged in one class and bulls under 2 years in the other, each class receiving the same classification and money.

Under this new plan members of the Association as consignors of cattle will have the support and prestige of the Association, and on the other hand prospective buyers can attend the sales with the utmost confidence they will get a square deal and animals guaranteed by the American Aberdeen-Angus Breeders' Association through its members. The auction form of selling and buying animals becomes more popular as time advances. It is to be hoped every member of the Association and everyone interested in the breeding and popularizing of Aberdeen-Angus cattle will lend their hearty support toward this wise and

practical form of disseminating good Aberdeen-Angus blood throughout our country.

Mule Foot Hogs and Cholera.

Mr. C. E. Quinn, who was detailed by the United States government to make special investigation of the Mule Foot hog, in a late letter, said:

"I have interviewed many breeders of Mule Foot hogs and have never found one who has lost any from cholera. Many have made cholera tests by turning their Mule Foots in lots where other hogs were dying of cholera, or had died. Sometimes the Mule Foots ate the carcasses, and they ate and slept in the same quarters, yet no Mule Foots were sick or died. This is the claim made by all breeders of this hog, and some even go so far as to sell with guarantee against cholera. I may say I got these returns from over a dozen states where they are raised. I know of no veterinarians who have made any tests with the breed, and I was only successful in getting one experiment station to take up any experiments with them before I quit government work. The Missouri Station promised to do some work last year, but I can not say what they did. In short, I would say that the Mule Foot, so far as tested by farmers, has been immune from cholera, is a vigorous, hardy hog, a good rustler and active, and seems to have lots of vitality, and that crossing on other breeds reduces the vitality proportionately and lessens their immunity from cholera and kindred diseases."

The Royal Remains.

At a recent meeting of representatives of the American Royal, the Union Stock Yards, the Burlington Railroad and the Kansas City Commercial Club, arrangements were made by which the American Royal will retain possession of its present location and will have the use of 15 acres of additional land which belongs to the Burlington Railroad on a 20-year lease.

The agreement by which this happy solution of a grave matter was reached is as follows:

"Recognizing Kansas City's desire to retain the American Royal Live Stock Show for Kansas City, the Burlington Railway Company offers to rent, upon execution of a satisfactory lease, to the American Royal Live Stock Show the 15-acre tract of land just south of the present location for a period of 20 years, at \$5,000 a year and taxes, approximating a total of \$8,000 a year, less any remission of taxes granted to the American Royal Live Stock Show.

"The Kansas City Stock Yards Company agrees, upon completion of this lease, to erect free of expense to the American Royal Live Stock Show, upon this ground, suitable buildings and equipment to accommodate the show to cost between \$75,000 and \$100,000, and place them at the free disposal of the American Royal Live Stock Show.

"The Commercial Club agrees to pay the rent on this tract of ground for the American Royal Live Stock Show."

This agreement shows great liberality on the part of the railroad company, as their land is valued at \$375,000, the interest on which would be about \$18,000 per year, and the taxes about \$3,000 more. It also shows the progressive spirit on the part of the Kansas City Commercial Club, which has made that town great.

This action leaves the American Royal in its old home, which will be enlarged to fit the size of the show. It also leaves the Royal officials free of any encumbrance or worry as to their future location, so that they can devote their entire energies to the building up of even a larger Royal.

Hog House Roofing.

As mentioned in these columns a few weeks ago, there is a considerable number of swine breeders and farmers in Northeastern Kansas who roof their hog houses with corrugated galvanized iron. This material is used because it is cheaper than shingles and more lasting. It is open, however, to the objections that it is so susceptible to changes in temperature, and becomes very hot in

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the summer sunshine and cold at night and in the winter. It also presents difficulties in construction of the hog house by which it is hard to prevent drafts of air under the corrugations.

As the hog is the only animal which never sweats, the matter of air drafts in his sleeping apartment is a serious one, because of the ease with which he catches cold.

One of the largest growers of swine in Kansas, and a man who is very successful in his business, has solved the question of iron roofing, and siding, also, on his hog houses by the use of roofing paper. He covered the entire roof and sides of his very large hog barn with one of the best advertised papers, over which was nailed the corrugated iron. He finds that this plan has entirely removed the trouble caused by sudden changes in temperature and has allowed him to perfectly control the ventilation. Some farmers think the building paper alone is sufficient, and there is no doubt that it is effective, but this particular man prefers both paper and corrugated iron.

Not Cornstalk Disease?

How many cattle have you lost this year? Did they have cerebro-meningitis? Perhaps you blamed the deaths to frosted feed, and let it go at that, but the veterinary department in the Kansas Agricultural College was not satisfied to accept this as the cause; and, to satisfy itself, instituted a careful investigation. The result, made public today by Dr. T. P. Haslam, a pathologist, shows that 17 deaths of cattle investigated by him were due to cerebro-meningitis. The brains of these 17 animals came from widely separated parts of the state. Dr. Haslam discovered that the brain and spinal cord in every instance were severely diseased. The same germ was found in each in great numbers.

When these germs were planted in food upon which most germs thrive they failed to multiply, but when supplied with a broth of calves' brains, about three weeks ago, growth and vigor were at once apparent. This has so encouraged Dr. Haslam in his researches that he has expressed a desire to continue the effort definitely to establish the cause of the great losses in live stock and if possible, to designate a preventive, or remedy. To do this he will need about 25 cattle heads, or brains, to examine, this year. The work requires the co-operation of everyone losing stock from the so-called cornstalk disease.

"The department will pay transportation charges on these heads," Dr. Haslam said. "Just two things are to be remembered in sending them: They must be taken from the animals very soon after death, and must be packed in ice when shipped. The best method is to cut off the whole head and take it to your nearest graduate veterinarian, who will take out the part we need, and pack it in a bucket, surrounded by ice. Buckets used in shipping candy are excellent for this purpose. The veterinary department will promptly report the findings. Many persons are eager to have a preventive or cure for the disease. Recoveries are rare.

"Every farmer in the state should help the College to learn whether the danger disappears from the stalks on drying or freezing. We would like to hear from them and to have records of their cattle this year, whether they have lost any or not. By sending answers to these questions, addressed to the veterinary department of the college, they can be of real service:

1. Number and age of cattle pastured on the stalks.
2. Acre yield of corn this year.
3. Date when cattle were first turned on the stalks, and precautions taken.
4. How long were the cattle pastured in this field?
5. How long after turning into the field was the first loss of cattle, if any?
6. What were the symptoms of the animals that became sick?
7. Are you still pasturing cattle on cornstalks?"

The experience of Henry Williams of Smith Center, Kan., reported by Dr. C. W. Hobbs is a good example. A herd of 170 cattle was pastured for about three weeks in a stalk field without any loss. The herd was moved December 1 to an 80-acre pasture of prairie grass. In this pasture was a 15-acre stalk field. In three days 10 of the cattle died and eight more were sick. These eight died that day.

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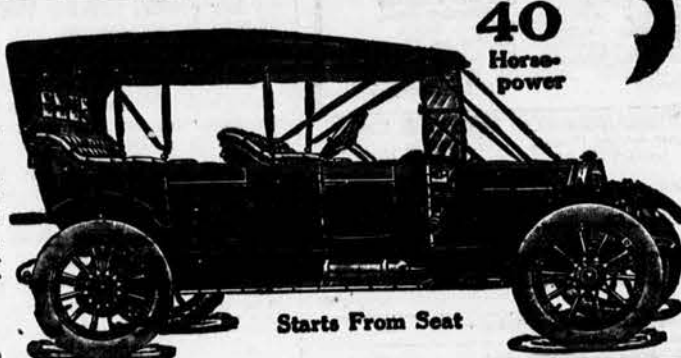
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DAIRY



Breeders of dairy Shorthorns are forcing the attention of dairy farmers to their cows. A dairy Shorthorn breeders' association has been organized and that association will attempt to develop cows of large milk production, as have the associations of the strictly dairy breeds. KANSAS FARMER a few weeks ago told of the showing made by dairy Shorthorns at the National Dairy Show.

The Maryland Experiment Station piled up 80 tons of manure in a heap and let it stand for a year. At the end of that time it had lost in weight 53 tons and no one knows how much in value. The place for manure is in the field—get it there as soon as possible. Haul from the barn directly to the field. Clean up the feed yards in the early spring. The loss of manure value is one of the big leaks in our present farming system.

At last the great record of the Holstein cow, Colanthe 4th's Johanna, has been eclipsed. It is about five years ago that the dairy world was startled by her wonderful record of 1,247 pounds of estimated butter in one year. Since then many cows have tried to dethrone her as the dairy queen, but they all fell short until recently when Pontiac Clothilde De Kol 2d, a New York Holstein, finished a year's work with 1,271 pounds, determined in the same manner, to her credit, beating the former record holder by 24 pounds.

KANSAS FARMER does not preach fancy dairying. It does not stand for a thing in dairying, or for that matter in any other line, that is not practical. We are not touching on the finer points of the game—we are urging the fundamentals only. The editor could not discuss many matters from a strictly scientific point of view if he so desired. He was reared and educated on a farm where there was time only for the practical. It is enough to discuss the practical. It is education of real value to be able to separate the practical from the theoretical, and that is what we are doing for you.

The observing milker will notice that when the cow is well along in the period of gestation she will show a disposition to stop secreting milk. If the milker is ready to accept this situation and leave some of the milk in the udder for a few days after each milking and then milk but once a day for a short time, then every other day for a few times, there will be little difficulty in drying off a cow successfully. Of course, care should be taken after milking has ceased to look after her udder for fear that accumulations may form that should be removed.

A bulletin of the United States Department of Agriculture says: "The farm separator tinware and bowl should be thoroughly cleaned and scalded after each separation. After each separation the cream should be immediately cooled and kept cool by setting in cold water; the cream should be stirred occasionally; the cream should be delivered in clean cans not less than twice per week in winter and three times per week in summer; in transit the cans should be covered with a dry blanket or jacket in winter, and with a wet blanket or jacket in summer; cans should be reasonably full of cream in transit to prevent churning.

The building of a really profitable dairy herd on the farm will result in the removal of the so-called "drudgery" in connection with cow milking. It is the miserably small yield per cow and the consequent small cash return which causes many a man to object to dairying. He really does not object to the work, or kind of work, but objects because he feels it does not pay. You do not hesitate a moment on doing any honorable job which you know will pay. When improvement in any line is begun objectionable features begin to remove themselves in proportion to the advancement made.

Uniformity of cream tests is a thing much sought by the farm dairyman. To obtain uniform tests the separator should be operated at uniform speed and uniform conditions regarding temperature, etc., are necessary. Then if the tests are to be uniform and accurate, the cream must be in such condition, when sampled, that a fair and representative sample can be taken. If, at the time of sampling, the cream is too thick, is tough, dry and leathery on the surface, is partly churned or curdy, it is difficult to secure a fair sample, and tests of such cream are likely to be irregular as well as inaccurate. However, varying cream tests do not indicate that the patron is not being paid for all the butter-fat he delivers. Absolutely uniform tests of hand separated cream are almost impossible on account of the manner in which the separator is handled.

On every farm should be milked all the cows the help will permit. If ten cows is the measure of the dairy herd, let these ten cows be the best. The herd should improve a little each year. It will, if given the advantage of a bull whose ancestry has been good producers. It is little more trouble to grade up the dairy herd than to improve the hog or horse stock. The improvement of the latter depends upon the use of a good sire. You buy a good boar, you patronize a good stallion, for the same reason you should buy a dairy bred bull. Ten good cows on every farm in Kansas would revolutionize agricultural and financial conditions in this state. The maintenance of such a herd will not detract from any other industry of the farm. You will grow as much wheat and corn as formerly, and have a lot more money to use in your business.

The high prices of butter are wholly due to a shortage in butter supply caused by the dry weather of last summer and fall and the consequent shortage of feed. High butter prices have given the packers an opportunity to market butter substitutes and curtail the demand for the farmers' butter and so take from him the velvet for his butter product. The lesson of it all is that we must have cow owners who will learn how to grow and conserve good cow feed, which feed, to a good cow, will enable the production of butter at a reasonable cost and with good profit to the producer. The people of the cities of this country will eat butter at reasonable prices. The farmers' product has no value except for the price it will command in the market. If there is no market his commodity is worth nothing. Oleo manufacturers are already arguing that the farmer will not produce butter and that the working man should have low-priced substitutes for butter. The farmer can produce butter at a handsome profit to himself and at a living price to the consumer.

We never knew of a farmer who received from the creamery a large cream check unless he had produced a good big lot of milk. The cream in the can is measured by the quantity of milk the dairy herd produces. A hundred pounds of milk 5 per cent fat will produce five pounds of butter-fat. If the same herd produced 200 pounds of 3.8 per cent milk the butter-fat will amount to nearly 7½ pounds. Five per cent is an unusually high test for a herd, while 3.8 is not far from an average for the farm herd. The point we would make is that few cows test so low that a good flow will fail to make them profitable producers. In other words, the quantity of milk is a more safe guide than the test. In many herds there are cows producing 25 pounds of 3 per cent milk, and such in many cases are not regarded as good cows, while the cow producing a gallon of 6 per cent milk is too often regarded as a top-notch. The scales alone, neither the Babcock test alone, furnish the measure of a cow's value. Together they never fail.

Cows should be dehorned, but the de-horning should be done when the cows are calves. However, to show the ef-

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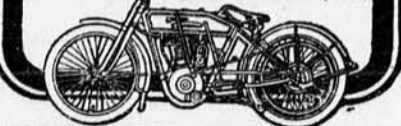
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No running alongside or hard pedaling needed to start the Harley-Davidson. Just throw forward the Free-Wheel Control lever and glide away. The Full-Floting Seat, another exclusive feature, takes up the jolts and jars which are so objectionable on the ordinary motorcycle. Every road seems like a boulevard. The Harley-Davidson holds the world's record for economy and other notable records. Send for Booklet. HARLEY-DAVIDSON MOTOR CO. 430 A Street Milwaukee, Wis.



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Should be used on every horse. Send for it today and prevent accident. Fully guaranteed. Price \$1.50, post-paid. Agents wanted. WESTERN PLATING CO., Topeka, Kan.

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feet of dehorning cows in milk, the following report by Professor Reed of the dairy department of Kansas Agricultural College is interesting: "Twelve cows in our herd were recently dehorned and a record of the milk production of each cow was kept before and after dehorning. The production of the 12 cows for five days before dehorning amounted to 1,142.5 pounds of milk. The total production of the 12 cows for a period of five days after dehorning was 1,100.7 pounds of milk. The total decrease in milk for the 12 cows during the above period was 40.8 pounds. The average daily loss for each cow for five days was only .69 pounds, or about one-half pint. Two of the cows made more milk during the five days after dehorning than they did for the five days before dehorning; the other 10 produced less milk after dehorning. On the fifth day after dehorning all except two cows were producing equally as much, and some produced more than they did the day before they were dehorned."

Early Management; Future Usefulness.

The management of the calf during the first year has much to do with its later usefulness. Plenty of water and salt should be given in clean vessels. Avoid sudden changes of diet and practice regularity in feeding. Provide warm, dry quarters in damp weather. Give plenty of roughage and not too much grain so as to develop a large capacity for handling food as is desirable in dairy animals. When the calf is 6 months to a year old milk may be omitted from its ration and a full roughage and grain diet substituted.—D. H. OTIS.

Feeding and Records.

Intelligent feeding of dairy cattle, and records of their milk and fat production, go hand in hand. The following reasons are given by C. E. Whitley of Ottawa, Ont., why individual records may be valuable guides in apportioning at least the grain rations of cows:

Cow testing allows more discrimination in feeding, apportioning the grain according to the yield of fat.

Cow testing emphasizes the benefit of liberality in feeding succulent, digestible food stuffs.

Cow testing abundantly proves that it pays handsomely to give dairy cows the best of care and kind treatment; this includes regularity as to milking, early stabling in the fall, protection from cold rains, spraying to protect from flies, and above all, particular attention to cleanliness, light and ventilation in the stable. Cow testing demonstrates that many good cows can be kept at a smaller cost of feed. This is not stinginess but economy.

Feeding the Calf Milk.

There should be no better authority in feeding calves than F. H. Scribner, the famous Holstein breeder. It is altogether probable that he rears more valuable calves by hand than any other man in the world. He says:

"Nature has provided something in the first milk that is very essential in getting the calf's digestive machinery started right, and I think it should be permitted to have it. We usually leave the calf with the cow a couple of days, until it is nicely straightened up, then comes the most important time in the life of the calf, when we take upon ourselves its feed and care; and here is where we want to exercise a lot of kindness and gentleness, for if we are impatient and rough in our treatment with them they will distrust and fear us, and the chances are they will never forget those first lessons and impressions. A cow will never do her best unless she has perfect confidence in us."

"It is an old saying that you can catch more flies with molasses than with vinegar; so you can do more by coaxing than driving. When teaching the calf to drink, don't push its head into the pail; wet your fingers in the milk and let it suck, and coax its head into the pail, and usually the second or third time it will drink of its own accord."

"These are three essentials at this time: The quantity of milk, the temperature, and quality. Calves are injured more by not observing carefully these rules for the first few weeks of their lives than any other way. At this age their little stomachs are not strong, and a little care exercised at this time often means the difference between an unprofitable and a profitable animal."

"The amount of feed at this time will depend largely on the calf and somewhat on the nature of the milk. This amount must be determined by the feeder, but this precaution is always advisable—better to begin carefully and work up

to what they can handle, rather than to begin with a large amount and get them off their feet and then have to commence all over again."

Milk House for Every Farm.

Every farm should have a milk house. The usual farm arrangement is such as to provide good and convenient location. A 10 x 12-foot milk house is a good size for the average farm. It should be built with a cement floor and have a drain at the center to carry away the waste. The equipment should consist of a refrigerating tank (30 x 36 inches, inside measure, and this will accommodate four milk cans), a cooler and aerator, wash and separator.

A windmill on the side nearest the refrigerator tank will pump cold water from the well into one corner of the tank. The water circulates around the cans and flows out at one side through an overflow pipe. This overflow pipe leads into a watering trough and the water is used for watering the stock instead of being wasted.

No farm where any quantity of milk is handled should be without a small milk house. A milk house the size described can be built for a small amount of money, and will save much of the labor required on the farm in taking care of milk.

Value of Manure From Dairy Cow.

Figures from experiments by Illinois Experiment Station, are: The manure is figured at 11 tons per head for cows producing 8,000 pounds of milk. On the 20-acre dairy farm at the University last year cows which were kept in the barn during the winter and in a dry lot during the summer produced 13 tons of manure per cow. The average value is considered at \$1.50 per ton. At the Illinois Agricultural Experiment Station, on a three-year rotation of corn, oats and clover, manure has increased the crop yield \$1.60 for each ton of manure used, figuring the market value of the crops, for the first three years after it is applied. No consideration is taken of the increased production from the effects of the manure after the first three years. At the Ohio Experiment Station the value of the crop yields has been increased \$2.34 for each ton of manure used. From the figures above stated, \$1.50 a ton is a conservative value on cow manure which has been well cared for. Cows which produce less than 8,000 pounds of milk will produce, on the average, less than 11 tons of manure. Cows producing more than 8,000 pounds of milk will not only produce more manure, but it will be of a better quality, owing to the fact that they are fed more concentrates. For these reasons the value of the manure is lowered 50 cents per cow for every 1,000 pounds decrease in production of milk below 8,000 pounds, and raised 50 cents per 1,000 pounds increase in production above 8,000.

Quality Vs. Price.

In connection with the recent purchase of some Holstein cattle in Wisconsin by the New Zealand government, Hoard's Dairyman says:

The other day the senior editor of this paper purchased for the New Zealand government a 2-year-old Holstein bull for \$1,200 and a couple of 2-year-old heifers for \$1,000 each.

These are long prices, but the secretary of agriculture for New Zealand who sent us nearly \$6,000 to invest in such cattle, said: "Buy the best you can get." It will cost in addition about \$400 apiece to pay the expense of their transportation and an attendant to the place of destination.

This incident brings to mind a remark we once heard made by the late Thomas Hughes, the noted Guernsey breeder of Pennsylvania. Speaking of the men who had succeeded in producing the best cattle, he said:

I never knew of a single instance where a man made any lasting improvement in his cattle who was looking for a cheap bull. He might, it is true, run onto a good animal by accident, but the bulls that are worth buying have, as a rule, been bred by men who for years have made a thorough, conscientious study of their herd.

It will be noticed every time that such breeders pay but little attention to the price when they buy a bull if they can get what they want.

There are a good many young farmers starting out to make good cattle breeders of themselves. The thing more than anything else that will cut the ground from under their feet will be the sacrificing of quality to price, when they should sacrifice price to quality.

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There is no need to fit and adjust parts to get them together right. They are so made that they cannot help go together right. All bearings and bushings are easy to replace. There are no complicated springs, keys, ball bearings or other fittings, that only an expert can properly adjust.

A person who has never touched a separator before can, if need be, unassemble a modern De Laval machine down to the last part within a few minutes and then re-assemble it again as quickly. This is something which cannot be done outside a shop with any other separator.

The only way to properly understand and appreciate De Laval superiority to other separators, is to look over, and better still to try, a 1912 De Laval machine. Every De Laval agent is glad to afford prospective buyers the opportunity to see and try a De Laval Separator.

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Engine Undermounted—like a railroad locomotive. No weight of cylinders or gearing carried on top of the boiler. Absolutely no pulling or twisting strains on the boiler, to cause leaky bolts, sprung shafting or bulged boilers.

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last longer because the boiler is free from traction strains. The straight line pull direct from cylinders to draw bar makes the Avery Undermounted the most powerful and best pulling engine built. The Avery steers easier, belts easier, handles easier. It's almost like running a railroad locomotive to sit in the cab of an Avery and handle the throttle and reverse. You can also handle the new Avery "Self-Lift" Plow from the engine. Pull a rope and the "power lift" device raises and lowers the plows.

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You need all the facts about this improved engine. The greatest all-around engine built. For threshing, plowing, grading and general traction and belt work. Learn what undermounted construction means. Also about the new Avery "Self-Lift" Plow. Ask for Free Avery Undermounted Engine and "Self-Lift" Plow Book at once. Write today. Address AVERY COMPANY, 1401 Iowa St., Peoria, Ill. Also manufacturers of Avery Gas Farm Trucks, Gas Traction Engines, and "Yellow Fellow" Grain Threshers.

Before You Milk Your Cows Again Write for the GREAT WESTERN FREE SEPARATOR Book Sent



Our free book is a gold mine of cream and butter-profit facts. It tells you how to get all the cream, highest quality cream, with least work and biggest profits for the longest term of years. It shows you in plain figures how to make from \$5.00 to \$15.00 more from every cow, per year, whether you now own a cream separator or not. Don't you want this great book, FREE? Get all the

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Read about the Great Western. Note that the bowl delivers cream from the top and skim-milk from the bottom, so there's no chance of their mixing. It is self-draining and self-flushing; there are no long tubes, no minute slots, corners, crevices, or ragged edges to hold milk and collect dirt. The Great Western is ball-bearing throughout. Perfectly uniform balls, 50 to 100% harder than regular. Ball races tempered so file cannot touch them. We will arrange for you to get a Great Western on any kind of a trial to prove our claims are not strong enough.

Now! Just mail us your name and address on a postal for the big, fine, illustrated Great Western Book.

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MADE TO FIT EVERY TYPE AND STYLE OF RIM

THE enjoyment you get out of an automobile depends very largely upon the kind of tires you buy. There's little pleasure even in the best car made if you are always buying new tires or having trouble with old ones.

The farmer, above all others, can least afford to buy tires on a price basis. Country roads are much harder on tires than are city streets and repair shops are farther apart. Yet most automobile tires are designed to run on smooth pavements.

The staunchest tire, the tire that is really dependable on country roads, and the tire that will give Greatest Mileage on your automobile under your conditions is the Diamond Tire.

It is the oldest tire in America. Fourteen years of the most successful tire building have given Diamond engineers and chemists and workmen the experience and skill needed to make the tire that will give Greatest Mileage.

No matter what car you own, no matter what its style of rim may be, there's a Diamond Tire to fit every style, type and size of rim.

If you are about to buy a new car insist that it be equipped with Diamond Tires before you place the order. The car will cost no more with Diamonds than with cheap tires.

Remember—the car maker does not guarantee the tires on the car he sells you; his responsibility ends there but yours begins.

There are Diamond dealers everywhere—there's one near you. And Fifty-Four Diamond Service Stations that take care of Diamond tire users. If you don't know who is your nearest Diamond dealer, write

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GOOD ROADS

FOR THE IMPROVEMENT OF GOOD ROADS BY VERY SIMPLE METHODS

Kansas Road Routes in Blue Book.

Routes and other data in connection with three Kansas roads will appear in the 1912 Bluebook, the national motorists' publication. One of the roads to be catalogued runs from Kansas City to Emporia, via Topeka and Osage City. The second route runs from Topeka to St. Joseph, Mo., via Hiawatha and Atchison. The third runs from Topeka to Denver, Colo., via Manhattan and Colby.

Fort Riley-Leavenworth Road.

The bill providing for a military highway between Forts Riley and Leavenworth, by the way of Topeka, will receive the consideration of the House Committee on Military Affairs during this session. Hearings on the measure will be held some time soon and Representatives Anthony and Rees will appear before the committee in support of the measure. The chances for a favorable report from the committee are deemed good, but there is much uncertainty as to what the action of the House will be on the matter when it comes up for consideration there.

For Visitors' Accommodation.

During the past few years the number of visitors to the Goodyear plant, makers of No-Rim-Cut tires, has increased so rapidly that it was found impossible for the officers of the company and their assistants to show each visitor through the plant as they would like to. To eliminate this and at the same time insure their guests the best of attention and an intelligent explanation of each operation in the factory, a canvass of the employees was made for a man who had a thorough knowledge of the details of tire building and factory methods and at the same time possessed the qualifications to present this information in an interesting and instructive manner.

Tremendous Tire Trade.

An idea of the marvelous growth of the motor car industry and its allied interests may be gathered from an estimate of the number of tires that have been manufactured in this country during the past five years. Such an estimate has been made by R. R. Drake of the United States Tire Company. "I figure," says Mr. Drake, "that since the beginning of 1907 the tire makers of America have marketed in the neighborhood of 8,000,000 pneumatic tires, the yearly output being as follows: 1907, 900,000; 1908, 1,050,000; 1909, 1,350,000; 1910, 1,800,000; 1911, 2,900,000; total, 8,000,000.

"While 1911, as will be observed from these figures, proved the biggest year for tire makers in the history of the industry, there is no question but 1912 will beat it. In fact, we are looking for a demand that will approximate 3,000,000 tires. And when you get to calculating tires in millions, as manufacturers must do at the present time, you gather an idea of the sizable proportions of the industry."

Some Auto-Do-Its.

It is not wise to run over a board that perchance may lie in the road. If there is a nail in it, a punctured tire may result. It only takes a fraction of a minute to stop and throw the board out of the way.

Don't kick about broken glass on the road if you now and then throw an empty beer bottle by the roadside. Eventually it will get back in the road, perhaps to blow out somebody else's tire.

Nature has done many things, but don't deceive yourself by thinking that good roads grow without being made.

Be considerate of the farmer with a nervous team. Some day he may be an automobile owner and play even.

"Self-preservation is the first law of nature," so it pays to take heed while passing over dangerous roads and approaching railroad crossings.

Every motorist should be a booster—an advocate of better roads, of better streets and of preserving the beauties of nature along the traveled highways.

It is easy to say "Thank you" to the driver of a team who pulls aside to let you pass, and an added pleasant word will make you feel better and make one more friend for the motorists.—Farm Motorists.

Federal Aid for Roads.

A surprisingly large proportion of the members of Congress, and others in public life, have placed themselves on record in favor of federal aid for public highway improvement. Among the strong supporters of this idea is Representative Oscar W. Underwood, leader of the majority in the lower House. Congressman Underwood said recently: "There is no question in my mind about the attitude that the Government should take on the question of aiding in the building of interstate public roads. At this time, when the treasury is not in very good shape, it might be inadvisable to press the matter, but the time is not far distant when the Government will take the advanced stand of giving federal aid to the building of important interstate highways. Nor is there any question of the constitutional right of the Government to give such aid. It was done in the case of the old Cumberland road, and was abandoned because of the necessities of war. When the Government can afford to make the necessary appropriations, the system of federal aid should be restored."

Reliability of Motor Truck.

Unusual interest is being shown in light delivery power wagons by wholesale and retail merchants whose trade demands prompt, economical and reliable delivery of goods. R. E. Olds of the Reo Motor Car Company says that one user of his trucks reports that for the last six months his Reo truck covered 4,553 miles, making 3,773 stops. His six months' expense for gasoline, oil and repairs was \$78.86—fifty cents per day, which is less than 1½ cents per mile. He earned with the truck, during those six months, \$900.54, or \$150 more than he paid for the truck. This is but one instance of hundreds of others where the truck has shown its supremacy over the horse, both in economy and efficiency. Here in Topeka, where horses groaned and bled in the deep snow and on the slippery and icy pavements during the recent storms and as a natural result thereof serious congestion of traffic followed, the gasoline truck performed its strenuous duties with as striking regularity and dispatch as it does in more favorable weather.

Practical Good Roads Building.

Governor West of Oregon is sponsor for an experiment in the employment of convicts in permanent road building in the state that is not only unique, but commendable, both from the standpoint of the welfare of the convicts employed and the building of permanent highways at a minimum cost. The men—there are some thirty of them in the group referred to—are what the governor calls his "honor squad" and have been hired out to the contractor having in charge the building of a state highway. Their camp has been placed in a picturesque spot on the Rogue River, and here the men are today laboring contentedly and healthfully, with no one to look after them but the overseer who is superintending the work. The men are comfortably housed, well fed and receive 25 cents a day besides for the labor. The plan seems to offer a happy solution of the "bad man-good roads problem," and is deserving of the careful investigation by those who are interested not only in building permanent highways at a minimum cost, but, what is even more important, redeeming and fitting for citizenship the myriads at present confined in prisons, at once a source of heavy expense and usually a menace to society when released.

Cold Weather and Engine Troubles.

Recent severe cold snaps have caused farmers considerable trouble in connection with their gasoline engines which can be avoided. In extremely cold weather batteries should be kept in a warm place and attached to the engine when needed. Cylinders should be warmed with a small torch made of burlap wound round a long bolt and soaked in kerosene, the heat from which can be drawn into the cylinder by turning the fly wheels after the spark plug has been removed.

It takes more brains to be a good farmer than to be a good retailer of merchandise. The boy who doesn't believe this, and goes to the city to become a business man, makes a mistake.

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Where's the lumber for the
world's use to come from pretty
soon if farmers don't start growing
timber? The great forests are
going, and merchantable timber
will soon be exhausted. The farmer
who has land which produces less
than \$30 per acre can make a lot
more than that by planting to
timber now against the coming day
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many years. Fruit sells well
everywhere, is wholesome and
delicious. Never enough on
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**Strong Concord
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Yield quantities of luscious fruit. Best
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The biggest plant bargain of the season.

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We have the largest varieties of tomatoes in the world.
Specimens have been grown weighing over 4 lbs., and
of superior quality and flavor. Can you do as well?
It's certainly worth trying. Send 10c, stamps or silver,
and we will send a trial packet (50 seeds) of each of these
varieties, viz.: Majestic, Red
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\$75 IN PRIZES

are offered for the
largest tomatoes
grown this year.

Full particulars
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Ask for our com-
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and standard sorts
vegetable, flower
and farm seeds. Dept. 40

Iowa Seed Co.

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Weights
Over 4 lbs.

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.....I. D. Hibner, Olathe
Chairman of Woman's Work Committee.....

In the fall of 1910 the Kansas State
Fair offered a special premium for
Grange exhibits, and this resulted in one
of the most attractive features in the
Agricultural building. Last fall the
same premium was offered by the Fair
Association, but it did not bring out a
creditable exhibit. It seems to me that
Grange exhibits are so important as edu-
cational features that the Granges them-
selves should offer premiums in addition
to those offered by the State Fair Asso-
ciation. In a strong county like Shaw-
nee, which has 10 Granges, the special
premiums could be offered in the name
of the Pomona Grange, and after the
exhibits had been shown at the county
and state fair they could be placed on
exhibition at the American Royal or
the International Live Stock shows, the
National Land show, or some other place
where it would be the means of attract-
ing attention and immigration to Kan-
sas. The more people we have in Kan-
sas the larger will be our home mar-
kets for that which we produce.

Another thing that would bring good
in several ways is the holding of local
winter corn shows. The local Granges
could unite in the purchase of a small
cup or trophy, and this could be com-
peted for each year by the Granges in
that county with the understanding that
it would have to be won three succes-
sive years before it became the property
of the winning Grange. Shawnee County
already has several Grange fairs which
are held in the fall, but these come too
early for the best display of corn. The
corn show could be held in connection
with the winter institute and would add
greatly to the interest, besides result-
ing in a very marked increase in the
quality and yield of the corn crop of
that county.

The good roads movement, about
which we hear so much, is not alto-
gether in the interests of the city auto-
mobile owner who wants to take an
occasional ride in the country. Statis-
tics show that there are about as many
owners of automobiles living on Kansas
farms as there are living in town. If
you own an automobile you can join
with the other owners in your desire
for good roads. If you do not own one,
you need a good road all the more. With
the use of the King drag at the proper
time, followed when the road has been
gotten into thorough condition by a coat
of Kansas crude oil, the Kansas road
can be improved many hundred per cent
and at a comparatively low cost. It is
much cheaper to have such a road, even
if it does cost something, than it is to
pay out more money for blacksmith
bills, harness bills, and veterinary bills,
which you must meet year after year
when the roads are bad.

One of the most profitable invest-
ments that a farmer can make and one
that should be made before any other,
is the purchase and installation of a
system of running water in the house.
The cost is low where the bulk of the
work can be done by the farmer's own
force. Water can be piped from the
windmill tank to any portion of the
house, and the additional expense of a
few dollars will provide for a tank heat-
er, which will supply hot water at any
tap. The Agricultural College expert in
domestic economy estimates that such a
plant, including an underground pres-
sure tank, can be installed for less than
\$200.

Hawkeye Grange.

The Grange at Canton held a public
session in the G. A. R. Hall on Wednes-
day afternoon, and National Organizer
C. B. Hoyt installed their officers, as-
sisted by Mrs. Hoyt. Good music and
recitations by Miss Hoover of Manhattan
and an address by Mr. Hoyt were fol-
lowed by sandwiches, coffee, candy and
fruit, and several new names were se-
cured. The officers were as follows:
Master, F. M. Landers; Overseer, T. L.

Humble; Lecturer, Mrs. F. M. Landers;
Steward, C. Ledbetter; Assistant Stew-
ard, Louis Eppler; Chaplain, J. M. Sum-
mers; Treasurer, Alex. Shultz; Secretary,
E. Gurd; Gate Keeper, T. F. Gurd; Ceres,
Mrs. Tinsley; Pomona, Addie Summers;
Flora, Mrs. A. Shultz; Lady Assistant
Steward, Mrs. D. Serviss.

The Grange a Moral Power.

To be successful any enterprise must
be moral—must have beneath it the
strong foundation of morality. No or-
ganization can stand the test of time
unless it has in its makeup strong moral
principles. The world demands upright-
ness both in persons and associations;
and the individual or the organization
that seeks success by any other road
than the highway of morality must
eventually end in failure—and should
end in failure. The Grange is a moral
organization. It never could have with-
stood the test of 45 years before a criti-
cal public if it had not been built upon
a moral foundation. Yet we have met
people who inquired whether any so-
called secret organization can be moral.
Such inquiries generally come from per-
sons who know but little of secret or-
ganizations. Really the Grange is secret
only in the sense of being private. Its
meetings are held behind closed doors
because otherwise those would come who
have no interest in agriculture and the
organization would suffer. Every fam-
ily has its secrets; the Grange is only a
great family of farmers working for
their common welfare and the uplift of
mankind. The teaching of the Grange
ritual is based upon the teaching of
the Bible. Every Grange session is
opened and closed by invoking the bless-
ing of God. The writer has taken every
degree in the Grange, and throughout
every one of the seven the great prin-
ciples of morality are impressed. Cer-
tainly a good Grange in a community,
working in the true Grange spirit, is a
powerful factor for good.

What the Grange Stands For.

To prove to the public that the Grange
has always worked along proper lines,
always the greatest good for the great-
est number, always asking and some-
times demanding reform measures that
were for the benefit of all; never ask-
ing for class legislation knowing, as we
do, that to have this country prosper-
ous and progressive we must all prosper
and progress together, the follow-
ing is given. This progress along reason-
able and just lines of reform is the re-
sult of many meetings where we crys-
tallize our thoughts into equitable de-
mands for the advancement of our fel-
low man.

Along these lines here is what the
National Grange demanded and asked
Congress for 12 years ago. How many
have been enacted into law? Are they
not all just laws and for the general
welfare of all the people?

"1. Free delivery of mail in the rural
districts, and that the service be placed
on the same permanent footing as the
delivery of mail in the cities, and that
the appropriations be commensurate with
the demands and benefits of the service.

"2. Provide for postal savings banks.

"3. Submit an amendment to the con-
stitution providing for the election of
United States Senators by direct vote of
the people.

"4. Submit an amendment to the con-
stitution granting the power to Congress
to regulate and control all corporations
and combinations preventing monopoly,
and the use of their corporate power
to restrain trade or arbitrarily establish
prices.

"5. Enlarge the powers and duties of
the Interstate Commerce Commission.

"6. Regulate the use of shoddy.

"7. Enact pure food law.

"8. Provide for the extension of the
markets of farm products equally with
manufactured articles.

"9. The enactment of an anti-trust
law, clearly defining what acts on the
part of any corporation would be detri-
mental to public welfare.

"10. Speedy construction of the
Niagara Canal by the United States.

"11. The speedy construction of a
ship canal connecting the Mississippi
River with the Great Lakes and the
Great Lakes with the Atlantic Ocean.

"12. Revising the fees and salaries of
all federal officers, and placing them
on a basis of similar service in private
business.

"13. Protect the dairy interests by
the passage of House Bill No. 3717."



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this year, because I'm certain
you'll keep on buying of me if
you do. Don't let distance stand
in the way—Uncle Sam's mails
put us next door to each other,
as it were. Just drop a card in
the mail-box next time you pass
it, and let's get acquainted.

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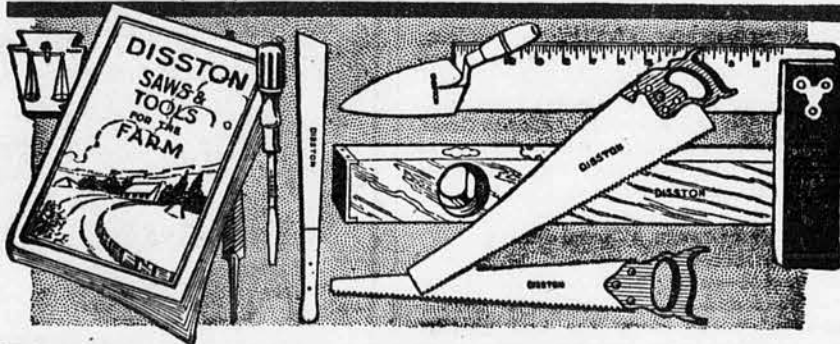
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POULTRY



Let us hope that the backbone of winter has been broken, and that we can go on our way peacefully, thinking of setting hens and running incubators, without any backset.

Don't forget, when mating your birds, that the rooster is half the pen, and should, therefore, be exceptionally good to make up any deficiency that might be in some of the hens.

If Mrs. Manson, who requested a remedy for roup, will refer back to KANSAS FARMER of January 20, she will find there several remedies suggested for this dread disease that afflicts poultry.

During cold weather, eggs that are intended for hatching purposes should be gathered soon after they are laid or they are liable to get chilled and will not hatch. They should be placed in a cellar where the temperature does not go below 40 degrees.

See that there is plenty of litter in the poultry house these days. There is nothing better for this purpose than oat straw, especially if it is unthreshed. Put six or eight inches of straw on the floor and see how the hens will begin to scratch for the grain that is in it.

One great advantage of having early chicks is that you may have pullets ready to lay in the fall or early winter and thus have eggs when they are high in price. Eggs are dear now, and one could appreciate pullets that were shelling out eggs. Prepare for next winter in time by having early broods of chickens.

In these days of dry feeding do not forget that a wet mash for the hens is desirable occasionally, and especially if skimmed milk or buttermilk is used to dampen it. The milk will take the place of animal food, and there is no better way of feeding it than by mixing it with corn chop and bran.

Incubator manufacturers always recommend purchasing the best kind of oil to use in the incubator lamps, and this is good advice. But sometimes the oil will smoke. A remedy for this is to take a cupful of fine salt and put into each quart of oil. Let it settle for a few days, then pour into the lamp and put in a small piece of gum camphor, letting it remain there. Of course the wick must be properly trimmed, rounded at each side, otherwise the lamp will smoke, no matter what kind of oil you have.

If you have thoroughbred poultry for sale, or wish to sell pure-bred eggs for hatching purposes, you must advertise the fact. You can sell common eggs and common poultry in your own neighborhood or to your own grocer or butcher, but it requires a larger clientele to dispose of thoroughbred fowls or eggs. No better medium wherein to advertise your surplus stock can be found than KANSAS FARMER, and the classified columns, with its special low rate for poultry, is available to the most modest of purses.

Hens in Restricted Quarters.

I have demonstrated to my own satisfaction that hens will be perfectly healthy and will lay well if kept in small quarters without any range whatever.

I have five Buff Plymouth Rock hens that were hatched May 3, 1910. They began laying November 21 and continued right along till October 31. During this time they averaged 166 eggs each, and three of them hatched a setting of eggs each, though they did not mother the chicks. They were never sick, and the chicks hatched were strong and vigorous. Not one of the first incubator hatch died, and only three of the second.

These hens were kept in a two-story coop 3x6 feet, which was always kept clean and dry. They were fed regularly a balanced ration of grain morning and evening and a mash at noon, with fresh water always in reach, and whenever

available the lawn clippings. Occasionally in nice weather they were out on the lawn for a short time.

They rested about two months, and are now down to business again.—A. CASSELMAN, Wichita, Kan.

[The keynote of Mr. Casselman's success with hens in restricted quarters is found in these words of his: "The coop was always kept clean and dry." No matter how well and regularly he fed them, unless he kept the coops clean and dry the hens would have become sickly. On two city lots in the business district of Kansas City we saw hundreds of hens kept perfectly healthy without any range outside of their small coops of 3x6, but they were kept perfectly clean and sanitary. Cleanliness is not only next to Godliness, but next to successfulness as well, and it would be a good thing for all of us to practice more of it.]

The Scarcity of Eggs.

The Topeka State Journal of January 29 had this to say of the egg trade:

"Wholesalers this morning report only 35 cases of eggs inside the city limits. Only a few of the grocery stores were able to sell eggs to their customers this morning. This afternoon hardly an egg could be found. Cold storage eggs are all gone. The Seymour Packing Company and the Continental Creamery Company throw up their hands when you speak of eggs. Grocers say they haven't seen the shape of a cold storage egg for many days. Only fresh eggs are coming into the city, and they are being sold out as fast as they arrive.

"The trouble over the egg supply seems to lay with the hens—naturally. If the hens are not in the right mood, all the king's horses and all the king's men are unable to make eggs. Some of the dealers say that the hens have not recovered from the recent cold spell. They say that the extreme cold weather stunted the supply, and the hens have not been in the right disposition since.

"Then there are many commission men who say that it is too early in the season for hens to make their lives useful. The weather has to get warm before the hens are profitable. They eat just as much in cold weather, but they produce less."

The condition of the egg market in Topeka is the same as all over the country. In a Chicago paper we read: "There are not enough fresh eggs coming into Chicago to make price quotations worth while. We cannot make a value on fresh eggs if there are not any, and this seems to be the condition all over the country at the present time. Even at 50 cents per dozen we cannot get them. The hens are not laying, and that's the whole trouble. The hens will not lay after they get their feet wet or their combs frozen."

Everyone seems to be able to give a reason for the scarcity of eggs, but no remedies are suggested. We will give what we consider the principal reason, and the remedy. The main reason why hens do not lay in cold weather is because their houses are not warm enough. Hens won't lay in houses where the weather is severe enough to freeze their combs. The remedy, of course, is warmer houses. The general run of poultry houses are ramshackly affairs, fit only for summer use, and when a severe cold spell comes the hens are shivering in an atmosphere below zero. On farms where wheat is raised and plenty of straw abounds these poultry sheds could be covered with straw and made as comfortable as desired. They could be made so warm that the hens would lay in the coldest weather. Where straw is deficient, other means must be applied to make the houses warmer, such as covering with tar paper, both on the inside and outside. With a small outlay of cash and a modicum of labor, most of the poultry houses could be made comfortable enough for the hens to lay in. Of course the corollaries of proper feed and proper care must come in to help the warm house, but they are secondary matters only, the first requisite for eggs in winter being a warm, comfortable house.

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If a hen hatches 10 chicks from 13 eggs, the result is usually considered very satisfactory. But if an incubator should leave 46 eggs unhatched out of 200 eggs set, it would seem a shame and a serious loss to throw away the 46 eggs. But the percentage of hatch in both instances would be the same—77 per cent, about. If the hen, with proper protection and care, should raise eight out of her 10 chicks to maturity, there would be no complaint as to that. But if 31 dead chicks should be taken out of a lot of 154 chicks, from hatching to maturity, placed for raising in a brooder, that also would appear as an awful loss. Still the percentage would be no more than the loss of two out of 10 with the hen.

Some people say incubators do not hatch as strong chicks as the hens. May be some of them don't. May be others would if the operation of the machine was more nearly correct. Also the eggs put in the machine may not be as fresh as those given to hens. A number of things may contribute to poor results. But it is a fact that just as strong chicks are hatched in incubators as ever a hen hatched. The records of prize-winners in show rooms prove this. Thousands of prize-winners every year are incubator hatched. Also there are hundreds of thousands of incubator users who are strong in their statements that incubators hatch chicks just as good as hens hatch, and many of them know that the incubator does better than the hen about as often as the hen outdoes the incubator.

As matters have gone on in the poultry world, with the hens getting most of their living from what would otherwise be waste; with the poultry yard a disdain to many farm men—aye, a nuisance and an eyesore to them—the fact stands out, large and clear, that the income from poultry and eggs equals that from other lines of effort, and exceeds that from many other lines which are deemed by many men to be of vastly greater importance. The few comparisons appearing elsewhere in this paper may be news of much interest to a large number of farm men in Kansas; women also. But they know more about it than the men, for they raise most of the poultry.

There are instances known where people have ordered incubators and brooders, and then absolutely ignored manufacturer's instructions as to their operation. Few, if any, incubator instruction books are written without giving reliable and valuable information on all phases of poultry raising, from the egg to the dressed fowl for table or market. Nor is this special information a matter of guess work. It all means a great deal for more profitable results from the poultry yard. To study it diligently, with a view to using it, brings more profit than to criticize it as being of no importance. No business men in the country have spent more money for postage stamps, stationery and other things for writing letters to give practical and helpful information than the incubator manufacturers of this country. And they have been doing it on a slim margin of profit on their goods, too. If the poultry industry of today is on a more profitable basis than ever before, these manufacturers have contributed most largely to that end.

A writer on poultry subjects recently declared that incubator hatches would not average 50 per cent of the eggs set, and that less than 50 per cent of the

chicks placed in brooders for rearing reached maturity. According to this statement, made by a man who is in position to know whereof he writes, it takes at least four eggs to produce a full grown chicken. The writer mentioned does not give his means for arriving at his figures. In fact, he leaves it to be inferred that his statement is pretty largely guess-work, though made with fairly good grounds for the guess.

The statement, we are told, was not made to indicate that artificial hatching and rearing were not successful. On the contrary there are no figures available on which even to hazard a guess as to the number of eggs necessary to produce a full-grown fowl when hatched and raised by mother hens.

The point sought to be brought out by the writer quoted is that in what is being done in the work of poultry production there is a great deal of lost motion. Slipshod work, indifferent attention, poor methods, and little study in an industry which in the aggregate shows surprising figures in money returns. The wonder is, what would return be if poultry work had more attention and more study?

Buff Plymouth Rocks for the Farm.

After trying various breeds we finally settled down to the Buff Rocks as the best all around variety for the farm. They equal the other varieties of the Plymouth Rock family in size, are exceptionally good setters and mothers and are certainly hard to beat as winter layers. We have bred them 10 years and now have a flock almost entirely free from black feathers in wings or tails, and a white feather is almost impossible to find in the whole flock.

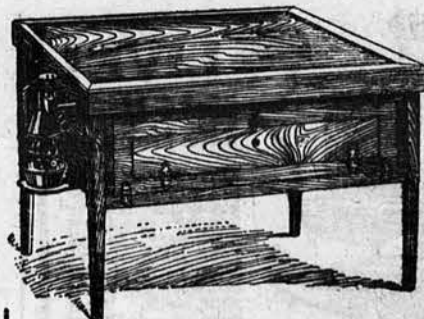
We set hens in January and find that these winter-hatched chicks are harder than those hatched late in the season. We have had a hatch come off the nest when the thermometer registered 10 degrees below zero, and raised every chick. These early chicks make a big growth before the lice and mite season, develop early and make the fall and winter layers.

We give the main flock free range of the farm and each winter and spring we select some of the best of the flock and put in yards varying in size from 50x50 to 100x250 feet, so that these breeders have plenty of room. A 4-foot fence confines them easily. Some of the houses in these yards are made from two piano boxes, and make very satisfactory quarters for 10 to 15 birds. By hatching from these yards year after year we have a very uniform flock as to size and color.

Have found a lice killer made from 1 gallon of kerosene, into which is stirred 1 pint of crude carbolic acid, answers the purpose as well as anything. Also, use an insect powder made of plaster of paris and crude carbolic acid.

In going over the country one cannot fail to note the large increase in the number of pure-bred flocks, and from appearances it will not be long until the mongrel flock will be the exception rather than the rule. A flock of any one breed is certainly more attractive than a mixed lot. There is a big demand for pure-bred stock, and we have never yet had enough good ones to supply the demand. An ad in a good farm paper like KANSAS FARMER does the business, and in our experience of both buying and selling we have found KANSAS FARMER people pleasant to deal with.

We are now giving a flock of Indian Runner ducks a trial, and think they will prove as profitable as the Buff Rocks.—W. A. HILANDS, Culver, Kan.



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Kafir Corn Chop, Linseed and Cottonseed Oil Meal, **OTTO WEISS CHICK FEED** and all other kinds of feed manufactured by the Largest and Best Alfalfa Feed Plant in the state. Send for circular.
THE OTTO WEISS ALFALFA STOCK FOOD CO., Wichita, Kan.

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The incubator that is making chick hatching a science. "Open front poultry house" plan of ventilation—openings of the eggs. Heat, moisture and ventilation regulated and controlled automatically. Send for latest book, free. Write us for mating list and prices on S. C. White Leghorn stock and eggs from the Mandy Lee farm.
CEO. H. LEE CO., 1137 Herney St., Omaha, Neb.

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Land and Water Fowls. Farm-raised stock, with eggs in season. Send 2c for my valuable illustrated descriptive Poultry Book for 1912. Write Henry Pfile, Box 61, Freeport, Ill.

Yes, I Guarantee to Ship You a Belle City World's Championship Incubator and Belle City Brooder the Day Order is Received If You Order From This Advertisement.

Every year thousands of people write me in a rush at the last minute, and say: "When can I get my machine?" will you ship at once—how long before you can fill my order," etc., so to avoid all this, I am reserving a certain amount of machines and guarantee to ship the day order is received either from one of my warehouse branches or from my factory at Racine on orders that come to me direct from my advertisements, so if you wish to, you can sit right down now and from this ad send me an order for your machine. Remember, I allow one, two or three month's home test, pay all freight East of the Rocky Mountains and guarantee my incubator to outmatch any machine made under like conditions. Only

\$7.55 Delivered to You—140-Egg Double World's Championship Belle City Incubator. Read the description and see what you get for your money. My 140-Egg Belle City World's Championship Incubator has simple, perfect self-regulator correct hot water heating system, copper tank and boiler, safety lamp; double walls and double door, with dead air space all over, with roomy nursery and strong egg tray. Of course the thermometer is right I use the "Tycos." I also supply egg tester, burner, funnel, everything you

need including valuable instruction book on operation, hatching and care of chicks.

\$4.85 Buys My 140-Chick Belle City Brooder—Best Brooder Ever Invented. Read description. The Belle City Brooder is as perfect as an incubator—140-chick size—and my price is \$4.85. It's double-walled, hot water, top-heated, metal safety lamp and burner, wire runway yard with platform. Absolutely the most perfect chick raiser made today. Or

\$11.50 Buys Complete Outfit When Shipped Together, Saving You 50 Cents. I pay all freight East of the Rockies. Why buy any machine of less reputation than the World's Championship machine? Why not get in the championship class? It has out-hatched all the others in over 5,000 contests. Thousands and thousands of people have written me of the wonderful success they have had with small outlay. My price is little—my machines are 100% perfect. Your success will be assured. You are perfectly safe in sending your order from this advertisement. We have a letter from the Cashier of the Commercial and Savings Bank of Racine—

To Whom It May Concern:—Jim Rohan, President of the Belle City Incubator Company is one of our depositors—perfectly reliable in every way and people are perfectly safe in ordering his incubators and brooders from his advertisements, sending money in advance, as we have known him for years and know he will fulfill all agreements. (Signed)
C. R. CARPENTER, Cashier.

In addition to this, I refer you to any commercial agency; any bank or any farm or poultry paper in the country who have known me for years.

I guarantee shipments the day order is received from Buffalo, Kansas City, St. Paul or Racine.

The most unique poultry booklet ever published. Different from all the others—better than the best. Send your name on a postal or shipped with the machine if you order from this advertisement. 1912 is going to be the banner year for poultry products. Will you help get your share? Start right and your success is assured. The Belle City will make Championship hatches for you.



**140-Egg
Incubator**

\$7.55

Freight Paid East of Rockies



**140-Chick
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\$4.85

FREE "Hatching Facts"

JIM ROHAN, President, BELLE CITY INCUBATOR COMPANY, Box 18, Racine, Wisconsin

LIVE!
Make Home Life Happier
 There's more in life than great acres and big crops. You've bought modern machinery to till your land, you've put up barns, stables and silos to benefit your stock. What have you done for your wife—your boys and girls? Come now—have you given them what they deserve? Working day in and day out, year after year, life becomes monotonous and weary. Just think what a change a handsome

CROWN PIANO

would make! It would make your wife, your children, yourself happier—your whole home bright and cheerful. When the evening's work is done you could all gather in the parlor, sing the good old songs of long ago, listen to the latest tunes and join in those sacred hymns that we all love so well. Wouldn't that make life rosier for everybody? You and your folks will marvel at the deep, rich, mellow tone of the Crown Piano—it's a masterpiece. Well built, majestic looking, stylish—your wife will be proud to own it. The Crown Piano is priced low, quality considered. You can buy on time if desired. Write for handsome illustrated book.

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 Send a postal to-day for our 100 Page Beautifully illustrated catalog of genuine seed bargains, mailed FREE to any address.

ARCHIAS' SURE SEEDS
 Plants, Shrubs, Vines, Bulbs, Fruit and Fancy Trees, have been tested for over 25 years; they are Money Growers, and Mortgage Lifters, and the best that money can buy. Write at once—we can save you money.

\$100.00 Cash GIVEN AWAY
 Archias' Seed Store (Corp.)
 Box 17, Sedalia, Mo.

Onions
 The largest, best keeping, handsomest Onions are produced from Northern Grown Seeds. Salzer's Seeds are grown in the extreme North, are pedigree stocks, and for purity, vitality and yield are unsurpassed. Catalog tells.

8 MARKET SORTS, 12c.
 The following are the three most popular sorts: One large package each White Portland, Yellow Globe Danvers and Red Wethersfield, to test, 12c.

FOR 16c.
 10,000 kernels of splendid Lettuce, Radish, Tomato, Cabbage, Turnip, Onion, Celery, Parsley, Carrot, Melon and Flower Seeds, producing bushels of vegetables and flowers for 16c postpaid. Our great Plant and Seed Catalog free for the asking. Write to-day.

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DON'T PLANT OLD CORN
 or weak, wormy, frozen seed. **ARMSTRONG CORN** will grow. 95 bus. per acre Ia. Agr. College; 75 bus. Kans.; 70 bus. Missouri; 75 bus. Illinois. 1st Premium S. Dak.; 24 acres, 1900 bus. Wisc.; 110 acres 8749 bus. Iowa. Success in Nebraska.

Don't Risk Poor Seed.
 Descriptive Seed Corn Bulletin free.
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SPECIAL PRICES ON TREES
 We sell direct to you, saving you all agents' commissions and expenses.

Nursery Stock—Fruit, Ornamental, Shade and Forest trees, Small Fruits, Shrubs, Vines, etc. All stock this year especially hardy, thrifty, and vigorous. Fine condition for spring planting. Full satisfaction to all customers. Send for fruit book and prices today.

WICHITA NURSERY,
 Box R. F., Wichita, Kan.

SEED CORN **REID'S YELLOW DENT** **BOONE COUNTY WHITE**
 This is good stuff. We guarantee it to please you. Our supply is limited. Price, shelled and graded, per bushel, \$2; in the ear, crated, per bushel, \$2.50.

F. M. RIEBEL & SON, Arhela, Mo.

Greenwood County Nursery.
 We have for spring delivery a general line of nursery stock. Apple, crab apple, pear, cherry, plum, peach, apricot and quince trees, grape vines, berry plants, rhubarb, asparagus, roses, flowering shrubs, Catalpa Speciosa and Black Locust. Certificate of nursery inspection with each shipment.

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TIMBERLOT—Start now. Norway Poplar cuttings \$3 per 1000. Quickest grower, fine timber. Orngog Flower Gardens, Carthage, Mo.

HOME CIRCLE



The shorter the month the more good will and happiness must be crowded into each day of it.

In case a door or drawer "sticks," rub over the part that binds with soap and the trouble will be remedied.

The woman that maketh a good pudding in silence is better than she who maketh a tart reply.—United Presbyterians.

It is said that basting fish with French dressing made as if for a salad, with olive oil, vinegar, salt and paprika, imparts a desirable flavor.

If the water to be used for laundry work is muddy, put one well beaten egg in a barrel of water the night before using and it will be clear the next morning.

A plaited frill forms an attractive finish for the bottom of the sleeve and also a popular one just at present. These are made of net or lace, or of Swiss edged with lace, and are used either in the short or long sleeves.

Queen Victoria of Spain is said to have made with her own hands more than fifty gifts for the poor of Madrid at Christmas time. Queen Mary of England and her daughter, the Princess Mary, make each year articles that are sold for the poor in London and other English towns.

When ironing a waist, the most difficult part of it is the sleeves. In case they are too narrow to permit the use of a sleeve-board the following plan might be adopted to good advantage: Turn the sleeve wrong side out and insert a padding made by folding a tea towel or bath towel, if the material is embroidered, the width of the sleeve, and press on both sides.

When Women Get Men's Salaries.

O. Henry did not favor women suffrage, and his views were known to a friend who sat next to him at a large dinner where this subject happened to be discussed.

"But," the friend insisted, "you will admit that a woman should receive a man's wages."

"Why, they do," O. Henry retorted. "My wife gets all mine."

Help from Little Johnnie.

"What were you and Mr. Smith talking about in the parlor?" asked her. "Oh, we were discussing our kith and kin," replied the young lady.

The mother looked dubiously at her daughter, whereupon her little brother, wishing to help his sister, said:

"Yeth, they wath, Mother. I heard 'em. Mr. Thmith asked her for a kith and she thaid, 'You kin.'"

No. 1966. Handsome Design for a Table Cover. Bowknot and Forget-Me-Not Design. Size 36x36 inches.

Stamped on heavy white linen, 70 cents; stamped on pure white or ecru linen, \$1; perforated pattern, 25 cents.

"Oh, we were discussing our kith and kin," replied the young lady.

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No. 1966. Handsome Design for a Table Cover. Bowknot and Forget-Me-Not Design. Size 36x36 inches.

Stamped on heavy white linen, 70 cents; stamped on pure white or ecru linen, \$1; perforated pattern, 25 cents.

No. 9115-9106. A Smart and Serviceable Model.

This design is exceptionally attractive for general or business wear. The waist is closed at the side front and has a peplum or skirt piece, below the belt that may be omitted. A broad sailor collar outlines a chemisette of contrasting material, over the fronts. The skirt is "up-to-date," with its panel back and shaped front. The waist pattern, 9115,

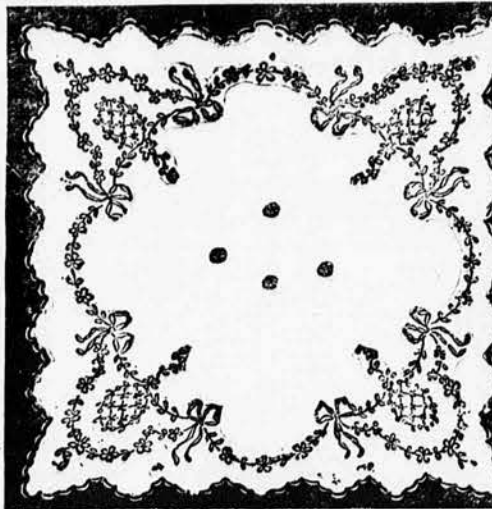


is cut in six sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. The skirt pattern, 9106, is cut in five sizes: 22, 24, 26, 28 and 30 inches waist measure. It requires 7½ yards of 44-inch material for the entire costume for a 36-inch size. This illustration calls for two separate patterns, which will be mailed to any address on receipt of 10 cents for each, in silver or stamps.

No. 541. Baby's Booties. Daisy Design in Eyelet Embroidery. Stamped on linen, 25 cents per pair;



stamped on flannelette, 15 cents per pair; perforated pattern, including necessary stamping materials, 10 cents.



GOOD SEEDS

BEST IN THE WORLD
 Prices Below All Others
 I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.
Big Catalog FREE
 Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.
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Special Prices on Trees
 Get our catalog before you buy. 1,200 acres in Nursery Stock, Fruit, Ornamental and Fruit Bearing Trees, Shrubs, Vines and Roses. Everything in the Nursery line. Free from all disease. Inspected by State Entomologist. Elegant catalog free. See what values we give you. Direct dealing insures you first cost and full satisfaction. Write for free book now—today. Address **RATEKIN'S NURSERY CO., Dept. 1, Shenandoah, Iowa.** **FREE**

CATALOG FREE
SAVE 1/2 TREES
 You can get better trees at an enormous saving by buying direct of the grower. We pay freight. Apple—one year tops on three year roots, 80c per 10, \$70 per M. Other fruit in proportion. No agents. We guarantee satisfaction on every order. Will send 5 new Strawberry Plants, "Red Monarch," Free for testing, on request. **Free**
Galbraith Nursery Co. Box 58, Fairbury, Neb.

SURE PAYING CROP
 Right now Kansas farmers are harvesting a crop bringing \$30 to \$50 per acre per year. This crop grows forever from one planting and with no cultivation after it is started.
CATALPA SPECIOSA
 is the crop. A hardwood tree without a superior for any purpose. Grows posts in 4 years; telephone poles in 6 years. Posts last a lifetime in the ground—longer than any others. Greatest paying corn belt crop. Write us for full particulars—now.
Winfield Nursery Co., Winfield, Kan.

TRENT'S Seed Corn
 First prize six consecutive years at Manhattan—State Corn Show—proves I have best strains Seed Corn in the West. Reid's Yellow Dent, Boone Co. White, fire dried, tested and guaranteed. Pure Red Texas Oats, Clover, Timothy and Alfalfa Seed. Write for free catalog. Every farmer will find it of interest.
S. G. TRENT, Box K, Hiawatha, Kansas.

ZILLER'S PURE-BRED SEED CORN LEADS.
 I have found out by years of work and experience the best varieties for this country and the best methods of producing and taking care of seed corn properly. Five leading varieties—Hiawatha Yellow Dent, Reid's Yellow Dent, Boone County White, Legal Tender and Farmer's Interest. Also full line of garden and field seeds, raised and gathered under my personal supervision. Write for illustrated catalog.
John D. Ziller, Hiawatha, Kansas.

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 to operate and repair automobiles in our fully equipped modern shop, giving training in vulcanizing, drill press and lathe practice, qualifying you in 6 weeks. Free catalog. **Lincoln Auto School, 2354 O St., Lincoln, Neb.**

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 to invent improvements on everything in daily use. Your invention may mean a fortune. Get it patented. Send for my free booklet, "Inventors' Guide." This booklet contains valuable information and it costs you absolutely nothing. Don't delay. **Frederick G. Fischer, Pat. Atty., 307 Junction Bldg., Kansas City, Mo.**

Bees on the Farm "Gleanings in Bee Culture" will help you get more pleasure and more profit from bee keeping. Six months trial subscription, 25c. Book on Bees and catalog of supplies sent free. **The A. I. Root Company, Box 220, Medina, Ohio.**

50 Concord Grapes \$1 Hardy—Vigorous Stock Guaranteed. **10 Budded Cherrys \$1** Buy from a house that has a reputation for low prices and square dealing. Send for our Free Catalogue and 25c Due Bill. **FAIRBURY NURSERIES, Box 7, Fairbury, Neb.**

WE PAY \$80 A MONTH SALARY
 and furnish rig and all expenses to introduce our guaranteed stock and poultry powders; money-back guarantee; outfit free; new plan; steady work. Address **BIGLER CO., X 674, SPRINGFIELD, ILLINOIS**

EASTER POST CARDS—FREE
 Send me two 2c stamps and I'll send you 10 beautiful Easter Post Cards and tell you about my big SURPRISE. **E. T. WERKWITH, 47 Success Building, Des Moines, Iowa**

100 Strawberry Plants, 2 varieties, pre-paid, 75c; 300 for \$2.00. Send for catalog of fruit trees and berry plants. **Holsinger Bros., Rosedale, Kan.**

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Have a Double Run Force Grain Feed—sows any kind of oats, wheat, rye, rice, barley, peas, beans of all kinds and sizes, beets, etc.

The Buckeye Non-corrosive Glass Cone Fertilizer Feed successfully sows in wide range of quantity all brands of standard commercial fertilizers, having an agitator that always keeps the fertilizer moving; a fertilizer hopper lined with galvanized metal.

The Buckeye Frame is made of square tubular steel; will not warp or sag.

The Buckeye Nested Cone Gear Grain Drive. No lost motion. Positive drive. Change of quantity instantly made.

Buckeye Furrow Openers—Any style wanted. Single Disc, open or closed delivery; Double Disc, Hoe or Shoe.

Sizes—Any size from one-horse up.

Buckeye Drills are simple in construction, very light draft, and plant the seed at an even depth.

Send for the Buckeye Catalogue and then go to your local dealer and insist on seeing the Buckeye Drill.

"The Buckeye—
A Wise Buy."

THE
AMERICAN SEEDING MACHINE CO.
SPRINGFIELD, OHIO,
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Four For You

We will make up set of four ferns from the following kinds: Boston, Whitman, Ostich Plumbea, Elegance, Scotti, Sprengeri, Plumosa, Lace Fern.

Nothing is more beautiful for the home than ferns. We send you a beautiful collection of four ferns if you send us only 25 cents for one year's subscription to People's Popular Monthly and 15 cents additional (40 cents in all). Order today and you will receive the ferns charges paid. People's Popular Monthly, Dept. 10, Des Moines, Iowa

RATEKIN'S NEW ALBERTA OATS

THERE IS BIG MONEY IN OATS if you grow the right kind. RATEKIN'S NEW ALBERTA, Canada, OATS grow Bigger Crops, More Bushels per acre and better quality than any Oat in the World. Our Seed all grown on new virgin soil—clean ground; free from noxious weed seeds, from crops yielding 125 to 140 BUSHELS PER ACRE weighing 45 to 50 LBS. PER BUSHEL.

FREE SAMPLE Ask for sample and compare them with any other seed oats offered, or in the World. Our Big Illustrated Seed Catalog of Oats, Seed Corn, Grass, Clover and all kinds of farm and garden seeds mailed FREE on request. ADDRESS RATEKIN'S SEED HOUSE, SHENANDOAH, IOWA Box 69

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The best Silo that can be built. Write for prices for 1912.

HOPPER & SON,
Manhattan, Kansas

FREE BARGAIN BULLETIN

Before you build get our prices. Smashing reductions in 3,000,000 Feet—new and used. Every grade and dimension. Write today and we will send you free regular monthly list showing everything—doors, windows, roofing, paint, hardware, etc. 500 Items. HOUSEWRECKING SALVAGE & LBR. CO., 1725 Tremont KANSAS CITY, MO

Horticulture

Planting One vs. Two-Year-Old Trees.

In ordering nursery stock, two questions confront the grower: What varieties shall I plant and shall I purchase one-year-old trees or two-year-old trees? It is the purpose of this article to briefly consider the latter question.

The tendency in the past has been to plant the older trees. The desire for large trees or trees that will make a showing as soon as set out may be partly to blame for this state of affairs, or growers may be too anxious to have their trees come into bearing early. Very little time, if any, is gained in setting out two-year-old trees. But even if this point be granted, the arguments still favor the setting out of one-year nursery stock.

In the first place the grower will not have to pay as much for a one-year tree as for a tree two years old, the difference in price amounting, in some cases, to 10 or 15 cents per tree, retail price. The extra labor and cost of setting out larger trees is an item worthy of consideration. The roots of trees should not be bent or crowded into the holes prepared for them, but should retain their natural position. If the root system is in proper proportion to the top, the advantage of setting out one-year trees is evident, for more labor will be required in setting out two-year-old trees. As a matter of fact the tops of both one and two-year trees are out of proportion to the roots so that both need to be trimmed, but more time and labor will be required to properly trim the older trees, for more wood will need to be cut. Unless the planter can nerve himself to do this work right, the chances of obtaining a good stand are in favor of the younger trees, because they have a better root system for their size.

However, when it comes to setting out a commercial orchard, a small item of original expense should not be alone sufficient to influence the orchardist one way or another. He should be willing to spend a little more, if need be, in the first instance to insure his trees getting a proper start. In this case the reverse is true. The best argument in favor of the younger and cheaper tree is that it can be trained to suit the needs and ideals of the grower. This important factor should not be overlooked. It takes a long time to replace a mature tree which breaks down beneath a load of fruit or before a heavy wind, as the result of improper training. Every precaution should be taken to see that the trees are started right, that they develop strong branches and be free from bad crotches. A one-year whip of a tree can be trained to suit the will of the planter, whereas two-year-old trees are so far advanced that defects in regard to form cannot be overcome, though perhaps they may be modified to some extent by careful pruning. The advantage of one-year over two-year stock in the matter of training should be sufficient to induce planters to set out the former. Strength and form or tree should not be sacrificed for a possible chance of gaining one year in time of bearing. A gain of one year will never replace loss of a tree that had no chance of being properly trained.—C. STARRING, Horticulturist, Idaho Experiment Station.

Convict Labor and Prison Made Twine

A Beloit, Kan., reader writes expressing the opinion that Kansas should go out of the binding twine business. Be it known that this state operates a binding twine factory in its penitentiary, using convict labor. Our subscriber says the twine is inferior in quality and its use results in the loss of much grain. He says the Michigan penitentiary twine plant is losing money, and thinks in all probability the Kansas plant is not playing even. This reader believes that convicts should be used in making only such articles of necessity as are required in the penitentiary, and after the demand for these is supplied he would then have the convicts build roads and possibly work on an experimental farm which the state should establish convenient to the penitentiary and near open air and close to nature work for convicts. This, he says, would be a benefit to prisoners and tax payers, and of least injury to the laborers of the country.

What do KANSAS FARMER readers have to say about the quality of prison-made twine and the kind of employment convicts should be given?

The Range With a Reputation

Before deciding upon a range you should examine closely into the superior points of merit of the Great Majestic—the range with a reputation—built on honor of the best materials.

The only range made entirely of malleable iron which can't break, and charcoal iron which will not rust like steel. Oven lined with guaranteed pure asbestos board covered with an iron grate. No heat escapes or cold air gets into oven thus assuring perfect baking and fuel economy. The Majestic is put together with rivets making it absolutely air tight, like an engine boiler.

Outwears
Three
Ordinary
Ranges

The Great MAJESTIC Malleable and Charcoal Iron RANGE

Perfect
Baker—
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All doors drop, form rigid shelves—no springs. Open end ash pan—ventilated ash pit—ash cup prevents ashes from falling on floor—all copper reservoir—removable—in direct contact with fire—boils 15 gallons water in a jiffy.

Don't buy a range "unsight, unseen"—what ever range you buy get it from a local dealer—and it will pay you to drive many miles to examine the Majestic before buying any range. Best range at any price—sold by dealers in nearly every county in 40 states. Write for booklet Range Comparison.

**Majestic Mfg. Co.,
Dept. 140
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It Should Be In Your Kitchen

Heider Eveners

Make the hard farm work easy. They save you time which means money. They are easy on your horses because they distribute the load so every horse pulls an equal share. Prevent abuse and injury to your horses.

Thousands of farmers have tried and tested Heider Eveners in every way, under all conditions and on all kinds of work. Found them satisfactory, and now recommend them "Best of All."

Heider Eveners Work right with out side draft. Are made for 2, 3, 4, 5 or 6 horses. The Heider 4-horse plow evener with our extra clevises for attaching to all plows, works four horses abreast on gang, sulky or disc plow, one horse in furrow, three on unplowed ground. Heider 2-horse wagon evener for wagon, manure spreader, grain drill or any other implement with pole. Just the thing for your wagon to pull hay-loader.

Ask Your Dealer For Heider Eveners. If he has none in stock, don't accept any other. Write us for free catalog and we will tell you where to get them. You will be more than repaid for the trouble, because there are none so good, none so satisfactory as Heider Eveners. We also make doubletrees, singletrees, neckyokes, etc. Address **HEIDER MFG. CO., 140 Main St., CARROLL, IOWA**

Sore Shoulders Eliminated

DON'T spend your money for gall remedies—don't lose the service of your horses on account of galls or sore shoulders. Here is a collar which if properly fitted, absolutely cures all such ills, while the animal works. It is collar and pad combined.

Lankford Cotton-Filled Horse Collar

Made of best duck, heavy leather trimmed. Wears like iron. Stuffed with medicated absorbent cotton. Soft and flexible, fits any shape neck, absorbs sweat, keeps shoulders cool and healthy. The best collar known to use on colts and tender neck horses. Over 1,000,000 sold yearly. Insist on having the cotton-filled Lankford—none genuine without the picture of the goats and goat cart. If your dealer does not handle, send us his name and ask for free memorandum booklet which also tells all about the collar. Price, \$1.25.

POWERS MFG. CO., Dept. 20 :: Waterloo, Iowa.

SEED CORN 146 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 pure inherited Corn in the World—every stalk bearing one or more good ears, because scientifically handled, thoroughly dried and properly cured and tested, the most rigid inspection. Also all other leading standard varieties at FARMER PRICES. OUR BIG ILLUSTRATED FARM AND GARDEN SEED CATALOG mailed FREE. A postal card will bring it to you. Write for it today. Address, RATEKIN'S SEED HOUSE, Shenandoah, Iowa, Box 69

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Seed is sold by numerous persons; but there is a vast difference in quality which often determines the success or failure of a field. A too large portion of the seed sold is of uneven quality. You can profit by the benefit of our 20 years experience in growing and handling Alfalfa seed. Acorn Brand costs a trifle more than some grades, but is worth many times the difference. Valuable information, Seed Book, samples and prices are yours for the asking.

Ross Brothers Seed House, 317 E. Douglas, Wichita, Kan.

Send For Our **SEED CATALOG** Now Ready
Special prices on Seed Potatoes, Onion Sets, Etc. We buy Millet, Cane Seed, Kafir Corn.
Hayes Produce Co., 524-526 N. Kansas Ave., Topeka, Kan.

High Grade Seed Corn and Seeds (Seed Oats)
Ask for catalogue and prices.
GEO. T. FIELDING & SONS, Manhattan, Kan.

THE "FLOUR CITY" TRACTOR



The GOLD-MEDAL Winner

Others may claim FIRST in this or FIRST in that, but after all is said, it is only the winners of the Gold Medals that count for anything in the WINNIPEG CONTESTS. It is the highest prize, is sought after by all and only awarded to the one that excels in the various tests to which it is subjected.

The "FLOUR CITY" won these medals because of its correct design and construction, in which is embodied the most advanced features to insure dependability, power, strength and economy. Being one of the first in the field, it could not profit by the experience of others, but the "FLOUR CITY" Tractor has been brought up to its high state of efficiency by keeping everlastingly at it, when others were in doubt.

The performance of the "FLOUR CITY" in these contests covers a period of four years, in which it carried off the gold medals, rightly classes it as the highest type of gasoline-kerosene tractors.

Built in three sizes, viz., 20, 30 and 40 H. P.

If interested, send for catalog and detailed information.

KINNARD-HAINES CO.
846 44th Ave. No., Minneapolis, Minn.



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Hundreds of Subscribers Have Taken Advantage of this Special Club Offer.

In making up the list of periodicals you wish upon your reading table during the coming year, you cannot afford to overlook this GREAT CLUB OFFER. Never before have we been able to offer such value for the money. It cannot be duplicated anywhere.

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One Year's Subscription to KANSAS FARMER—

The cleanest, most practical weekly agricultural paper in the Southwest. Not a line of medical, whisky or fake advertising accepted. Every line of reading matter written by actual farmers or men with experience on the farm. Special de-

partments devoted to all kinds of live stock, dairying, poultry, bees, home circle, farm, etc. A whole library of information will be found in the two thousand or more pages of KANSAS FARMER each year.

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For over twenty-five years the Swineherd has been the hog raiser's acknowledged authority. There is hardly a farmer in the Southwest

who is not more or less interested in hogs. You cannot keep in touch with the swine industry of the United States without the Swineherd.

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Every man who keeps a cow ought to have this great semi-monthly dairy magazine. Each issue printed on high-grade book paper, containing from 32 to 74 pages of the best in-

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Cowpea Experience in 1911

By ALVA SOUDER, Newton, Kansas

A good many thousands of acres of cowpeas were sown in Kansas last year as a catch crop and very satisfactory results obtained. The editor has for years been an advocate of Kansas farmers availing themselves of this plan. The letter below is one experience. Will other readers write us of their successes of failures. The cowpea is a nitrogenous plant. The hay contains more protein than alfalfa hay and the pea itself is as rich in protein as oil meal. We can't grow too much protein on our farms. Cowpea meal with the milch cow's grain and with the hog's corn, will greatly increase the value of other feeds.—Editor.

Following the mid-July rains I planted two bushels of Clay cowpeas on 10 acres of oat stubble with a lister, using the plate that sowed thickest. The planting was finished on July 20, and so warm was the weather and so moist the soil that they were up so one could see them down the rows in two days.

One of the neighbors expressed the opinion that "he would probably raise peas enough to do him," and that was what I tried to do. First, the ridges were harrowed down; then the crop was cultivated twice with a corn cultivator, to make way with the grass and weeds that persisted in growing, even in late summer and a dry season. It would have been better to have cultivated them again but, other matters pressing, this was impossible.

A second dry spell came on in August that checked the growth of the peas, but I harvested about five tons of feed that did not look so very promising. At first none of the stock took hold of the pea hay with much enthusiasm, but in the course of a week or so, cows, pigs and horses were eating all they could get. Apparently they have no choice now between peas and alfalfa.

On the whole, the hay paid very well

for the seed and labor and a nominally tough soil was kept free from weeds, and so mellowed that later it was possible plow it more easily and an inch deeper than it had ever been plowed. The ground will be sown to alfalfa in the spring and I anticipate a fine, even stand.

It was quite a problem to harvest the peas, as the ground was pretty rough for mowing. Finally I raised the cutter bar of the mower as high on the shoes as it would go, and cut them two rows at a time. They lay in the swath three days. The October sun is not as ardent as that of June. They were then raked, cocked and left to cure for several days before finally stored in the barn.

I have demonstrated to my own satisfaction that two crops, one of grain and one of hay, may be had off the same ground in one season. This season I expect to plant as many peas as last, but will try to get them started earlier in the season. If I am compelled to plant late, will plant a quicker maturing variety than the Clay, as it matured very few pods last season. It would not surprise me to learn that my neighbors were trying to grow peas enough to do them.

Breeding Polled Herefords

The increasing demand for Polled cattle for the feed lot is a matter of interest to every breeder of Polled Herefords and is, of course, the opportunity of the Polled breeds, but it concerns, especially, the breeders of Hereford cattle that have horns. Thousands of breeders who would like to get rid of the horns are unwilling to forego their preference for the Hereford, the most successful breed of cattle for the farm, range and feed lot. The Hereford breeder now has the desired opportunity of dehorning his calves by the use of the pure-bred Polled Hereford bull. Fortunately, science has discovered the law that governs the inheritance of the full character, and we can tell the breeder how to proceed to get rid of the horns.

That there are a few Polled cattle in all breeds is well known. As many as 14 being found among the Herefords at one time—all being freaks of nature, having both sire and dam that had horns, these being the foundation of the pure-bred Polled Hereford of today. The question naturally arises: "What shall I get as a sire that will be of the greatest benefit in dehorning my herd?" The freaks often got as high as 80 per cent of Polled and scurred calves, but a portion had horns, so we cannot say they were pure in the full character, as experience has shown that a pure Poll character will get 100 per cent Polled and scurred calves from horned cows. Experience has also shown that if these freaks are bred to horned cows they produce a hybrid character, i. e., half horned and half Polled. Now, if we breed these hybrids together we will get three distinct classes of cattle—pure Poll, pure horned and the hybrid again. This is explained in the following manner: The hybrid bull and cow produce equal numbers of germ cells of two kinds. One kind inherits horns and the other does not. In breeding these hybrids together there is a chance that a Polled germ of the male will unite with a Poll germ cell of the female and produce a pure Poll character. Second, that a horn germ cell of the male unites with a horn germ cell of the female and we have a pure horned character. Third, a horned germ cell of one parents unites with a Poll germ cell of the other parent, and we have a hybrid again. Thus we have pure Polls, pure horned and hybrid, all mixed up in the second cross. As many of these hybrids will have smooth heads, we cannot, by examination, dis-

tinguish them from the pure Polls. We also see that the horn germ is handed down for generations in these hybrids and may crop out at any time, either as scurs or horns. We also see that an animal having both Polled parents may be a hybrid and not be any better as a Poll calf getter than one from a horned cow. Next, that the number of Polled ancestors appearing in a pedigree is not an evidence of his prepotency or power to get Polled calves. We will illustrate the point thus: I have a Polled bull with eight Polled ancestors on his sire's side and a horned dam, so he is a hybrid. Now, we have bulls and heifers sired by this bull from horned cows that have horns. We will breed these together and get nothing but horned calves and still we have eighteen Polled ancestors in their pedigree. A hybrid, Polled bull with scurs, no matter how large, will get as many Polled calves from horned cows as his brother hybrid with no scurs. Hence, he is valuable in starting a Polled herd.—J. T. SMITH, Marion, Kan. Breeder of Polled Herefords.

Lye for Hogs, Again.

KANSAS FARMER has printed many letters from farmers who took advantage of our invitation to tell of their experience in feeding lye to hogs as a preventative of cholera or other diseases. Many inquiries have been received asking what kind of lye should be used and how to use it.

Concentrated lye—the kind you buy for making soap—is the lye to use. It is most convenient and economical. Wood ashes contain 12 per cent of lye, but wood ashes are scarce and difficult to feed.

One-fourth can of Lewis' Lye to a barrel of slop, or a teaspoonful to 5 gallons, is the proper amount. It is a good plan to dissolve the lye in hot water and pour the lye-water into the slop. This sweetens the feed and keeps the hogs' stomach and intestines in good condition, and when a hog is in good condition he can more easily fight off disease.

It is a good plan to keep lye in the hogs' drinking water at all times and to clean out the pens and troughs at least once a week with a good, strong solution of lye and water.

The rapidly increasing use of lye as a general conditioner for hogs and a preventive for cholera and worms seems to indicate very clearly its efficiency for such purposes.

Fair Managers Meet

Give Impetus to Kansas "Fair Idea"

The second annual meeting of the Kansas Association of County, District and State Fair Managers was recently held in Topeka. It was an enthusiastic meeting and attended by a bunch of fellows who will make the fair business in Kansas pick up this coming fall. The advantages of the organization will be felt in every fair the officials of which are members. I. D. Graham, last year's president, was re-elected for the ensuing year. M. F. Garrity, Norton, Kan., was elected vice-president, and H. L. Cook, of Kansas State Fair, elected secretary-treasurer.

There is no question pertaining to the agricultural interests of today which holds more of general interest; which is of more value; which is less appreciated, or which needs more of the earnest and sincere work of progressive men than the modern and up-to-date agricultural and live stock fair.

As an educational institution the modern fair is in a class by itself. Schools and colleges have, and will continue to have, the most important place in any educational system which may be devised, but, as a supplementary means of effective training and training in the right direction, the agricultural fair is without equal, and it would not be given this supplementary place except for the necessity which compels its occurrence but once a year, and that for a few days only.

You, gentlemen, have under your management the engine of one of the most potent factors of real progress that now exists. In the county and state fairs are found the high school and the university of object lesson teaching of which the primary grades are on the farms and in the factories of the best state in the Union. Yet no school system, however well its several units may work, can be effective of the highest good or bring those results which are the most worth while unless its parts shall work smoothly and harmoniously together.

We are assembled here today as the headmasters of our several schools of object teaching to so co-ordinate our work that we shall secure the greatest good to the greatest number, not only of the Fair Association themselves, but to the public at large as well.

Another important duty which presses is that of the creation and development of the "fair idea." Too many people in this and other states entirely fail to grasp the "fair idea," or its possibilities, and have no conception of what a real agricultural and live stock fair, built along modern lines and conducted under the guide of modern ideas, may become, or the powerful influence for the betterment of the people of any community or state which it will exert.

Worms in Sheep.

"I find a prescription in KANSAS FARMER for worms in sheep which was given in answer to an inquiry by H. S. Young, Rantoul, Kan. I think a better prescription is composed of coal tar creosote 1 oz., water 99 oz. Mix and give five ounces for adult sheep. This is the United States Government prescription, after long experience and many tests, which included practically every drug which could by any possibility be effective. After dosing the different sheep with the different drugs they were killed to note the effect of the medicine. They decided this coal tar creosote to be best.

The best way to treat sheep for stomach worms is to starve them from 16 to 24 hours before drenching, and then keep them from feed for a while afterwards. In administering the drench allow the sheep to stand in a natural position and raise the nose to a level with the eyes and then drench. If the sheep strangles and gets some medicine in his windpipe he may get pretty sick, but I never lost one from this cause. It is not fatal, as is gasoline.

Think Mr. Young would best drench his ewes twice, about three days apart, before turning to grass next spring. Where the sheep does not scour after drenching it is best to give oil afterwards by setting the sheep up on end between your legs.

All flocks have stomach worms. There is no flock entirely free from them. They will develop when conditions and victims are right.—E. E. HAZEN, Secretary Kansas Sheep Breeders' Association, Hiawatha, Kan.

Most poor hatches by incubators are due to two principal causes: Eggs set of poor or low vitality; indifference or carelessness in handling the machine. There is no good reason why the average incubator hatch should not be as good as the average hen hatch. There are plenty of incubators that will do it, too. And if brooders don't raise a higher percentage of chicks hatched than hens, the fault is not with the brooders—at least not with any of the 40 or 50 different standard brooders now on the market. Incubator and brooder manufacturers in these times are able to, and do, write their instruction books out of practical and successful operation of their own machines. Hardly an incubator factory in the country of any note that does not keep in constant operation numbers of their own machines. They do this to improve their wares. They impose on their machines all sorts of severe conditions; operate them under every conceivable adverse circumstance; they want them as near practically perfect as they can be made.

If incubators and brooders do not hatch and raise as large a percentage of chickens as hens do from the same eggs, the fault is not with the machines—that is, standard machines of proven merit. Freak machines are not to enter into the discussion. Hundreds of would-be and near inventors have from time to time essayed to make ideal machines, and in their imaginations have concluded they had reached the goal of absolute success. But too many such men hold their beliefs by too narrow margins of knowledge. Nowadays incubators and brooders are plentiful—made by men of the fullest knowledge of all phases and stages of poultry production. When you buy incubators and brooders, buy from the men who know by successful experience how to raise poultry and make money out of it. The men who, from practical experience in the poultry yard, design and manufacture incubators and brooders, are of more importance to the poultry raiser than the name a machine may carry, or the size of the factory in which it is built, or the prices asked for the machines.

No real, practical poultry raiser will stand for any "freak" notions in any machines he uses. A lot of extra contraptions, like electric alarms, everlasting lamp wicks, water-jacketed lamps, patent egg turners, etc., are not essential for high percentage hatches. They serve more for confusion and take longer to keep in proper working order than they are worth.

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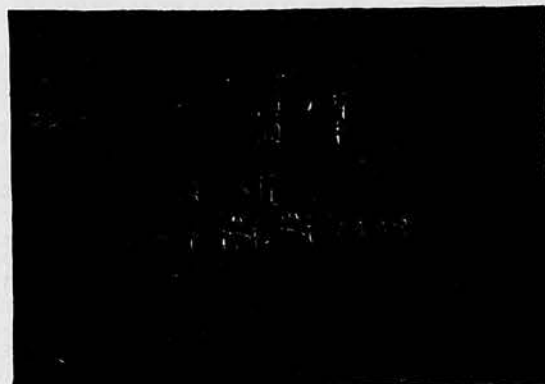
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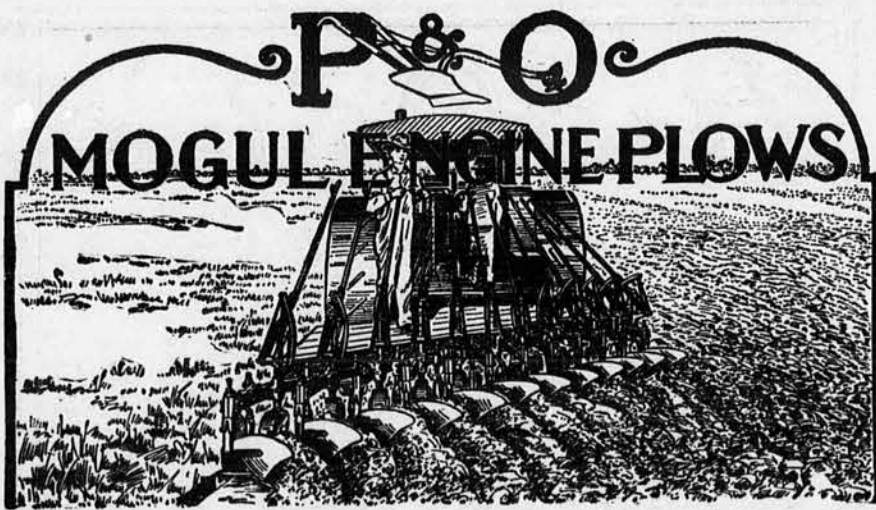
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The Horses Feet---Diseases and Defects

Address Before the Kansas Improved Stock Breeders Association

By G. W. McCAMPELL, K. S. A. C.

Something over twenty-two centuries ago Xenophon, realizing the importance and value of good feet in a horse, gave to us the axiom, "No foot, no horse," and it is just as true and applicable today as it was then. That the average quality of the feet of our horses is very poor, irrespective of breed, cannot be denied. Evidences of this are seen upon the streets of our cities, upon our farms where the wear and tear is much less severe, and even in the show ring where only the best individuals are shown. These defects of conformation and quality are physical characteristics, and as such are being transmitted to the offspring. In each generation this character—poor feet—is being intensified in all our breeds of horses, especially the draft breeds, because in our endeavors to obtain size, quality, speed, and other desirable characteristics, we have been overlooking the very first and most important requisite of a good horse—well-shaped, strong, and durable feet.

Possibly the reason this has been so sadly neglected is due to a lack of understanding of the structure of the foot and the very important functions of its various parts. Surely no one who thoroughly understood the anatomy and physiology of the foot would so persistently ignore such a vital question. Therefore, a brief discussion of the anatomy and physiology of the principal structures of the foot may be of interest and may possibly help to show more clearly why feet of certain conformation stand the wear and tear of work-a-day life while those of other conformation do not.

The word "foot" implies the hoof, together with the bones and soft structures contained therein, and we may regard it as consisting of three well marked portions—the base or bony core, the non-sensitive protective portion, and the sensitive portion lying between and closely adherent to the other two.

In studying the hoof it is divided into three parts: the wall which supports the body weight; the horny sole which protects the sensitive sole; and the frog, which acts as a buffer. If the wall were a complete circle it would be a rigid body and would be of little value in overcoming the jar and concussion incident to locomotion, but nature intended that it should be a yielding structure and accomplished this purpose by causing the circle to bend upon itself to form bars. The wall is thickest at the toe to compensate for the friction and strain due to the compression of propulsion, which is greatest at this point. The thickness of the wall gradually decreases from the toe to the heel, thus giving the foot more elasticity in the posterior part. At any particular point in the circumference of the wall, it will be found to be of the same thickness from the coronet to the ground edge. The external surface of the wall is covered by a varnish-like layer called the periople, which is thickest at the top of the wall. This is a protection nature has provided to check evaporation and consequent cracking of the horn, and it should not be rasped away in shoeing.

On the inner surface of the wall there are five or six hundred parallel plates or processes of horn extending from the coronet to the sole. These plates, or laminae, are separated from each other by deep fissures and are dovetailed securely into a similar sensitive laminae, or the sensitive portion of the foot, each of the non-sensitive laminae fitting in between two sensitive laminae to which it is securely cemented. In this manner the most perfect union is brought about between the inner sensitive structure and the horny wall.

The sole of a normal, well-shaped foot is concave, the concavity being greater in the hind than in the front feet. One peculiarity about the growth of the sole is that its fibers grow downward from the sensitive sole within, and after reaching a certain length the ends break off; thus nature determines how thick the sole shall be. The union of the sole and wall is marked by a white line extending completely around the inferior circumference of the hoof. The part of the sole immediately within this white line is capable of bearing weight, as this part is not directly under the sensitive vascular sole, but it is not intended that the remainder of the sole shall carry weight. Its purpose is to afford protec-

tion to the sensitive structures just above it. The frog has the same microscopic appearance as the horny wall, but its rubber-like character is due to the amount of moisture it contains. The per cent of water contained in the different structures of an average normal hoof is as follows: Wall, 25 per cent; sole, 37 per cent; frog, 42½ per cent. The frog is one of the most important parts of the anti-concussion mechanism of the foot, and to serve its purpose best it must be healthy, large, and its inferior surface must rest upon the ground. If it does not come in contact with the ground it wastes away, the heel contracts, the foot is rendered smaller, and the pad becomes diseased.

The sensitive portion of the foot is located immediately within the hoof, completely covering and securely united to the pedal bone, the plantar cushion, and most of the outer surface of the lateral cartilages. It is known by various names, such as the corium, the vascular structures, the laminal tissues, etc. It is remarkable for its abundance of nerves and great blood supply. This rich blood supply gives it the appearance of muscle tissue. It is very susceptible to congestion and inflammation as soon as the hoof which surrounds it loses its physiological properties. Any inflammation of this structure is always accompanied by intense pain, as swelling of these parts becomes impossible, incased as they are in such a resisting envelope. This corium or sensitive structure is composed of a sublaminal base and 500 or 600 sensitive leaves or laminae, similar in form to the laminae of the inner surface of the wall extending from the coronet to the lower edge of the pedal bone. Microscopic examination shows that each of the sensitive laminae, as well as the non-sensitive laminae, has projecting from its edge from 120 to 200 smaller secondary laminae or leaflets.

Lying within and forming a base or support for the sensitive tissue of the foot, we find the three bones forming the foot joint—the pedal bone, resembling a small foot; the navicular bone, slender but very dense; and the os coronae, partly within and partly above the hoof. The other structures associated with these bones in forming the core of the foot are the lateral cartilages and the plantar cushion. As the weight comes on to the foot, the pedal bone descends slightly, to rise again when the weight is taken off. As the pedal bone descends, the horny sole also slightly descends and comes nearer to the ground. This is one reason why the sole is concave instead of flat.

Attached to the heel of each pedal bone is a plate of cartilage forming an elastic wall to the sensitive foot and affording attachment to the sensitive laminae. They may be felt just within and extending above the hoof at its postero-lateral aspect. These cartilaginous plate constitute a very important part of the anti-concussion mechanism of the foot. When the foot expands at the heel, these cartilages carry outward the attached sensitive laminae, thus preventing any disturbances of the union of the sensitive and non-sensitive structures. Large venous trunks pass through and close to the lateral cartilages and the movement of these cartilages assist in the venous circulation of the foot. Side-bones are simply lateral cartilages which have turned to bone, and when this ossification has taken place the functions of the lateral cartilages are destroyed.

Between the lateral cartilage and just above the frog is located the plantar cushion. It is a fibre fatty, rubber-like mass shaped like the frog and lies in the posterior part of the foot. Under the influence of the body weight the frog is compressed and becomes wider; the plantar cushion with which it is closely in contact is also compressed and becomes wider. The effect of this increase in width is that the frog presses on the bars while the plantar cushion presses on the lateral cartilages, both of which, yielding laterally, force apart the walls at the heels. When the weight is taken off the foot the heel returns to its original position. While the increase in width which the foot undergoes is comparatively small, it still makes all the difference between a yielding and an unyielding block of horn being brought to the ground; it "gives" instead of offering resistance, and it is this "give"

which assists in destroying concussion.

The entire weight of the body is supported by the union of the non-sensitive horny laminae of the inner surface of the wall and the sensitive laminae covering the pedal bone and lateral cartilages, so the weight borne by each foot is carried on 500 or more primary laminae and 72,000 or more secondary laminae. One-half this attachment is over cartilaginous and one-half over bony structures. The portions attached to cartilaginous structures are situated just where elasticity is required, namely, at the posterior part of the walls; thus one function of the lateral cartilage is to afford a movable wall attachment to the sensitive laminae and enable them to be carried outward during expansion. This explains the cause of lameness when sidebones have developed and can no longer perform this function.

It is very interesting to note that while the foot presents a small circumference, in reality it encloses a vast supporting area, due to the anatomical arrangement of the laminae. By this folding the supporting surface of the foot is considerably increased, yet kept within reasonable limits. The bearing surface of an average sized foot is about eight square feet, giving a horse a total bearing surface or foundation of thirty-two square feet. The weight carried on each fore foot while the horse is standing squarely on all four feet is somewhat more than one-fourth the body weight; during locomotion it varies from half the weight of the body during certain stages of the trot to the whole body weight during certain stages of the gallop. Therefore, the study of the physiology of the foot resolves itself into a consideration of two principal functions—weight supporting and anti-concussion. The weight supporting structures are the wall and the bars, while the anti-concussion mechanism may be summarized as follows: First, the yielding articulation of the pedal joint within the hoof; second, the increase in width of the foot at the moment of impact when the heels come to the ground, known as expansion, made possible by the flexible elastic lateral cartilages, the bars, and the thinness of the wall at the heel; third, the elastic pads—frog and plantar cushion; fourth, the slight descent of the pedal bone and with it the sole; fifth, the slight compression of the wall from top to bottom.

In the hind foot we look for practically the same things except that it is a trifle longer than wide and a trifle more straight, having a slope of from 50 to 55 degrees.

Some natural defects of the foot that should be avoided are:

Feet that are small, narrow, unequal in size, or that are flat and spreading. Feet that are crooked, pigeon toed, con footed, or that have high, low, or sloping heels.

Feet that are cylindrical in form; that is, tending to be the same size from coronet to the ground.

Feet in which the horn is soft; also those in which it is hard, dry, brittle and shelly.

As volumes have been written upon the diseases of horses' feet, I can only call your attention at this time to the more common of these diseases, with the hope that you will give them due consideration and study at some future time. Every live stock owner should have in his library a good, reliable book upon the diseases of live stock. He should study this book carefully that he may render intelligent first aid to the injured, and, if necessary, be able to treat the more common diseases and injuries of live stock. But generally the cheapest and safest plan is to call a competent graduate veterinarian if one is available.

The seriousness of thrush, quittor, and nail puncture is due to infection, and in treating these diseases the aim is to destroy the infection and promote nutrition of the parts involved. Immediate treatment lessens the severity of these diseases and increases the chance of recovery.

Corns, sole bruises, quarter cracks, and contracted heels result seriously if neglected. The first thing to do is to remove the cause and then see that they are properly treated and cared for.

Founder is most common in badly formed, flat and pointed feet, and is caused by a variety of conditions, such as errors of diet, chills, continued standing without exercise, and it often occurs as a complication of colic, influenza and parturition. Prevention is a great deal more economical and satisfactory than treatment, but if a case develops in spite of preventative measures, the important thing to remember is that if proper treatment is begun within the

first 24 hours, recovery is generally complete. The longer treatment is delayed, the less becomes the chance of recovery.

The diseases of the feet which are probably of most interest to the breeder are those which are generally considered to show a hereditary predisposition to develop in the offspring of animals having these troubles. To be on the safe side, we would include in this list navicular disease, ringbones and sidebones.

Navicular disease occurs most frequently in light horses, especially those having narrow feet, short hoofs, and short, upright pasterns. The immediate cause is due to the excessive strain and jar to the perforans tendon and navicular bone, due to the faults of conformation just mentioned. Because these peculiarities of conformation are practically always associated with navicular disease, it should be looked upon as a disease showing a strong hereditary tendency to develop in the offspring. Some authorities claim a direct hereditary tendency to navicular disease aside from defects of conformation.

While ringbones are not a condition involving the foot, strictly speaking, they are so closely associated with the foot that they will be considered at this time. They are bony growths in the region of the coronary joint with which nature is trying to brace up a weak joint. They are most common in horses having long, weak pasterns which result in greater strain on the many ligaments of this region; they are also found frequently on limbs having short, upright pasterns, due to the greater concussion and consequent irritation and inflammation. The immediate cause of ringbones is undue strain upon the ligaments of the region. This undue strain results from faults of conformation of the parts involved, and this conformation being transmitted to the offspring predisposes it to the development of ringbones.

As has already been noted, sidebones are simply the lateral cartilages after they have ossified, or "turned to bone." There is no other unsoundness which is so common as sidebones, and none are more strongly hereditary. Thirty per cent of all unsound stallions in Kansas have sidebones, yet there is no unsoundness which is so often overlooked and about which the average farmer-horseman knows so little. In the living horse they may be felt as hard, unyielding bony enlargements on either side toward the back part of the foot just inside and projecting above the hoof. Sidebones are found principally in heavy horses, and the fore feet suffer most frequently. They produce clumsy, constrained action, and often lameness. The principal cause is poor conformation of the feet, and the reason we have so many sidebones is because we have so many poor feet.

We all admit the necessity of shoeing, and realize the evils that result from improper shoeing, but no specific directions can be given that will cover all cases and conditions. Each is a problem in itself, yet when we consider the functions of the various parts of the foot we find certain general principles which apply to practically every case.

1. The shoe should be fitted to the foot rather than the foot to the shoe, as is often the case.
2. The shoe should be level and true.
3. The sole and frog should not be touched with knife or rasp except to trim off sparingly the ragged edges.
4. The bars should not be cut away; they are a part of the wall, and nature intended that they help carry the body weight.
5. The wall should not be rasped after shoeing. The horseshoer may think it makes the job look neater, but in so doing he is destroying the protection which nature provided to prevent evaporation of foot moisture.

6. As few nails as possible should be used, and it should be remembered that high nailing is ruinous.

The foot is the foundation of the animal machine, which should always be remembered when selecting breeding, pleasure or work horses. It is a region about which we cannot be too particular. If the foot is defective either in conformation, quality, or health of tissues, one can foretell the speedy wearing out and ruin of the horse, besides the expense of shoeing and continual treatment. If the foot has the proper conformation and quality, we may expect the horse possessing such a foot to resume each day without discomfort or loss of energy the work of the day before. It is time for us all to awaken to the realization of the necessity of good feet in all classes of horses, for a horse with poor feet is practically no horse at all.

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FIELD NOTES.

Percheron Colt For Sale. This week's Kansas Farmer contains the announcement of Mr. A. C. Williams, of Valley Falls, Kan. Mr. Williams offers for sale a very choice registered Percheron stallion colt, 20 months old, and an excellent individual. He will develop into a ton horse. He is a nice grey in color, and weighs at this time 1530 pounds. He is kind and gentle, and can be bought at a very reasonable figure. He is large enough and well enough developed for a 3-year-old and will be a good buy for some one wanting a horse for light service this year. When writing, please mention Kansas Farmer.

Poland China Boar Bargains.

The Martin Stock Farm, of Marion, Kan., breeders of Poland Chinas exclusively, are offering some very choice boars in their advertising card which appears in this week's issue of Kansas Farmer. Because of cold weather and the loss of tail tips some of these boars would not go into the show ring, so the price is cut in half. Read the advertisement and write them about these boar bargains. Better write today, and please mention Kansas Farmer when you write.

C. D. and E. F. Caldwell's Angus Herd.

Attention is called to the card of C. D. and E. F. Caldwell, of Burlington Junction, Mo. They are the owners of one of the best herds of Angus cattle in Missouri, and in building up this herd they have purchased the best, not only in blood but in individuals, that money could buy, which accounts for the high standard of their herd. Undulata Blackcap II, the present head of the herd, is the highest priced bull sold in recent years. Their herd of cows is made up of Blackbirds, Trojan Ericas, Prides of Aberdeen, K. Prides, Heatherblooms and Queen Mothers, and 80 per cent of them are from sires that have been prize winners and producers of prize winners. They are offering a choice lot of young bulls, ranging in age from 8 to 18 months. Among the lot are a number that are right for herd headers. They have an offering that will interest breeders wanting strictly high-class stock. Write them for description of stock and please mention Kansas Farmer when writing.

Big Poland Sow Sale at Mankato.

One of the big attractive bred sow sales of the winter will be that of Ira C. Kyle & Son, of Mankato, Kan. The sale will be held on the farm adjoining town, on February 15, and 50 head will be offered, bred for spring farrow to outstanding boars of the breed and of such blood lines as to afford complete outcross for this part of the state. A big per cent of the offering will be tried sows that are just in their prime as producers. There will also be a large number of fall gilts, large and roomy, and fine brood sow prospects. A lot of the sows and gilts were sired by the herd boar, J's Wonder, a splendid son of Republic Chief, tracing to Jansen's Mogul. His dam was Wonder's Pet, of the family that won at St. Louis World's Fair. A big per cent of the offering will be bred to the great boar, Giant Chief Price, the top boar sold at Pfander's 1909 sale. He was sired by Long King, by Chief Price, and his dam was Lady Giantess by Longfellow

H. Giant Chief Price has a 9½-inch bone, wonderful length, and when in flesh is a boar of wonderful size, but he is kept for breeding purposes and for this reason is not fed heavy enough to make him look at his best. A number of fall gilts sired by this boar will be included. This will be one of the good, useful offerings of the season and should be seen to be appreciated. Write at once for catalog, and if unable to attend send sealed bids to Jesse Johnson, in care of Ira C. Kyle & Son, Belleville, Kan.

To Exterminate Bugs and Insects.

If it could be accurately determined, the losses which truck growers and fruit raisers are forced to bear on account of the blight caused by bugs and insects would mount up into hundreds of thousands if not millions of dollars annually. Horticulturists the country over are exerting their best efforts to rid plant life of these pests, and still they exact their yearly toll in fruit and vegetable profits. In this, as in many other things, the simplest means have been found to be most effective. A very cheap and reliable exterminator of all bugs and insects that live on plants—either in the vines and vegetables of the garden or in the leaves and buds of fruit trees—can readily be made by anyone, simply by making a solution of Merry War Powdered Lye in the proportion of one can of the lye to fifteen gallons of water. This solution, to be used for sprinkling garden plants or spraying fruit trees, will effectually destroy all insect life, and, unlike paris green and many other insect destroyers, will not injure or discolor the plants or foliage. When sprinkled on and around garden truck it enriches the soil and stimulates the growth of the plants, thus insuring unblemished, fully matured fruit and vegetables. Merry War Powdered Lye can be had at nearly all dealers everywhere at 10 cents per can.

King Corn Silo.

Those who are figuring on a silo will find it to their interest to make a close study of the superior points claimed by the different concerns putting out silos. The "King Corn Silo" is undoubtedly one of the best on the market, and if it isn't made right it is because money and intelligent effort has not yet produced the ideal silo. The makers of "King Corn Silo" claim eleven superior points over other makes, and no reader of Kansas Farmer can afford to buy a silo without investigating the merits of their claims. This silo is put out and guaranteed by the great John Deere Plow Co., a concern that is known to every reader of this journal. When this concern went into silo manufacturing they got the best man they could find to head the silo department, and they got him in Kansas, in the person of Prof. E. W. Curtis, who for many years was connected with the dairy department of Kansas State Agricultural College. Mr. Curtis is a man of wide experience and an authority on silos and feeding. The John Deere Plow Co. likes Kansas and our agricultural college. A year or two ago they wanted to print a booklet on alfalfa, and they got Prof. A. M. Ten Eyck, of Kansas, to write it. Mr. Curtis has gathered together a lot of valuable information about silos and ensilage and feeding which is at the disposal of all who will answer the "King Corn Silo" advertisement in this issue. When writing mention this paper.

The Spangler Kind.

On February 20, J. D. Spangler, of Sharon, Kan., will sell a draft of large type Poland Chinas. Mr. Spangler is a breeder with a reputation of growing and breeding large, smooth Poland Chinas. He has met with success through the careful selection of sires, then mating them with the right kind of sows. In Spangler's Hadley he has a hog with size and quality and he transmits that smooth, mellow, easy feeding type when mated with medium size sows of the large type breeding. Mr. Spangler is a stickler for quality. If a boar or gilt does not come up to the Spangler standard, they are shipped to the market and in this way the Spangler herd of large, smooth, Western type of Poland is kept above the average herd. Another boar used in the herd is Sharon Wonder by A. Wonder. This hog was raised on the Spangler farm, and to say he is a good one would be putting it very mild. We believe any breeder will feel paid for his trip to the Spangler sale just to have the opportunity to carefully look this young hog over. About half of the sale offering will be bred to Sharon Wonder. The writer saw this herd only a few weeks ago and we can say that they are up to the standard of any offering that we know will be sold this year. There are such sows as Lady Mastodon 32nd, Mastodon Maid 42nd, Lady Wonder 6th, Lady Hutch, and many other good, useful, tried sows. Most of the fall yearlings are sired by Spangler's Hadley and bred to Sharon Wonder, and they are good ones. Every one should prove a money maker. The catalog is now ready to mail out. Don't wait to receive one, but write a post card requesting one sent to you. It is full of valuable information about feeding and growing large Poland Chinas. All farmers and breeders are asked to come to the sale. You will be made to feel that you are welcome and go away feeling glad you came. Don't fail to get a catalog, and arrange to come to the sale. Please Mention Kansas Farmer when you write.

WHERE TO BUY PURE-BRED POULTRY

ORPINGTONS.

CRYSTAL WHITE ORPINGTON CKLS.—Excellent stock. \$3 each. Satisfaction guaranteed. C. M. Myerly, Burr Oak, Kan.

BUFF ORPINGTONS—COCKERELS, pullets, \$1 up; pens, eggs. M. Spooner, Wakefield, Kan.

KELLERSTRASS WHITE ORPINGTONS. Prize winners. Eggs, \$3 per 15. Also Indian Runner ducks. Harry E. Burgus, Osceola, Ia., Route 15.

S. C. BUFF ORPINGTON PULLETS and Cockerels. Eggs, \$1.50 per 15; \$6 per 100. Mrs. Ella Sherburne, Fredonia, Kan.

S. C. WHITE ORPINGTON COCKERELS, farm raised, of good laying strain, \$2 and \$3 each. F. S. Smith, Sedgwick, Kan.

WHITE ORPINGTONS—LARGE, VIGOROUS, farm raised. Eggs and stock. Ernest Shadomy, Eastonville, Colo.

SINGLE COMB BUFF ORPINGTONS. Eggs, \$1.50 per 15; \$6.00 per 100. Free range. Mrs. O. Russell, Canton, Kan., R. 2.

BUFF ORPINGTONS—GRAND WINTER layers and farm raised; winners wherever shown; catalog free. I guarantee to please. Aug. Peterson, B. K., Churdan, Iowa.

S. C. BUFF ORPINGTONS (COOK strain). Eggs from special mated pens, \$2.50 per setting. Satisfaction guaranteed. Chas. Hauck, Box 409, Carthage, Mo.

BUFF ORPINGTONS—TEN GRAND prizes at State Fair and Topeka Show. Breeding stock, eggs and baby chicks for sale. Booklet for 10c tells. W. H. Maxwell, Route 95, Topeka, Kan.

KELLERSTRASS STRAIN WHITE ORPINGTON. Ideal U. L. quality, for laying, weight, beauty. Eggs: Top Notch, \$5 per 15; No. 2, \$3, 15. Try the best. O. P. T. Ewell, Kiowa, Kan.

BUFF AND WHITE ORPINGTONS, Rose Comb Reds. My Buffs won more ribbons at Newton show than all other competitors. Stock, eggs and baby chicks for sale. Roy Sanner, Newton, Kan.

BUFF ORPINGTONS—COCKERELS AND pullets, from choicely bred layers. Good eyes, heads, combs, color. Scored. Prices reasonable. Mating list free. High-class Collier bitches, bred or open. Wickham Farm, Box 426, Anthony, Kan.

MARTIN'S IDEAL WHITE ORPINGTONS. Eggs and baby chicks from very choice matings. Stock from the best blood lines in America. Eggs, \$12 per 100; baby chicks, \$25 per 100. Catalog. E. D. Martin, Box 112, Newton, Kan.

FARRAR'S BUFF ORPINGTONS ARE winners at Des Moines, St. Joseph, Kansas City and Topeka. Send for special sale sheet. My prices are reasonable. Eggs for hatching, \$1, \$2.50 and \$5 per 15 eggs. I am a member of the National Single Comb Buff Orpington Club and life member of the American Poultry Association. H. F. Farrar, Axtell, Kan.

The 'Big Three' Poultry Farms

MYERS & STOVER, PROPS.,
FREDONIA, KAN.

BOURBON RED TURKEYS—Big, hardy, domestic as chickens. Eight years a breeder. Grand in color. Eggs, \$3.00 per 11.

INDIAN RUNNER DUCKS—New standard light fawn and white, white egg strain. Ours is superb in quality. Eggs, \$1.50 per 15; \$5.00 per 50.

R. C. R. I. RED CHICKENS—Choicest birds of correct color, shape and size. Pens headed by State Show and other show winners. Eggs, \$1 to \$3 per 15; \$4.50 per 100. Send for Free Catalog.

DUCKS.

WHITE EMBDEN GEESE, PEKIN ducks and drakes. Mrs. Daniel Leavell, Allen, Kan.

INDIAN RUNNER DUCKS—HEAVY LAYERS. February and March eggs, 100, \$4; 50, \$2. About 2,000. First orders take them. Brown Leghorns, Bronze toms; bargains. J. A. Harrigan, Gosport, Ind.

INDIAN RUNNER EGGS, 100 EACH Harry E. Duncan, Humboldt, Kan.

WHITE IVORY STRAIN WHITE ROCKS still at the head of the prize winners. At the great Kansas State Show, 1912, White Ivory birds walk off with all the glory, winning four firsts—seventeen prizes out of a possible twenty-five. Big show white cockerels, hens and pullets for sale cheap. Chas. C. Fair, originator of Ivory Strain White Rocks, Sharon, Kansas.

CRYSTAL WHITE ORPINGTONS. All high scoring birds. Won 1 and 2 on cockerel, 1 on pen, and 1, 3, 4 and 5 on pullet, Chanute Show, January, 1912. Eggs, \$5 for 15, express prepaid. C. R. Hoyt, Earlton, Kan.

BUFF COCHINS.

BUFF COCHIN COCKERELS, \$2.50 TO \$5; pullets, \$2. Housel, Smith Center, Kan.

FOR SALE—200 PARTRIDGE COCHIN hens and pullets; no cockerels. Mrs. John Long, Blue Mound, Kan.

ANCONAS.

PRIZE WINNING MOTTLED ANCONAS. The famous winter layers. Eggs and baby chicks. Write for circular. W. H. Hardman, Frankfort, Kan.

WANTED

WANTED—POULTRY; WILL PAY HIGH- est market price. Write or phone. Wise & Smelser, 1127 Kansas ave., Topeka, Kan.

NAMES WANTED—VALUABLE GIFT for 10 addresses of parties having poultry for sale or one secretary's name Farmers' Union or Grange. Cope's S. System. Topeka, Kan.

PLYMOUTH ROCKS.

BUFF ROCKS EXCLUSIVELY FOR 15 years. Cockerels, \$1 and \$2. Mrs. John Bell, Ackerland, Kan.

CHOICE BARRED PLYMOUTH ROCK cockerels, at \$1.50 to \$3 each. Eggs in season. E. Leighton, Effingham, Kan.

FINE BARRED ROCK COCKERELS, \$2 each. Mrs. M. R. Gromer, Hugo, Colo.

BARRED ROCK COCKERELS, BRED from show winners and good enough to head any breeder's yards. A. G. Hammond, Box 29, Vinland, Kan.

BUFF PLYMOUTH ROCKS, EQUAL TO the best but bred for layers. Eggs, \$3 per setting. Stock for sale later. A. Casselman, 650 Hiram Ave., Wichita, Kan.

BARRED ROCK EGGS FROM PENS— \$1 and \$2. From flock, 75c for 15; \$3.50 per 100; baby chicks, 10c. Harry E. Duncan, Humboldt, Kan.

FARM RAISED WHITE ROCKS. UTIL- ity eggs, \$1 per 15. Day old chicks. Pen eggs. Write for prices. R. E. Mesnard, Humboldt, Kan.

BARRED PLYMOUTH ROCKS—HIGH scoring birds, well mated, farm range. Eggs, \$1 per 15; \$5 per 100; baby chicks, 10c each. Mrs. W. C. Bocker, Solomon, Kan.

TWENTIETH CENTURY YARDS—WHITE Rocks are Kansas State Show winners. Prices reasonable. Write your wants. R. C. Lane, Newton, Kan.

BUFF PLYMOUTH ROCK EGGS FOR sale. The kind that will pay you because they pay me. Prices friendly. Write me. William A. Hess, Humboldt, Kan.

BREEDER OF BARRED ROCKS EXCLU- sively. Deep and evenly barred. Let me furnish you a pen either mating and start you right. Eggs in season. M. L. Meek, Ellsworth, Kan.

BARRED ROCKS OR OTHER BREEDS of poultry. Eggs for hatching or baby chicks are quickly sold for a small cost through a little ad in these columns. Write for special low advertising price.

BARRED ROCKS—BRED FOR BEAUTY and profit; premiums; successful again at Topeka and Clay Center. A few choice cockerels, \$3 to \$7.50. Mrs. D. M. Gillespie, Clay Center, Kan.

WHITE PLYMOUTH ROCKS EXCLU- sively. Place your orders now for baby chicks the coming season. Some good stock for sale now. Prices right. Quality good. J. A. Kauffman, Abilene, Kan.

BARRED ROCK BABY CHICKS AND eggs from pure-bred stock. Place your orders now. Day-old chicks from \$1 to \$2.50 per 12; eggs, \$1 to \$2.50 per 15. Joseph B. Moyers, R. F. D. No. 8, Topeka, Kan.

COCKERELS (WHITE ROCKS) PULLETS—Large, white, vigorous stock that never fail to win in any show. Eggs from all six varieties of Plymouth Rocks. Write Favorite Poultry Farm, Stafford, Kan.

LINDAMOOD'S BARRED ROCKS—FOR 8 consecutive exhibitions our birds won the blue on pens and singles. Pens mated for the season. Eggs from pens \$3 and \$5 per 15. Utility eggs \$4 per 100. Send for circular. C. C. Lindamood, Walton, Kan.

ECKHARDT'S WHITE AND PARTRIDGE Rocks, Topeka, 1911, 2, 3 and 4; three entries, Eldorado, 1911, 1st cock, 1, 2, 4 pullet. Stock and eggs for sale. Write for prices. E. A. Eckhardt, Towanda, Kan., life member A. P. A.

BUFF ROCK COCKERELS, \$1.50 UP. Barred Rocks, White Wyandottes, Cornish Indian Games, Buff Orpingtons, wild Mallard and White Pekin ducks, Toulouse geese and Pearl Guineas. Booking eggs at half what others charge. R. E. Bristol, Dept. H., Vermillion, Ohio.

SNOW WHITE ROCKS AND SILVER Spangled Hamburgs. My pens are mated up and I shall guarantee every setting of eggs I sell this spring. My White Rocks are large, vigorous birds, great layers, and snow white. Write me now for prices. Have a few good White Rock cockerels left for sale. Reference, German-American State Bank, Topeka, Kan. Address J. E. Spalding, Potwin Station, Topeka, Kan.

LANGSHANS.

BLACK LANGSHAN COCKERELS, 75c. J. O. Eastburn, Greenwich, Kan.

BLACK LANGSHAN COCKERELS FOR sale, \$1.50. Chas. Genter, Anthony, Kan.

RANGE RAISED, LAYING LEGHORNS— Baby chicks. Eggs. Catalog free. Alex. Spong, Chanute, Kan.

BLACK LANGSHAN COCKERELS. Scored prize birds, \$5; unscored, \$1 and \$2. Mary McCaul, Elk City, Kan.

FOR SALE—WHITE LANGSHAN COCK- erels, \$1.50 and \$2; eggs, \$1 per setting or \$5 per 100. Henry Neidig, Madison, Neb.

BLACK LANGSHANS, FROM HIGH scoring stock. Old or young. Mrs. D. A. Swank, Blue Mound, Kan.

PURE-BRED BLACK LANGSHAN COCK- erels and eggs. Mrs. John Barnard, Grenola, Kan.

BLACK LANGSHAN AND HOUDAN cockerels; also eggs for hatching for sale. Write for mating list. E. D. Hartzell, Rossville, Kan.

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BROOK DALE FARM BLACK LANG- shans from show birds. Cockerels, pullets, eggs. Good, vigorous birds, priced to sell. D. C. Poole, Oberlin, Kan.

EXTRA BIG BONED, GREENISH, Glossy Black Langshans; black eyes. Scored 91 to 95. Cockerels, pullets, eggs, circulars. Prize winners guaranteed. Osterfoss Poultry Farm, Hedrick, Iowa.

WYANDOTTES.

HEATON'S BUFF WYANDOTTES— Standard bred. Write for prices. W. K. Heaton, Larned, Kan.

FIVE COLUMBIAN WYANDOTTE COCK- erels, bred from winners, for sale cheap if taken at once. W. S. Holden, Douglass, Kan.

WHITE WYANDOTTE COCKERELS—\$1 to \$5. Mrs. Geo. Downie, Route 2, Lyndon, Kan.

TWENTY ROSE COMB WHITE WYAN- dotte cockerels; extra nice. Mrs. H. C. Williams, Edgerton, Kan.

SHOOP'S WINNERS—GOLDEN WYAN- dottes, R. C. Rhode Island Reds, Okla. and Kan. shows. Eggs, \$2 for 15. L. G. Shoop & Son, Perry, Okla.

WYANDOTTES—WHITE, GOLDEN, SIL- ver, Buff, Columbian and Partridge; high scoring; prize winners. Write for mating lists. Stratford Brothers, Eldorado, Kan.

WHITE WYANDOTTES—EGGS FROM high scoring stock, \$2 per 15; \$8 per 100. Philip Willhardt, De Soto and Santa Fe Sts., Leavenworth, Kan.

GOLDEN LACED WYANDOTTES, WON at North Central Kansas Poultry Association, Clay Center, December, 1911, 5 firsts, 3 seconds, 3 thirds. Stock and eggs in season. J. K. Hammond, Wakefield, Kan.

BUFF WYANDOTTES—A FEW SPLEN- did cockerels coming on. Mated pens a specialty. Only good birds sold as breeders; all others go to the pot. Eggs and baby chicks in season. Wheeler & Wyllie Buff Wyandotte Yards, (formerly G. C. Wheeler), Manhattan, Kan.

RHODE ISLAND REDS.

ROSE COMB REDS AND COLUMBIAN Wyandottes, from prize winners and heavy layers. A. D. Willems, Minneola, Kan.

FOR SALE—ROSE COMB RHODE Island Red cockerels, \$1 and \$1.50 each. Louis G. Roth, Holyrold, Kan.

R. C. REDS—WINNERS AT ENID AND Kiowa. Pullets and cockerels, \$1 and \$1.50 each. Ella Stehle, Byron, Okla.

RHODE ISLAND RED, BUFF ORPING- ton cockerels, \$1, \$2 and \$3 each; satisfaction guaranteed. Mrs. F. A. Fulton, El Dorado, Kan.

S. C. RHODE ISLAND REDS—15 COCK- erels, score 91 to 93, for sale, \$1 to \$5. Eggs in season. Prices reasonable. C. E. Florence, Eldorado, Kan.

ROSE COMB REDS—FOURTH COCKER- el, first hen at Leavenworth. Eggs, \$3.00 setting. Dr. W. B. Myers, 715 Michigan Ave., Leavenworth, Kan.

ROSE COMB RHODE ISLAND REDS. Prize winners at Kansas City, Topeka, Leavenworth and elsewhere. Eggs, \$3.00 per 15. Send for mating list. Fred T. Nye, Leavenworth, Kan.

REHKOPF'S R. C. REDS—the Large Kind. Winners Topeka Show, American Royal, and State Fair. Egg fertility guaranteed. Catalog free. F. A. REHKOPF, Route 7, Topeka, Kan.

ROSE AND SINGLE COMB RHODE Island Reds. Been breeding them 10 years. Ten matings of good stock to furnish eggs for hatching. Mating list with prices within reach of all free. R. C. cocks and cockerels for sale. H. A. Sibley, Lawrence, Kan.

FOSTER'S R. C. R. I. REDS WON MORE than double the points of any competitor at the last Topeka show. For four years previous they have been the champion Kansas winners. Cockerels for sale, \$2 to \$25. Eggs for hatching. Frank H. Foster, Topeka, Kan.

WORLD'S BEST RHODE ISLAND REDS and IMPORTED WHITE INDIAN RUNNER DUCKS. My first championship pen is headed by second Madison Square, New York, cock, January, 1910, and contains first Madison Square pullet, December, 1910; also first, second, third, fourth and fifth Madison Square pullets, January, 1910. The greatest pen of Reds in the world. Free catalog. Southern Poultry Farm, Wade Hampton, Prop., Rogersville, Tenn.

LEGHORNS.

R. C. W. LEGHORN COCKERELS, \$1 each. F. W. Cornell, Wakefield, Kan.

S. C. BUFF LEGHORN COCKERELS, scored and unscored, \$1.50 to \$3.50. Mrs. John Wood, Solomon, Kan.

BUFF LEGHORN COCKERELS—FORTY premiums, score 90 to 94½. Price \$2. L. D. Peak, Logan, Kan.

S. C. BROWN LEGHORN HENS, BREED- ers of show pullets. H. C. Short, Leavenworth, Kan.

S. C. WHITE LEGHORN COCKERELS, \$2.00. Eggs in season. Mary Helm, Route 5, Topeka, Kan.

SINGLE COMB BROWN LEGHORNS AT State Show; 1, 2, 4, 5, hen; 1, 3, 4, pullet; 3, 4, 5, cockerel; 1, 4, pen. Two specials. W. J. Roof, Maize, Kan.

TURKEYS.

BOURBON RED TURKEY GOBBLEES for sale. Emma Avery, Woodston, Kan.

WHITE HOLLAND TURKEYS—TOMS, \$4; geese, \$1.50. S. F. Crites, Florence, Kan.

FINE W. H. TURKEYS, TOMS, \$3; hens, \$2. S. H. Grimes, Marion, Kan.

PURE-BRED MAMMOTH BRONZE TUR- key toms, \$5; big boned; guaranteed to please. Ada Stevenson, Beverly, Kan.

PURE-BRED MAMMOTH BRONZE TUR- key toms for sale. Sadie Litton, Peabody, Kan.

MAMMOTH BRONZE AND WHITE HOL- land turkeys; scored by Branch; won all firsts at Higginsville. Mrs. E. B. Powell, Higginsville, Mo.

TURKEYS.

FOR SALE—PRIZE WINNING MAM- moth White Holland turkeys, sired by a 45-pound tom. Eggs in season. Miss Lillian Schaal, Lexington, Mo.

SEVERAL BREEDS.

LIGHT BRAHMA COCKERELS, MAM- moth bronze turkeys, big ones; Shetland ponies, little and gentle. Frank Healy, Bedford, Iowa.

HOUDAN CHICKENS—YOUNG STOCK for sale. Eggs in season. S. B. Madden, 1138 Washburn ave., Ind. Phone 2313 Black, Topeka, Kan.

BLACK SPANISH AND BLACK TAILED Japanese Bantams. Best blood in America. Circular free. Eggs and baby chicks. Chestnut & Son, Centralia, Kan.

FANCY TOULOUSE GEESE, \$5.00 PAIR, \$3.00 each. Rouen ducks, \$1.50. White and Black Langshan cockerels, \$2. Two fine bronze toms, \$4 and \$5. W. L. Bell, Funk, Neb.

PURE-BRED CHICKENS, THE BLUE ribbon kind; never yet defeated in a show. Single Comb Rhode Island Reds, Barred Plymouth Rocks, Buff Plymouth Rocks, White Orpingtons, Buff Orpingtons, White Wyandottes, Brown Leghorns, White Leghorns and Indian Runner Ducks. Stock and eggs for sale. Book your orders early. Send for prices. Everman & Everman, Gallatin, Mo., Route 5.

When writing advertisers, please mention KANSAS FARMER.

The best incubators and brooders ever made have no will; no initiative for doing things. They may be automatic as to heat regulation, as indeed they should be. But they can not act to keep themselves clean; to put in good eggs or adjust themselves to proper degree of heat before putting in eggs or chicks. These are things the operator must do. They will not be done by thinking they should be done, or that they are unnecessary to be done. The labor saving value of such machines comes from their proper use. A little careful study, a simple program of use, and a lot of hard work can be saved and uncertainty of results in the outcome avoided. A bunch of little chicks penned away from feed and water cannot help themselves. Left to the tender mercies of a mother hen they will be taken out to rustle. So will a setting hen seek her nest again, after leaving it for any reason. But a tray full of eggs can't put itself back into the incubator if it is carelessly left out. Nor can an incubator door close itself if left open. Neither can a lamp burner clean itself or turn its wick up or down. These things all contribute to loss of eggs and chicks, but they are not, by any means, all the causes of such loss.

Wiley's Oleo Statement.

A city reader asks if the advertisements being run in the magazines by oleomargarine manufacturers correctly quote Doctor Wiley, the pure food expert. We do not know to which advertisement our reader refers, but before us is an ad in Collier's Weekly which does not tell all of what Doctor Wiley has said. It fails to say that he testified that oleomargarine is not as digestible as butter. It does not digest so well as butter, because it contains more of the higher series of acids, and practically none of the lower series, which are more easily decomposed. Butter is more easily digested than oleomargarine. It requires less effort. The fraud in selling oleomargarine for butter is perhaps the most pronounced of any food fraud in this country, and is deserving of the most rigid punishment. The sale of oleomargarine as butter is a criminal offense.

Sorghum As a Fertilizer.

I have long known the value of clover and alfalfa as fertilizers. They are worth more to the state than the pedigreed seed claim. Corn or anything else will not grow without fertility and culture. The last is essential, even on poor soil. There may be an increase of farm products with good seasons. Demand and better prices may stimulate production, but production will always be just below what it should be, or would be, with better care in fertilization and cultivation.

Farmers of Kansas should grow more clover. It is well adapted to Eastern Kansas on most any land. I found sorghum good to enrich the soil if plowed under in the fall after the first frost. It is not a crop much is claimed for by many as a feed. It fails to make a good chemical showing if used green, or before it ripens its seed. A field I sowed in June to sorghum and plowed under after a frost, covering it wholly, made the soil the most mellow and moist in the whole field for several years.—A. H. GRIESA, Lawrence, Kan.

HORSES AND MULES

Mammoth Jacks and Percheron Stallions and Mares

100 head of Jacks, Percheron and Standard Bred Stallions and Mares for sale. Jacks from colts to 6 years old; Stallions and Mares from colts to 8 years old. Write for prices and description, and visit our farms before you buy. Farm and sales barn on 21st street, 1/2 miles east of Union Stock Yards.

J. C. Kerr & Company
Wichita, Kan.

JACKS AND JENNETS

20 large Jacks from 2 to 7 years old.
25 head extra good Jennets priced right.
Come and see me.
PHIL WALKER,
Moline, Elk Co., Kansas



30 Head of Percherons, Belgians, Road Horses and Jacks.

Winners of first and second prizes at Kansas State Fair, 1911. Sale barn right in town. My prices are right. Write or come and see me.
C. F. COOPER,
Partridge, Kan.

IMPORTED AND HOME-BRED PERCHERONS, BIG JACKS AND JENNETS.

Priced to sell. Come and see us. Farm 4 miles from Raymond or Chase. Write
J. P. & M. H. MALONE,
Chase, Rice Co., Kan.

AL E. Smith Stock Farm

Black mammoth Jacks and Jennets, Percheron Horses.
You will find what you want in large boned, registered, 15 to 16 hands standard. Special prices on fall sales. Both phones.
AL E. SMITH,
Lawrence, Kan.

FOR SALE

The pure in-bre. Morgan stallion Joseph Huse No. 554 A. M. R. Also state certificate under the state stallion laws of Iowa, and will be sold under a state guarantee. Also others as good, single or double.
J. ED. BAILEY, Iowa Falls, Iowa.

FOR SALE

Registered Clydesdale horses and mares, some of them closely related to the famous "Baron of Buchlyvie" that sold in Scotland recently for \$47,500. For further information apply to
JOHN SPARROWHAWK, Wakefield, Kan.

BIG HIGH CLASS JACKS.

W. T. Trotter, Mt. Airy, Iowa—Breeder of big, high class Jacks. If you want a big, well-broke, high-class Jack, write me. I have 10 head of extra good ones for sale. All sired by my famous herd Jack, Keno. All are black with white points. They are an extra fine lot.

W. T. TROTTER,
Mt. Airy, Iowa.

PERCHERON HORSES.
M. I. Ayres, Shenandoah, Iowa, importer and breeder of high-class Percheron horses. Our offering at this time includes 20 head of outstanding good young stallions—a string of youngsters that will interest breeders who want the best. Come and inspect our offering if you want a high-class stallion. We have them.

M. I. AYRES,
Shenandoah, Iowa.

JACKS AND JENNETS

Six large Jacks, from 2 to 5 years old, 3 extra good Jack colts, 14 head of extra good Jennets, 1 Clyde stallion, 1 German Coach stallion, 1 registered saddle stallion. For quick sale, this stock will be priced worth the money. Will sell the lot or singly. Will consider a trade. Write us.
YATES BROS.,
Faucett, Mo.

ROYAL BELGIANS

125—Head—125

Write for catalog.
H. Lefebure, Fairfax, Iowa.

REGISTERED JACKS—Also choice 8 months registered Percheron stallion.
BRUCE SAUNDERS, Holton, Kansas.

IMPORTED DRAFT STALLIONS, \$1,000 each; home-bred, \$300 to \$600. HART BROS., Osceola, Iowa.

PERCHERON HORSES, HOLSTEIN-FRIESIAN CATTLE.

Up-to-date Poland China hogs. Write your wants.
H. N. HOLDEMAN, Meade, Kans.

Best Imported Horses One thousand each. Home-bred registered draft stallions—\$250 to \$650 at my stable doors. A. LATIMER WILSON, Creston, Ia.

PERCHERONS, SHIRES, BELGIANS.
Prospective buyers should see our 60 head of big, heavy-boned, draft stallions and mares. Two importations this fall. We have a fine lot of American-bred Percherons that will suit both in quality and price. All stock registered and guaranteed fully. Come to the barns or write.
SKOOG, REED & DECOW,
Holdrege, Neb.

RIVERSIDE Stock Farm

Percherons and Jacks for sale. We have a fine lot of registered Percheron colts coming two and three years old. A few large black Jacks and three registered standard-bred stallions, four to six years old. Pedigrees and breeding guaranteed.
O. L. THISLER & SONS, Chapman, Kan.

Home-bred Draft Stallions \$250 to \$600—your choice, \$1,000. F. L. Stream, Creston, Iowa.



FAIRVIEW STOCK FARM.
Twenty-five Mammoth Jacks, all ages; Pharaoh 2481, grand champion, Tennessee at head. Largest herd in west.
H. T. HINEMAN,
Dighton, Lane County, Kan.

4 REGISTERED PERCHERON STALLIONS.
Won 1st and 2nd at Topeka for Percheron Stallions, any age, bred and owned by exhibitor. Won same at American Royal. Also best American-bred Percheron Stallion at any age.
J. G. ARBUTHNOT, Cuba, Kansas.

ANGUS CATTLE

BIG SPRING ANGUS CATTLE.
Jasper Auldridge & Son, Pattonsburg, Mo.
Breeders of pure bred Angus cattle and Duron Jersey hogs.
Breeding Stock for Sale.

ALLENDALE FARM BULLS.

Am offering a choice lot of young Angus bulls, sired by Even Eric 111592, ranging in age from 8 to 10 months, weighing from 600 to 800 pounds; one good 20-month-old bull. W. A. HOLT, Savannah, Mo.

GALLOWAY CATTLE

FORT LARNED HERD.

REGISTERED GALLOWAYS
for sale. Fifteen choice registered bulls 10 to 20 months old.
E. E. FRIZELL, Larned, Kansas.

Capital View Herd of Registered Galloways.

A choice lot of young bulls for sale in numbers to suit. Write or call for further information. G. E. CLARK, 2301 Van Buren St., Topeka, Kan.

POLLED DURHAM CATTLE

Roan Hero the International Champion and BELVEDERE X2712-195058

Son of the \$1,500 Grand Victor X1635 150385 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, Kansas.

HEREFORD CATTLE

MODERN HEREFORDS HERD BULLS.

BEAU BRUMMEL 10th 167719.
BEAU BEAUTY 192235.
CALDO 2d 260444.

Hazford Place Eldorado, Kan.
ROBT. H. HAZLETT.

100 — Hereford Bulls — 100

Coming yearlings and twos. A choice lot of cows and heifers. One to a car load. Bred to one of the best bulls in Kansas.
SAMUEL DRYBREAD, Elk City, Kansas.

GUERNSEY CATTLE.

A FEW Guernsey bulls for sale; butterfat record 668 to 714 lbs. per year; prices reasonable. Frederick Houghton, Roxbury, McPherson Co., Kansas.

GUERNSEYS.
For Sale—High-grade Guernsey bull and heifer calves. "Materna" strain. MRS. HELEN DONNELLY, Manitowoc, Wis.

HOLSTEIN CATTLE

33 1/3 PER CENT DISCOUNT ON \$50—BULLS—\$125.

Overstocked, Short of Feed, Must Sell.

Thirty head of Holstein bulls for sale, 1 month to 24 months old; A. R. O. breeding; 100 head in herd; pedigrees to be proud of; every one a herd header. We have never sold as good animals as this offering for less than \$75 to \$200. Buy your bull now when you can get a good one cheap. Barns on Rock Island, 30 miles east of St. Joseph, inside city limits, one-half mile from station. A few females for sale.

S. W. COOKE & SON, Maysville, Mo.

Mammoth Jacks For Sale

Twenty Jacks from 14.3 to 16 hands high, all good, and including some of the best we ever had. The highest priced Jack at public sale last year was from our herd, and also the famous champion Missouri Queen. Call or write, mentioning Kansas Farmer.

DEIRLING & OTTO,
Queen City, Mo.

LEE BROTHERS' PERCHERONS FOR SALE.

Imported and Home-bred Stallions and Mares, Blacks and Grays.
80—HEAD OF MARES AND STALLIONS—80

From weanlings up. The kind that we sell such men as W. S. Cora. Every one a good one. Among them is the prize winner from France. She is the best mare in the United States today, barring none. Come or write. All we want is a chance to show them. The price is right.
LEE BROS. Blue Ribbon Stock Farm, Harveyville, Kan.

50—PERCHERON STALLIONS AND MARES—50

Bishop Brothers have 25 big boned stallions that weight 1,700 to 2,100 pounds that they can and will sell for less money than any firm in the business, quality considered. Write us what you want.
BISHOP BROS., TOWANDA, KAN.

SCOTCH SHORTHORN BULLS

Twenty head of high-class Scotch and Scotch topped bulls for sale; yearlings and 2-year-olds; all bred right and good individuals; also herd bull Victoria Prince Second 238026—a herd bull with a record as a breeder; all will be sold; worth the money and descriptions of stock guaranteed.
GEO. A. ROBINSON, Prescott, Ia.

DUAL - PURPOSE - SHORTHORN - CATTLE

Evergreen Home Farms, Lathrop, Mo., J. H. Walker, Prop.—Breeder of dual purpose Shorthorn cattle, Oxford Down sheep, Berkshire hogs and Burbon Red turkeys. Breeding stock for sale at all times. Prompt attention to mail orders. Write us for milk and butter records of our Shorthorn herd.
J. H. WALKER, Lathrop, Mo.

GANZDALE HERD PURE-BRED HOLSTEIN

GANZDALE HERD PURE-BRED HOLSTEIN COWS AND HEIFERS FOR SALE.
To move them quickly we will, quality considered, price them right. We must reduce our herd. We also have a few extra choice quality bull calves for sale, sired by that premier sire, Pletje Count. Several of his sons from large producing dams at prices very cheap. CASPAR A. GANTZ, King City, Mo.

HOLSTEIN COWS AND HEIFERS.

A choice lot of cows, just freshened, all registered and priced reasonable. Also, a few young bulls, sired by Prince Ermsby De Kol, now at the head of the Nebraska College herd. J. F. MAST, Scranton, Kan.

M. E. Moore & Co., Cameron, Mo.
Are offering some extra fine bull calves, largely white. Sire, "Sir Korndyke Imperial" 53683. 100 per cent same breeding as "Pontiac Clothilde De Kol 2d." Champion butter cow of the world; 1,271.6 lbs. butter 365 days, 37.21 lbs. 7 days.

BULL CALVES always on hand, and worth the price.
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Purebred Registered
HOLSTEIN CATTLE
The Greatest Dairy Breed
Send for FREE Illustrated Booklets.

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SUNFLOWER HERD HOLSTEIN-FRIESIANS.

Choice stock, both sexes, always on hand. The best sire in the middle west heads this herd. Visitors and inspection solicited. F. J. SEARLE, Oskaloosa, Kan.

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I AM OFFERING a few young bulls, some of Oxford's Masterpiece, a son of Oxford Lad; Oxford's Brigadier, a son of Gamboe Knight; Merry Maiden's Golden Lad, a son of Merry Maiden's third son; and Burybia's Exile. I have but a few of these calves that are ready for service. Will sell them reasonably while they last. Write for prices and particulars. W. N. Banks, Independence, Kan.

COMFORT'S REGISTERED JERSEY CATTLE.

Carry the blood of the most noted sires. For quick sale, nine choice bulls, nearly all of serviceable age, including two by Imp. Oakland's Sultan, a prize winner on the Island. Others by Gold Boy's Guenon's Lad. Out of high producing dams. Nice colors and good individuals. Write for price and descriptions. F. W. COMFORT, Westmoreland, Kan.

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Only Register of Merit Herd in Kansas. A few bulls of serviceable age, sired by a Highly Commended first prize winner of Island of Jersey, out of tested cows.
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GOLDEN RULE JERSEY HERD.

Headed by Oomer's Eminent 85865. Choice bull calves for sale.

JOHNSON & NORDSTROM,
Clay Center, Kan.

Your Choice—1 bull, coming 2 years, by Beatrice Stockwell; 1 7 months old, by Oomer's Eminent, dam Guenon's Sallie M. test of milk 9 per cent butter fat. Heifers and cows from 6 months to 6 years, mostly Golden Lad and St. Lambert blood. S. S. SMITH, Clay Center, Kan.

7—CHOICE JERSEY BULLS—7
from 4 weeks to 12 months, sired by a son of the noted Sultan Jersey Lad and out of excellent dams. HENRY E. WYATT, Falls City, Neb.

TO CLOSE OUT

our registered Shorthorn herd we offer 45 head cows, bulls and calves. Prices and breeding on request.

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Oswego, Kansas

RED POLLED CATTLE

RED POLLED BULLS FOR SALE.

Three yearlings, weighing 800 to 1000, get recorded. During January \$75 each. Chance of a lifetime. Beef and milk qualities combined. Herd bull weighs a ton. Bulls ready for service. September O. I. C. boars for sale. MILTON PENNOCK, Route 4, Delphos, Kan.

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The champion beef and milk producer of the age; bred and for sale by the undersigned. Write for prices or come and see the red beauties.
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RED POLLED CATTLE.

The only dual purpose cattle and the most profitable for the farmer. Choice bulls for sale.
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Herd numbers 50, headed by Prince, a ton bull in condition; 10 choice young bulls and a few cows and heifers for sale; farm one mile from town.

AULD BROS.,
Frankfort, Kan.

FOSTER'S RED POLYS.
Choice bulls and heifers priced reasonable.
C. E. FOSTER, R. R. 4, Eldorado, Kan.

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NEW BUTTERGASK SHORTHORNS.

Herd headed by Snowflake's Stamp and Snowflake's Star, the latter the cup winner at the 1911 Mitchell County State-Wide Fair. Straight Scotch and Scotch-topped bulls for sale.

MEALL BROS., Props., Cawker City, Kan.

GLEN HALL SHORT HORN HERD

Headed by Choice Prince, by Prince of Tebe Lawn and out of Good Lassie by Choice Goods. 5 choice red bulls in age from 10 to 14 months. Herd header, Prospects.

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875 Breeding Shropshires

High grade black faced breeding ewes. All young, from yearlings up. A number of good young mares, draft bred and some good young work mules. 185 head good stock cows. Can furnish car lots of any class of stock. Maryville branch U. P. station on farm. Alkin Ranch, F. T. Grimes, Manager; Railway Station, Alkin, Kan.; P. O., Emmett, Kan.

Ten Extra Choice Shorthorn Bulls.

Five pure Scotch and five Scotch topped. Also few cows and heifers bred or open. Twenty big-type Poland China gilts bred for spring farrow to a good son of Metal's Choice. All out of mature dams. Inspection invited.

S. B. AMCOATS, Clay Center, Kan.

GREENDALE SHORTHORNS.

A few choice bull calves for sale, sired by my noted herd bull, Double Champion, by Choice Goods, and out of Ruberta.

ED GREEN,
Howard, Kansas.

R. D. Martin Sells Again.

On February 27, R. D. Martin & Sons at Eureka, Kan., will sell a draft of Dueroes. It will be remembered by most breeders that R. D. Martin cleaned up the platter and walked away with champion and grand champion at the Kansas State Fair at Hutchinson, Kan., last year. Full mention will be made next week. Please look for ad in February 10 issue and write now for catalog. Kindly mention Kansas Farmer when you write.

POLAND CHINAS.**POLAND CHINAS****DEAN'S MASTODON POLAND CHINAS.**

A number of 300-lb. fall boars now ready. They are the big, mellow kind, with 7% of 8 1/4-inch bone. To move quick, will sell at from \$30 to \$35. Also an extra lot of spring gilts and boars, will weigh 200 lbs. A number of herd headers. Can sell you young pigs if you want to save express. Offering sired by Mastodon Price and Columbia Wonder. CLARENCE DEAN, Weston, Mo. Phone, Dearborn, Mo. R. R. Station, New Market, Mo.

BIG TYPE POLAND CHINAS.

Thirty fall pigs sired by Spotted Chief, both boars and gilts, out of matured sows of the large type breeding. Will also offer for a short time only a limited number of spring gilts sired by Spotted Chief and R. B.'s Longfellow, which are bred to King Wonder, a son of old A. Wonder No. 107353 for March and April farrow. These are extra good and are priced reasonable, breeding and quality considered. Description of stock guaranteed. W. F. HOUX, JR., HALE, MO.

BIG HADLEY, BIG HUTCH AND EXPANSION BLOOD

Predominate in my herd. Herd boars: Hutch Jr. by Big Hutch and King Hadley 2d by Big Hadley. Among sows are Grannetta, litter sister to Bell Metal; Pan Princess, weight 725 lbs.; Mollie S., 750 lbs., and Jess Corwin, the dam of Expansion Sea, the biggest boar ever owned in the West. 30 choice pigs farrowed to date. Visitors always welcome.

C. W. JONES, Solomon, Kansas.

LONGVIEW POLANDS.

Herd boar young Mastiff. The first and grand champion at Topeka, Kansas, State Fair, 1910. A few choice spring boars and gilts for sale, all large type. Priced reasonable and guaranteed. D. M. GREGG, Harrisonville, Mo.

MADISON CREEK POLAND CHINAS.

Twenty choice spring boars of strictly big type. Low prices in order to make room for fall pigs. J. L. GRIFFITHS, Riley, Kan.

LAMBERT'S CORRECT TYPE POLANDS.

Ten ribbons at Topeka State Fair. The big, smooth kind. Pigs or bred sows for sale. JOSIAS LAMBERT, Smith Center, Kan.

M'S GIANT WONDER 58159.

800 pounds, 11-inch bone as a yearling. For Sale—Choice tried sows bred to this great boar for March farrow.

HOPPE'S BIG TYPE QUALITY POLANDS.

The best of the big type breeding; fed for best results. Bred sows and gilts for sale.

W. V. HOPPE, Stella, Neb.

Thirty Bred Gilts for Sale.

A. L. Albright, of Waterville, Kan., the breeder of the big, smooth kind of Poland Chinas, is offering that number for sale at \$25 to \$40. Write him.

DISPERSION SALE.

I offer at private treaty my entire herd of Poland Chinas, young boars, tried sows and gilts, open or bred to Giant Monarch, the king of big type boars. Some great ones at a bargain. Write.

W. C. MILLIGAN, Clay Center, Kansas.

MOONEY CREEK POLAND CHINA HERD

The biggest of the big. Wonder and Mastodon strains. Herd headed by Big Osborne. I have bought seed stock from the best herds in Iowa and have new breeding for Kansas. Have an extra fine boar for big or medium type breeder. Also fine gilts for sale. Write for information. Visitors welcome.

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The big type Poland Chinas. Herd headed by Major B. Hadley, the Grand Champion at American Royal, 1911. Also Young Hadley and Big Spot. A grand lot of fall pigs for sale, priced to sell.

A. J. ERHART & SONS

Adrian, Mo.

At Head, BLUE VALLEY EXPANSION 54414.

A Grand Individual, With Massive Bone and Length.

L. C. WALBRIDGE, Russell - - - Kansas.**POLANDS.**

Fuller Brothers' prize Polands. Grand champion sow, Sedalia, 1911, and other prize winners in herds Storm Center, sire of champion sow, and Big Tecumseh, at head of herd. We also breed Hereford cattle and Scotch Collies. FULLER BROS., Humphreys, Mo.

HARTER'S BIG KIND POLAND CHINAS.

Headed by Mogul's Monarch, Prince Hadley, and other good sires. Choice breeding stock always for sale.

J. H. HARTE, Westmoreland, Kansas.

THE POLANDS THAT TAKE.

FOR SALE—At low prices, several of Toulon Prince's spring boars. Write me quick. L. E. KLEIN, Zeandale, Kan.

VINECROFT POLAND CHINAS

Bred for quality and size. Address, ALVIN LONG, Lyons, Kan.

BRED GILTS \$25 to \$30 EACH.

20 fall gilts, big and smooth. Big type. Good time to start herd. Write quick. F. D. YOUNG, Winchester, Kans.

LIMESTONE FARMS

breeds Shropshires, Big Poland Chinas, Buff Orpingtons, S. C. Brown Leghorns, Indian Runner ducks and Chinese geese. Choice cockerels for sale worth the money. M. GOTTSWILER, Clarksdale, Mo.

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Still has a few choice spring boars for sale. Sired by First Quality 60266 and out of Expansion and C's Perfection dams. JAMES ARKELL, Junction City, Kan.

MAMMOTH HADLEY POLAND CHINAS.

60 choice spring pigs sired by Mammoth Hadley and Grand Model, two as good sires as can be found in the west; dams of pigs carry the blood of nearly all big sires.

GEO. W. SMITH,

Burchard, Neb.

W. Z. BAKER, LARGE TYPE POLAND CHINAS

A few choice boars, bred sows and gilts for sale, bred to King Hadley, John Ex. and John Long 2nd. Prices right.

W. Z. BAKER, Rich Hill, Mo.

HAMPSHIRE HOGS.**100 HAMPSHIRE SOWS,**

spring gilts, fall gilts and mature sows. Sired by sons of champions; some of them bred to a winner of the blue at the Ohio State Fair this year, the rest bred to sons of champions. Best of breeding and best of individuals, and priced right down to bedrock. Write us.

WOODLAWN FARM CO., Sterling, Ill.

HAMPSHIRE thoroughbreds from prized stock, fine sows and gilts exceptionally cheap. Duroc Jersey out of the best blood possible. Brood sows and gilts, also some exceptionally good male hogs. All registered. Priced to sell. The Springdale Stock Ranch, Concordia, Kansas.

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High Class Hampshires—Herd Headed by the Celebrated Earl Erlanger 1038. High class young boars for sale. Will also sell Erlanger.

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Some fine spring boars and a fine lot of summer pigs, all registered stock.

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Thompson's Big, Growthy Mule Foot Hogs have won more first prize ribbons than any herd in America. Stock of all ages for sale, sired by or bred to my six big State Fair first prize winning boars. Prices low, quality high. Brood sow sale February 28. Write for catalog. Chas. K. Thompson, Letts, Ind.

BERKSHIRES**BERKSHIRE HOGS.**

Guaranteed choice breeding stock of very fashionable lines. Either sex. Pigs, \$15; of breeding age, \$25; very extra choice, best quality, \$35. Registered. Crated f. o. b.

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for sale. All sired by the grand champion at Kansas State Fair, 1910; 15 spring boars and 15 spring gilts, priced. Write at once.

T. E. CLARKE, Medora, Kan.

DUROC JERSEYS**100 DUROC JERSEY SOWS,**

spring gilts, fall gilts and mature sows. Sired by sons of champions, bred to sons of champions. An extra choice lot. Prices from \$20 up. Write us.

WOODLAWN FARM CO.,

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GOLDEN RULE DUROC HERD; Dreamland Col., the best Col. boar in the west, in service, assisted by J. C.'s Defender, by the noted Defender; 100 choice spring pigs for sale in pairs or trios not related; bedrock prices. LEON CARTER, Asherville, Kan.

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DUROC JERSEY SPRING BOARS

Up-to-date breeding, plenty of quality and good colors. Priced for quick sale.

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25—DUROC JERSEY SPRING BOARS—25

By such sires are King to Be and G's Col. out of the greatest sows of the breed. Also two fall boars sired by Neb. Wonder, and a few spring gilts. Will not hold fall sale.

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B. & C. Col. and Bells Chief

Young boars of serviceable age. Best blood lines. Bred sows and gilts, and fall pigs, either sex.

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Richly bred boars and gilts in pairs not related at prices to move them.

O. A. TILLER, Pawnee City, Neb.

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At WINFIELD, KANSAS, February 28, 1912

40—BRED SOWS AND GILTS—40

From the best blood known to the breed—from the well-known sires, Chief's Col., Crimson Wonder 3rd, Bell's Chief, Prince of Cols., Top Commodore, Improver Lad, Col. Scion and Bell Scion. I will sell litters from the best sows in my herd, such as Belle Scion, Belle Vara, Scion Maid, Ruby Scion, Crimson Dutchess and Scion's Choice. I am selling a lot of my best sows and the pick from my fall and spring gilts. My catalogs are ready, and I would be pleased to mail you one. Write me at once. Kindly mention Kansas Farmer when you write.

G. C. NORMAN, Winfield, Kansas

150 Shetland Ponies 150

Stallions, Geldings and Mares. All colors and ages. Thirty-four to forty-eight inches high. Call on or address,

C. H. CLARK,

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**40 STALLIONS AND MARES.**

My barn is full of good Percheron, Belgian and Shire Stallions. Priced to sell. I mean business. Come and look them over. If you want good horses, we can deal. My prices are from \$400 to \$1,000. Come and see me before you buy. Then be your own judge. Barn right in town.

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At the 1911 shows we won Championship on both Percheron and Shire Stallions, at the American Royal, the Inter-State and the Missouri State Fairs. All our horses are imported. We sell as low as anyone on earth, quality considered. Our guarantee and insurance are the best known.

PERCHERON IMPORTING CO., South St. Joseph, Mo.

**Percheron Stallions and Mares**

A few choice stallions and several brood mares safe in foal. Matched teams from 2 to 5 years old.

Come and see me.

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Priced to sell—from yearlings to three-year-olds. All dark colors, heavy bone and large size; plenty of quality. The best of breeding. All registered in Percheron Society of America. Come and see me.

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**PERCHERON, BELGIAN, GERMAN COACH STALLIONS AND MARES.**

Imported and home-bred. Will sell our 1911 champion and other prize winners. Write or come. I make good. Mention this paper.

PIONEER STOCK FARM, J. W. Waddill, Prop., BRASHEAR, MO.

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Young registered stallions, from weanlings to 4-year-olds, outstanding in bone, size and quality. All registered in Percheron Society of America. Write for bargains.

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On Main line of C. B. & Q. Railway, 60 miles east of St. Joseph.

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JUST think of it! Kansas Farmer will give away four more beautiful Shetland Ponies and Outfits to Kansas boys and girls. If you would like to have one of these for your own and get it without costing you one cent, be sure to read all on this page. Kansas Farmer has already given away ten Shetland Ponies. We shall be pleased to tell you who we gave them to and just how you can get one of these four ponies which we are going to give away

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THE PRIZE PONIES.

Are little beauties. They are gentle and you can drive, ride or lead them anywhere you please. One of our ponies would sure make you a fine playmate, and they are so cute that, after you have had one a few days, you would not want to part with it for anything. Just the trick to ride or drive to school. Every boy and girl wants a Shetland pony because they are so useful, pretty and good. You can certainly have a happy time if you get one of these ponies and outfit. A Shetland pony always makes a fine pet, and they are so loving that they will follow you everywhere you go. But the ponies which we are going to give away are good to mind, and we are sure that the little master or mistress of one of them will think they have the best pony in the world. Be sure to send in your name at once, so you will have a good start to win one of these ponies.



GRAND PRIZE.
Shetland Pony, Cart and Harness.

THEIR OUTFITS.

With the pony, which we will give as Grand Prize in this contest, goes one of the nicest outfits that you ever saw, consisting of a cart and pretty tan harness that are just dandy. All are made from the best material, and we have spared no time or money in getting this outfit so that it will be bound to please the boy or girl who gets it.

The second and third prize ponies have each a saddle, saddle blanket and bridle, so nice that you will never get tired of using them. They will last a long time, and the boy or girl who wins one of them will spend many happy hours in riding one of the finest ponies any child ever owned.

The fourth prize pony has a saddle and bridle just as good as the second and third, only they are just a little smaller, because this pony is not so big as the other ponies, but just as good and gentle. Some boys and girls might like a smaller pony better. All of the outfits are new, and we will send each with the pony to the winner without one cent of cost.

TO BOOST KANSAS FARMER

we are going to give away these ponies, outfits and numerous other prizes, in this contest. KANSAS FARMER is one of the best weekly farm and home papers in the United States. Each week it is full of good reading of especial interest to those living in the country and on the farm. Every farm home should have this paper, and we want a number of hustling boys and girls to help us boost KANSAS FARMER. We are going to give every hustler a prize. The work will not be hard, and all of your friends will help you, for everyone likes to help boys and girls who are ambitious to do something for themselves. The contest is limited to the boys and girls of Kansas only, so you will not have to compete with those in other states. You can be one of the four who are going to get these ponies. Don't say you can't get one of them; just "pitch in" and try. It will be easier than you think. GET AN EARLY START BY CUTTING OUT THE COUPON BELOW AND SENDING IT IN TODAY.



SECOND PRIZE.
Shetland Pony, Saddle and Bridle.



THIRD PRIZE.
Shetland Pony, Saddle and Bridle.

GET AN EARLY START

by sending in the coupon today. Our contest will be short, and it will not be long until the four beautiful Shetland ponies and outfits will be sent to their winners, with all express charges paid. You have just as good an opportunity as any other boy or girl. It does not make any difference in what part of Kansas you live, or how busy you are in school or with your work at home. We want busy boys and girls to help us boost KANSAS FARMER, and the busier you are the better it will be for you. Be sure to send in the coupon right away, so you can get an early start.

COUPON

THE PONY BOY, Care KANSAS FARMER,
625 Jackson Ave., Topeka, Kansas.

I would like to become a contestant for one of the four ponies and outfits and other prizes you are offering to boys and girls living in Kansas. Please tell me how I can help you boost for KANSAS FARMER.

My Name..... Age.....

P. O....., Kan., R. R.

Parents' Name.....



FOURTH PRIZE.
Shetland Pony, Saddle and Bridle.

NO EFFORTS WILL BE LOST.

Every contestant will be given a prize which will not only please, but be useful. Besides the four ponies and their outfits, we will offer a bicycle, watches, rifles, cameras, bracelets, fountain pens, knives, post cards and numerous other articles which every boy and girl would be delighted to get. We will do this so that all of the contestants will receive something nice for their time and efforts. You can't lose. Try your best to win the Grand Prize and have a beautiful pony, cart and harness all for your own. You can do it. Send in your name at once. You never can tell what you can do until you try.

BEGIN NOW

by clipping out the coupon at the left of this, fill in the blanks plainly, and mail it today to the address below. We will then send you full particulars and help you get started. Be sure to mail us the coupon right away, so you will have an early start. You can send it in a letter or write on a post card.

Address all Letters
and Cards to

THE PONY BOY

Care KANSAS FARMER
Topeka, Kan.

BARGAINS IN LANDS

HAMILTON, GREELEY, KEARNEY COUNTY LANDS.

Good, dark loam, smooth soil, no rock or sand hills, irrigated or unirrigated, large or small tracts in alfalfa, wheat, beet, broomcorn lands, where cattle, horses, sheep raising is very successful. Who wants a home of their own? Mr. Homeseeker or investor, let us hear from you in regard to what you are looking for, and full particulars, prices and literature will be sent free. Good terms and honest prices. Write or call and see.

HOSTETLER & COMPANY, Syracuse, Kansas.

WE TRADE OR SELL ANYTHING ANYWHERE. The Realty Exchange Co., 18-22 Randall Bldg., Newton, Kan.

ESTABLISHED 1885—Write for free list. Park H. Thornton, Real Estate Dealer, Coldwater, Comanche Co., Kansas.

Jewell County—320 acres, 5 1/2 miles from Esbon; good improvements. Must sell quick. Address J. A. Cole, Esbon, Kan.

WANTED—Farm in northeast Kansas in exchange for well improved 320 in Washington Co. Write Lock Box 71, Morrowville, Kan.

800 ACRES for sale or exchange; well improved, alfalfa; want smaller tract or hdw. and implement stock. For full particulars address R. R. Box 30, Wayne, Kan.

35-Room Flat, in fine condition, always rented, to trade for western land. What have you? O. M. Elliott, 435 Kansas Ave., Topeka.

WE HAVE a nicely-improved 285-acre farm 3 miles from Garfield, Kan., that we can sell you, worth the money, or trade for a good stock farm in east part of state. Kimmel & Garth, Larned, Kansas.

FOR TRADE—160 a. in Saline Co., 2 miles of town, 120 a. in cult., 9 room 2 story house. Price, \$10,000; mtg., \$3,750. Want land in Northwest Kansas. Address, M. W. Cave, Salina, Kan.

TRADES WANTED We want to list properties that owners want to exchange. Write your proposition to Owners Exchange, Salina, Kan.

BUY YOUR HOME NEAR CHANUTE, KAN. where you get good land, fine market, delightful climate, at \$30 to \$50 per acre. Write today. Home Investment Co., Chantute, Kan.

LANDS FOR EXCHANGE—Some good propositions for sale or trade in this locality. Offer us anything good. Write for descriptive book on Meade county, with prices. MARRS & DAY, Meade, Kan.

FARMS AND RANCHES for sale or trade. Corn, wheat, alfalfa and pasture land at from \$10 to \$40 per acre. You should buy now. Let us tell you why. Sperry & Olson, Hill City, Kansas.

GREENWOOD COUNTY FARMS and well-grassed stock ranches, in the corn, clover and bluegrass country, for sale at low prices on liberal terms. Write for full information.

J. G. SMITH,
Hamilton, Kansas.

NO. 65—280 ACRES, adjoining Coldwater, 200 in wheat, 1/2 goes, second bottom land fine for alfalfa, full set improvements. For quick sale \$45 per acre. Easy terms on half. TAYLOR & BRATCHER, Coldwater, Kan.

FOR SALE—Good terms, 625 acres, near Ellis, Kan., 430 acres in cultivation, 400 of this wheat, balance pasture. Black loam soil. Fenced, cross fenced. Excellent water supply. Two granaries, barn, 8 room house, other good buildings. Good condition. Write J. M. COUNCIL, Nortonville, Kan.

I AM OFFERING one of the best little farms in Barton County for only \$125 per acre. There are 15 1/2 acres, 8-room house, barn for 16 head of horses and 40 tons hay; 9 acres good timber, 100 fruit trees of all kinds, 24 acres alfalfa which cut 4 tons per acre last year. Half cash, balance to suit. This will go quick. L. A. Harper, Co-Operative Realty Co., Holsington, Kan.

EASTERN KANSAS FARM BARGAIN. 160 acres, 2 miles from Osage City, Kan., 160 acres under cultivation, 1 acre orchard, balance native grass pasture and meadow, farm all smooth, 8 room house (new), good cave, new barn 20x30 feet, with loft, cow barn, hen house, corn crib, hog and cattle sheds, good water, close to school; all good alfalfa land. This is a bargain. Price, \$55 per acre until Feb. 15. J. C. RAPP & CO. Osage City, Kan.

CHOICE WHEAT FARMS.

IN RUSH COUNTY, KAN.

320 acres, unimproved, 3 1/2 miles from market, at \$20 an acre.

157 acres, all in wheat, 1/2 crop with place, at \$30 an acre.

These are genuine bargains for quick action. Write for list.

JAMES H. LITTLE,

THE RUSH COUNTY LAND MAN,

La Crosse, Kansas.

80 Acres. All Alfalfa!

My beautiful home place, 1 1/2 mile of Co. seat, on auto road; 1 mi. of large school; large new buildings, orchard, grove at house, all irrigated, plenty water. Sell over \$2,000 in alfalfa yearly. Finest climate in state, beautiful to irrigate when sun shines. Woven wire 5-ft. fence all around. Been listed at \$225 per a. For quick cash sale \$200 per a. Will pay all expenses of visit if not as represented. Close to Ordway. Write Owner, Iowa Farm, Ordway, Colo.

FOR SALE

1,700 acres of my 4,400-acre ranch in Kearney County, Kansas, on the Arkansas River and Santa Fe R. R.; 700 acres alfalfa land, 100 acres in alfalfa; all fenced with three and four wires; 5-room frame house, stone basement; barn 25x50 feet, part stone; basement; stock sheds with iron roof, all built and 300 yards south of Sutton Flag Station; wells at house, barn and in pasture. Reason for selling: Too big for my foreman to look after. John Shinkle will show place. Price, \$20 per acre net to me. Can be in payments.

H. H. SMALLEY, Springfield, Mo.

80 ACRES choice irrigated alfalfa land near Lamar, Colo.; easy terms. E. C. Keyes, Owner, Hutchinson, Kan.

BUY OR TRADE WITH US—Exchange book free. Bersie Agency, El Dorado, Kan.

Have Few Relinquishments, 160 a. each, left. Some improved. Prices, \$300 to \$900. Kingery Realty Co., Kingery, Kan.

1,000—FARMS—1,000

Everywhere for Exchange. Get our fair plan of making trades all over the United States. Graham Bros., Eldorado, Kan.

100—FARMS—100

Improved and unimproved, at bargains. Desirably located.

THOS. DARCEY,

Real Estate and Insurance, Offerle, Kan.

PAY CASH FOR LAND.

Want to buy, 10 level quarter western land. Will pay \$500 cash per quarter. Give full particulars. Write V. A. LAYTON, New England Building, Topeka, Kan.

STAFFORD COUNTY, KANSAS. One of the best farming sections in the state; write me for descriptions and full particulars about some of the fine farms I have for sale in this section; good crops all the time.

A. L. McMillan, Stafford, Kansas.

80—TEN MI. S. W. TOPEKA, all bottom alfalfa land, good imp., rented 1/4 share, \$7,200. 80—7 mi. S. of City, level, 4 rm. house, etc., \$5,600, settle estate. 5 a., level, new bldgs., 3 mi. S. of city, \$2,000. \$9,000 dept. stock, N. W. Kansas, for clear land. Everything in real estate, city and land; also trades. G. M. COTTRELL, Topeka, Kan.

Exceptional Bargains: Grain, fruit and stock farms, any size, \$5 to \$30; easy payments; good water, mild, healthy climate; list free. **WARD, the Land Man, Mountain Home, Ark.**

WANT A LOCATION?

I can sell or exchange your farm for you for another farm, city property or business of any kind. If you wish to change location give me a full description of what you have to offer, what you want and where you want it. Owners only. **CARL M. COOK, Limon, Colo.**

You Can't Lose Money

If you invest in **EASTERN COLORADO LANDS** at the present prices. If you want a farm, stock ranch or a homestead I can furnish the goods.

F. E. EWING,
Hugo, Colo.

WILL LOSE ALL

If we cannot sell before March 1, 1912—15 fine improved valley farms in Elk Co., Kan., we bought during the severe drought last summer. Also three farms in York Co., Neb. Will take trade part pay. Write for plans and descriptions. Sold eight last few days to home parties. Must sell.

TATE, HUFF & CO.,
Howard, Kan.

THE BEST TOWN TO LIVE IN.

If you would like to live in the most beautiful city in the West, with unsurpassed educational, 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 price, address the

SECRETARY of the COMMERCIAL CLUB,
Topeka, Kansas.

ESTATE FOR SALE.

Buy direct and save commissions. 460 acres of fine valley land; 3 miles from county seat, best town in the gas belt. Gas belongs to land; revenue of \$250 to \$300 per year. Well improved; nice house, large barn; 160 acres now under cultivation, balance fine blue steam meadow and pasture. Want to sell by March 1. Quick cash price, \$45 per acre. Lock Box No. 926, Fredonia, Kan.

I HAVE FOR SALE,

until the first of March, a nice quarter of land, all in cultivation, no improvements except fences, located in Jackson Co., Kan., 2 1/2 miles from one town, 3 1/2 from another, and 6 miles from another, all railroad towns and good markets; public roads on two sides of this farm. Price, \$55 per acre. \$2,500 cash; balance terms at 6 per cent. This quarter contains 178 acres, and lays nice. **C. W. HINNEN, Box 143, Holton, Kan.**

ACT QUICKLY FOR THIS.

Farm of 240 a., 7 mi. from city, all fenced and cross-fenced, 90 a. in cult., 50 a. hog-tight, bal. native grass meadow and pasture. Fine 2-story house, good barn, feed lots, cribs, etc.; large bearing orchard; plenty of good water; half mi. to school, good road to town. Easy terms. \$30 per a. Fine bargain. Write quick.

W. A. NELSON,
Fall River, Kan.

DO YOU WANT TO MAKE MONEY?

A reservation of fertile valley land is now open in Mexico. Homesteads free. Only requirement is to have five acres planted within five years. An authorized improvement Co. will plant the bananas and market them on shares. Your share should bring \$200 per acre annually. Apply immediately. Address the Rio Tonto Land Co., Block 421, Greensburg, Pa. They are distributors for the U. S. The land lies between the river and railroad. Climate fine, eternal spring, never hot—never cold. Abundant rainfall. Three crops a year. You need not go to Mexico.

A FINE FARM AND STOCK RANCH.

Cannot be beat for cattle and hogs; 2,000 acres, 800 cult., half bottom land, 170 in alfalfa, 100 fine prairie hay land, 300 in wheat, all fenced, 200 acres hog-tight, pasture is some rolling, has fine running water in every pasture, crib room for 16,000 bushels ear corn and 12,000 bushels wheat, 3 sets good improvements, cost \$7,000; lots of shade trees. This ranch will carry 500 cattle. Located 4 miles from one of the best towns in Kansas. Price, \$55 per acre. We have other farms for sale. Call on

JOHN P. MOORE, Kingman, Kan.

A few days since we advertised a farm 18 miles west of Topeka cheap at \$40 per acre. We sold it to a man from Smith County who saw the advertisement, within ten days. We now have another, two miles distant from the first, 200 acres, good fair improvements, some fine bottom land. A very excellent farm. Price only \$40 per acre, \$10 below its value.

GEO. M. NOBLE & CO., 435 Kansas Ave.

Bargains in improved farms, cutover lands and timber. Winston McMahon, Conroe, Tex.

80 ACRES—Four miles from Muskogee, Okla. (30,000); house, barn, land good. A. H. Harshman, Junction City, Kan.

TWO GOOD ALFALFA EIGHTIES Close to Independence; \$40 per a.; smooth, no waste. Foster Bros., Independence, Kan.

McPHERSON COUNTY improved farms for sale, \$35 to \$100 per a. Write for list. A. W. Bremeyer, McPherson, Kan.

40 ACRES, 4 mi. from Kosoma, Okla., clear, all plow land, to exchange for restaurant stock, clear, well located. J. A. Kasparek, Belleville, Kan.

240, Well Improved Farm, only 6 miles from good town in Wabausee Co., Kan., to trade for western land or Topeka property. O. M. Elliott, 435 Kansas Av., Topeka.

I HAVE SOME OF THE BEST BARGAINS in Eastern Kansas that can be found for sale. Tracts range from 5 to 320 acres. Write me at once. C. L. Saylor, Topeka, Kan.

Virginia Farms and Homes

FREE CATALOGUE OF SPLENDID BARGAINS.

R. B. CHAFFIN & CO., Inc., Richmond, Va.

FOR SALE—315 acres in Allen Co., Kan., in gas belt, gas well on place, 76 acres river bottom, all fertile and all cultivated except 20 acres. \$6500 cash, balance easy terms. Write owner, Sherman Culbertson, Wichita, Kan.

PRICE \$22 PER A.; most favorable terms if sold by March 1, 225 acres, 80 acres valley, in cultivation; balance pasture, some timber; good 6 room house, large barn, other outbuildings; located S. E. Kansas, 1 1/2 miles from R. R. town, 600 inhabitants, 1/2 mile from school. J. F. Belt, Longton, Kan.

WRITE TO ME TODAY about good, low-priced Ness County farms. The literature I will send you will interest you if you are looking for a home or an investment, otherwise it won't. Your request on a postal card brings it. C. H. Brassfield, Ness City, Kan. "22 years in Ness County."

WE MUST SELL THESE FARMS.

Well improved 80, near town, 50 acres in cultivation, 10 acres of alfalfa, \$45 per acre, 160 acres, improved, all smooth land, \$37.50 per acre; terms on both. Write for list of other splendid bargains. We also make exchanges. Severns & Watts, Williamsburg, Kan.

BEST THING TO BUY.

80 acres, all tillable; 65 acres in cultivation, 8 acres in alfalfa, 10 acres pasture, young orchard, new 5-room house, closets, bay window, small barn, granary, cement cave, fine well, fenced, 1 1/2 miles from first station from here; land close from \$90 to \$100 per acre. Owner going to Oregon, says take \$75 per acre. Putney & Dunn, 318 E. Douglas, Wichita, Kan.

BUTLER, HARVEY AND SEDGWICK BARGAINS.

Genuine Snap, 160 a., near good town, 1 mi. to school, all tillable, 80 a. in cult., 15 a. meadow; bal. pasture, all fenced, family orchard, nice grove, good 7 r. house, all necessary bldgs. Price only \$40 per a.; easy terms. Write for new list and Kansas map. Eberhard & Mellor, Whitewater, Kan.

BARGAIN

for 30 days, 1 sec., 3 1/2 miles Plainville; fenced and cross-fenced; part hog tight. Well improved; good schools. 100 acres alfalfa; 300 wheat. 100 acres for spring crop, bal. pasture. \$55 per acre. Good terms, 6 per cent. S. A. Young, Plainville, Kan.

JOHNSON COUNTY STOCK FARM.

160 acres with \$6,000 worth of new improvements (can sell 100 acres more of adjoining land). Big 7-room house, big cellar, closets, bath room and pantry. Main line gas. Horse barn 36 x 36 x 16 with shed 16 x 36. Hog and cow house 16 x 30 x 12 with shed 24 x 30. Hay barn 36 x 60 with two sheds 16 x 60 containing self feeders. Cement silo 16 x 30. 80 acres hog tight, wells, corals and creek handy to buildings. 150 acres tillable, balance creek bluegrass pasture. A bargain if taken before rented March 1. \$120 acre. Terms. Owner, H. C. Williams, Edgerton, Kan.

NEW MEXICO LANDS

RANCH FOR SALE—4,300 acres patented in New Mexico adjoining Colorado line, controlling 20 miles running water, modern stone residence with hot and cold water, bath, stone ware houses, barns and corrals, mostly fenced. Price only \$10 an acre. Goke-Blackwell & Lawrence, Inc., Clayton, N. M.

1280 ACRES BOTTOM LAND, partly in alfalfa and orchard, nearly all under fence, 200 acres under cultivation now, balance finest grazing land in the country. Elegant 6-room stone house, hot and cold water, bath room, stationary wash stand, also with hot and cold water, toilet also in bath room, two large barns, large hen and turkey house, stone milk house, running water, waterworks all over the improved grounds. Fourteen-foot Sampson windmill, pumps 4-inch stream to two tanks, capacity of tanks are 100 and 33 barrels, respectively. Ideal home for a family; healthiest spot in the world for anyone to regain their health; only one-quarter mile to Clayton, N. M. Price, to close it out quickly, \$12.50 an acre. For further particulars address Chas H. Lawrence, Clayton, N. M.

IF YOU WANT A FARM BARGAIN or a trade, write Buckeye Agency, Agricola, Kan.

LAND of the beef steer and his sister, corn, hogs wheat and alfalfa. List Free. F. C. Brackney, Burlingame, Osage Co., Kan.

UNIMPROVED smooth wheat land, 320 a. in Ford Co., 6 miles from R. R. station. Price, \$4,500. Will carry \$2,400 for three years. W. T. Hale & Son, Dodge City, Kan.

THE STRAY LIST

J. L. SOURK, COUNTY CLERK OF NE- maha County. Taken Up—By C. M. Sourk, Goffs, Kan., on January 2, 1912, two steers, 2 years old, red, muleys; \$37.50 each.

STRAYED, NOVEMBER 11, ONE IRON gray mare, coming 6, blind in right eye. Earl Burger, Menlo, Kan.

I HAVE TAKEN UP A STRAY COW ON my farm, known as the Mossman farm, one mile northeast of Erie, Kansas. Description: Red roan, will weigh about 700 lbs.; one crooked horn on left side, and blind in right eye; is about five years old. Can be found at the above-named farm. F. C. Currie, Erie, Kan., R. F. D. 3.

W. M. TRUITT, COUNTY CLERK OT- tawa County, Kan. Taken up, by James Allison, Lamar, Kan.—One red cow, 5 years old brand on left hip (illegible), value \$22.50. Taken up Dec. 9, 1911.

B. B. REIMER, COUNTY CLERK, Marion County, Kan. The following described stray was taken up by me, the undersigned, July 25, 1911, on S.E. 1/4, section 16, township 17, range 2 east, in Marion County, Kan.—One red bull, about 3 years old, weighing about 1200 pounds, without any brand or mark; properly advertised; appraised value, \$30. Frank C. Ewert.

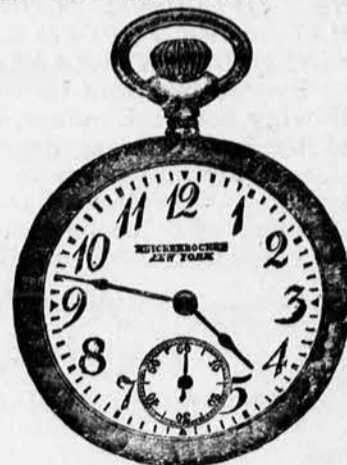
CARSON LANE, COUNTY CLERK, Miami County, Kan. Taken up, on the 25th day of October, 1911—One light red heifer, coming 3 years of age, white on belly and on flanks, both ears clipped and without horns, valued at \$35; by S. J. Russell, in Sugar Creek Township. Postoffice address, Draxel, Mo.

IF YOU WANT TO SELL YOUR FARM— Among the more than 60,000 farm homes into which this paper goes every week, there may be a man or woman looking to buy just what you have to sell. Did you ever notice that every one who wanted to sell his farm, sooner or later found a buyer? When the offer of a farm becomes known more and more, the chances for a quick sale at the desired price get better and better. You can't make your offer known to possible buyers any more cheaply than through an advertisement on this page. The cost is small and the value big. Write for special low land advertising price. Address simply Kansas Farmer, Topeka, Kan.

Boys, Look Here

Do You Want a Real Watch?

If you do, send us your name at once and we will tell you how you can secure the beautiful, guaranteed watch illustrated herewith.



Listen, just a minute! We don't want you to answer this unless you are in dead earnest and really want a watch. We are not going to send you this watch free. This is an honest advertisement and we will tell you how you can get this watch by doing just a little work for us. You can do it. It has been done by hundreds of other boys.

Let us tell you how easy it is to secure a fine watch. Just send your name on a card saying that you want a watch. You can be wearing the watch inside of 10 days. Address,

Watch Dept., Kansas Farmer
Topeka, Kansas

W. A. Prewett's BRED SOW SALE

FORTY-FIVE HEAD, ALL QUEENS OF THE BREED, AND ONE TRIED BOAR, BIG BEN 61169, AT
Asherville, Kans., Feb. 21st, 1912

Sale consists of 13 tried sows, 4 fall yearlings and 28 spring gilts and 1 tried boar, all of the big, smooth kind. These sows are extra good in this offering, and should please the most critical. They are sired by such boars as First Choice 34181, Empire Chief 30379, Big Boaster 45703, Expansion Chief 50519, Smith's Big Hadley 47939, Jumbo, Jr. 54256, Monarch 57776, Acme Chief 42101, Winning Granteer 50907, Blue Valley Quality 43026, First Look 53026, G.'s Royal. These sows and gilts are bred to Expansion Chief, Big Ben, G.'s Royal, Big Expansion. Sale will be held at farm, one-half miles north of town. Send for catalog.

W. A. PREWETT, - - - - - **Asherville, Kansas**
AUCTIONEERS—JOHN BRENNEN, WILL MYERS AND H. H. VAN AMBURG. CLERK—F. O. WELLS.

PRICE'S DISPERSION SALE of PERCHERONS, JACKS, JENNETS, ETC. At Farm near Burr Oak, Kan. FRIDAY, FEBRUARY 23, '12



Two imported Percheron Stallions, 2 recorded American-bred Percheron Stallions, 3 good Jacks, two of them of serviceable age, 7 choice Jennets, 4 of them of breeding age and bred, 12 registered Duroc Jersey Sows and Gilts, bred for spring farrow.

FARM TO THE HIGHEST BIDDER.

I will also sell my 80-acre improved farm, 70 acres under plow, 35 acres alfalfa; farm fenced hog-tight; 5-room house, with arch cellar; good well and running water; other good out-buildings, fruit, etc.; 7 miles from town, half mile to school; telephone and rural mail delivery. Write for catalog, mentioning Kansas Farmer.

AUCTIONEERS—JOHN BRENNEN, ESSIE CRAVEN.

O. B. PRICE,
Burr Oak, Jewell Co., Kansas



WARD BROTHERS Annual Duroc Jersey Bred Sow Sale

AT FARM, NEAR REPUBLIC AND SCANDIA, KAN.,
MONDAY, FEB. 26, 1912

THIRTY HEAD, THE KIND THAT ARE IN DEMAND BY THE BEST FARMERS AND BREEDERS OF TWO STATES. Fourteen tried sows and 6 fall yearlings, including Maud Beauty by Model H. and out of a Crimson Wonder dam; Bell Pet by Pearl's Golden Rule, and Cherry Girl 2nd by Cherry Boy; others by G. C.'s Kansas Col., Prince Wonder 2nd, Wonder Chief, Paul Jumbo, Bell's Chief and others. The gilts are a very uniform bunch, mostly sired by Expansion.

THE OFFERING CONTAINS MORE ANIMALS THAT HAVE TOPPED SALES THAN WILL BE CONTAINED IN ANY KANSAS SALE OF THE SEASON.

Everything bred for March and April farrow to the following boars: Expansion, Bell's Prince Wonder, Climax 2nd by 2nd Climax, dam a noted prize winning sow. A few to Model Cherry by Model H. and out of a Cherry Boy dam. Everything has been through the cholera and are supposed to be immune. Write at once for catalog. Free transportation from Republic and Scandia, Kan.

WARD BROS.
Republic, Kansas

Auctioneers—Ray Page, N. S. Hoyt, Mont Orr.
W. E. Monasmith sells the following days at Formoso.
Fieldman—Jesse Johnson, for Kansas Farmer. Send bids to him, in my care.

MONASMITH'S

Annual Duroc Jersey BRED SOW SALE

AT FORMOSO, KANS.
Tuesday, Feb. 27, 1912

54—HEAD—AS GOOD BLOOD AS CAN BE FOUND, WITH INDIVIDUALITY TO MATCH—54 HEAD.

24 TRIED SOWS, including Bonnie May by Bonnie K., Maud by Pearl's Golden Rule, Alice Bly by Queen Rule, he by Pearl's Golden Rule, G. C.'s Col., Fancy by G. C.'s Col., Miss Perfection by Wonder Bob by Nebraska Wonder; others by I Am A Bonnie K., Golden Ruler and King of Kantbebeat.

15 FALL YEARLINGS, all sired by Bonnie K., including 5 out of a litter of 17, dam Model Girl by Model Chief Again.

15 SPRING GILTS, by Bonnie K. and Kansas Special, carefully selected and very uniform, out of such sows as already mentioned. The offering will be bred for March and April farrow, the tried sows to Bonnie K. and Kansas Special, gilts to Bonnie K., Kansas Special, O. E.'s Expansion and W. E.'s Tientsin. Write for catalog. Ward Brothers sell day before, at Republic, Kan.

W. E. MONASMITH, Formoso, Kansas

Auctioneers—Ray Page, N. S. Hoyt, John Brennen.
Fieldman—Jesse Johnson, for Kansas Farmer. Send him bids, in my care.

FIELD NOTES.

An American Victory in the Nubian Desert.
Early in the present decade, an English corporation engaged in the making of drillings in Egypt, secured the services of Mr. James S. Gray, formerly of Lima, O., to take charge of the work. Mr. Gray got together a huge caravan to make the journey across the Nubian Desert from the valley of the Nile to the western oasis in upper Egypt. The expedition failed, however. The intense heat of the African sun, together with the sand of the desert, caused the wagons and carts to break down and give out when but a small portion of the journey

had been accomplished. A few years later, however, in 1906, the trip was again attempted, the camels drawing a regular pattern wagon taken from stock in Pittsburgh, Pa. These wagons, however, were fitted with Electric steel wheels. The use of these wheels did away with all tire setting, rattling spokes, loose felloes and breakdowns and enabled Mr. Gray to acquire the honor of being the first man to carry a caravan across the great Nubian Desert. He was thus the forerunner in the opening up to civilization of the vast territory, some of it not yet on maps of the world. The wheels used were built by the Electric Wheel Company, who make wheels

to fit any wagon. These steel wheels are especially adaptable for farm work, are guaranteed to carry a load of 4,000 pounds over any kind of road, give a lighter draft than the high wheeled wagon and make not only a lasting wagon, but also an easy loading wagon. A picture of the camel caravan with full particulars regarding the expedition will gladly be furnished to anyone addressing the Electric Wheel Company, Box No. 34, Quincy, Ill.

"Acorn" Brand Seeds.

The catalog of "Acorn" brand seeds has just come to Kansas Farmer. It is from the old reliable house of Ross Bros., Wichita, Kan. This firm has been in the Kansas seed business for over 25 years. In that time they have made a careful study of the needs of Kansas and Oklahoma farmers. They have developed special strains of field and garden seeds which have proven of the utmost profit for this field. The new catalog tells all about these. The book is easily readable, and is in plain Kansas language, so it is also easily understandable. Every Kansas and Oklahoma planter ought to have Ross Bros' catalog. It is sent free for the asking. Kindly mention this paper when writing.

When writing advertisers, please mention KANSAS FARMER.

FRANK IAM'S' DRAFT-STALLIONS

Are "up-to-the-minute" and 10 years in advance. They are the "Drafty, big-boned type"—"Nifty big Black Boys"—the real "medal winners"—sensational "show and business horses" of note, "ripe peaches" from the "select 400." Big, classy "Peaches and Cream"—"Black Boys." The "Iams Brand" of drafty "top notchers." Iams' 1912 importation of Percheron and Belgian stallions and mares are in the "Pink of Condition" and ready for a "good selling." "Ikey, Boy," smile sweetly, and hundreds of Iams' satisfied customers "will sit up and take notice" that Iams, the "King Pin" horse importer, is still "doing business" at the "old stand." Iams is "pushing" his horses to the front. The big "Peaches and Cream" "Boys and Girls" are attractions that can't be overlooked. Iams mesmerizes buyers with "real drafters," at "bargain prices," and having the "horses as advertised." Iams' "competitors" and "hammer knockers" are "boosting Iams" by their "knocks" until now he is known as the "Millionaire Horseman," and on "Easy Street," and growing fast. Ikey, "Come on along," and sing Iams' song. He is selling these "aristocratic," fancy "Black Boys" cheaper than ever—or better horses for less money—\$1,000 and \$1,400 (few little higher). Iams has

120 PERCHERON and BELGIAN STALLIONS and MARES 120

They are "Models"—"Humdingers." They are 2 to 5 years old, weigh 1,700 to 2,500 lbs., 80 per cent blacks, 50 per cent ton horses. All "approved and stamped" by European government. Registered in popular stud books of U. S. Many "prize winners" and "gold medal horses." Big, Drafty "top notchers," with big bone, quality, style, finish and action to burn. They are "Eye-openers"—larger and better horses than seen elsewhere. Big "business propositions" that make "the wheels work fast" under a "Buyer's hat." "Georgie, dear," Iams made a "big killing" by buying his horses in Europe in October 1911. "Dry weather," "bad crops," "close money" and "Iams' cash" caused the "prize winners" and "tops" to be thrown on the market for a "good selling." Iams "cut the melon" and bought the "rippers" at "knockout prices." Iams will give his customers the benefit of his "good buy." "Ikey, boy," "come on down town"—get into

IAMS' "Get Rich Wagon" and Save \$1,000 on a "Top Stallion"

(and you wear the diamonds). Iams is a "big fly in the jelly" in the horse world. "He keeps the gang guessing." Iams sells "Imported horses only"—(They win 90% of prizes at big horse shows). No "American bred full bloods"—No "Auction stuff" or "Peddlers' horses"—only "choice draft-ers" of big size, bone, quality and finish. Iams imported horses are "approved"—"branded," "In-spected," and "Certificate stamped O. K." by governments of "France and U. S. A." Iams has the "crack stallions and mares" you "read about." Buy horses of Iams and you won't "get stung" in horse or price. "Dolly D.," waltz me around once again "Ikey," land me at Iams' box office and importing barns. Full to "the roof" with "Black boys" (and all must be sold). Reduced prices. All the world knows Iams and his "Peaches and Cream" horses. 1912 promises to be a bumper year to Iams and his customers. He saved \$300,000 to stallion buyers in 1911. Watch "Iams' smoke" in 1912. Iams' 30 years of successful business makes him a safe man to do business with. Iams sells horses "on honor." A boy or a lady can buy as cheap as a man.

IAMS' 1912 HORSE CATALOGUE IS AN "EYE-OPENER." IT HAS "A LAUGH" AND A \$1,000 BARGAIN IN EVERY LINE. "A bunch of gold" THE "BOOK OF BOOKS" to stallion and mare buyers. It is full of "WIDE-AS-A-WAGON DRAFTERS"—the real "peaches and cream" stallions. It shows LARGEST IMPORTED stallions and mares in the United States, "TRUE TO LIFE," and TRUTHS, FACTS, "BUSINESS PROPOSITIONS," and 100 illustrations of "TOP-NOTCHERS" and the "TRICKS OF STALLION PEDDLERS" and "AUCTION BLOCK" SALESMEN. It is the finest, most elaborate, and original up-to-date horse book in the world. Iams, the "square deal" horseman, makes every statement in ad. or catalog good—or you get the \$500 he hangs up. Iams guarantees to sell you a better imported stallion at \$1,000 and \$1,400 (few higher) than are sold to stock companies for \$4,000. Imported mares, \$700 and \$1,000. Iams gives 60 per cent breeding guarantee; pays freight on horse and fare of one buyer. He can furnish \$1,500 insurance. IAMS buys and sells every stallion himself. Saves buyers \$1,000 in middlemen's profits. He buys stallions by "trainload." He speaks the languages—(saving 20 per cent). He is not in the "Stallion Trust." No partners—to share profits. He "pays cash" for his horses—and sells "top notchers" by "hot advertising" and having "the goods." "Big Ikey," leave your "happy" home and buy a "top" stallion or pair of imported mares (of Iams) that bring colts that sell at \$500 each. "Papa," don't let those "auction men" "hand you a lemon" in one of those "so-called" "American full-bloods" of questionable breeding. Buy an imported horse of Iams, the "reliable horseman." Then we will "all wear diamonds." Iams' "selling clothes" fit all buyers. Write for Iams' million-dollar horse catalog. Iams won't let you go without a Peaches and Cream stallion or mare. "He sells the tails off them." Iams' guarantees are backed by "half-million dollars." References—First National and Omaha National Banks, Omaha; Pack-Banks, St. Paul, Neb. Iams buys big ad. space because it is cheaper than flannel-mouthed horse salesmen.



ST. PAUL, NEBRASKA

IRA C. KYLE & SON'S SIXTH ANNUAL

Jr. Wonder and Giant Chief Price Bred Poland China Sow Sale

MANKATO, KANSAS, February 15, 1912

J's Wonder 50571, by Republic Chief, for three years at the head of our herd. Jensens said of him when a 2-year-old: "He is the best hog we have ever used excepting Mogul."

Giant Chief Price 82103, owned jointly by ourselves and Carl Jensen & Son, of Belleville, is the best Long King 2-year-old in the West. Not a drop of small type blood in this hog. He invariably pleases visitors, and in service is most promising.

The offering consists of 50 head, largely tried sows of popular large type strains, mated to these hogs, and J's Wonder fall gilts bred to Giant Chief Price. Catalogs ready.

IRA C. KYLE & SON,
AUCTIONEERS—COL. JOHN BRENNAN, COL. N. S. HOYT.

Mankato, Jewell County, Kansas
FIELDMAN—JESSE JOHNSON.



I AM PROUD OF
MY ANCESTORS.
OTHER PEOPLE
ARE PROUD OF ME.

Col. Prof. 117587

E. & C's Col. 80587
Professor's Lillian 263688
Prince of Cols. 13571A
Love 35600A
Professor 81373
Chief Lillian 70784A

Sows bred to this boar sold at ROBERT T. MILLER'S Bred Sow Sale, February 15, Table Rock, Neb. Send for catalog.

FIELD NOTES.

Will Sell Jacks and Jennets.
The famous Limestone Valley Farm will sell 65 head of Jacks and Jennets on March 5, next, at Smithton, Mo. These Limestone Valley sales of Jacks and Jennets have become so well known that each is looked forward to as a distinct event in live stock history. This sale will be advertised in later issues of Kansas Farmer.

A Snap in Clydesdales.
Mr. John Sparrowhawk, of Wakefield, Kan., starts his advertisement in Kansas Farmer with this issue, and is offering his splendid Clydesdale horses for sale. His

When writing advertisers, please mention KANSAS FARMER.

personal experience with Clydesdales in this country covers a period of about 30 years. He has always been a lover of the great Clyde. Two of his stallions were sold to a firm in Wisconsin, and one of them was reserve champion at the World's Fair. Another was sold into Wyoming, and still another to Colorado, while many have been sold over Kansas. Mr. Sparrowhawk wishes to close out his Clydesdales and devote his time to Shorthorns. Note his advertisement and call or write. Please mention Kansas Farmer.



We Import the Best Bred Stallions Europe Can Produce

Our Percheron, Shire and Belgian stallions are strong and massive, with great quality, style and conformation—with splendid color and dispositions.

They are selected with an eye single to the wants of the most critical American buyers.

They are stallions that will go into any community and command the best mares,

command the men who are the best pay and who take the best care of their stock.

Our contract of guarantee is as good as a government bond. Our prices are reasonable.

Send for big illustrated catalog and book containing letters from hundreds of satisfied customers.

A⁶ Watson, Woods Bros. & Kelly Co., Box 34, Lincoln, Nebr.

Be Sure to Say When you write our Advertisers I Saw Your Adv

In this paper. Our advertisers like to know from which papers their orders come.

R. E. MAUPIN'S TWO DAYS SALE

At Pattonsburg, Mo.

Feb. 23 and 24, 1912

On February 23, the offering will consist of 100 Poland China sows, gilts and boars—80 bred sows, 10 open gilts and 10 late summer and fall boars. Sows are by Missouri's Meddler, Notcher On, Corrector 2nd, On the Dot, Impudence, Major, and other noted boars, and are bred to Notcher On, Missouri's Meddler and Golden Glory.

On February 24, the offering will be 70 head of high-class registered Shorthorn cattle, consisting of cows, heifers and young bulls, including the great herd bull, Nonpareil Avondale. This is a dispersion offering, and Shorthorn breeders will have an opportunity to buy at public auction the very fine lot of cows and heifers of my herd. Write me for catalogs. Bids sent to fieldmen or auctioneers, in my care, will be fairly treated.

R. E. MAUPIN, Pattonsburg, Mo.

AUCTIONEERS—COLS. J. W. SPARKS, J. T. LEE, D. E. NANCE.
FIELDMAN—W. J. CODY, for Kansas Farmer.

Percheron and Jack Sale

AT UDALL, KANSAS,

February 29, 1912

One black, registered Stallion, 6 years old, weight a ton; 1 black, registered Stallion, 8 years old, weight, 1800; both are registered in Percheron Society of America, and sold sound. One imported Majorica Jack, 16 hands, standard; one 5-year-old black Jack; two 3-year-old Jacks, 15 and 16 hands high; one 2-year-old and one yearling; three Jennets and one weanling Jack colt. Send for breeding folder, and come to my sale. Please mention Kansas Farmer when you write.

JOHN F. FRY, Udall, Kansas.

Onward Wilkes

FARM SALE

At Jefferson City, Mo., March 21, 22 and 23, 1912
50 HEAD OF SADDLE HORSES

including show ring winners and prospects, 15 head of registered saddle bred brood mares, 15 head saddle stallions, 10 head good breeding jacks, 20 head speed horses and young ones, 10 head lady broke saddle and harness horses. I want to buy 10 head Percheron mares, registered. Ask for catalog.

JAMES HOUCHIN, Jefferson City, Mo.

R. D. MARTIN & SONS'

DUROC SALE

At Eureka, Kansas, Feb. 27, 1912

FORTY BRED SOWS AND GILTS—Sired by Dandy Duke, Model Duroc, Greenwood Chief, R. D.'s Improver, Tatarax Model. Twenty-six of these sows are bred to the grand champion boar at Kansas State Fair, 1911. This boar was at head of first prize herd and at head of first prize young herd. I am selling some good sows and gilts. If you want some new blood, come and buy a sow bred to a champion boar. At the Topeka fair last year we won first and second on aged sows, also the grand champion sow. My catalog is ready to mail out, and it gives a complete list of our show record last year. Send for one, read it and come to the sale.

R. D. MARTIN & SONS, Eureka, Kansas
AUCTIONEERS—COL. LOU SMUTHERS, COL. C. E. MILLS.

LIMESTONE RIDGE FARM, CAMERON, MO.—Farm 5½ miles south of Cameron, 35 miles east of St. Joseph and 54 miles northeast of Kansas City, on the Burlington and Rock Island railways. Missouri Jacks, Percheron and Saddle Stallions, for sale at reasonable prices. Extra good Jacks for Jennets. All stock old enough for service, has been tried and will be guaranteed breeders. No trouble to show stock. P. O. address, ISAAC C. LOHMAN, R. F. D. No. 3, Turney, Clinton County, Mo.

FIELD NOTES.

Percherons and Jacks At Auction.
Kansas Farmer readers should be interested in the sale to be made by Mr. O. B. Price, of Burr Oak, Kan. The date is February 23. Mr. Price will make on that date a complete dispersion sale of all his stock, including four registered Percheron stallions, three Jacks, seven Jennets, a lot of horses and cattle, Duroc bred sows and his highly improved farm—one of the best improved 80-acre farms to be found in that locality. Write at once to Mr. Price for catalog, and mention Kansas Farmer.

Facts for Readers.

The prosperity of a nation is largely measured by the health of its people. From a parry of reasoning the fact stands out that whatever adds to the health and vigor of our poultry stands for its general betterment, which means prosperity for breeders. And it follows as a sequence that when W.

F. Chamberlain, of Kirkwood, St. Louis County, Mo., originated Chamberlain's Perfect Chick Feed (the original dry feed for young chicks), he left an imprint of healthful vigor upon all the millions of birds reared on this perfect product and the markets everywhere are filled with better stock today than would otherwise have been the case. The subjoined letter from a widely known Nebraska breeder of high-class White Plymouth Rocks, which we are allowed to copy, tells facts: "Fullerton, Neb., May 1, 1911. W. F. Chamberlain Feed Co., St. Louis. Gentlemen—It gives me great pleasure to write you regarding your various foods for poultry. I have tried several different chick foods and experience the same trouble with all, while in your 'Chamberlain Perfect Chick Feed' I find a very well balanced ration. Your 'Mash Feed' is a wonderful egg producer, and all your other poultry foods I have found equally valuable. Yours respectfully—C. M. Reynolds."

DR. W. H. RICHARDS

IMPORTER OF DRAFT HORSES

Importation arrived September 10, 1911. I have selected them personally, and have the pick of Belgium and France's 2- and 3-year-olds. All were selected for good breeding, soundness, bone and individuality. All good colors and will make ton horses. Every horse absolutely guaranteed. Anyone looking for a first-class STALLION at very reasonable price should come and see them before buying. Barns four blocks from Santa Fe Depot. EMPORIA, KANSAS



AULDRIDGE & SON'S

Duroc Sow Sale

AT PATTONSBURG, MO.,
THURSDAY, FEBRUARY 22, 1912.

A high-class offering of Duroc Jersey sows, a number of them bred to our great boar, Buddy K., a grandson of Buddy K. 4th; others to Duchess Model, and several to a son of B. & C.'s Col. Write us for catalog. JASPER AULDRIDGE & SON, Pattonsburg, Missouri.

STALLIONS

Yes, "Stallion Price Cutter"—that's what they call me, and I am proud of the title. I want to place one or more of my stallions or mares in every township, and I have 60 head now on hand and another importation to arrive this month, and I am going to slice prices on a grand scale. Will give you the best of terms and a cash guarantee. All my horses are registered in books approved by the government. I want you to look at other horses before coming, and then it is up to me to make good to you that I am selling them worth the money. Remember, I pay your expenses if you don't say my prices are right, considering quality. Write or come and see me and I will assure you a bargain.

L. R. WILEY, EMPORIA, KANSAS

Lamer's Percherons

SALINA, KANSAS

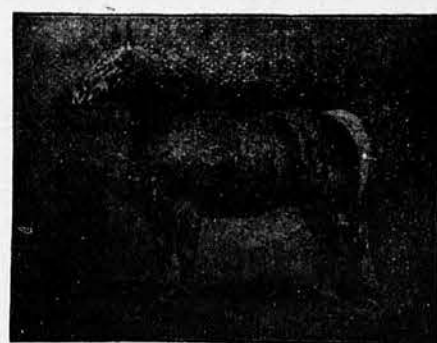
Senty-five (75) Head of Imported and Home-grown Percheron STALLIONS, MARES and COLTS, all ages, for sale. WRITE or COME AND SEE ME before you buy.

C. W. LAMER,
Salina, :: :: :: :: Kansas

100 Head of Imported and Home-bred Stallions

and mares of the different breeds, 50 head of coming 3-year-olds, big boned, American-bred, pasture-raised stallions; the kind that give satisfaction, the kind that breed.

Reference: Any bank in Grand Island, Cairo or Bridgeport, Neb. History of the horse and large calendar sent free to horsemen. NORTH-ROBINSON DEAN CO., Grand Island, Neb.



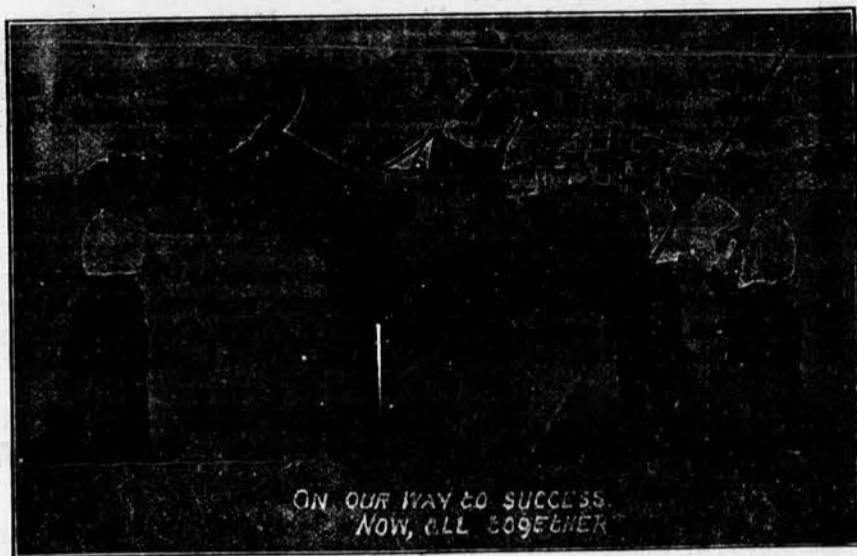
L. M. Monsees & Sons'

34th ANNUAL SALE

65 Head of High Class Registered JACKS and JENNETS

Limestone Valley Farm is located 189 miles west of St. Louis and 99 miles east of Kansas City, main line Mo. Pac. and M. K. & T. R. R.'s, 6 miles east of Sedalia and 2 miles north of Smithton, Pettis County, Mo.

TUESDAY, MARCH 5, 1912



ON OUR WAY TO SUCCESS.
NOW, ALL TOGETHER

The get and breeding of the world's champion jacks, Limestone Mammoth 298 and Orphan Boy 696. Sale under cover with comfortable seats and fire. Special train from Sedalia to Smithton and return on day of sale. We guarantee this the best offering of the year from any firm, breeder or company. Every animal guaranteed as represented. If interested, write today for fine illustrated catalog. Free conveyance from Smithton to sale.

L. M. MONSEES & SONS

SMITHTON, MO.

McKinnie's Dispersion Shorthorn Sale

IN PAVILLION AT BELOIT, KANSAS, THURSDAY, FEBRUARY 22ND, 1912



Twenty-four head of choice individuals, Scotch and Scotch topped, comprising four bulls, including the herd bulls, Lord Barmpton by Lord Marr, Gifford's noted herd bull and Secret Success by Hampton's Successor and out of the pure Scotch cow, Queen Secret. The other bulls are about old enough for service, and are sons of Lord Barmpton.



Sixteen choice breeding cows, all bred or with calves at foot by the herd bulls mentioned; four extra choice heifers, coming yearlings, also by Lord Barmpton. The cows include two daughters of the noted bull, Red Knight, the pure scotch cow, Queen Secret, one sired by Scottish Gloster, and two heifers by Lord Marr.

L. M. NOFFSINGER, of Osborne, Kan., consigns eight head, five bulls and three females. Four of the bulls are coming 2-year-olds and one is a yearling. Two of the cows will have calves at foot, and all three will be in calf to the pure Scotch bull, Prince Lustre, winner of second in calf class and champion at Oklahoma State Fair as a yearling.

ELMER CREITZ, of Beloit, consigns one male and two females, all Scotch topped and good individuals. The offering, as a whole, is a good one, and will be sold absolutely upon the merit of the individuals as to quality and breeding. For catalog, write,
AUCTIONEER—JOHN BRENNEN.
FIELDMAN—JESSE JOHNSON.

C. E. McKinnie, Beloit, Kansas

L. R. McLarnon's Sale

OF

BIG TYPE POLAND CHINAS

AT

Braddyville, Iowa, Tuesday, Feb. 27th, 1912

50—HEAD OF BRED SOWS—50

Thirteen head of big, high-class, tried sows, seven head of outstanding, good fall yearlings, thirty head of spring gilts—the outstanding good ones of our large herd—making the best draft we have ever offered at public sale. This offering will include two A Wonder gilts, ten Max Dude fall sows, a number of them tried, four sired by Big King by Pawnee Lad, a number of gilts sired by Colossal, and others by Big Mogul. Thirty head of this offering is bred to Big Orange, the sire of more high-class, big herd boars than any other boar living. A few to A Wonder Giant, and others to Colossal. This is strictly a big type offering. They are the big, stretchy, mellow, easy feeding kind, with plenty of class. Write for catalog. Bids sent to fieldman or auctioneers will be treated fairly.

L. R. McLARNON, Braddyville, Iowa
AUCTIONEER—COL. H. S. DUNCAN. FIELDMAN—W. J. CODY, for Kansas Farmer.

Miller's Richly Bred Duroc Jersey Bred SOW AUCTION

Under Cover, at Table Rock, Neb.

Thursday, February 15, 1912

40—HEAD OF TOPS SELECTED FROM A LARGE
NUMBER—40

—12 TRIED SOWS— —28 SPRING GILTS—

Bred for March and April farrow to Royal Critic and Col.'s Professor, two of the most richly bred sires of the breed. The tried sows include Miss Critic 2d, prize winner at Iowa State Fair. She is bred for early farrow to Valley King, grand champion boar at Iowa and Nebraska last year. The offering contains many animals of outstanding merit but, taken as a whole, is very uniform. Remember, a number of choice gilts are daughters of Ohio Col., champion boar at Kansas State Fair last year. Others are by Golden Rule, Jr., Royal Critic, Model Finch and Bell's Choice by Bell's Chief. I am issuing a catalog that gives breeding and all necessary information. Free for the asking. If unable to attend sale, send bids to auctioneer or fieldman, in my care, at Table Rock. Usual accommodations. Table Rock is easily reached by rail; see time table.

ROBT. T. MILLER
TABLE ROCK, NEB.

AUCTIONEER—N. G. KRASHCEL.

Jesse Johnson will represent Kansas Farmer. Send bids to him.

60 Richly Bred Duroc Jersey Bred Sows and Gilts at AUCTION

In Pavilion at Burr Oak, Jewell County,
Kansas

Saturday, February 17, 1912

One of the best and largest bred sow offerings of the season. Nearly every well-known family represented. Bred for March and April farrow to the following richly bred boars: Golden Rod King 91221 by Echo Top King, Pawnee Crimson 117813, grandson of Crimson Wonder Again; Missouri Climax 117815 by Climax D. and Model Chief 120301, grandson of Ohio Chief. The offering contains many tried sows, and the gilts are selected with care. The entire lot has had just the care that breeding stock should have, and will make money for those who buy them. They are representatives of such families as Ohio Chief, Kant Be Beat Surprise, Crimson Wonder, Orion, King of Cols., Bell's Chief 2d, Red Chief I Am, etc. Sale will be held sure, regardless of weather. Write at once for catalog and other information. Free hotel accommodation. Send bids to fieldmen or auctioneer.

John W. Shuck & Sons
BURR OAK, KAN.

AUCTIONEER—JOHN BRENNEN.

Walter Ward and Jesse Johnson, fieldmen for Kansas Farmer. Send them bids.

Hamaker's Growthy King and
Mouw Bred

Poland Chinas at AUCTION

Wednesday, February 21, 1912

At Farm one mile west of Pawnee City, Neb.

A select draft, just as good as usual, and bred to Orange Tecumseh and Smooth Big Bone, both bred by Peter Mouw, and representatives of the biggest strains known to the breed. Forty head in all—15 fall yearlings and 25 March gilts, all bred for March and April farrow to the boars mentioned.

FALL GILTS

were sired by Growthy King, litter brother to Long King's Equal and Looks Grand, two of the greatest breeding boars ever owned by one breeder in Nebraska.

SPRING GILTS

were sired by Growthy King, and a few by Smooth Big Bone. This will be the last chance to buy Growthy King gilts.

DAMS OF OFFERING

include daughters of Growthy King, Major Blain, Blain's Tecumseh, King Do Do, Big Hadley, Pfander's Giant Pride, Johnson's Chief, and Looks Grand, as great a line of big type sows as can be found anywhere. The offering has been selected and fed with care, and will appeal to anyone in the market for size and quality. Catalogs ready February 1, 1912. Write for one. Usual entertainment.

G. S. HAMAKER

PAWNEE CITY :: :: NEBRASKA

AUCTIONEER—L. W. LEONARD.

Jesse Johnson will attend. Send bids to him, in my care, at Pawnee City, Neb.

A. J. Erhart & Son's FIRST ANNUAL POLAND CHINA SALE

—AT—

ADRIAN, MO.

Thursday, Feb. 22, 1912

65—HEAD BRED SOWS AND GILTS—65

Twenty sows bred to Major B. Hadley, the grand champion at the American Royal, 1911; 20 bred to Young Hadley, a son of Big Hadley; 10 bred to Grand Wonder, one of the best sons of old A Wonder; 10 bred to Big Spot, and 5 bred to King Blain, one of the great breeding sons of Blain's Wonder. The sows are all large type breeding from such boars as Expansion, Grand Look, Big Hadley, Blain's Wonder, Designer, Expansion Wonder, Long John, Long King and Longfellow. Twenty head of tried sows are the tops of the Green Lawn herd and the H. H. Harshaw herd, and are sold on an absolute guarantee. Send for my catalog, and arrange to attend my sale.

A. J. ERHART & SON

Adrian,

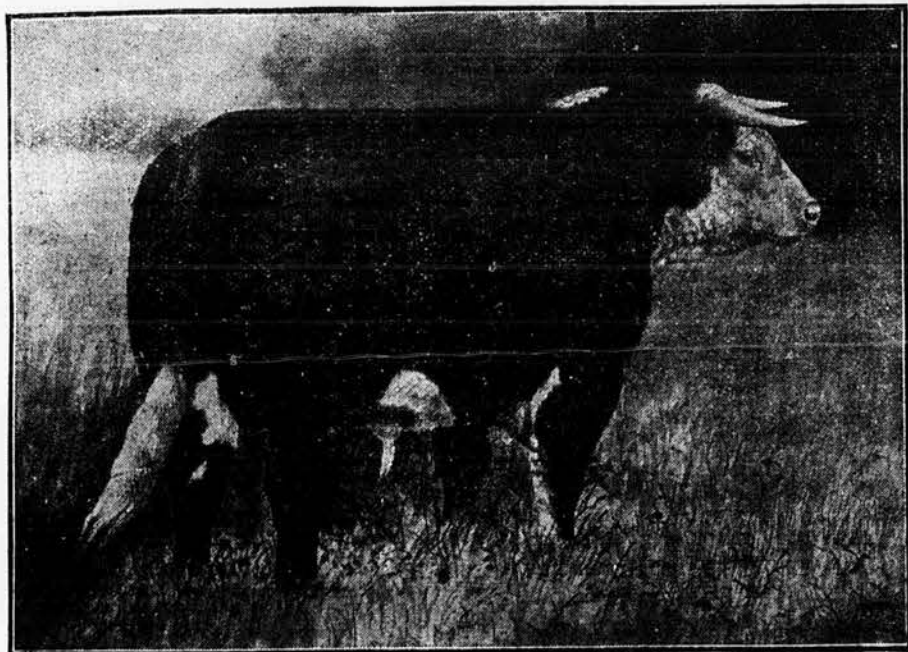
Missouri

AUCTIONEERS—COLS. HARRIMAN, SPARKS,
ROBBINS AND HARGERS.

JONES BROTHERS

Big Dispersion Hereford Cattle Sale

At Fair Grounds, Council Grove, Kansas, Feb. 27 and 28

215 HEAD—THE GREATEST OPPORTUNITY OF THE SEASON—215 HEAD**SIMPSON.**

The offering will be presented in ideal breeding condition and all females of breeding age will either have calves at foot or be in calf to some one of our great bulls. The herd has been culled closely, and all animals not worthy have been put into the feed lot. Write for free photos suitable for framing. Write at once for catalog.

Farm For Sale Privately

AUCTIONEERS—EDMONSON, BELLOWS, ZAUN, SPARKS, BRADY.

36 BULLS—Including our herd bulls, Simpson, Beau Monarch 54th, Dandy Andrew 6th, 7th and 9th, Beau Monarch 90th and 91st. Herd bulls, farm and ranch bulls of serviceable age and in the best possible condition—the best lot of bulls ever on our farm.

100 BREEDING COWS—25 sired by the great Lincoln 2d by Cherry Boy, and others by Lincoln 7th, Simpson, Beau Brummel, Lamplighter, Jr., Benj. Wilton, Dandy Andrew, Beau Donald 47th, Hesiod 85th, Imp Salisbury, Beefy Boy (by Cherry Boy), Onward 19th, Columbus 17th, Drusus, Sunset, Shadeland Dean and Monnington. Sixty head have calves at foot.

30 TWO-YEAR-OLD HEIFERS—Mostly by Lincoln 7th, Monnington and Simpson, safe in calf to our herd bulls. A grand lot of excellent young breeding cows, in good flesh and condition, good size, well marked, good color and good heads and horns. Splendid material for herd foundation. Look these heifers over.

49 YEARLING HEIFERS—All our own breeding. The attraction of the entire offering. A superb lot of prospective brood cows of the most popular type. Practically our entire heifer crop of their ages. Many show prospects in this lot.

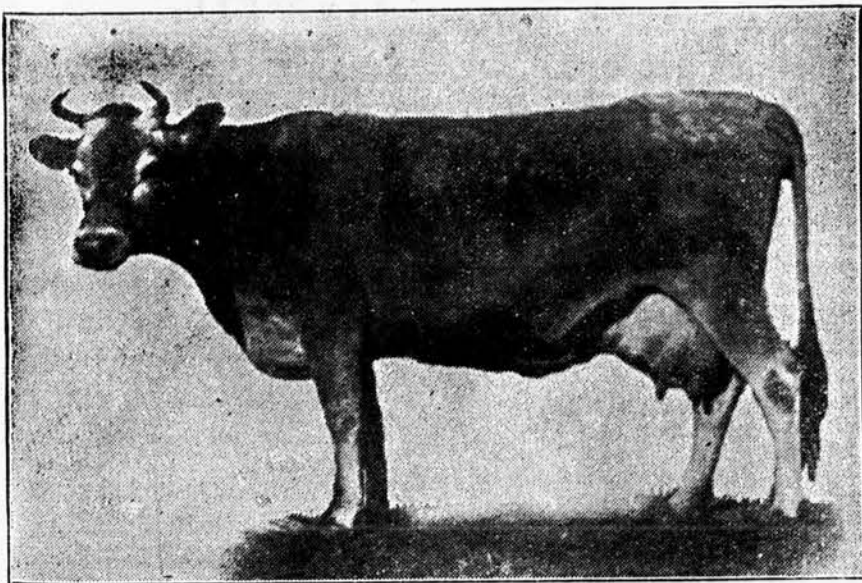
OUR ENTIRE SHOW HERD—Beau Monarch 54th, the best 2-year-old bull to be sold this season, sired by Simpson out of Imp. Prudence. Daisy, junior yearling heifer, first at local fairs in 1911. Beau Monarch 90th, senior bull calf, second at Kansas State Fair in 1911. Sally, senior heifer calf, junior champion at 1911 Kansas State Fair, and others—prize winners at state and local fairs.

We will also sell at private treaty our 1,400-acre ranch, one of the best stock and combination grain farms in Kansas.

JONES BROS., Council Grove, Kan.**Comfort's****DISPERSION SALE**

OF REGISTERED JERSEY CATTLE.

Westmoreland, Ks., Feb. 17, 1912



Thirty-five head of some of the best selected registered Jerseys in the West. This herd consists mostly of 3 and 4-year-old cows and bred heifers and a few choice bulls. They carry the blood of such noted dams as Brown Bessie No. 74997, the cow that took the butter record at Chicago, '93; Tomassie No. 78875, that produced 41½ pounds of butter in 14 days, and such sires as Oakland's Sultan No. 78528, who took first of Island of Jersey in 1907; Pedro No. 3187, who sold for \$10,000, and Hood Farm Pogis 35th No. 63303, half brother to Hood Farm Pogis 9th, valued at \$25,000. Every animal has recently been tuberculin tested, without a single reaction. Catalogs ready by January 15. Send name and get on my mailing list. Sale under cover.

AUCTIONEERS—COLS. J. T. McCOLLOCK, W. H. TROSPER, OSCAR H. BOATMAN, J. L. HOOVER.

F. W. COMFORT, Westmoreland, Pottawatomie Co., Ks.

Jesse Johnson will represent KANSAS FARMER. Send bids to him, in my care.

J. D. Spangler's**Large Type Bred Sow Sale**

—AT—

SHARON, KANSAS**Tuesday, February 20, 1912**

FIFTY HEAD—45 bred sows and gilts, and five splendid fall boar pigs. We are going to give you an opportunity to buy as good a bunch of sows and gilts as will go through the sale ring this year. As I have got to buy new blood for my own herd, so that I can still retain a splendid trade of friends that have been buying of me for years, I will have to part with many of my good brood sows in order to make room for more. We are going to give you an opportunity to buy such sows as Lady Mastodon 32nd, Mastodon Maid 42nd, Mastodon Maid 8th, Lady Wonder 6th, Lady Hutch, Inez Bell and many others of my best sows. We are selling a splendid bunch of fall yearlings, sired by Spangler's Hadley, safe in pig to Sharon Wonder. There will be 15 spring gilts, sired by Spangler's Hadley and bred to Sharon Wonder. Visitors from a distance met at all trains at Attica or Sharon. Write today for a catalog, to

J. D. SPANGLER**Sharon,****Kansas**

Send bids to O. W. Devine, representing Kansas Farmer, who will treat you fair.

FIELD NOTES

FIELD MEN.

Wayne Devine.....Topeka, Kan.
Jesse R. Johnson.....Clay Center, Kan.
W. J. Cody.....Topeka, Kan.

PURE BRED STOCK SALES.

Percherons and Jacks.
Feb. 22—O. B. Price, Burr Oak, Kan.
Feb. 28—McKinnle & McMillan, Beloit, Kan.
Feb. 29—John T. Fry, Udall, Kan.

Jacks and Jennets.
Feb. 26-27—G. C. Roan, La Plata, Mo.
March 5—L. M. Monsees & Sons, Smithton, Mo.
March 6—W. J. Finley, Higginsville, Mo.

Herefords.
Feb. 27-28—Jones Bros., Council Grove, Kan.

Jersey Cattle.
Feb. 17—F. W. Comfort, Westmoreland, Kan.
April 25—Sale at Hiawatha, Kan., Western Jersey Cattle Breeders' Henry E. Wyatt, Falls City, Neb., Manager.

Shorthorns.
Feb. 22—C. E. McKinnle, Beloit, Kan.
Feb. 24—R. E. Maupin, Pattonsburg, Mo.
April 10—H. M. Hill, Lafontaine, and S. C. Hanna, Howard, Kan. Sale at Fredonia, Kan.

Aberdeen Angus Cattle.
April 30—American Aberdeen-Angus Breeders' Association sale at Omaha, Neb. Chas. Gray, secretary, Chicago.
May 2—American Aberdeen-Angus Breeders' Association sale at Chicago. Chas. Gray, secretary, Chicago.

Poland Chinas.
Feb. 14—H. L. Faulkner, Jamesport, Mo.
Feb. 14—John C. Halderman, Burchard, Neb.
Feb. 14—George Wedd & Son, Spring Hill, Kan.

Feb. 15—Dr. John Gildow & Sons, Jamesport, Mo.
Feb. 15—Ira C. Kyle & Son, Mankato, Kan.
Feb. 15—H. B. Walter and H. C. Graner, Sale at Empingham, Kan.
Feb. 15—L. V. Okeefe, Bucyrus, Kan.
Feb. 16—J. H. Harter, Westmoreland, Kan.
Feb. 17—Fuller Bros., Gault, Mo.
Feb. 20—E. E. Logan, Beloit, Kan.
Feb. 20—J. D. Spangler, Sharon, Kan.
May 20—Roy Johnston, South Mound, Kan.
Feb. 21—W. A. Prewett, Asherville, Kan.
Feb. 21—G. S. Hamaker, Pawnee City, Neb.
Feb. 22—C. W. Jones, Solomon, Kan.
Feb. 22—R. E. Maupin, Pattonsburg, Mo.
Feb. 24—C. H. Pilcher, Glasco, Kan.; sale at Concordia, Kan.
Feb. 26—C. S. Nevius and Ralph Wedd, Chiles, Kan.
Feb. 27, 1912—L. R. McClarnon, Braddyville, Mo.
Feb. 28—J. W. Pfander & Sons, Clarinda, Ia.
March 2—F. W. Barber, Franklin, Neb.
March 6—T. M. Willson, Lebanon, Kan.
March 7—W. H. Emens, Elmdale, Kan.
March 9—B. M. Bell, Beattie, Kan.

Duroc Jerseys.
Feb. 12—J. O. Hunt, Marysville, Kan.
Feb. 14—Thompson Bros., Garrison, Kan.
Feb. 15—Horton & Hale, DeKalb, Mo.
Feb. 15—Robert J. Miller, Table Rock, Neb.
Feb. 17—John W. Shuck & Sons, Burr Oak, Kan.
Feb. 22—O. B. Price, Burr Oak, Kan.
Feb. 22—Jasper Auldridge & Son, Pattonsburg, Mo.
February 24—J. R. Blackshire, Elmdale, Kan.
February 26—Ward Bros., Republic, Kan.
February 27—Monasmith, Formosa, Kan.
Feb. 27—R. D. Martin & Sons, Eureka, Kan.
Feb. 28—G. C. Norman, Winfield, Kan.
Feb. 29—J. W. Wohlford, Waterville, Kan.
March 12—Sam Drybread, Elk City, Kan.
March 15—Leon Carter, Asherville, Kan.

Hampshire Hogs.
Feb. 14—W. F. Davis, South St. Joseph, Mo.

Real Estate Auction.
Feb. 22—O. B. Price, Burr Oak, Kan.

Last Call for Davis' Hampshire Sale.

On February 14, at the sale pavilion at South St. Joseph, Mo., Mr. W. F. Davis, the largest breeder of Hampshire hogs in the world, will offer for sale 100 bred sows. The offering will consist of tried sows and fall and spring gilts. Nearly all of this offering was sired by the famous Hampshire boar, Pat Malloy 1415, said to be the greatest Hampshire boar living. This will be an opportunity for breeders and farmers to buy sows sired by this noted boar, and to get stock bred that is rapidly growing in popularity. It will pay all hog breeders to investigate the merits of the Hampshire hog. They are growing rapidly in favor, and there is a reason for it. Write Mr. Davis for catalog, and if possible attend the sale. The offering cannot fail to interest hog breeders and feeders.

Onward Wilkes Sale.

On March 21-23, Mr. James Houchin, of Onward Wilkes Farm, Jefferson City, Mo., will hold a public sale of Standard-bred, registered horses. The offering will consist of 15 head of registered saddle bred brood mares, 15 head of saddle stallions, 20 head of speed horses and youngsters and 10 head of good breeding jacks. Fifty head of horses, 10 of which are lady broke to saddle and harness, and 10 jacks will make a sale that is worth attending. The horse offering was sired by Astral King, the greatest living saddle stallion, and Galloway Chief for the saddlers and by Albert Onward for the Standard-breds. Full announcements will appear in Kansas Farmer.

Morgan Horses.

Few people who know of the Morgan horse are not worshippers at his shrine. The Morgan is a purely American breed, and for speed, stamina, bottom and style they have never been excelled. The wonderful endurance and other good qualities of the Morgan tempted men to sacrifice other qualities for speed until this magnificent breed became scarce in its purity. It is refreshing, therefore, to be able to direct our readers' attention to some Morgans of the right type. Mr. J. Ed Bailey, of Iowa Falls, Ia., owns the pure Morgan stallion, Prince Albert 4725, who is only three places removed from old Justin Morgan. He is registered under number 2468 under the laws of Iowa as a pure-bred stallion, and Mr. Bailey is offering him with plenty of bone and substance. Note Mr. Bailey's advertising card and write him about these pure-bred Morgans.

Kyle & Son Sell Polands, February 15.
Ira C. Kyle & Son of Mankato, Kan., will hold a sale of big type Poland China bred sows on Thursday, February 15. The offering consists of 50 head, largely tried sows. Others are big, growthy gilts of the popular big type strains, and all are bred to J's Wonder 50571 or to Giant Chief Price 82103. Expert breeders consider J's Wonder to be the best big type Poland boar they have seen with the possible exception of old Mogul. Giant Chief Price is conceded to be the best Long King 2-year-old in the west. From the breeding and quality of this offering it promises to be one of the best of the season. The quarter page advertisement is on another page. Don't fail to read it, as it will not appear again. And don't forget the date, Thursday, February 15, and the place, Mankato, in Jewell county, Kan., on the Rock Island and Missouri Pacific railroads. Easy to reach and just the kind of hogs you want. Get into the big type money makers by attending this sale.

Sheep for the Average Farmer.
There are comparatively few farmers of the present day who are raising sheep on their farms with either wool alone, or mutton, as an object. Farmers cannot afford to raise a type of sheep from which the fleece is the entire source of revenue, any more than they can raise a mutton sheep



without regard to the wool. In other words, a dual-purpose sheep is what they must have; one which will meet with favor at the hands of the packer and which will shear from \$2 to \$3 worth of wool. The fleece should pay for the feed and leave the mutton as a profit. The ideal dual purpose sheep should be early maturing, and should not be bred from parents of too great size lest the offspring be difficult to finish for the early market. Another essential is prolificacy, for when a goodly per cent of lambs are not forthcoming, profits are always proportionately less. The above illustration is an excellent example of this class of sheep. She is a pure-bred Shropshire ewe and her lambs are sired by an imported ram of the same breed. Her characteristics show her to be the practical sheep for the farmer. This ewe is one of a flock of 700 pure-bred Shropshire breeding ewes on the Hecley ranch at Greencastle, Mo. Two hundred of their ewes were imported from the best English flocks and they have, without doubt, one of the finest lot of Shropshires in America. Their object is to breed Shropshires which will be the closest approach to that type of sheep so much in demand by the farmer-breeder.

Dean's Mastodon Polands.

Attention is called to the change in the card of Clarence Dean, of Weston, Mo. Mr. Dean is the owner of one of the great herds of Mastodon Polands, and he is now offering 50 head of choice, high quality, big type bred sows. The sows of this offering were sired by such boars as Mastodon Price, Columbia Wonder, Surprise Wonder 5th and Gritter's Longfellow, all big, high-class boars. Some of them are bred to Mastodon Price, others to Columbia Wonder 5th and the balance to sons of Gritter's Longfellow. This offering is in the pink of condition, and all are vaccinated. They are bred to farrow early March to May, and a number of them are carrying their own guarantee. Mr. Dean is also offering a few choice boars. He also has a few extra good Herefords for sale—both male and female. Write him at Weston, Mo., if you are in the market for big type bred sows. He can interest you. He guarantees description of stock.

Dispersion Shorthorn Sale at Beloit, Kan.
C. E. McKinnle of Beloit, Kan., one of the very successful Shorthorn breeders of this part of Kansas will make a dispersion sale in Beloit, Kan., Thursday, February 22. The sale will be held in a big tent in town, and everyone in attendance will be made comfortable, no matter what the weather is like. For several years Mr. McKinnle has been a good buyer at leading sales of the territory, topping at least two of the best sales ever held in Central Kansas. One of these sales was the F. M. Gifford sale, held at Clay Center two years ago. At that time Mr. McKinnle bought the great young bull, Lord Barmpton, sired by Mr. Gifford's Lord Marr, he by the Harris bred bull, Lord Mayor. The dam of Lord Barmpton, an extra good breeding cow now owned by S. B. Amcots, of Clay Center, is descended from the well-known Orange Blossom family. Lord Barmpton weighs close to a ton and is a most excellent individual and has already proven his worth as a sire. He should certainly go into some good herd. The young things in the sale are nearly all by him and the cows are mostly bred to him. Many of the heifers are in calf to the choice roan bull, Secret Success, sired by Hampton's Successor. His dam is the choice straight Scotch cow, Queen Secret. This bull and his dam should prove attractions in any sale. Among the other attractions will be a couple of daughters of the noted breeding bull, Red Knight, for so many years chief bull in the Gifford Brothers' herd. Three choice heifers coming 3 years are daughters of Lord Marr. One daughter of Brave Knight by Gallant Knight. Mr. McKinnle has shown successfully the past year at Mitchell County Fair. Mr. L. M. Noffsinger, a very successful breeder, of Osborne, Kan., consigns eight head, five of which are bulls. Four of them are coming 2 years old and one yearling.

Two of the cows will have calves at foot and all three will be bred again to Mr. Noffsinger's pure Scotch bull, Prince Lustre, a bull that is making himself a name all over Central Kansas. He was shown as a yearling at American Royal, winning second in strong competition. The same year he was grand champion at Oklahoma State Fair. Mr. Noffsinger has a good herd and has made selections from among his best stuff for this sale. Mr. Elmer Creitz, of Beloit, consigns a few head also. They are good individuals, and Scotch topped. For catalog, write Mr. McKinnle, and plan to attend this sale.

L. R. McClarnon's Great Offering.

The sale advertisement of L. R. McClarnon, of Braddyville, Ia., will be found in this issue of Kansas Farmer. Mr. McClarnon is one of the veteran breeders of the big type, high-class Poland Chinas, and his many good offerings during the past several years have made for him an enviable reputation among the breeders of big type Polands. The present offering is the best of the many great offerings by Mr. McClarnon during the last seven years, and it will add to the reputation of this noted herd. The offering will consist of 13 tried sows, seven fall yearlings and 30 spring gilts. The tried sows are outstanding good ones that have made good in Mr. McClarnon's herd. They are the big, stretchy,



mellow kind and are an ideal lot of brood sows. The fall yearlings are all that could be desired; some of them have raised fall litters. They are the right kind. The spring gilts are outstanding tops of a large herd. They are big, smooth and mellow and have been selected with care. A part of the offering is bred to Big Orange, others to Colossal and a few to A Wonder Giant. Some of the sows were sired by Big King. The fall yearlings are by Max Dude, a winner of three firsts and two championships at Nebraska and Colorado State Fairs and Colorado Interstate Fair, 1907. The gilts were sired by Colossal and Big Mogul. Big Orange was sired by Orange Chief, dam Miss Longfellow. He is a great, massive boar, with good head and ears, measures 102 inches from tip to tip, heart girth 84, flank 84, bone 10½. He has short, stout pasterns, best of feet and legs, good arch back and can be fed out to weigh 1,200 pounds, and his breeding record is that he has more good boars doing service in prominent herds than any other boar of his age living today. A number of the very best heds in Iowa are headed by sons of Big Orange. Write for catalog, and please mention Kansas Farmer.

Harness at Wholesale Prices.

Every farmer needs harness, and good harness at that. Also wagons and buggies. One of the finest lines of harness, vehicles and wagons carried in the country is in St. Joseph, Mo., the Aniser Harness Mfg. Co., whose advertisement appears elsewhere in this paper. Aniser has been in this business for a great many years in St. Joseph. His harness factory is second to none anywhere. Every piece of goods he turns out is of high quality. By selling direct from his factory and warehouses, to farmers he is able to make prices that save buyers of his goods from 25 to 50 per cent of what is usually charged by retailers for the same class of goods. The wonderful growth of Aniser's business, with a comparatively small amount of advertising, shows that his goods are his strongest advertisements. Those who buy once from him remember him when they have other needs in his line. If you haven't his catalog, write for one now, addressing Aniser Harness Mfg. Co., St. Joseph, Mo., and kindly mention Kansas Farmer when writing.

R. E. Maupin's Big Sale.

The sale advertisement of R. E. Maupin, of Pattonsburg, Mo., will be found in this issue of Kansas Farmer. This will be the sale event of the season. The Missouri's Meddler, Notcher On, Corrector 2nd, On the Dot, Impudence and Major sows are an outstanding good lot of individuals. They are bred to Notcher On, Missouri's Meddler and Golden Glory. Missouri's Meddler has been the chief herd boar of this herd for several years, and his progeny have proven to be the right kind in every respect. They are big, prolific and are the quick maturing kind with quality. Missouri's Meddler was sired by the World's Fair champion, Meddler, dam Sweet Dream, by Keep On, a grand champion at Chicago International Stock Show. Golden Glory was sired by Golden Harvest and he by Herpicide, he by On the Dot and he by On and On, by Keep On. He was first in class, headed the exhibitor at Missouri State Fair, 1911. He is a 600-pound senior yearling, with as much class and quality as any hog in the country, and his breeding is perfection itself. A number of the best sows are bred to him. Notcher On was sired by Top Notcher; his dam was Imp's daughter by the grand champion, Impudence, and he by Keep On. His second dam was Proud Lady 2nd, by the acknowledged king of easy feeding sires of the world, Perfection E. L., Top Notcher's dam, was the great show sow, Cute Keep On, that produced the highest selling litter of pigs ever sold in the world. Don't overlook Mr. Maupin's sale of Shorthorn cattle on the following day. Write for catalog, and arrange to attend both sales. Please mention Kansas Farmer when writing.

The Most Noted Jack.
Orphan Boy is perhaps the most noted jack that ever lived in America. He has made history in all of the later sales held by L. M. Monsees & Sons at Smithton, Mo., and for his state, as well. In the forth-



coming sale of jacks and jennets, to be held by Mr. Monsees on March 5, the offering will be largely of the get of Orphan Boy and Limestone Mammoth, who is second only to Orphan Boy in reputation. This sale will be a great occasion, and full particulars will be given next week.

Bert Harriman Sale Averages \$35.00.

On February 2 Bert Harriman, at Pilot Grove, Mo., sold 44 head of bred sows and gilts at an average of \$35. The weather conditions were very unfavorable and the local support was not strong. Several mail bids were in evidence and a number of breeders were present. The offering was a useful lot of large-type sows bred to good boars and should have sold for a little more money. However, the returns received were very satisfactory to Mr. Harriman.

Following is a report in full:

1—W. B. Wallace, Bunceton, Mo.....	\$60.00
2—W. H. Charters, Butler, Mo.....	40.00
3—H. B. McDaniels, California, Mo.....	46.00
4—L. G. Timm, Bunceton, Mo.....	33.00
5—George Ballis, Pilot Grove, Mo.....	50.00
6—R. Mitchell, Fayette, Mo.....	31.00
7—W. D. Adams, Booneville, Mo.....	32.00
8—R. A. Harriman, Pilot Grove, Mo.....	35.00
9—R. Mitchell.....	26.00
10—R. Hackaday, Booneville, Mo.....	44.00
11—R. Mitchell.....	30.00
12—W. B. Wallace.....	43.00
13—R. L. Dunn, Pilot Grove, Mo.....	39.00
14—R. L. Dunn, Pilot Grove, Mo.....	33.00
15—R. Mitchell.....	32.00
16—R. Hackaday.....	35.00
17—Wm. McArthur, Muskogee, Okla.....	31.00
18—R. Mitchell.....	29.00
19—W. D. Adams.....	50.00
20—D. McArthur, Speed, Mo.....	38.00
21—George Ballis, Pilot Grove.....	34.00
22—W. D. Adams.....	49.00
23—C. J. Jaines, Pilot Grove.....	41.00
24—W. D. Adams.....	60.00
25—W. D. Adams.....	100.00
26—Andy Crum.....	42.00
27—C. E. Boon, Garnett, Kan.....	51.00
28—L. S. Harriman, Pilot Grove.....	31.00
29—L. S. Harriman, Pilot Grove.....	25.00
30—L. S. Harriman, Pilot Grove.....	30.00
31—R. Mitchell.....	28.00
32—George Ballis.....	42.00
33—L. G. Timm.....	27.00
34—R. Mitchell.....	24.00
35—L. G. Timm.....	28.00
36—William McArthur.....	29.00
37—L. M. Harriman.....	30.00
38—W. D. Adams.....	28.00
39—L. G. Timm.....	29.00
40—W. D. Adams.....	30.00
41—H. B. McArthur.....	30.00

W. B. Wallace Makes Good Sale.—Fifty-Four Head Average \$50.15.

The Poland China sale held on Thursday, February 1, was one of the best sales of the season. Notwithstanding the stormy weather breeders and mail bids were present from several states and the entire offering was sold at a good average. The bidding was snappy and at no time did the sale lack interest. Col. R. L. Harriman did the selling from the block and was given able support in the ring by Col. Bean of Garnett, Kan., and Col. Bumpus from Windsor, Mo. The number of well grown out Grand Leader gilts bred to Expansion Wonder were in demand. The top of the sale was No. 45, a Grand Leader gilt bred to Expansion Wonder, going to Col. C. F. Bean of Garnett, Kan., at \$120. No. 25 was the next highest, selling for \$117.50, going to A. A. Ebert, Sikeston, Mo. The following is report in full:

1—L. V. Okeefe, Stilwell, Kan.....	\$100.00
2—A. A. Ebert, Sikeston, Mo.....	85.00
3—A. A. Ebert.....	85.00
4—S. S. Spangler, Milan, Mo.....	50.00
5—C. S. Bean, Garnett, Kan.....	75.00
6—Phil Rouch, Stuttgart, Ark.....	80.00
7—J. Hawkins, Bunceton, Mo.....	70.00
8—S. S. Spangler.....	50.00
9—R. C. Callison, Kirksville, Mo.....	50.00
10—Timmy Bros., Bunceton, Mo.....	33.00
11—G. M. Hull, Garnett.....	50.00
12—Commercial Land Co., Muskogee, Okla.....	38.00
13—Commercial Land Co.....	35.00
14—Lon Sears, Booneville, Mo.....	44.00
15—J. Hawkins, Bunceton, Mo.....	50.00
16—A. J. Erhart, Butler, Mo.....	60.00
17—E. M. Waynes, Burlington, Mo.....	50.00
18—A. Nelson, Bunceton, Mo.....	41.00
19—W. Muir, Fulton, Mo.....	37.00
20—Timmy Bros.....	29.00
21—William Smith, Bunceton, Mo.....	36.00
22—A. A. Ebert.....	117.50
23—A. A. Ebert.....	100.00
24—A. A. Ebert.....	100.00
25—Bert Harriman.....	52.50
26—Bert Harriman.....	49.00
27—A. J. Erhart.....	41.00
28—Lon Sears.....	34.00
29—W. H. Landers, Kingsville, Mo.....	40.00
30—W. H. Landers, Kingsville, Mo.....	40.00
31—Timmy Bros.....	30.00
32—Ben Frank, Jefferson City, Mo.....	46.00
33—R. Mitchell, Fayette, Mo.....	42.00
34—J. Hawkins.....	42.00
35—Timmy Bros.....	30.00
36—Timmy Bros.....	30.00
37—Timmy Bros.....	25.00
38—Timmy Bros.....	30.00
39—Timmy Bros.....	31.00
40—Commercial Land Co.....	50.00
41—J. F. Lloyd, Jefferson, Kan.....	47.50
42—C. E. Bean.....	120.00
43—Timmy Bros.....	31.00
44—R. Mitchell.....	31.00
45—A. Matzill, Speed, Mo.....	40.00
46—A. Nelson.....	32.50
47—L. R. Wiley, Elmdale, Kan.....	65.00
48—Commercial Land Co.....	45.00
49—W. H. Charters, Butler, Mo.....	50.00
50—H. Schweninger, Chamols, Mo.....	34.00
51—L. V. Okeefe, Stilwell, Kan.....	40.00
52—Col. Bumpus, Windsor, Mo.....	31.00

Percheron Horse Sale.

On March 7 J. W. Barnhart of Butler, Mo., will sell 11 Percheron stallions and 14 mares. He will also sell the great herd stallion Coco. The mares are all regular breeders and safe in foal to the herd stallion Coco 5333. Please watch for sale ad and further mention next week.

Buddy K. and B. & C's Col. Sale March 11.
J. J. Baker, the popular Duroc Jersey breeder of Independence, Kan., has a lot of Buddy K. 4th boars and gilts for sale at private treaty, also a few B. & C's Col. boars. These youngsters are aristocrats in breeding and are individually good, and all immuned for life. Mr. Baker will hold a bred sow sale on March 11 and sell a draft of his good sows bred to the above mentioned boars. Please send your name in early for catalog and arrange to attend the sale.

Get a Catalog.

Don't fail to get a catalog of the J. D. Spangler Poland China sale to be held at Sharon, Kan., on February 20. There will be many bargains in tried sows bred to Sharon Wonder by A. Wonder and Spangler's Hadley by Big Hadley. The offering promises to be one of the best ever sold from this farm, and they are all showing for early spring litters and are valuable for any farmer or breeder to buy. Please read their ad in this issue and send for one of the illustrated catalogs and arrange to attend the sale.

Royal Selon Duroc Sale February 28.
Royal Selon Farm will offer 40 head of Duroc bred sows and gilts Wednesday, February 28. Send your name early for a catalog. This will be an unusual offering. A goodly number of these sows will be in pig to the great herd boar Graduate Col., now at the head of this herd, and to Col. Selon, by the grand champion Chief's Col. Graduate Col. 28279, sired a long string of State Fair winners last year. He sired Grand Master Col., also Grand Master Col. 2nd, the first and grand champions at Oklahoma State Fair, 1911. There will be a number of sows sold in this sale bred to this great boar. There will be 24 fall yearlings that are the tops of the herd. Please look up ad and send for catalog. It will be worth reading. Kindly mention Kansas Farmer when you write.

Baker Brothers' Polands Average \$35.20.
The Poland China sale advertised by Baker Bros., at Butler, Mo., was pulled off under very unfavorable weather. The offering was up to the average of any sold this year in quality and had the weather conditions been good the average in price would have been much higher. The top of the sale was No. 1, going to E. R. Dorsey & Son, of Girard, Kan., who are building up a herd of strictly big, smooth western type Polands. Colonel Sparks, Colonel Baird and Colonel Robbins did the selling. The following is a report in full:

No.	Purchaser.	Price.
1.	Ed R. Dorsey & Son, Girard Kan.	\$75.00
2.	W. H. Charters, Butler, Mo.	30.00
3.	A. J. Erhart, Adrian, Mo.	55.00
4.	Moore Bros., Seneca, Mo.	38.00
5.	Moore Bros., Seneca, Mo.	44.00
6.	H. G. Regua, Butler, Mo.	41.00
7.	Moore Bros., Seneca, Mo.	41.00
8.	Charles Argenbright, Butler, Mo.	35.00
9.	A. J. Ray, Butler, Mo.	30.00
10.	A. J. Ray, Butler, Mo.	33.00
11.	A. J. Ray, Butler, Mo.	25.00
12.	D. P. Cauthery, Butler, Mo.	38.00
13.	Charles Argenbright, Butler, Mo.	25.00
14.	Dean Canterbury, Butler, Mo.	34.00
15.	A. J. Erhart, Adrian, Mo.	30.00
16.	W. H. Landers, Kingsville, Mo.	32.00
17.	Chas. W. Rech, Spruce, Mo.	36.00
18.	A. Ray, Altoona, Mo.	29.00
19.	D. Canterbury, Butler, Mo.	38.00
20.	A. J. Ray, Butler, Mo.	31.00
21.	H. Regua, Butler, Mo.	26.00
22.	Moore Bros., Seneca, Mo.	26.00
23.	E. M. Shelton, Butler, Mo.	32.00
24.	A. Ray, Altoona, Mo.	28.00
25.	E. E. Carver, Guilford, Mo.	38.00
26.	S. N. Hodgson & Son, Parker, Kan.	48.00
27.	Charles Argenbright, Butler, Mo.	27.00
28.	A. J. Erhart, Adrian, Mo.	51.00
29.	H. Regua, Butler, Mo.	45.00
30.	H. Regua, Butler, Mo.	35.00
31.	George Argenbright.	26.00
32.	Moore Bros.	30.00
33.	J. C. Deardoff, Altoona, Mo.	35.00
34.	J. A. Ray, Butler, Mo.	24.00
35.	John Speer, Adrian, Mo.	28.00
36.	Roy Johnston, Southmound, Kan.	41.00
37.	Jones Bros., Butler, Mo.	25.00
38.	W. H. Charters, Butler, Mo.	25.00
39.	Jake Spangler, Sharon, Kan.	29.00
40.	Jake Spangler, Sharon, Kan.	25.00

O'Keefe's Big-Type Poland China Sale.

L. V. O'Keefe, Bucyrus, Kan., sells at his farm near Stilwell, Kan., on Wednesday, February 14, 50 head of big, big-type Poland China sows, most of which are bred to or are by his great herd boar, Big Logan Ex. 54423. This should be sufficient to draw from a large territory, as few opportunities are found to get stock by or bred to such a boar. Twenty-one of the offerings are bred to Big Logan Ex., and every litter by this boar should be appreciated. Among the attractions is New Fashion by Spangler's Hadley. The top boar in Mr. O'Keefe's fall sale was out of this sow and by Big Logan Ex., his litter sister, sold right at the top of the sale, and all who saw them know they were as good a pair as are often found. Lady Bessie, a granddaughter of Blain's Tecumseh 2nd and Designer, is a sow with such scale and quality as should please. Tu Tu 2nd by Orphan Chief is another tried sow that should be appreciated. She cost Mr. O'Keefe over \$100 at seven months of age, and was a bargain. Queen Tu Tu by First National, Johnson's Queen by Mammoth Ex., Black Queen by Silver Metal, and D's Choice 8th by Designer are sows that should go to those who appreciate good ones bred to a great boar. Beauty Bell and Bright Eyes Wonder are a pair of Big Logan Ex. sows that should sell at the top. Mr. O'Keefe has never bought any but those that in his judgment would make good in his herd, and the result is a good herd from which to buy choice sows to add to a herd or for a foundation herd. He invites you to his sale. If the hogs please you, buy such as you like. His price is yours sale day. He will gladly mail you a catalog on receipt of your request for same. Please mention Kansas Farmer when you write. Remember, the date is February 14, and Stilwell, Kan., the place.

Monasmith's Coming Sale.
W. E. Monasmith, the hustling young Duroc Jersey breeder of Formosa, Kan., will hold his annual bred sow sale at the farm two miles from town Tuesday, February 27. Mr. Monasmith is cataloging 54 head, including 24 tried sows, thereby making a very fair division of the good things in his herd. Fifteen fall gilts also go in. The offering is bred for spring farrow to Mr. Monasmith's good herd boars Bonnie K. and Kansas Special. Bonnie K. is one

of the good breeding sires of the territory, and Kansas Special promises a great deal. He was sired by Valley Chief, the greatest son of Ohio Chief, and is therefore half brother to Valley King, champion boar at Iowa and Nebraska state fairs last year. The dam of Kansas Special was a daughter of Young Hadley. Among the tried sows are daughters of Bonnie K., Pearl's Golden Rule, Queen Rule, G. C.'s Col., Wonder Bob by Nebraska Wonder. A real good one, Nellie Rinehart, was sired by the great breeding boar, King of Kantbeast. The fall gilts are an exceptionally good even lot and every one sired by Bonnie K., five of them daughters of the sow that topped Mr. Monasmith's last winter sale. They are out of a litter of 17. The spring gilts were selected from among a large number. They are very uniform in appearance, nice colors, and nearly all bred to Kansas Special, with a few to a good son of Expansion. The offering as a whole includes quite a variety of the very best breeding. Mr. Monasmith has for the past few years been a good buyer at the leading sales, and this offering will reflect great credit upon his ability as a breeder and developer. Write any time for catalog, mentioning Kansas Farmer. Ward Brothers sell the day before at Republic, Kan. Breeders should arrange to attend both sales with one expense. Free transportation to and from the farm.

Ward Bros.' Best Offering.

Ward Brothers, the veteran Duroc Jersey breeders of Republic, Kan., will hold their annual bred sow sale at the farm near Republic and Scandia, Kan., on Monday, February 26. In order to put up a first class offering they are cataloging only 30 head, and the offering as a whole will be the best they have ever made to the public. Those who have attended their sales for the past 10 years know what this means. In order to make the offering first class they are selling 14 tried sows, practically 50 per cent of the entire offering. Many of these sows have been bought at the best sales, and in a majority of instances topped the sale where they were bought. There are many real attractions, including Cherry Girl 2nd, daughter of the great old Cherry Boy and a litter sister to the sow that topped Ward Brothers' last year's bred sow sale. The sow that topped the northern Kansas sale circuit last winter is also included. She is Aggie Topnotcher, and an outstanding individual. A large number of the sows and gilts were sired by the big-type Duroc boar Expansion, noted for his size and ability to produce size. Some of them trace back to the noted old Model H. The offering has all been through the cholera and are no doubt immune. Everything is bred for spring farrow to several different boars, Expansion and Bell's Prince Wonder 2nd, by Prince Wonder, his dam, Bell's Pet, by Pearl's Golden Rule. Others are bred to Climax 2nd, by Climax, and out of the sow May Windsor, said to have been in more show rings than almost any other living sow. Included in the sale will be daughters of Bell's Chief, the noted World's Fair prize winner; G. C.'s Kansas Col., Paul Jumbo, and many other boars of note. However, it is impossible to mention in detail the great propositions contained in this sale, but the catalog tells the whole story. Write for it now and mention Kansas Farmer. W. E. Monasmith sells the following day at Formosa, Kan. Breeders should plan to attend both sales.

Highland Park College, Des Moines, Iowa.

Highland Park College, Des Moines, Iowa, is enjoying the largest attendance in the history of that really great school. The attendance in all departments this year will easily pass the 2,500 mark. Students are now in attendance from 33 different states, and from 90 of the 99 counties in Iowa. The new engineering building has been a great drawing card this year. The machine shops are the largest and best equipped machine shops to be found in connection with any engineering school in the United States. They include the large machine shop proper, large automobile garage fully equipped in every particular, large wood shop fully equipped, and a forge room containing 24 down-draft forges. The traction engine room is also fully equipped. The building is of strictly modern construction, with saw-tooth roof admitting light from the north, and all the equipment is new and strictly modern. There are 400 different students taking work in these shops. The new young ladies' residence hall, which is to be 182x45 feet, four stories high, with a 10-foot basement, will be completed early in the summer ready for occupancy by the girls for the summer school which begins May 14. The basement will be devoted entirely to the new Domestic Science department, which will be organized for the first time at the opening of the summer school. A fully equipped school of domestic science and domestic art will be opened at that time. This will be the most complete course of this kind in the country. The school is enjoying unusual prosperity in every department. The attendance this year in all departments has increased from 10 to 30 per cent. The last half of the present school year begins February 20. We have two full quarters of twelve weeks each after that time, and the special summer school, for teachers and those doing special work, will be organized June 11 and will continue eight weeks. Those interested in any special work for the summer should refer to the advertisement in the current issue of this paper.

How to Become An Auctioneer.

Good auctioneers are always in demand. And at good pay, always. There are two ways to become an efficient auctioneer. One is to spend years of time and effort in "just picking it up" yourself. The chances against a successful outcome of so doing are about a thousand to one. The other way to learn auctioneering is to go to a good auctioneer school—one that has a record for proficiency. Here it is easily possible to become a thoroughly good auctioneer in a few months and at a small cost. The Missouri Auction School, now at 1404 Grand avenue, Kansas City, Mo., has shown a wonderful proficiency in graduating competent auctioneers. Col. Carpenter, the president, is a remarkably good salesman. He knows also how to teach the art—something but few men know to a practical advantage. He has put hundreds of thousands of farm boys in the way of commanding good incomes. At the same time these boys are their own independent bosses. They follow an agreeable occupation, rub shoulders with progressive business men, breeders and farmers. They live in an atmosphere where big things go on, and so have the best chance in the world for self-improvement. And all the while they are making good money, besides a good living. Col. Carpenter will be glad to send more particular information of the many successful men he has helped to start out. A letter addressed to him as above, will receive prompt response, and what he will write will be richly worth reading.

NEVIUS & WEDD BRED SOW SALE

Monday, Feb. 26, 1912

At Glenwood Farm, One Mile South of

CHILES, KAN.,

Fifty head, 35 yearling and bred sows, 15 big, growthy spring gilts. Best of breeding. Sired by Designer, Major Look, Grand Metal, Kansas Wonder or Wedd's Expansion. Bred to same boars or to the young boars, Wedd's Long King or Wonder's Expansion, by Expansion Wonder.

All are immune from cholera and bred for early litters. Send for catalog

to C. S. NEVIUS, Chiles, Kansas, or to
GEORGE WEDD & SON, Spring Hill, Kansas

7000 Shropshire Ewes

MATED TO IMPORTED RAMS.
TWO HUNDRED IMPORTED EWES and FIVE
HUNDRED AMERICAN EWES. Buy now, when you
get the ewe, her lambs, twins or triplets, and her fleece.
Winter is about over. Wonderfully good values at \$15
and up.

Henley Ranch-8000 Acres

Postoffice, Greencastle, Mo. Station, Castle, Mo.

ABERDEEN-ANGUS CATTLE.

C. D. and E. F. Caldwell, Burlington Junction, Mo., breeders of high class Angus cattle. Young bulls for sale ranging in age from 8 to 18 months. A number of them are herd headers. If you want a high-class individual that is bred right, we have them. Write us for description of what we have.

C. D. and E. F. CALDWELL, BURLINGTON JUNCTION, MO.

STALLION FOR SALE.

Registered Percheron stallion, 20 months old, weight 1530, heavy bone with size, nice growth and quality. Credit in any company. Reasonable price.

A. C. WILLIAMS,
Valley Falls, Kan.

A BARGAIN IN BOARS.

Last fall we classified our spring (1911) boars. Four of them went into the best class—the \$100 class. We sold two of them for \$200 each. During the cold weather in January the other two lost the bush of their tails. That takes them out of the \$100 class, and we are going to offer them at \$50 each. They are as good as the two we sold for \$200. They were sired by our E L Junior, the greatest son of Perfection E L and out of a Corrector 2nd dam. Their breeding is the best on earth. They will weigh 175 pounds. If you want a genuine bargain, send us your check. The Martin Stock Farm (Poland Chinas Exclusively), Marion, Kansas.

The Heider Tractor.

The Heider tractor, while being new to most of our readers, will readily be connected in name with "Heider Eveners," which have been used in Kansas many years. Both the tractor and the eveners are made by the same firm, the Heider Manufacturing Co., of Carroll, Iowa. Our readers know by years of use how good Heider eveners are, and because of this established reputation the Heider Manufacturing Co. can not afford to risk their name and reputation on anything but a first-class article. The people know this, and the result is that the factory can-

The Measure of Merit.

The average tool is like the average man. No one can tell its worth until it has proved itself. No one can tell whether its edge will stay sharp, firm and true when a hard knock comes, or whether it will nick or twist.

There is a way, however, to judge a tool before it is used. For more than forty years there has been a line of tools so good and so fine in quality that every one is guaranteed by the makers, the Simmons Hardware Company of St. Louis, to meet every requirement and give the best of wear, or any piece will be replaced without cost to the owner.

In order to identify their tools the Simmons Hardware Company brand them with the Keen Kutter trade mark, known in all parts of the world as the mark of efficiency and quality. When a workman of any kind, or a farmer, sees that trade mark, he knows that the tool that bears it will more than meet his expectations. He knows that any edged or handled tool, or any piece of cutlery that is marked Keen Kutter is the very best that his money will buy.

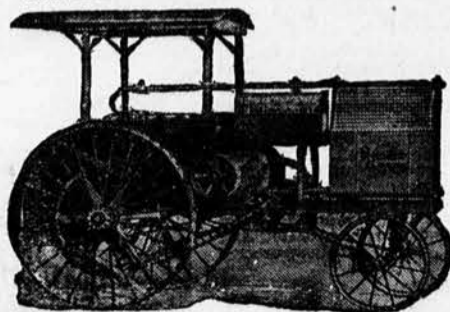
The man who uses a Keen Kutter axe knows that the handle is put in to stay, because it is held fast by the Greiner everlasting lock wedge. He knows that that axe is balanced with absolute correctness, and that the "hang" is perfect. He knows that his Keen Kutter axe will hold its edge and cut true and deep. So it is with his Keen Kutter hatchet or hammer, chisels, draw knife or planes. He knows that he can get the very limit of service out of any Keen Kutter tool from a lawn mower to a pocket knife.

HIDES AND FUR MARKET.

(Furnished by Jas. C. Smith Hide Co., 108 East Third Street.)

HIDES—Salt cured, No. 1, 12½¢; No. 2, 11½¢; side brands, over 40 lbs., per lb., 10¢ flat; side brands, under 40 lbs., 9½¢ flat; bulls and stags, No. 1, 9¢; No. 2, 8¢; glue hides, 6¢ flat; horse hides, No. 1, \$3 @3.50; No. 2, \$2 @2.50; tallow, No. 1, 5¢; No. 2, 4¢; sheep pelts, 35¢ @85¢. Green uncured hides, 1½¢ less than same grade cured. Green half cured, ¾¢ less than cured. Green frozen hides grade as No. 2.

FURS—Mink, Central: No. 1 large, \$4.50 @6.50; No. 1, medium, \$4.25 @3.50; No. 1, small, \$3.00 @2.00. Raccoon, Central: No. 1, large, \$2.00 @1.25; No. 1, medium, \$1.25 @1.00; No. 1, small, 90¢ @65¢. Skunk, Central: Black, \$2.50 @3.50; Short stripe, \$1.50 @2.00; narrow stripe, \$1.25 @90¢; broad stripe, 25¢ @50¢; best unprime, 35¢ @20¢; No. 1, medium, 40¢ @25¢; No. 1, small, 20¢ @15¢. Muskrat, Central: No. 1, large, 50¢ @35¢; No. 1, medium, 38¢ @30¢; No. 1, small, 25¢ @20¢. Fox, Red and Gray: No. 1 red, \$5.00 @1.25; No. 1, gray, 75¢ @2.00. Wolf, Prairie and Timber: No. 1, prairie, \$4.00 @75¢; No. 1, timber, \$6.00 @1.00. Cat, Wild and House: No. 1, wild, \$1.10 @25¢; No. 1, house, large, black, 20¢ @10¢; No. 1, house, medium, colors, 10¢ @5¢. Civet, Central: No. 1, 45¢. Badger: No. 1, \$1.00 @30¢. Early caught furs at value.



not keep up with the orders. The Heider tractor is 12-h. p. steam rating on the belt, and 8 on the drawbar, doing the work of eight horses in the field. It is an all-purpose tractor for field and belt work. Will do work so much cheaper, quicker, easier and better than horses and hired men and make the farm pay great profits. The Heider is built on the correct principle for service, power and speed, is right in weight, size and price. In writing for particulars mention this paper and address Heider Manufacturing Co., 470 Main St., Carroll, Iowa.

Farmers—Read This Page of Proof

Every Statement We Make About the **RUMELY OIL PULL TRACTOR** WE PROVE

WHEN we tell you that an **OIL PULL** will save you at least a dollar an acre on plowing—we base our figures on the actual experience of **OIL PULL** Owners, in all parts of the country under all conditions, working in every kind of soil. We have received this reliable proof in the form of letters from your brother farmers who are doing it.

When we tell you that an **OIL PULL** will cut down the cost of raising and marketing wheat at least 10 cents per bushel—by the savings it makes in plowing, harrowing, seeding, harvesting, hauling, etc.,—we base our figures on the positive proof furnished by the letters sent us by **OIL PULL** owners.

When we say that you can make \$15 a day plowing for neighbors,

we have the records to back us up—letters of proof to show that many **OIL PULL** owners are doing it! And remember, the **OIL PULL** is a complete power plant on wheels—always ready for harrowing, seeding, cultivating, rolling, harvesting, hauling—and all belt power work, such as silo-filling, sawing, feed grinding, pumping, etc. Think how much the saving will be on your own work—and how much the profits will be from the work you do for your neighbors.

We make no claim for the **OIL PULL** that we cannot back by proof! Let us send you this proof. Nothing can be more interesting to you. And now you can farm the **OIL PULL** way, on a 160 acre farm as on a many thousand acre ranch.

**In Sizes to
Meet Your
Power Needs**



**At Prices to
Suit Your
Pocketbook**

In 1000 days' plowing alone, an **OIL PULL** will save you \$4500 on cost of fuel. For it is the only tractor that burns lowest grade kerosene, selling in most localities at 5c to 7c per gallon as compared to gasoline costing 12c to 20c per gallon. And the **OIL PULL** burns this cheap kerosene successfully at all speeds, under all loads, under all conditions.

All these facts are told about in our great book of proof—"Tilling and Tilling the Soil"—the book you can secure without charge, by simply mailing us the coupon below or your request on a postal card.

20 Acre Fields Plowed Easily in 12 Hours

Our book proves that two good boys can easily plow a 20 acre field in 12 hours. How long does it now take you to plow 20 acres? How much would it mean to you to get your plowing done quick—get your harrowing done in a hurry, have your seed in right after the soil is thawed out. Early maturity of crops! Get ahead of the early fall frosts! Plow deep, conserve the moisture, be independent of midsummer rainfall! And save enormous amounts in

cost over horses or gasoline outfits. Then in between times, make big money doing work for neighbors. All with the cheap kerosene-burning **OIL PULL**.

Lower the Cost of Production

Remember, you can't control the market price of wheat and corn and alfalfa or any other product of your farm. But you can cut down the cost of production. Do like the many thousand acre farmers are doing. Farm the **OIL PULL** way. Cut down the cost of raising and marketing your crops and add that saving to your profits!

Every large manufacturing concern has a department that does nothing else but figure "costs" of production and how to reduce them. That's the trend of all modern business—including the business of farming—the greatest of all!

The **OIL PULL** is the biggest money saver for the farmer. It cuts your work down to hours instead of days. The **OIL PULL** keeps you ahead of your work—always.

Don't forget the cheap fuel it uses—kerosene—5c to 7c a gallon. The **OIL PULL** is economical, powerful, simple, dependable, safe. It fairly eats work—never tires. It fits in so thoroughly with every part of business farming, that you can't afford to be without it.

Read This Testimony

Wm. E. McArlay, Pembina County, N. D. writes:—

"In regard to **OIL PULL** Tractor, I am having good success and it runs fine. Have been drawing six 14" plows with ease and could draw more. It is ahead of horses for plowing for I never have to stop on account of the engine, and being self-contained is easy to operate, when doing farm work.

I am well pleased and I can refer anyone to M. Rumely Company for a square deal."

Mr. A. W. Hewsen of Pawnee County, Kansas, writes:—

"Regarding the Type 'F' **OIL PULL** will say that it is doing good work, have been plowing, am using six 14" mold board bottoms. Am plowing about 4 1/2" or 5" deep and it takes them right along. It would pull them on the level ground on high. Have used it some on disc plows using nine discs turning about 10" per disc. Everybody says it is the best looking and stoutest built engine they ever saw and I think so myself. It is a very good one turning and very simple to operate. Am burning cheap kerosene.

Mr. A. D. Steward, of Redwood County, Minn. writes:—

"I bought a 15-30 H. P. Oil Engine last June and started it to plow timothy sod, using a six bottom 14" Engine Plow and pulled a 2 horse drag behind, which work it did satisfactorily and with ease. I did all my harvesting with it, using two binders on high speed. I also used it for threshing, running a 32 separator for which it furnished ample power.

No horses were used on my 600 acre farm for plowing this fall. Have filled four silos, running an 18" cutter at full capacity.

I am very well pleased with the engine; it is substantially built, easily operated and furnished cheap motive power."

**M. Rumely
Company,**

5022 Main St., La Porte, Ind.
U. S. A.

Send me "Tilling and Tilling the Soil" Free. I farm _____ (how many) acres.

Mail This
Coupon
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Town

State..... R. F. D.

This Great Book Free



"Tilling and Tilling the Soil" tells you what you want to know about Tractors—what you want to know about the **OIL PULL**. It tells you the difference in cost between the **OIL PULL** way and horses—and the enormous saving over gasoline. It goes into details—actual facts and figures. It tells how the common oil lamp revealed the secret of perfect oil combustion to John A. Secor, inventor of the **OIL PULL** Carburetor—just as the tea kettle revealed the power of steam to James Watt. It tells about the materials used in the **OIL PULL**—the frame, wheels, gearing, lubrication, ignition, cooling system, carburetor, governor and every other part. It furnishes you with an excellent basis for comparison. It shows actual letters from **OIL PULL** owners. We believe it's the best book ever written about tractor farming. Write for it now.

Expert Advice Without Charge

The next time you have a farm power problem you'd like to have help with, just write a line to us telling what you'd like to know. We'll give you the solution by return mail at no cost to you whatever. Our experts are ready to give you money-making advice—they're at your service—put them to work. But mail the coupon or postal

now for "Tilling and Tilling the Soil." Address

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La Porte, Ind., U.S.A.**

