

KANSAS FARMER

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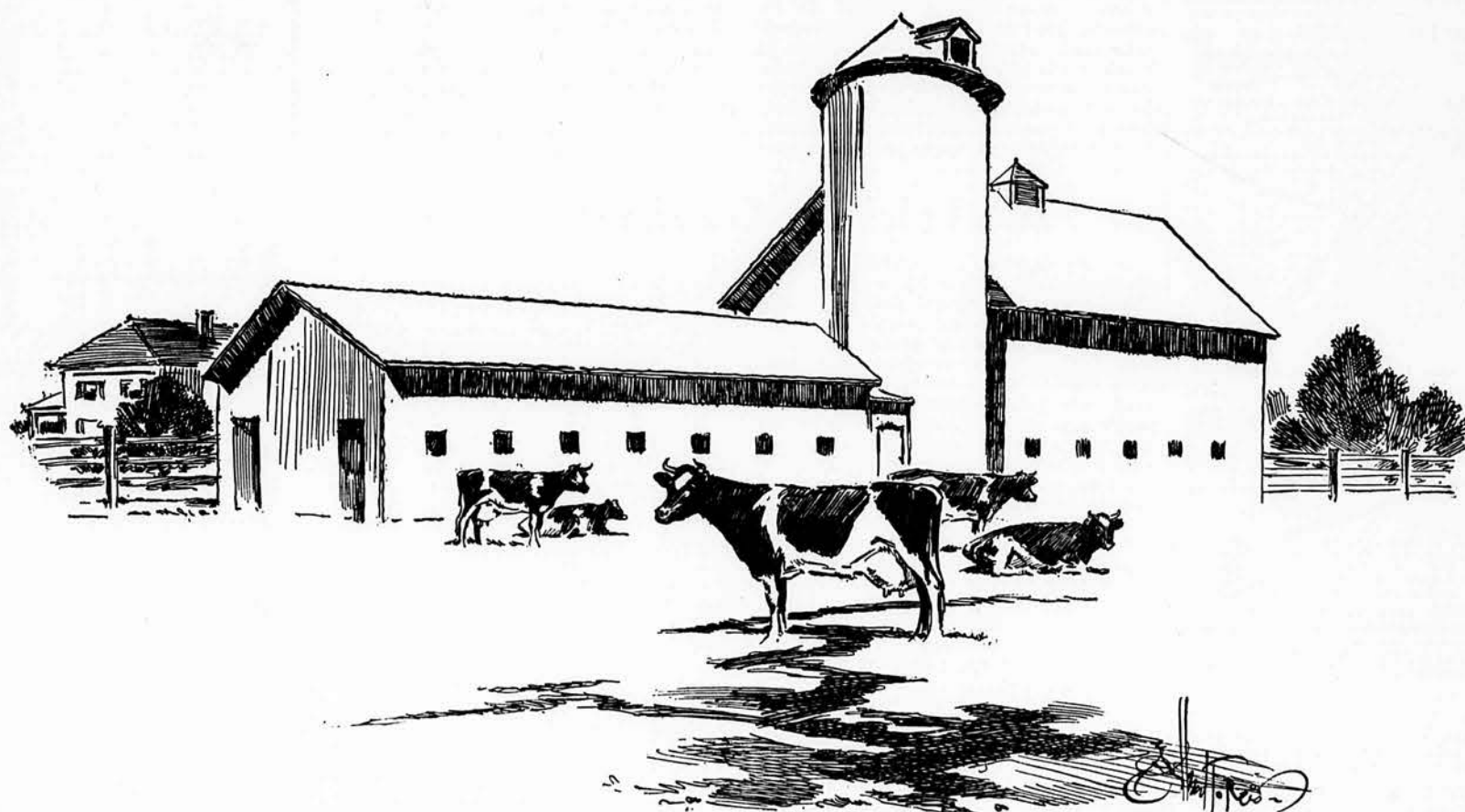
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Seeing Is Believing

What Demonstration Spraying Has Done For Wathena Apple Growers

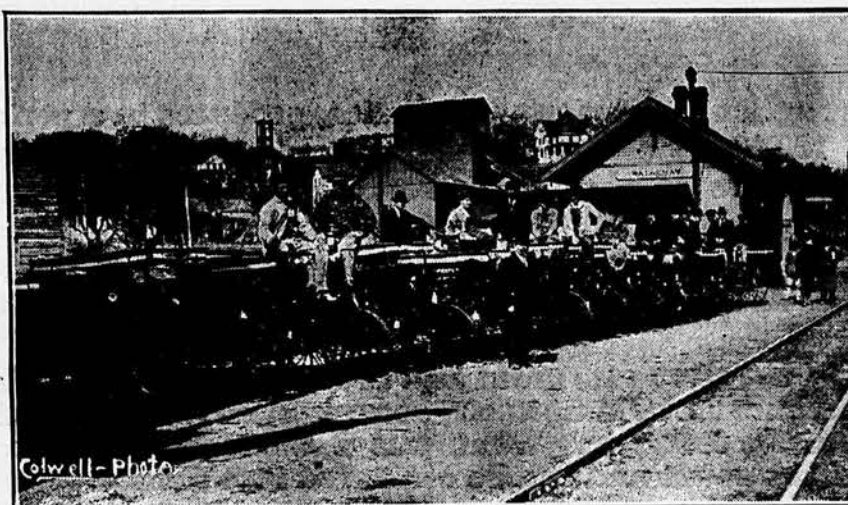
It was not so many years ago that spraying was an unheard of thing in Wathena, attention being given mostly to the raising of small fruits and berries. To be sure, there were apple orchards, too, but the people had learned by bitter experience that apple raising was unprofitable and consequently but little attention was given to the subject. It has been said that "familiarity breeds contempt." This certainly seemed to be the case with the Wathena orchards.

What spraying had been carried on was done with small sprayers of the barrel type and the sprays were put on indifferently whenever there was no other work to be done.

A member of the department of entomology of the Kansas Agricultural College, carried on some spraying tests

but those that remained were of such good quality that he realized more money from his crop than ever before. During the winter months he pruned his trees and was again made the subject for ridicule of the passers-by.

The following summer was that of 1913, with its long, hot, dry spell, and nothing much was expected from the orchards that year, yet it proved to be the most successful year that Mr. Groh ever had. Others were becoming convinced of the value of modern methods of orcharding and consequently Mr. Wakeman and Mr. Groh were not the only ones practicing more modern methods in their orchards in 1913. When it came time to sell the apple crop in the fall of the year, it was found that only those who had sprayed their orchards, had any apples to sell.



SHIPMENT OF SPRAYING OUTFITS JUST UNLOADED AT WATHENA, KANSAS.—THIRTY-THREE POWER SPRAYERS OF ONE KIND HAVE BEEN PURCHASED AND A NUMBER OF OTHER TYPES, ALSO.

in E. V. Wakeman's orchard. From that time on he has been an enthusiastic and energetic orchard man, being the first person in Wathena to purchase a power spray for use in his orchard.

G. T. Groh was cutting out his trees when he was visited by one of this department, who explained to him how there was more money to be made by the use of a sprayer than with the axe. Mr. Groh went to Kansas City the next day and purchased a power sprayer. His orchard is on the main road to St. Joseph, Mo., and in plain sight of all who pass. When passers-by saw him at work in his orchard with a spraying machine, he was subjected to ridicule but he nevertheless continued with his work. The first year that he sprayed, a severe hail storm badly damaged his apples

Those passers-by who had formerly scoffed at Mr. Groh, now stopped as they were passing and begged him to sell them at least a few apples as they had none on their own trees.

With the orchard owners of Wathena "seeing was believing," and as a consequence of this belief, they bought thirty-three power sprayers similar to the one used by Mr. Groh. Part of this order of machines may be seen in the cut above, taken as they were being unloaded at the Wathena depot. While this was the largest number of machines sold by any one concern, it by no means represents the total number that were sold this year in Wathena.—J. H. MERRILL, Assistant Entomologist, in charge of Fruit Insect Investigation, Kansas Experiment Station.

Mulching Garden Crops

In the Kansas Industrialist, George O. Greene of the extension division of the Kansas Agricultural College, writes as follows, concerning the value of the straw mulch for many garden crops:

In the drier sections of Kansas, where such materials as straw, old hay, and even barnyard manure are obtained easily and cheaply, the mulching of potatoes is a common practice. There are a few farmers who have successfully practiced mulching of other garden vegetables. In those sections devoted largely to the growing of wheat the gardens are planted in the spring with fine enthusiasm and high hopes and are given a few good cultivations. Then, as the days grow hotter and drier and the garden needs the most attention, the wheat harvest demands the whole time of everybody on the farm, and the garden is neglected.

Some few farmers who have practiced mulching of the late summer and fall vegetables and have grown good crops of these every year, realize the value of being able to dispense with cultivation during the busy summer season. Once in a while a farmer is found who is over-enthusiastic concerning the mulching of his garden crops.


The practice has its disadvantages as well as its decided advantages. Under certain conditions, it may be quite as expensive or even more expensive than the continued cultivation. This is especially true of those crops which must be cultivated a number of times before

they are large enough to be mulched, and more true of those that mature very early in the season. With the wheat farmer, however, it is not a question of the cost, but of dispensing with cultivation and of conserving the moisture during that period when he will not be able to cultivate the garden because of a lack of time.

A mulch of straw not only conserves the moisture in the ground, but it prevents the growth of weeds—the two purposes of cultivation. While it may be truthfully said that mulching will develop a later crop, which may or may not be a disadvantage, and may not even increase the yield over clean culture if the weather conditions are unfavorable, still with conditions as they are in the wheat-growing countries the mulch will, on the average, increase the yield one-third wherever the crop matures after mid-summer.

There are a few crops of which there can be no question as to the profits of mulching. These are the vegetables that mature in late summer and fall, such as tomatoes, potatoes, sweet potatoes, string beans, cabbage, late root crops, cucumbers, melons, etc. A mulch applied to these crops as soon as they have become established in the soil, with the possible exception of potatoes, which are often mulched soon after planting, will not only conserve the moisture, but will save labor, increase the average yield and, perhaps, reduce the expenses of production.

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CONTROLLING APPLE BLOTCH.

Few orchardists realize the great loss to their industry due to the apple blotch. The annual loss from this disease is greater than that from any other which attacks this fruit. This disease originated in the southeast part of the United States but has spread rapidly north. It is only within the last ten years that it has invaded the Kansas orchards. In the last three or four years some of our orchards have yielded less than half a crop because of the blotch, and in some cases a total loss, even, has been reported.

There is probably no one in Kansas who knows more about this disease than D. E. Lewis, assistant horticulturist at the Kansas Agricultural College. He states that it may be almost completely eradicated from an orchard in from four to six years. He has succeeded in controlling the disease on the fruit as a result of the first year's spraying. Mr. Lewis has prepared a bulletin which is ready for distribution, entitled, "The Control of Apple Blotch."

The blotch is caused by a fungus which lives parasitically upon the fruit, twigs and leaves. The canker caused by this fungus may girdle and kill the twig upon which it is growing. There is no part of an infested tree more seriously injured than the fruit spurs and this operates to prevent the setting of fruit. The fruit itself is worked on by the blotch, and apples so infested are practically useless.

Mr. Lewis advises the removal of the worst cankered limbs from the tree. Spraying is also absolutely essential in destroying the fungus. The first spraying should be applied three weeks after the falling of the petals. If dashing rains occur and wash the spray mixture from the tree, another application should be made immediately.

When the weather is wet and continues cloudy, a lime-sulphur spray should be used instead of the Bordeaux; as soon as the weather becomes settled, however, the Bordeaux should be applied, as it is more effective than the lime-sulphur.

The second regular application will vary somewhat with the weather conditions but should follow the first in about two to four weeks. The fruit is still susceptible to spray-burn and the same precautions should be followed in using the Bordeaux as in the first spraying. The Bordeaux should be applied again ten weeks after the falling of the petals. As a rule the first two applications control the situation, but in badly infested orchards, and especially during a wet season, a later infection may take place if the third application is omitted.

The bulletin referred to can be secured by addressing the director of the experiment station, and in it will be found more complete instructions regarding the handling of this serious apple disease.

SILAGE FOR SUMMER FEEDING.

A plentiful supply of palatable, succulent feed through the summer season is an essential to success in the live stock business. In some sections the climate and general conditions are such that this summer feed is most easily supplied by means of pasture. Pasture has always been considered as one of the requisites of an ideal live stock country.

The extension of the live stock business, and especially dairying, over areas where pasture cannot be depended upon for summer feeding, has called for some other method of supplying the necessary feed through this season of the year. The feeding of soiling crops has long been recognized as one method of solving this problem. Where intensive methods are followed, especially in dairy farming, the growing and feeding of soiling crops has given satisfactory results. This method or summer feeding, however, has not met with favor generally on account of the large amount of labor required.

The great revival of interest in the silo during recent years and the extensive use of silage for winter feeding has suggested the idea of using silage in

the place of pasture through a part, at least, of the summer season. Just recently the Wisconsin Experiment Station has completed a series of investigations making direct comparisons between the use of silage and soiling crops in feeding milk cows through the summer season. The soiling crops used in these tests were red clover, peas and oats, green flint corn, sweet corn, mixtures of oats and peas and a variety of dent corn. Corn silage made from a dent variety was used and was of very uniform character and much relished by the cows.

It was found that less labor and seed was required in the production and feeding of the silage crop than soiling crops. The thick seeded crops are easily planted, but the corn grown for silage was much more easily harvested. From the same area silage had the advantage in the amount of total dry matter produced and also in the amount of crude protein. This was due to the greater yield of the silage crop.

Where summer conditions are such as to make pastures uncertain, the crops which might be grown for soiling purposes would be equally uncertain. The use of the silo will equalize the quantity of feed available through the year and between the good and poor years of feed production.

An acre of corn put into the silo will furnish more feed than five acres kept in grass. While it is true that on most farms there are small areas suitable for pasture only, these small pastures can be made much more useful and profitable by supplementing them with silage. A number of the best dairy farmers of Kansas have already adopted the system of carrying silage over especially for summer feeding. In this way only can a thoroughly dependable supply of the right kind of feed be available for summer feeding.

WHEAT CONDITION HIGH.

According to the report of the Kansas Board of Agriculture just issued, the present conditions of the winter wheat crop is very flattering. On a total acreage of 8,333,000 the average condition is 96.5. This is the highest April condition reported since 1903 and this is on a record-breaking acreage. Growers estimated last fall that the total area sown would amount to about 8,580,000 acres. On the basis of the present acreage reported, the loss has been less than 3 per cent.

There is practically no insect infestation and only in some of the western counties has there been any damage due to high winds. Some damage has been done through the western counties this spring due to the lack of rain, but the weather bureau has reported rains the last few days in the counties where this damage from dry weather has occurred.

Twenty-two counties report conditions at 100 or better. Reno County, which was the banner wheat county of the state in 1912 and 1913, leads in acreage this year and reports a condition of 98.

CULL OUT PEDIGREED SCRUBS.

In attending some of the pure-bred live stock sales we have wondered at times whether some of the breeders have not failed to realize the importance of always consigning thoroughly good animals in good healthy condition, to these sales. A man who would build up a reputation in the production of any article of trade must establish a fixed standard as to quality. Whenever he falls down and puts on the market an article or product below a given standard he is bound to be judged accordingly.

A breeder of pure-bred live stock who has systematically built up a reputation for producing and selling stock of high quality and has always sold them in thoroughly healthy condition, cannot afford, under any circumstances, to allow inferior animals to go out from his herd. Every animal so sold will act as an advertisement, counteracting the results of his many years of effort in building up his reputation as a breeder.

The demand for pure-bred animals is sometimes so great that breeders are tempted to save and sell for breeding purposes individuals which are really

nothing but scrubs. A closer culling out of these pedigreed scrubs will mean much in the advancement of the pure-bred live stock business as a whole.

COW DEALERS EMPLOY LAWYER.

The reputable breeders of dairy cattle in the state of Illinois are not finding it by any means an easy task to stamp out the tuberculosis among dairy cattle of the state. The following statement was recently made in the Prairie Farmer: "The cowdealers are grief stricken at being deprived of their supply of questionable stock. Feeling the need of a stronger shoulder on which to sob out their troubles, they have hired Speaker William McKinley of the Illinois Legislature as their attorney. Now the fame of Speaker McKinley as a cow expert cannot be detected with a high power microscope. His friendship will be valuable, however, in case it becomes necessary to quietly bury any anti-cow dealer legislation that may come before the next session of the legislature. In the meantime strong pressure is being brought to bear on the governor to rescind his recent ruling. This ruling simply acts as a dam to keep back a flood of diseased cattle."

There always seems to be plenty of people who are willing to degrade a legitimate calling in order to further their own selfish purposes. These unscrupulous dealers who are doing so much to check progress in this state may possibly block the wheels for a time; eventually, however, justice and square dealing will prevail. The unscrupulous cow dealer will be wiped out of existence and Illinois will again be recognized as a producer of healthy cattle.

KANSAS FARMER has always been exceedingly watchful as regards the protection of buyers of cattle in Kansas. It is not our policy to permit this state to be made the dumping ground for diseased stock from other states through any act of ours. Dealers in questionable stock cannot advertise in our columns.

SWIMMING POOL ON FARM.

The luxury of a swimming pool is something not often found on the farm. H. T. Nielson, demonstration agent for Northwestern Kansas, recently discovered one, however, on a farm in Decatur County. This pool or reservoir is constructed of concrete and is 36 feet across, and has a depth of five feet. It is kept full of water and is used for watering the garden in the summer time, but its most popular use is as a swimming pool for the boys of the neighborhood.

The supplying of facilities for bathing on the farm has not been given the attention it deserves. While it is true a great many of our modern farm houses are equipped with bathrooms, there are still a large number where the opportunities for a bath after a hard day's work are absolutely lacking. Wherever water is stored in elevated storage tanks a shower bath can be arranged at very little expense. Where there are a number of men working on a farm the installation of a shower bath in the barn or in some building, would actually be worth money to the farmer in the better service he would get from the men doing the work. A bath of this kind would be found to be the most popular place on the farm. An arrangement of this kind can be installed for summer use at a minimum of expense.

Kansas lost a useful citizen last week through the death of Walter Wellhouse, secretary of the Kansas State Horticultural Society. For many years the name of Wellhouse has been prominent in horticultural circles in Kansas. Walter and his father were, years ago, the largest apple growers in Kansas and through their enthusiasm encouraged many orchardist to a greater acreage and the most improved growing methods.

Within the reach of every farmer lies the remedy for declining soil fertility. That remedy is live stock.

GROW KAFIR AND PLAY SAFE.

All through KANSAS FARMER territory last season the farmers were compelled to sell off large numbers of their breeding cattle and hogs on account of the great shortage of feed. This has been a serious loss to the farmers concerned and to a considerable extent all will suffer from this depletion of live stock upon our farms.

The failure of the corn crop through all this territory is largely responsible for this selling off of stock. It always takes considerable time to get back into stock and this is especially true where there is not a surplus of ready money with which to go out and replenish the depleted herds.

It would seem that the farmer should carefully consider, following such an experience, whether it is not possible to avoid the necessity for such sacrifices in the future. Such years are bound to come occasionally and it would be a wise policy to make some provision for tiding over a similar emergency in the future.

The growing of crops which can be depended upon to withstand such conditions, is practically the only insurance the farmer has to protect himself from such seasons. The value of kafir and the other varieties of sorghums as live stock feeders has been so thoroughly tried out in the past few years that the farmer is justified in falling back on these crops to a much greater extent instead of depending entirely upon corn as has been the practice in the past.

It has been demonstrated that the grain of kafir and milo, when properly supplemented, is almost, if not quite, equivalent to corn. Corn is not absolutely necessary, even for the production of pork. In forage value these crops are superior to corn, wherever the conditions are not favorable for the maximum production of the latter crop. As a silage crop some farmers, in Eastern Kansas even, have adopted the policy of growing kafir for the silo instead of corn; the reason being that it produces a larger tonnage yield and in many cases the silage is actually of better quality than corn silage.

A farmer who will put out a reasonable acreage of any of the sorghums, give them an equal chance in the way of soil preparation and cultivation, need not worry for fear he will fail in having feed for wintering his stock. Where kafir has been given a chance it has never failed to produce a feed crop. In some years in the drier sections the returns may be small, but it is also true that in the favorable years the crop produced will be large.

Since the introduction of the silo the big crop years can be equalized with the lean years. This has been actually demonstrated at the Hays Experiment Station in Kansas, on a large scale. The big kafir crop of 1912 was stored in the silos and the amount was greatly in excess of what was needed for that winter's feeding. The next year the crop came nearer being a failure than it has ever done at the Hays Station, but with the reserve on hand the station not only had silage enough to winter the regular stock, but were able to buy 100 head of heifers when every one else was selling, and carry them successfully through the winter.

Farmers who realize the great value of these crops and will give them the care and consideration that they deserve will not be compelled to sacrifice their stock as so many had to do following the extremely unfavorable season of 1913.

A county agricultural agent has just been appointed for Linn County, Kansas. The man who takes up this work is H. B. Fuller, a graduate of the Michigan Agricultural College. Mr. Fuller has had practical experience as a farmer, as a newspaper man and as agricultural commissioner of schools. For the past few years he has been principal and teacher of agriculture in the Chillico Indian School at Chillico, Oklahoma.

BEEF PRODUCTION AT HAYS

*Heifer Calves Wintered at Feed Cost of Three Cents Daily
Linseed Meal Safer for Breeding Cows than Cottonseed Cake*

By N. A. CRAWFORD
Kansas Agricultural College



BIRD'S EYE VIEW OF CATTLE FEEDING YARDS AT HAYS EXPERIMENT STATION DURING PROGRESS OF RECENT TEST IN WINTERING BEEF CATTLE.—FROM PHOTOGRAPH BY G. K. HELDER.

ON material which has little commercial value on the market and a part of which the average farmer in prosperous years discards as waste, the Kansas farmer, particularly in the western part of the state, can winter beef calves and cattle economically and with entire success. This result was a feature of experiments carried on during the past winter and announced at the Fort Hays Branch Experiment Station, at the big Western Cattle Feeders' Meeting on May 1.

Kafir silage and kafir fodder, which would bring but little returns on the ordinary market, and wheat straw, which in years past has been burned on most farms as worthless, constituted the bulk of the rations fed in the experiments.

Wintering heifer calves on these cheap rations, constituted one of the experiments. Sixty spring Hereford calves were divided into two lots of equal number and were fed a ration consisting of kafir silage, wheat straw, 1912 corn stover, 1912 foxtail hay, linseed meal, alfalfa, bran, corn, shorts and chop grain. All of this, with the exception of the linseed meal, is available on the Western Kansas farm, and part of it has been regarded heretofore as almost entirely worthless. The calves in one of the lots were fed for normal growth and gained on an average, 41.76 pounds each, during the 144 days of the test. The daily cost of feed per head for the 144 days was three cents. The total cost of wintering the calves in this lot, including both feed and labor, was \$5.76.

The other lot was fed to make a larger growth with the purpose of possible successful early breeding. Here the gain per animal was 113.76 pounds for the total period. The daily cost of feed per head was six cents in this lot, and the total cost per head of wintering the calves, including labor and feed, was \$9.55. The gains in this lot cost, per hundred pounds, \$7.50, as against a cost per hundred of \$11.37 in the lot fed for normal growth. This forced gain was thus found to be even more economical than the normal gain in the other lot.

In the same experiment, two other lots of calves were used. These were late summer calves born in June and July. There were 24 in each of the two lots and they were fed for 102 days in this experiment. The purpose was to ascertain whether or not by good feeding these calves might make as good animals as those born earlier. The calves in one of the lots started at an average initial weight of 323 pounds, which was increased to 413 pounds. The average weight of those in the other lot was 284 pounds at the start, and this was raised to 407 pounds in the 102 days. In the former lot the average daily cost for feed per head was five and one-half cents; in the latter, slightly over six and one-half cents.

In the spring the two lots first mentioned will be subdivided into two lots each so that there will be four lots of 15 head each. Fifteen head from each lot will be bred to produce calves at two years of age. The others will be bred

to produce calves at three years of age. The object of this is to observe the results of this method of treatment upon the development of the cows and also note the character of the offspring produced. It is thought that by a proper system of early feeding the heifer may be grown out so as to become a profitable breeding cow one year earlier than is the usual practice on range conditions. The late summer calves which were liberally fed to produce good winter growth will not be bred until the summer of 1915. The result of this test will determine, for the first time in the history of American animal husbandry, whether calves can be grown out sufficiently to prevent early breeding from stunting their subsequent growth.

* * *

Another experiment reported was in the wintering of beef cattle for a period of 136 days, a confirmation of similar work done in the winter of 1912-13. These animals were likewise maintained on feeds readily available in Western Kansas. Two of the lots were fed on kafir fodder, wheat straw, a limited amount of kafir silage, and a little cottonseed cake as a concentrate. In the third lot cottonseed cake was omitted, but linseed meal and alfalfa were added. In one of the lots in which cottonseed cake was fed, three cows aborted and two proved barren. These cows were fed in dry lot. The animals in the other lot which received cottonseed cake, were fed on the open range. Of these, two aborted and one proved barren. The total cost of wintering, including both feed and labor, in these two lots was respectively, \$7.64 and \$6.47, the feed cost per lot being \$5.70 and \$4.53 respectively. In the lot where linseed meal and alfalfa were fed,

there was no animal which aborted and only one was barren. The average cost of wintering these animals was \$8.02, the feed cost alone being \$6.17. The cattle used in this experiment were eight and nine year old cows.

From the results observed the past three winters the experts in charge of this winter maintenance experiment, are of the opinion that for breeding cows cottonseed cake is not as safe a protein concentrate as linseed meal. There were no abortions in the linseed meal lot this winter, while some of the cows in this lot did abort last winter when fed the cottonseed cake. While not conclusive, these results at least indicate the possibility that cottonseed meal fed to breeding cows, may be responsible for the loss of some of the calves through abortion.

In all these experiments, labor was figured at seventeen and one-half cents per hour and the feeds were figured at good market prices, as follows: Kafir silage at \$4 per ton; kafir fodder at \$2 a ton; wheat straw at \$1 a ton; corn stover at \$2 a ton; foxtail hay at \$1 a ton; alfalfa at \$12 a ton; corn at \$1.50 per cwt.; wheat chops at \$1.40 per cwt.; linseed meal at \$1.54 per cwt.; bran at \$1.05 per cwt.; shorts at \$1.15 per cwt.; cottonseed cake at \$1.39 per cwt.

The results of wintering heifer calves at Manhattan, were re-stated at the meeting at Hays.

* * *

Two hundred farmers and stockmen, a number accompanied by their wives, attended the Hays meeting. The morning was devoted to inspection of the farm and the live stock. At noon, luncheon was served by the teachers and students of the domestic science department at the Hays Normal School. The

afternoon program, over which Alexander Philip of Hays, presided, was opened with music by the Normal School Band.

George K. Helder, superintendent of the Hays Branch Experiment Station, spoke on the operations maintained by the station and their relation to farming in the western part of the state. Mr. Helder advocated the combination of grain and feed crops along with stock growing—planting nearly equal acreages of sorghum and wheat and keeping live stock to the limit of the farm's carrying capacity. He emphasized crop rotation as a prime factor in securing profitable yields.

W. M. Jardine, dean of agriculture, Kansas Agricultural College, and director of the experiment station in the state, discussed the field of work carried on by the stations. Five of the six stations in the state are situated in the western third of Kansas, and Dean Jardine dealt particularly with the problems of irrigation and dry farming upon which these stations are engaged. Less wheat, more sorghums and more live stock were advocated by Dean Jardine as the right farming formula for Western Kansas. He emphasized the problems, the solution of which was calculated to benefit the average farmer and make the home environment of the western part of the state as pleasant as that of other parts of the country.

The production of feed crops, particularly the grain sorghums, was also urged by W. A. Boys, of Hays, farm advisor for eight counties in Western Kansas. Mr. Boys advised careful preparation of the ground and selection of seed as requisites for success in growing these crops. The dwarf varieties of sorghums, he stated, were best suited to Western Kansas. Mr. Boys suggested further that alfalfa be grown wherever conditions were favorable.

The cattle feeding experiments were explained by W. A. Cochel, professor of animal husbandry in the State Agricultural College. Professor Cochel brought out the fact that this work at the Hays Experiment Station was in direct accordance with the previous recommendations made by the college and the station to farmers, in that feeds were carried over from the season of 1912 and filled in the deficiency due to the failure of crops in 1913. Because of the cost of labor and of feed as estimated in these experiments, Mr. Cochel stated, the results are probably less than would be got by the farmer who would raise feed at less expense and have a lower cost for labor.

* * *

J. C. Mercer of Topeka, secretary of the Kansas State Live Stock Association, spoke briefly on the work carried on by the organization which he represented, particularly in keeping freight rates on stock at a fair figure. Mr. Mercer urged persons interested in live stock to join the association.

The day at Hays was cold and threatening, which made the attendance from nearby places smaller than it would have otherwise been. Those present, however, were enthusiastic over the results of the experiments and over the work of the Hays Station in general.

THE purpose of the experimental work at Hays is to demonstrate efficient methods of producing crops and live stock in the short-grass country. The station owns 4,000 acres of first bottom and upland prairie soil in which feed is produced and on which cattle are grazed. All the land is handled under a definite cropping system. The fields are divided into eighty-acre plots.

There are 70 mature breeding cows, 57 two-year-olds, 62 yearlings, and 165 calves which have been wintered at Hays under practical range conditions. The experimental calves which were fed at Manhattan the past winter, have been shipped to Hays, where they will go on pasture for the summer. Fifty-six horses and mules are used to carry on the farm operations.

A new dairy farm has been established on 480 acres of upland. A dairy barn to accommodate 30 cows and their young stuff, has been built, and stocked with a herd of 30 grade Holstein cows.

A flock of 100 sheep is maintained for the production of mutton and wool. The annual production of hogs from the station is three carloads.

The chief purpose of the meeting just held, was to present results of feeding experiments as follows:

Beef breeding cows maintained on kafir, sorghum, and straw as roughage, with linseed meal or cottonseed meal as a source of protein, on open range and in dry lot.

Beef breeding heifers, developed rapidly with a view to early breeding, as compared with slower growth and late breeding.

Heifer calves fed to determine the comparative value of corn, kafir, and sorghum silage and also the comparative value of linseed meal, cottonseed meal, cold pressed cake, and alfalfa hay as sources of protein when fed with silage.

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

ONE of our Shawnee County readers inquires as to a substitute for skim milk in keeping spring pigs growing properly. The pigs are of pure breeding and are to be developed and sold for breeding purposes.

With pigs that are to be sold for this purpose it is especially important that they make good growth during the spring and summer seasons. Where skim milk is available this, combined with shorts and a little corn, makes an ideal ration to supplement the milk of the sows before weaning time. The same ration after weaning gives splendid results. Skim milk is rich in protein and therefore supplies the necessary material for rapid growth. Where the milk is not available in sufficient quantities, the most economical source for the necessary protein is tankage or meat meal. At the present prices of this feed it is the cheapest source of protein on the market. Under ordinary conditions corn would be fed to a considerable extent with the tankage. At the present time, however, corn is so high on the market that the use of shorts with the tankage probably gives the most economical results. Where the pigs have access to alfalfa pasture about one part of tankage to ten or twelve parts of the shorts, or a combination of corn and shorts, give the best of results. If alfalfa or other leguminous pasture is not available, the amount of tankage should be somewhat increased in order to supply the necessary amount of protein. This ration may be mixed up with water at time of feeding, and fed in clean troughs. If a limited amount of skim milk is available, the tankage should be used in smaller quantities.

For economical production it is not usually desirable to full feed pigs on alfalfa pasture. In the experiments at the Kansas Experiment Station, pigs fed through the summer on a limited ration of corn, shorts and tankage, with alfalfa pasture, produced .57 of a pound of gain a day for an 80-day period, costing at the rate of \$2.66 per hundred. These shoats were in splendid condition for making heavy gains during the final fattening period. This lot gained during 100 days of winter feeding, at the rate of 1.71 pounds per day, at a cost per 100 pounds of \$5.79.

The breeder handling pure-bred hogs must necessarily crowd his hogs a little more during the summer period in order to have them of sufficient size and presenting an attractive appearance to the buyers of pure-bred hogs in the fall. This is especially necessary in the case of the males which are to be sold for breeding purposes.

Farming Out Pigs.

One of our subscribers writes to us concerning the raising of hogs on the shares. He wishes to place some pure-bred brood sows and pigs in the hands of a farmer and wishes to know what would be an equitable division. The party on the farm should be thoroughly equipped to care for pure-bred hogs properly before considering such a proposition. The system of dividing profits commonly followed is for the man on the farm to take the sows at some stated time before the pigs are due and feed and care for them until weaning time or some definite set time in the summer or fall.

The owner of the sows then should get back his sows with half the pigs, the man on the farm taking half the increase to pay him for his feed and to recompense him for the labor and special ability and skill he has put into the handling of these pigs. In case there have been any losses among the sows, the loss should be made good from among the pigs so that the owner gets back an equal number of brood sows.

If the pigs are to be kept until six months old or later, before the division takes place, some extra allowance should be made to the man on the farm for feeding the pigs. Extra feed purchased might be paid for equally by the two parties concerned.

Feterita for Nebraska.

We have an inquiry from E. R. H., one of our Nebraska readers, regarding methods of planting and cultivating feterita. Feterita should not be planted until the ground is thoroughly warm. It is a thin hulled seed and will not lie long in the ground under unfavorable growing conditions without rotting. It should be drilled in rows as is corn;

placing the rows about the same distance apart. A stalk every eight or ten inches is about the proper stand to give best results. At this rate of planting three to five pounds of seed will plant an acre.

It should be covered about an inch deep and may be surface planted on plowed ground or may be planted in the lister furrow. A good seed bed for corn is a good seed bed for feterita. This plant suckers quite plentifully and each sucker under favorable conditions, produces a head. The first heads begin to mature in about 90 or 100 days. The heads on the suckers ripen later than on the main head. This uneven way of ripening makes the harvesting of the crop somewhat difficult, as the early maturing heads will shatter badly before the later heads are mature enough to harvest. In a very dry season or in the semi-arid regions the plant does not sucker as much as where the rainfall is more abundant. In areas where the annual rainfall amounts to 30 inches or more, "hogging the crop down" is probably one of the most satisfactory methods of harvesting.

Rye for Hay.

R. G. M., one of our Rice County readers, writes to inquire as to the value of rye hay for horses. He also wishes to know at what stage of development the rye should be cut. The various cereals, such as wheat, oats, barley and rye, can all be used as hay crops. They

producing an average yield of 24 bushels of kafir per acre. In the statistics the acre value of kafir is given at \$20.88 as against \$13.72 for corn. The same counties produced an average of 12 bushels of cane seed per acre; the acre value of the crop being given as \$20.66. These figures were taken from the report of the Missouri State Board of Agriculture. A table setting forth these various facts appears in the sorghum book by Mr. Borman, which is now just off the press.

Although we have no personal knowledge concerning the growing of sweet clover in the section from which our correspondent writes, it will undoubtedly grow there. It is commonly observed growing on the roadsides, in railroad cuts and on other spots where the top soil has been removed. It grows quite readily throughout Southeastern Kansas. It will grow on soil and under conditions where alfalfa will not succeed at all. At the present time there is a big demand for the seed and it will undoubtedly be profitable as a seed crop for several years. Where alfalfa cannot be grown it will also more than pay its way as a hay and pasture crop.

Keeping Farm Accounts.

A. W. D., one of our correspondents from Reno County, who read our editorial on "Keep Books on the Farm," in issue of April 25, writes to ask for further information. This correspondent has for two years been keeping a complete daily dairy of his various farm

listed separately with the number of acres of land and its value per acre; the combined value of the buildings and the land constitute the value of the farm. Horses should be listed by name, with their ages, followed by other live stock listed separately, giving the value per head. The larger farm machinery should be listed separately; the smaller tools may be bunched together in one item. Feed, produce and supplies on hand should be listed at the market value, and growing crops, which should include the value of labor and materials already spent for the next year's crops. Cash on hand and in the bank and all bills receivable should be listed; from the total of these should be deducted mortgages and bills payable. The remainder, after the debts have been deducted, will be what the farmer is worth. It will be impossible to discuss in full all the details connected with farm accounting. A careful study of the bulletin referred to will enable any farmer to work out a system which is adapted to his requirements.

Rejuvenating Old Orchard.

The following inquiry was received at KANSAS FARMER office and has been answered by Prof. Albert Dickens of the Kansas Agricultural College:

I have moved onto a farm that has been rented for several years. There was a nice orchard on this farm, but since it has been rented, was badly neglected and abused. Some of the trees are in fair shape, some have lots of dead limbs. What can I do to make them do any good? Is there anything I can do? Will it be all right to spade around the trees and throw some well-rotted manure around them?

Some of the limbs have had worms in them. I can see where the woodpeckers have pecked them out. Is there anything to check these worms?—A. F., Barton County.

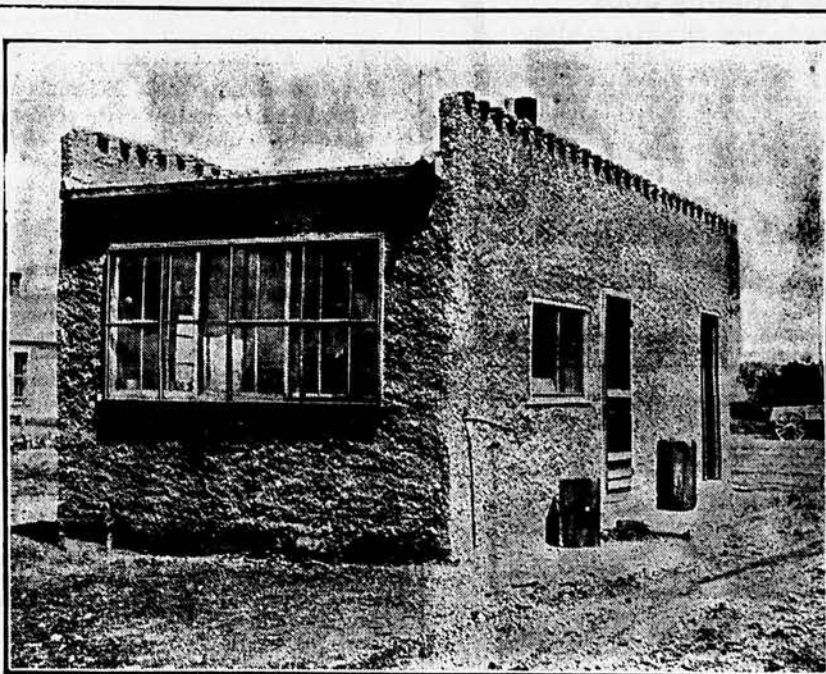
"It is probably a little late now to do any pruning until after the leaves are well developed and the growth is well started. Dead limbs may be cut at any time and I would suggest that the dead wood be removed as soon as possible and would advise that you watch carefully for cankerworms and if they are present that you spray at once with arsenate of lead, three pounds to fifty gallons of water. As soon as the fruit is set and the leaves well developed you may begin to thin out the tops. I enclose you a circular on the subject of summer pruning. I will say that since this circular was issued we have done a good deal of work in unproductive orchards and summer pruning has given us very satisfactory results. Some varieties, such as Missouri Pippin, have been cut back quite severely and have made very good trees after being cut back. Trees that have decayed spots or spots that are affected with the disease commonly called Illinois canker, will show a part of the branch dead and these branches should be removed as soon as possible.

"The borers are a difficult class of insects to control. Scraping the bark will show you the location of the burrow of the insect and if possible the insect should be located and destroyed. A repellent wash made of soft soap and washing soda in proportion to make a thick paint to which is added sufficient crude carbolic acid to give it a strong odor, has seemed to be helpful. If the orchard is sod bound and the ground is hard and not in good condition, a thorough disking would be advisable. If the sod is very tight, a shallow plowing preferably with a breaking plow, is advisable, unless there is danger of seriously cutting the roots. In the matter of fertilizer, it should be remembered that the feeding roots of the tree are quite extensive and an application of manure on the ground with the spreader, would probably be as satisfactory as though the manure were thrown under the branches. An application of wood ashes is advisable. If you have wood ashes it would be well to scatter them about the trees, as the fertilizer value is considerable."

Protecting Kafir Seed from Ants.

We are still getting inquiries concerning the use of crude carbolic acid on kafir seed as a protection from the ants.

Dip the seed in crude carbolic acid, full strength, just before planting. This serves as a repellent and does not prevent the seed from germinating.



A GOOD MILK-HOUSE IS IMPORTANT PART OF EQUIPMENT OF THE DAIRY FARM.—CUT SHOWS UP TO DATE CONCRETE MILK-HOUSE ON WILLOW MEADOW DAIRY FARM OF SIMPSON & BALLOW, DODGE CITY, KAN.

might well be used much more for that purpose than they are. Rye is not quite so good as oats or barley, but if cut at the proper stage it will cure out into a very clean, palatable hay. It should be cut when the grain is in the early milk stage. If allowed to go very much past this stage the stems of rye become very woody and do not make as palatable a hay as when cut in the early stage.

Kind of Grain Sorghum to Grow.

An inquiry comes from a reader in Southwest Missouri as to the variety of grain sorghum best suited to that locality. This subscriber also wishes to know whether sweet clover will grow in that section of the country. The rainfall in Southwest Missouri amounts to 40 or 50 inches annually and the growing season is between 190 and 200 days. These conditions should be very favorable to the production of kafir. Kafir will give a much heavier yield on good land than on poor land, but it outyields corn on thin or poor land.

If a grain sorghum is desired, kafir is the grain sorghum to use. Where the highest forage yield is desirable cane will undoubtedly give the better results. Feterita sown after harvest in the early part of July, will probably mature some grain before frost, and likewise some forage.

The crop statistics for the 23 counties of Southwest Missouri show for the year 1912 an average yield of corn per acre of 24.5 bushels, the same counties pro-

supplies; all his expenses are shown plain enough, but he has not been able to bring out exactly what he wished to at the end of the year. This correspondent and others desirous of taking up this matter of farm accounting, should by all means secure a copy of the bulletin already referred to. This is entitled, "Farmers' Bulletin 572—A System of Farm Cost Accounting." It can be secured by sending to the Federal Department of Agriculture, Washington, D. C.

Bookkeeping knowledge is not necessary in order to work out a system of farm accounting, such as is described and explained in this bulletin. As a rule, the account should be started January 1, or March 1, or April 1. A tenant farmer would probably prefer the latter dates.

In order to have a complete set of farm accounts, three records are necessary—first, an inventory at the beginning and at the end of the year; second, an account of all money paid out or received; third, a record of all work done by men and horses during the year.

There is probably no account that can be kept on the farm which will give as much information as a complete inventory taken at the beginning and ending of each year. Of course, after the work is under way but one inventory a year will be taken. The inventory should include, with values, the following items: The farm, sub-divided into building and land, each building being



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and learn about the many easy ways in which you can make your home more cheerful. There's a Lincoln Paint, Varnish, Stain, Enamel or Finish for every surface, new or old, indoors or out. Lincoln Climatic Paint is made especially to give the most satisfactory wear in your climate. Write today for booklet and name of the Lincoln dealer nearest to you. Address

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Never before in the history of this State, has there been a prospect of so great a crop of small grain as this year. Not only is the acreage great, but conditions are splendid.

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DAIRY



Oats for Silage.

We have an inquiry concerning the value of oats for silage purposes. A man handling dairy cows is coming more and more to find it necessary to provide some supplementary feed of succulent character for the summer. The growing and handling of soiling crops very seldom is practical on account of the labor involved each day. A summer silo will undoubtedly become more and more in use among the dairymen. The greatest difficulty will be to secure crops which can be placed in the silo early in the season. Oats may be used as a silage crop to a fair degree of success, but must be cut very fine and tramped thoroughly. If this is not done the material will not be packed thoroughly enough to exclude the air and spoilage will follow. Where alfalfa is grown, this crop is the first crop to produce an abundant feed supply early in the season. Where oats and alfalfa both are available the two combined will make better silage than either one alone. The same methods of filling should be followed as in filling the silo with oats alone.

The alfalfa is deficient in carbohydrate material and the addition of oats, which is of a carbohydrate character, produces a better silage than where the alfalfa is used alone. Without the oats the quick fermentations of undesirable character take place. The resulting silage is of poor quality and has bad odors.

Pays to Stamp Out Tuberculosis.

There has been more or less opposition all over the country to the efforts put forth to stamp out tuberculosis among cattle. The sentiment in favor of eliminating this disease is undoubtedly growing, but it still is meeting with much opposition and oftentimes from those who should be most vitally interested.

The financial bearing it has upon the selling of dairy cattle, was recently brought out at an auction sale recently held in Illinois. This state has for years been held back in its efforts to eliminate tuberculosis from its herds, and as a result, cattle from this state have not been looked upon with favor by other states. Some states have even quarantined against Illinois cattle; among them being our own state. This attitude of the dairy breeders is certainly a short sighted one, as it cannot result otherwise than in bringing them smaller prices for the stock they sell.

At the pure-bred sale referred to above, the cattle being registered Holsteins, the animals averaged only \$148 per head. At Holstein sales in other states where public sentiment has favored wiping out tuberculosis among the cattle, Holsteins have averaged as high as \$400 per head. At the recent breeders' consignment sale at Syracuse, New York, the average was \$502 per head. Dairymen are not going to pay high prices for pure-bred cattle coming from a state or locality where the conditions are such as to invite distrust of the healthfulness of stock. Breeders of Illinois cattle are now paying the penalty for the attitude they have taken toward the elimination of tuberculosis from their herds.

Breeders and dairymen of Kansas should profit by the experience of the dairymen of the states that have taken this attitude toward this disease. The general tendency in our state is to prevent the disease gaining a foothold if possible. A number of our cities have ordinances requiring that the herds furnishing milk be required to pass the tuberculin test. Such an ordinance has recently been passed in Topeka. In one, old established herd the test found 21 reacting cows. The disease had undoubtedly been in this herd for a good many years. If more care had been exercised in the purchase of new stock from time to time it could not have obtained such a foothold.

Cost of Raising Dairy Stock.

There are in the United States, according to the statistics of the Federal Department of Agriculture, over 21,000,000 dairy cows. These figures give some idea as to the importance to the country as a whole, of the dairy business. These cows must all be replaced every few years and the cost of growing the heifers

ers necessary for this purpose, is quite an item in keeping down the profits of dairying.

The Department has just published in a bulletin entitled, "The Cost of Raising a Dairy Cow," some very interesting investigations on this subject. These figures were secured in Wisconsin and are based on data obtained in the raising of 117 calves from birth to the time they were ready to put in the dairy herd. According to the figures obtained, it cost \$39.52 on the average Wisconsin farm to raise a dairy heifer up to one year of age. At the end of the second year the cost amounts to \$61.41. The most important item was the cost of the feed which was estimated at its value on the market. It amounted to nearly two-thirds of the total net cost of the heifer. The items of cost for the one-year-old heifer, are as follows: Feed, \$24.67; labor, \$4.45; other costs, \$6.63; making a total of \$35.75. To this is added the initial value of the calf at birth, which was estimated to be \$7.04. This gives a total of \$42.79; but a \$3 credit is allowed for manure produced, which leaves a net cost of \$39.52. In the case of the two-year-old heifer, the items are as follows: Initial value, \$7.04; feed, \$40.83; labor, \$7.81; other costs, \$13.73; the total amounting to \$69.41, with a credit of \$8 for manure produced. The net cost is \$61.41.

The most expensive period in the life of the calf is the first four weeks, on account of the fact that it is dependent almost entirely on whole milk. The cost during this four weeks is found to be nearly double that of any other four-week period.

Kansas dairymen who are endeavoring to secure good dairy stock, are finding it very difficult indeed, to secure their cows by purchase. It is almost necessary to buy young stock and develop them or to buy a few extra good cows and then raise their own heifers for increasing the herd. For this reason the cost of raising these calves is of considerable interest. While the Kansas dairymen can undoubtedly raise calves at a little less expense than the Wisconsin dairymen, it is probable that the actual cost of raising them to maturity amounts to more than has been commonly supposed.

The important lesson to learn from these facts is that it does not pay to raise any but the best heifers. If it costs \$35 to \$40 to raise a heifer to one year of age, it certainly is poor policy to raise the scrub variety which will hardly be worth more than \$40 as a yearling.

That it pays to raise heifers from high class dairy cows, has been thoroughly demonstrated by some of our Kansas dairymen who have purchased a few good cows in starting their herds. One of the dairymen in the southern part of the state, who purchased a few Guernsey cows some years ago, bought one advanced registered cow 10 years old, paying \$330. This cow was purchased from a leading Wisconsin breeder and was in calf at the time, to one of his best sires. The calf dropped, which was a bull, was sold when 10 weeks old for \$150. The next calf, also from a high class sire, was a bull and was sold at 12 weeks old for \$150. This dairyman was not making much of a start in getting heifers to add to his herd but the third calf was a heifer and as a yearling he has refused \$250 for her. This same cow is to produce a calf this spring and of course the owner hopes it will also be a heifer. The cow herself, during this three-year period, has beaten her advanced registry record each year. The milk has all been bottled and sold at a premium over the average price for milk.

Just recently one of the dairy farmers of Shawnee County, sold \$1,100 worth of young stock from his farm, which the owner stated seemed to have cost him almost nothing. In this bunch were four pure-bred yearling heifers at \$200 each, two grade yearling heifers at \$100 each, a yearling pure-bred bull at \$150. Even though these heifers might have cost \$40 apiece to raise, they have returned a splendid profit to the owner.

The dairy farmer with high class cows in his herd can well afford to give the closest attention to the proper



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growing and developing of the young heifers. They will furnish him a much higher priced market for his home-grown feeds than the ordinary price paid for such feeds. When properly handled the growing and selling of young stock from the dairy farm may easily be made to be the most profitable part of the enterprise.

Co-operation in Silo Building.

Undoubtedly many farmers this year are contemplating putting up silos. The question which bothers the prospective silo builder perhaps more than any other one is the labor problem. The man who studies the silo business carefully finds that considerable labor is required to fill these silos in the fall. Very few farms have as much labor available as is necessary for this purpose. Oftentimes it is absolutely impossible to hire the extra labor required with any degree of certainty. Transient labor cannot be depended upon. If men of this class are employed for this kind of work they are apt to become exceedingly tyrannical when they see how indispensable they are to the success of the work. It is nothing unusual to have men quit in the middle of a busy day and destroy the efficiency of the whole gang.

The investment in extra machinery is also quite an item and when this is added to the investment in the silo, the total amount is more than many farmers can stand.

Co-operation is almost the only solution to this difficulty. The value of silage is such that the men who could not handle it individually should by all means co-operate with a few neighbors and thus overcome the difficulties enumerated. The corn binders, silage cutter and engine may be owned jointly or by different members of the group interested. One set of machinery will usually handle the silage filling for four to six farms. Quite often an engine is available at that time of year which may be hired for \$10 a day or thereabouts. Where the engine can be hired the silage cutter and corn binders are the only machines it is necessary to own.

Where a group of farmers are mutually interested in this way, it becomes easy to co-operate. All are equally interested and the exchanging of work makes it easily possible to handle the operation of cutting and filling in a satisfactory and economical manner. As in all co-operative enterprises the proper spirit of co-operation must be present. No one man in the group must expect to have everything all his own way.

Those interested in building silos the coming year, who are unable to handle the proposition alone, should by all means endeavor to work up a co-operative group and handle the proposition in that manner. A most satisfactory method of adjusting the exchange of labor, is to place a definite value on manual labor and team labor and then when filling the silos for one of the group, let each man keep an accurate account of the number of hours he or his team, or both, have worked on the job. When the job is done a time report can be presented to the owner of the silo and he can write out his check in payment for this work. The process will be repeated when the next man's silo is filled and so on until all the silos are filled. In this system of keeping track of the work there are no troublesome questions arising as to the adjusting of differences in the amount of work exchanged between any two parties.

It is some months until silo filling time, but none too early for those contemplating the building of silos to get together and work out co-operative plans whereby these difficult problems may be solved. The building of the silos themselves may be carried out on a co-operative basis and a considerable amount of money can be saved by so doing.

In the buying of machinery for a co-operative group of this kind, it is not advisable to get too small a cutter. The cutter should be of sufficient size so that the work can be pushed rapidly. This is especially important where a number of silos are to be filled with the same machine, as all the silage should be cut and placed in the silo in as near ideal condition as possible.

The live stock exhibit at the Panama-Pacific International Exposition at San Francisco in 1915, at which all the great cattle and stock raising nations will display, will cover 65 acres. One hundred seventy-five thousand dollars has been set aside by the exposition management for premiums and prizes for live stock, and the sum of \$47,000 has been raised by breeders' associations in the United States and abroad.



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A Woman's Drink—
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Make your soil hold moisture all summer. You can do it by opening up the subsoil—making it mellow four or five feet deep. This prevents flooding in wet weather and baking in dry weather. The cheapest, quickest, easiest way to loosen subsoil and release rich, new plant food for your crops is by using

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Our new illustrated book, "Better Farming," shows how to increase the fertility of the soil, get better crops, and save and make money by using Atlas Farm Powder in many kinds of work. It is full of information valuable to any farmer. Free—send the coupon.

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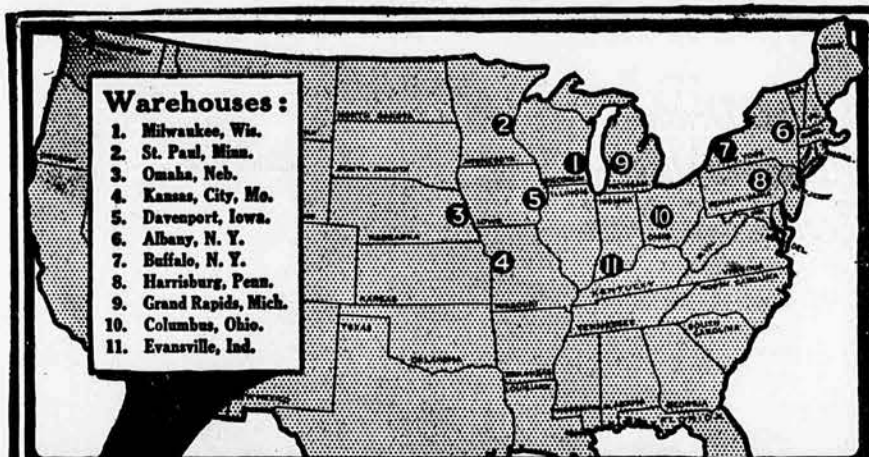
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\$24 Buys the New Butterfly Jr. No. 1. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 95 qts. per hour. Made also in four larger sizes up to \$12 shown here. 30 Days' Free Trial. Earns its own cost and more by what it saves in cream. Postal brings Free catalog folder and "direct-from-factory" offer, buy from the manufacturer and save half. **ALBAUGH-DOVER CO.** 2191 Marshall Blvd. CHICAGO No. 54



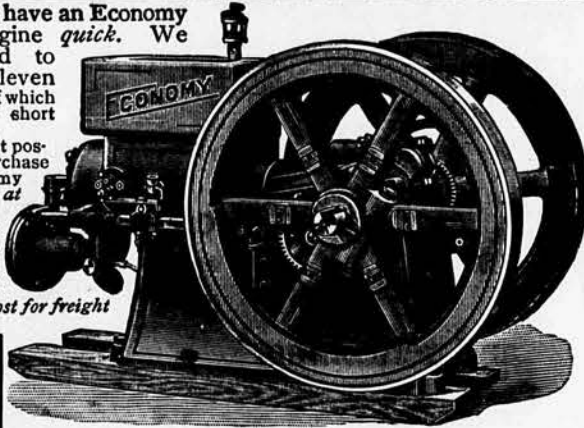
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A Boon to the Farm Housewife

The kitchen loses its terrors with the NEW PERFECTION Wick Blue Flame cook stove. Does exactly the work of the coal range without the terrible exhausting heat and the dirt and trouble. Burns clean, convenient, economical oil; almost saves its cost during the season.

Makes the heavy summer cooking easy, the kitchen pleasant. None of the dangers of gasoline; no smoke, no odor.

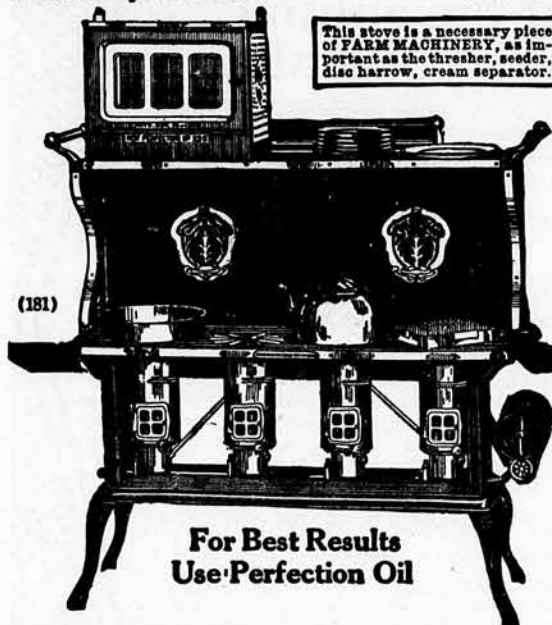
Note, in the picture, the cabinet top, the fine, big oven, the shelves and the towel racks. Roasts, bakes, toasts and broils to "perfection."

NEW PERFECTIONS come in 2, 3, and 4 burner sizes, which your dealer can show you. Ask him to explain the special burner construction, how the broiler broils on both sides at once, and about the patented fuel reservoir, refilled without turning off your fire.

New Perfection Wick Blue Flame Oil Cook-stove

Be sure and see the latest model with the new THERMOS oven, an invention that gives you a range and fireless cooker combined. Don't forget that fuel saving soon makes up the price of the stove. That a cool kitchen makes cooking easy, especially when striking a match gives you your fire.

combined. Don't forget that fuel saving soon makes up the price of the stove. That a cool kitchen makes cooking easy, especially when striking a match gives you your fire.



This stove is a necessary piece of FARM MACHINERY, as important as the threshing, seeder, disc harrow, cream separator.

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LIVE STOCK



Showing Pigs at the Fairs.

The young breeder of pure-bred stock is sometimes discouraged because he is unable to secure as high prices for his surplus stock as is readily paid to older and better established breeders. The young breeder may have fully as good stock and as well grown out but has not developed his prestige to the extent that he is able to command the higher prices. Advertising is one of the important parts of the business of the pure-bred breed and must be carefully and systematically studied. A good way for the young breeder to commence his advertising campaign is to show some of his stock at the county fairs. This costs some money, since the hogs must be more carefully fed and the expense of the showing must be met. The premiums seldom pay the necessary expenses of showing and for that reason some of the younger breeders feel that it is a losing game.

This show ring experience is really most valuable to the young breeder. He will not only make the acquaintance of a great many of the breeders of the same kind of stock, but he will meet hundreds of farmers interested in his stock. If the young breeder has carefully prepared himself he may be able to make a good many sales among the men who inspect his stock during the fair.

The names and addresses of every man who shows any interest whatever in the stock should be secured. The accumulation of a list of names of people interested in that particular class of stock is a very important part of the young breeder's advertising campaign.

It is important that the plans for showing stock at the fall fairs be made as early in the season as possible. The premium list should be secured and decisions made as to the classes in which it is desired to make a showing. The animals should then be selected and so handled as to have them in the proper condition to show to the best advantage possible.

Prevention of Navel Ill.

The man who is planning to raise a few colts each year from the mares kept on the farm, must make careful preparations for the coming foals. There is no such thing as luck in raising colts. A man may seem to be pursued with bad luck and lose a large proportion of his colts and really most of the loss might have been avoided if proper precautions had been taken.

One of the greatest dangers to the young colt is what is known as "navel ill." This is an infectious disease. Navel ill cannot develop unless the specific organism producing it is present. The organism producing navel ill enters the animal's body through the navel. Where mares foal on open pasture the colt is almost never affected with this disease. The germ is not there and without it the disease cannot develop. Germs are apt to be found in barns and stalls where horses and colts have been raised for a good many years. Germs of all kinds almost invariably thrive in dark, damp places.

A colt which is effected with this disease becomes dull and indifferent to nourishment and soon develops fever. Lameness develops in the limbs and oftentimes the owner of the mare assumes that the mare has stepped on the colt. Most frequently the hock is affected. The joints swell up, finally burst, and discharge a yellowish, thick fluid. The colt usually continues to get weaker and finally dies. There is practically no treatment for the disease that is worth while. Practically the only successful treatment is to destroy the germs in the quarters where the colt is to be foaled. The stall should be thoroughly cleaned out and disinfected with a five per cent solution of some of the coal tar dips on the market. After this disinfection the stall should be bedded with perfectly dry, clean straw. As soon after foaling as possible, the navel of the colt should be tied about an inch from the body with a string soaked in tincture of iodine. The cord itself should be thoroughly painted with iodine. It is a good plan to apply the iodine several times at intervals of 12 hours.

If all these preventive measures have

been carefully practiced, danger of losing colts from the navel ill will be practically eliminated. Some cases may respond to careful veterinarian treatment after the swelling of the joints has commenced, but this treatment is complicated and must be in charge of a thoroughly competent veterinarian. The preventive measures are so simple that they should always be used instead of waiting until the disease manifests itself.

Working the Draft Stallion.

There is no good reason why a draft stallion should not work, and there are a good many reasons why he should work. Any man who is a horseman in the true sense of the word, can work one or even two stallions. I have two Percheron stallions that have worked together this summer and neither one was broken to harness until last spring. We hitched them together when one had been worked three times and the other about five or six times. After they had been worked together a few times one man handled them alone. We kept a jockey stick on them when hitched and taught them that when they had the harness and blind bridles on there was no fooling. Many a time we unhitched from the manure spreader and took them into the barn, unharnessed them and changed their bridles to try mares and then put them right back into the harness.

My stallion team was the talk of the country this summer. Driving a pair of stallions in a good set of harness through town is the best advertising they can get. Any horseman admires a stallion that is well broken to harness and everybody notices the driver who has sense enough to drive two stallions together.

Work is the only proof of the strength and staying qualities of a work horse. I have known draft stallions to do a good business when they were so unsound that if castrated and tried out, a horse buyer would not make a bid on them. As stallions they could fool a good many people.

The American trotter has won the admiration of the world on account of his speed and endurance as exhibited in many hard-fought battles on the track. Such endurance and speed would not have been possible except for the stamina begotten by ancestors who stood on the merits of their records and the records of their ancestors. In fact, the achievements of the American trotter and pacer are simply "the survival of the fittest," while the achievements of the American drafter are too often the survival of the fattest. An animal kept in idleness cannot be expected to possess any great amount of strength and endurance, and one of the strongest laws of breeding is "like begets like." A horse cannot transmit good qualities which he does not himself possess. In fact, not all horses can beget with any certainty the good qualities which they do possess.

If the only use of the draft horse was on the butcher's block, the same as the fat steer and the fat hog, then no work would be necessary to produce the greatest amount of soft, fat flesh, but when we consider the heavy loads that are to be drawn by the offspring of our draft stallions we should choose a stallion that has size combined with action, strength, and endurance. There is no way to tell whether a horse possesses these qualities except by putting him to the actual test.

Live stock shows are full of other demonstration tests, such as butcher tests, or block tests for the beef breeds, milk tests for dairy breeds, etc.; race horses get their tests on the track, but who ever heard of a fair or stock show offering premiums for tests of draft stallions at actual work. They offer premiums for mares and geldings hitched in pairs, fours and sixes, shown to an empty wagon, but the ton stallion competes for his ribbons at the end of a lead strap.

When the breeders of draft horses in America get to meeting at the big fairs and competing for prizes offered for the pair of registered draft stallions that can move the heaviest load or that can haul a given number of tons a mile in the shortest time, then the importer will

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.

Buy Your LAST Separator FIRST

If you have never owned a separator don't buy carelessly, only to find that you need and want a really good machine. If you have a worn out or unsatisfactory separator, let your next be a lifetime investment. Get a

Great Western

First instead of "working up to it." Get our free Art Book on Separating Cream and Handling Milk. Shows the best methods, gives results of extensive experiments and information found nowhere else. Make

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more per cow per year. Our book tells how. Write for it at once. Address

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CURE THAT SPAVIN

or that Curb, Splint, Ringbone or other blemish with Kendall's Spavin Cure. Mr. Martens of Shawano, Wis., writes this about

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"I have been using your Spavin Cure for years for Spavin and Ringbone, and would not be without it, because it never failed." Let us send you other letters. Get a bottle of Kendall's at once. You may need it any day. At your druggist's a bottle, 6 for \$5. Ask for "treatise on the Horse's Feet," or write to Dr. B. J. Kendall, Co., Knoxville, Pa., Vermont, U.S.A.

CEMENT SILO BUILDERS

Should write for information about my new forms and form lifter. Easy to operate, safe, and insures perfect work. I will figure with you on building your cement silo. Write

J. M. BAIER, Elmo, Kan.
(Shipping Point, Abilene, Kan.)

GOOD corn land at \$15 per acre would find buyers faster than I could make the deeds. Yet a permanent silo at \$2 a ton is in the same proportion. We will furnish steel and build you a solid concrete silo (no joints) of 500-ton capacity for \$500, you to furnish gravel, sand and cement. A 16x45 silo for \$300, same conditions. Cheaper than wood. We have built 150 such silos in Kansas and know how.

HOPPER & SON, Manhattan, Kan.

SELF-LOADING HAY RACK



One man does it all. Cuts your hay costs in two. It solves the labor question. You make more and faster hay with half the help. Great advantage in unloading also. No one owning a loader can afford to be without them. They pay for themselves each season. Can be removed when not haying, leaving a splendid rack for ordinary purposes which is worth all the costs. Price \$25.00 F. O. B. Delavan. Or all parts (except wood and bolts) complete drawings and directions for making the lumber. \$5.00 buys the lumber and bolts. Free Oil

JAS. G. BAILEY, Dept. C, Delavan, Ill.

have a hard time selling his bobtailed horses for more money than the American breeder gets. But as long as the American drafter is bred and raised in idleness there will be a good business in bringing breeding stock from foreign countries where both stallions and mares are worked in harness.

In the fall of 1902 I bought a jack in Missouri and the following year I drove him to a buggy, hitched with a stallion, about thirty-five miles every week. He finished the season far better than he began it, and out of the first crop of mules I showed a pair of three-year-olds at the American Royal and won second on three-year-old pair. This jack never wore harness after that year and never reproduced a like crop of mules.

I never saw a collar and hames that would fit a draft stallion properly, but they work nicely in a good, heavy breast collar. A pitchfork handle makes a good jockey stick, and in working one stallion, fasten the jockey stick to the top of the other horse's hame. I learned this by experience. I hitched a stallion with a mule and fastened the stick to the breast strap ring on the mule. The stallion reared up on the mule and the stick would not let him get back. If he tries it with a good long stick fastened to the top of the hame, when he rears the stick pushes him out so far from the other horse that he does not try it very often.—J. G. ARBUTHNOT, in report of Kansas Live Stock Registry Board.

Care of Older Chickens.

The sexes should be separated as soon as they can be recognized. The cockerels should be removed to new quarters at a distance as soon as their sex is distinguishable. By this time they will be crowding in the brooder or brooder houses. Both pullets and cockerels will grow faster as a result of the separation, because each will have, or should have, twice as much room as before. The cockerels are not so apt to be quarrelsome and fight if they are removed from the pullets at an early age; this materially increases their growth and ability to fatten. The sooner the early hatched cockerels are sold after they weigh a pound and a quarter apiece, the better it will be for the owner. This is particularly true if the chickens are of the Leghorn type. Later-hatched chickens of the Plymouth Rock, Wyandotte, Brahma or other meat breeds can often be grown to a larger size with profit, and sold as roasters.

Growing Mushrooms.

J. S., of Shawnee County, asks where mushroom spawn can be obtained and where to get a book on raising mushrooms. Professor Dickens of the Kansas Agricultural College, answers this inquiry, as follows:

"You can obtain mushroom spawn from A. V. Jackson, Falmouth Mushroom Cellars, Falmouth, Mass. Mr. Jackson publishes a little book on mushroom growing that I think he sends to prospective customers on application."

Indications are that the Federal Department of Agriculture is still after the congressional free seed graft. In spite of the fact that Secretary of Agriculture Houston, came out in a public announcement condemning the practice, the agricultural appropriation bill as passed in the House provided for the usual appropriation to distribute free seeds. The measure is now in the hands of the Senate agricultural committee and this committee has struck from the bill the item providing for the free distribution of seeds. It remains to be seen whether the Senate will be able to carry the bill through with this item eliminated.

A picturesque event in connection with the live stock department of the Panama-Pacific International Exposition, will be the old fashioned sheep dog trials, which will be accompanied by sheep shearing and wool sorting contests in which men and women from every sheep raising country of importance will compete.

Mrs. William Grant, an expert scientific live stock breeder, and owner of a large ranch in California, was recently appointed assistant to Daniel O. Lively, chief of the department of live stock of the Panama-Pacific International Exposition, to be held in San Francisco in 1915.

British scientists have made a synthetic milk from certain legumes, and declare it will produce first-class butter and cheese. So far, however, no farmers seem to be selling their dairy cattle, nor do the creameries seem to be closing their doors.



RUMELY
GASPULL
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Bigger and Better Crops

When every drop of rainfall is precious, when you have to plow at just the right time—and plow deep—to retain the soil-moisture,

Rumely GasPull

15-30 horsepower

hitched to a Rumely Engine Gang Plow makes money for you by making bigger, better crops.

The GasPull is light—only 11,000 pounds; handy—turns a 15-foot circle; low platform—easy to operate. Variable speeds, working parts well protected. It starts from the ground and steers like an automobile. As easy to keep in order as it is to operate.

The GasPull pulls four to six plows, hauls 30,000 pounds over fair roads, and easily harvests 80 acres in a 10-hour day. The GasPull furnishes reliable low-priced belt power for running threshers, balers, silage cutters, and saw mills.

The Rumely service, 49 branches and 11,000 dealers, is back of every GasPull. Supplies and repairs may be had promptly anywhere. Ask for GasPull catalog No. 352.

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An Electric Light- ing Plant on Your Farm Means Safety

from such a disaster as this, and will add to your comfort and well-being in a hundred different ways.

The individual electric lighting plant has been perfected by the development of the

"Hyrax-Exide" BATTERY AND SWITCHBOARD

which bring the elements of safety, comfort and convenience into every household at a minimum of cost. No longer need you worry over the possibility of an overturned lamp in your house or lantern in your stable, making a wreck of your home.

No more lamps to fill—no more smoky, hot, burned-up air and straining of eyes. Instead of this, you have at your command a pure, clear, modern light, ready at the press of a button, wherever and whenever you want it.

The "Hyrax-Exide" battery and switchboard have been designed and built for your home by those who have designed and built the enormous batteries which are used in the large city lighting plants.

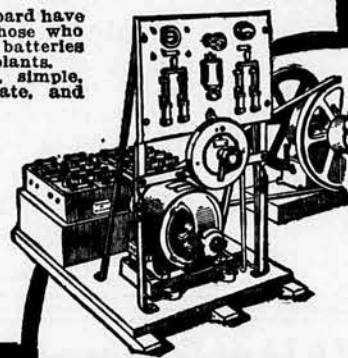
Individual Lighting Plants are compact, simple, inexpensive, easy to understand and operate, and require little attention.

You want electric lights, so write our nearest office to-day for the name of our dealer in your territory and our new book on electric lighting. You should know all about the subject.

THE ELECTRIC STORAGE BATTERY CO.

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Prices
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No more galls or sore shoulders

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when the Lankford Cotton Filled Horse Collar is used. Cures while horse works. Allows the horse to use his full strength without danger of hurting himself. Over 1,000,000 in use giving complete satisfaction. Collar and pad combined. Lasts 3 years or more.

Lankford Humane Horse Collar

Get one today for your horse—for each of your horses. Made of best duck, trimmed in heavy leather—strong, pliable and serviceable. Adjusts itself to every shaped neck. Will not sweat. Stuffed with pure, soft, medicated cotton, which absorbs the sweat and impurities from the sores, thereby hastening a cure. Guaranteed to cure, if fitted properly. Acknowledged best for colts and newly-broken horses. Easy to put on and take off. If not at your dealers, write us.

FREE MEMORANDUM BOOK sent to those sending to us for particulars regarding Lankford Collars. Write for your copy today.

The Powers Mfg. Co., Dept. H-6 Waterloo, Iowa.

Light Running Silberzahn Simply Can't Be Clogged

The simple, scientific, carefully worked out construction of the "Light Running Silberzahn" makes it absolutely impossible to clog throat or blower, no matter how fast the corn is thrown in. The Silberzahn is rightly called

"The King of Ensilage Cutters"

because of its simplicity, strength, power, durability, safety—it is absolute supremacy among ensilage cutters. Has best knife adjustment. Speed of blower can be regulated to suit height of silo. It is guaranteed to do more and better work with less power than any other cutter on the market. Write for catalog and proof.

GEHL BROS. MFG. CO. 128 S. Water St. West Bend, Wis.





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If you have you don't have to be told anything about the quality of

Hamilton, Brown Shoes

They are absolutely the best shoes for the money. They wear best, look best and fit best, all because they are made by shoemakers who have had long years of training in quality shoe making.

Look for the Hamilton, Brown sign and buy your shoes there.

You can get any kind of a Hamilton, Brown Shoe you want, for any purpose, and for any member of the family, in all styles and sizes and prices.



Hamilton, Brown Shoe Co. St. Louis-Boston

The Reflex Slicker

asks no favors of the weather man.

For protection against the wet, for hard service and comfort, nothing equals it. No water can reach you even through the openings between the buttons—that's where our famous

Reflex Edges Protect You

by keeping out every drop. "Staydriest" Pockets will not drip.

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HOME CIRCLE



The garden should be given as much care as any other part of the farm.

An apple placed in the bread or cake box will keep the contents moist.

A heated lemon will yield about twice as much juice as a cold one.

A cow can't manufacture milk out of feed that does not contain an abundance of milk-making qualities.

If a new house is being built or an old one remodeled, whether on the farm or in town, the owner should remember to add a sleeping porch.

If you have a faded dress that you would like to have white, add a little cream of tartar to the water when boiling the garment.

After rolling pie crust and fitting in pie plates, set in the refrigerator until well chilled. Then fill the crusts and bake as usual.

When frying fish, sprinkle the pan with salt before putting in the grease and the fish is less likely to break up in turning.

Before using fruit jars boil them in baking soda and water, using a tablespoonful of soda to a gallon of water. This destroys the mould germ.

When polishing the stove, dip the finger tips in a little grease or oil and that will prevent the finger nails from being discolored.

Stuff sofa pillows with odds and ends of old or new scraps too small to be used in any other way. This filling is much better than cotton, as it does not get lumpy.

The child on the farm, as everywhere else, should have every day some time that he may call absolutely his own and that he may use for any right purposes he pleases.

Teach the little ones to help. Give them a certain thing to do and then expect them to do it. It helps to teach them responsibility and means much in later years.

Before putting on new wall paper it is usually best to remove the old paper, and if a boiler full of boiling water is placed in the room and all windows and doors closed, the steam will soften the paper to such an extent that it is easily removed.

It is not a bad plan to keep a memorandum card on a hook in a convenient place, to jot down things as needed. If this plan is followed when ordering time comes, necessary articles are not forgotten.

Never wash hair brushes with soap, as this softens the bristles. Instead, sprinkle a teaspoonful of baking powder over the bristles and "souse" the brush up and down and sideways in a deep bowl of water until clean. Rinse well and dry in the sun.

According to a report just issued, the teachers in Kansas cities get a little less pay than teachers in cities of the same size in neighboring states. If the schools of this state are to get the most efficient service, the salaries of teachers must be no less than in other states where living expenses are practically the same.

Buttermilk Biscuit.

Two and one-half cups of flour measured before sifting, two tablespoonfuls of baking powder in flour, one tablespoonful of lard or butter, one-fourth teaspoonful of salt, one cup of buttermilk in which soda the size of a large bean has been dissolved; mix soft, and use as little flour as possible to roll out, and bake in a quick oven. This makes twelve biscuits.

Films Developed Free.

First roll for new customers. We give high grade work at a low price. J. C. WOLCOTT, Topeka, Kansas.—(Adv.)

When glass water pitchers or any other glassware becomes clouded from the sediment which settles at the bottom and on sides, caused by putting hard water into vessels, I put old coffee grounds into the vessels to be cleaned and leave standing for several days. This cleans the glass wonderfully, giving it the same bright finish that it has when new.

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We publish four times a year a Quarterly Fashion Book, illustrating 200 styles for ladies, misses and children, and containing many valuable dressmaking lessons. The regular price is 10 cents a copy, but if you will order the book at the same time you order a pattern we will send the Summer Fashion Number, now ready, for only 2 cents to cover mailing.

Waging War on Household Pests.

The fact that many thousands of letters are received annually by the Secretary of Agriculture from housewives asking how to destroy insects which are injurious to household goods and provisions, is pretty good evidence that an active campaign is being carried on against these pests. They are small but mighty and cause much annoyance. Oftentimes they indicate an unsanitary condition; but frequently a good housewife is the victim of carelessness on the part of her neighbor.

One of the first preventives of these various pests is plenty of fresh air and sunshine inside the room; freedom from dampness and regular and thorough cleaning. The cracks and holes which afford entrance to the pests should be stopped with soap. The plumbing pipes should be flushed frequently with hot soda water poured down them. Don't allow dirt and dust to collect underneath things. In the kitchen we cannot be too particular for here the insects go on a hunt for food and no inducements should be offered them to remain.

Cockroaches are among the most repulsive of the pests. Their odor, their stealth like habits of hiding by daylight and the knowledge that by night they swarm over everything fouling food and dishes, makes them a horror to all housewives.

In large cities many landlords employ men to go around regularly to exterminate the vermin. A simple plan is to dissolve borax in hot water until it will absorb no more. Add to this solution an equal quantity of turpentine and then with a paint brush coat every nook and cranny with the mixture, covering the water pipes, the angles between the baseboard and the floor, the interior of the cupboards, the backs of the shelves and the door posts where the doors are hung. The next morning you will find an army of dead insects. A repetition of this will help to keep them down.

House ants are about the only insect visitors which do not come from unclean places, and do not signify some sort of unsanitary condition. They are more annoying than destructive from the fact of their getting into articles of food, especially sweet things. If a few get in they soon spread the glad tidings to their companions and in a short time the place is alive with them.

The housekeepers of an earlier day used to draw a ring with chalk around their sugar and cake boxes to keep out these visitors, but nowadays, on account of its modern preparation, chalk lacks some of the necessary ingredients and this method is ineffectual. A good substitute for the chalk method is ordinary whiting used for cleaning purposes. Another way is to put camphor gum in the pantry and other infested places. Still another way is to mix tartar emetic with a little granulated sugar and sprinkle about the troubled places. Care must be used in the latter case as the tartar emetic is poisonous.

Perhaps the most embarrassing of all is the bedroom pest, and our daily intercourse with all sorts and conditions of people makes us most liable to suffer for the negligence of others. This insect, like the cockroach, has habits of concealment and works best at night. On this account it is a good plan to cover the mattress with a white slip sewed on, which removes all chances



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of its hiding there. An effective way to exterminate them if they have gained a foothold, is the liberal use of benzine, kerosene or any other of the petroleum oils. These must be introduced into all crevices with a small brush or feather, but first be careful to open all doors and windows so there is a perfect circulation of air, and keep them open until all trace of the fumes has disappeared, and above all things do not carry a lighted lamp or candle into the room nor even strike a match. Another good exterminator is a solution of corrosive sublimate that any druggist can mix for you. This is to be applied in the same way as the other remedies.

A liberal use of hot water where it may be applied without damage to furniture, is an effective way of destroying both eggs and insects. In the case of books or such like becoming infected where liquids cannot be used, place in the center of the room a dish containing four ounces of brimstone within a larger vessel so that the possible overflowing of the burning mass cannot do any damage. Remove from the room all

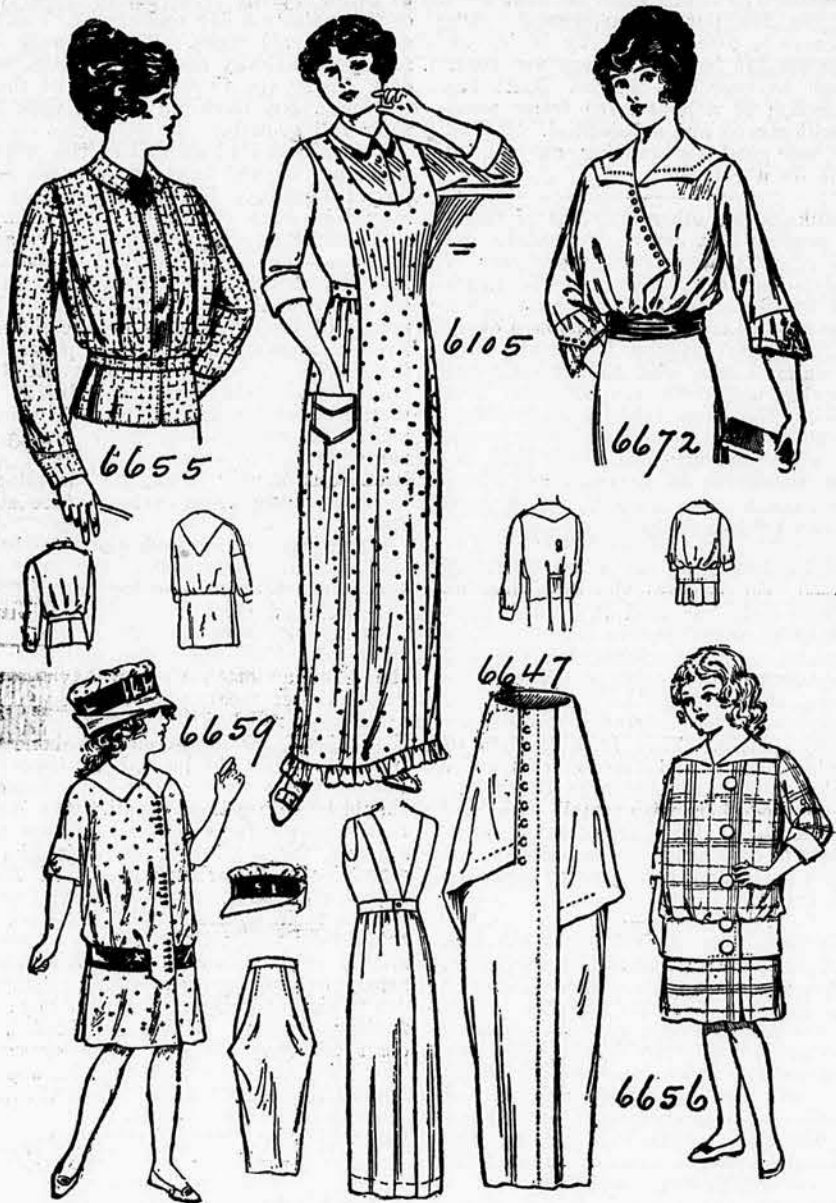
metallic surfaces which might be damaged by the fumes, close all the openings, even the key holes, and set fire to the brimstone. After four or five hours the room may be entered and thoroughly aired.

One of the most costly insects is the clothes moth. Sunning and airing all articles and then brushing thoroughly before packing them away, is much more effective than any of the strong smelling preventives on the market. The main thing is to have things clean and free from eggs, then wrap them up securely. Old newspapers are good for this as they are not particularly fond of printer's ink.

We must not overlook our constant enemy, the fly. As it is known to be a disease carrier the whole country is making a fight for its extermination. Fly traps and sticky fly paper catch only a small proportion of them, still every one killed helps a lot. The safest plan is to keep the house well screened, either with wire or mosquito netting and to keep the premises as free from breeding places as possible.

FASHION DEPARTMENT—ALL PATTERNS TEN CENTS

This department is prepared especially in New York City for KANSAS FARMER. We can supply our readers with high grade, perfect fitting, seam-allowing patterns at 10 cents each, postage prepaid. Full directions for making, as well as the amount of material required, accompanies each pattern. When ordering all you have to do is to write your name and address plainly, give the correct number and size of each pattern you want and enclose 10 cents for each number. We agree to fill all orders promptly and guarantee safe delivery. Special offer: To anyone ordering a pattern we will send the latest issue of our Fashion Book, EVERY WOMAN HER OWN DRESSMAKER, for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to KANSAS FARMER, Topeka, Kansas.



No. 6655—Ladies' Shirt Waist Dressing Sacque: This plain tailored sacque has short tucks to yoke depth in front and regulation closing with box plait. The neck may be finished with a band or with a turnover collar as shown. Full length sleeves are finished with a cuff and there is a short peplum below the belt. The pattern, No. 6655, is cut in sizes 34 to 44 inches bust measure. Medium size requires 2 3/4 yards of 36-inch material. No. 6605—Ladies' Apron: For the woman who works this apron will be satisfactory without being too much of a covering. The front panel is shaped in a little to the figure and continues in a bib and shoulder straps. The sides end at the belt and are gathered at the top and attached to a straight band. The apron pattern, No. 6605, is cut in sizes 34, 38 and 42 inches bust measure. Medium size requires 4 1/4 yards of 27 or 36-inch material. No. 6672—Ladies' Waist: This model shows one of the new type shirt waists. It has a closing diagonally arranged in front and a handsome collar, with sleeves long or short set in at the regulation armhole. If the sleeves be shortened to the elbow a very pretty and novel cuff arrangement is provided as shown. The waist pattern, No. 6672, is cut in sizes 34 to 44 inches bust measure. Medium size requires two yards of 36-inch material. No. 6659—Girl's Dress and Hat: This smart little frock has a very low drop shoulder and a side front closing, with a tab extending below the belt. The neck has a collar of moderate size in front, forming a deep point in the back, and the skirt is a three-piece model. The dress and hat pattern, No. 6659, is cut in sizes 6 to 14 years. Medium size requires 3 1/2 yards of 30-inch figured material and 1/4 yard of 30-inch plain goods, or 3 3/4 yards of 36-inch if all of one material. No. 6647—Ladies' One-Piece Skirt: This skirt offers us a model of very late style of the peg top. It closes in front and may have either the raised or regulation waist line. Such materials as cheviot, serge, twilled goods, and the heavier cottons will be appropriate, and linen will make up well in this effect. The skirt pattern, No. 6647, is cut in sizes 22 to 32 inches waist measure. Medium size requires 1 1/4 yards of 50 or 54-inch material; or, by piecing the skirt, 2 1/4 yards of 36-inch goods. No. 6656—Girl's Dress: This pretty frock may be made of plaid cheviot or of other plaid materials as well as plain gingham, serge, cotton crepe, ratine and the like. The closing is in front and the skirt has three pieces. Collar, cuffs and belt are of contrasting material. Combinations of material are the newest effect in dresses, but plain goods are also used with merely a plaid sash to trim. The dress pattern, No. 6656, is cut in sizes 4 to 14 years. Medium size requires 2 1/4 yards of 36-inch plaid material, with 1/4 yard of 27-inch plain goods to trim.

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A Complete Endorsement on the Methods of This Company. These are FACTS not Fakes.



State of Kansas

W. J. BRYDEN
SPECIAL AGENT

INSURANCE DEPARTMENT

TOPEKA April 17th,
1914.

Mr. James H. White, President,
Mr. Elmer F. Bagley, Secretary-Treasurer,
The Central National Mutual Hail Ins. Co.,

Topeka, Kansas.

Gentlemen:—

I am handing you herewith your copy of the report made by my special examiner, Mr. J. E. Jones. This examination commenced on March 23rd, 1914, and was as complete and thorough as it could be made, covering the entire period from the time THE CENTRAL NATIONAL MUTUAL HAIL INSURANCE COMPANY was organized to and including the day the examination commenced. This examination shows that the Company has more assets than was claimed in your financial statement of December 31, 1913.

Your Company's financial statement at the close of business December 31, 1913 shows the total amount of Resources to be \$16,852.09 with total Liabilities of \$200. Balance on hand in the Reserve Fund \$7,209.76. The Special Examiner's report shows Total Resources on December 31, 1913 to be \$17,694.09 with no Liabilities, making a difference of \$1,042 in favor of the company.

No criticisms whatever were made of the present management by the Special Examiner, and I am fully convinced that your company will be conducted on an economical basis and in the interest of the policy holders. I know that both of you gentlemen are giving this company close personal supervision. Wishing you success, I remain,

Yours very truly,

W. J. Bryden
Superintendent of Insurance.

Write or see our agent for a Hail Insurance policy from a company that has been examined and declared O. K. by the State Insurance Dept. We have never prorated, and have always paid losses in full.

The Central National Mutual Hail Insurance Company
TOPEKA, KANSAS.

POULTRY



Do not throw the soft feed for the little chickens on the dirty ground. If you do, the chances are that disease will soon appear among the flock.

If you are keeping your brood coops scrupulously clean, you are on the right road towards solving the problem of raising the chicks to a good old age.

Ground oats, hulls and all, make an excellent feed for growing and maturing chicks, or whole oats may be fed if they are soaked over night in hot water.

Don't over-crowd the young stock. Many a promising bird is forever ruined by being kept in too crowded quarters. As soon as the chicks are too large to be comfortable in their first coops, remove them to a larger coop. If your room is limited, better kill off or sell to the butcher some of the least promising youngsters and give the balance a fair chance to thrive.

Growing stock does not need fattening feed so much as bone and muscle-forming feed. The frame must be built first and the fat put on afterward. Leg weakness is often caused by laying on too much fat before the legs are stout enough to bear the weight. Like the foundation of a house, the frame must be built strong and substantial. Soaked oats are good for putting on a good frame on a chicken.

Unlike many other branches of farming, poultry is a source of revenue and pays a profit every day in the year, if cared for properly. The man who raises hogs or cattle, aside from dairy cows, is putting money into the business every day, with no revenue in return until the animals are sent to market; and even then his profits are not sure. Not so with the man that raises poultry. He can invest in a flock of fowls today, and within twenty-four hours they become a source of revenue, and there is always a sure market and a good demand for the product.

Ducks, like hens, eat a great variety of feed, yet because the duck has no distinct crop, the feed is passed more directly to the digestive organs. It is therefore very important that the feed be consumed in a soft condition. In nature, the duck gathers most of its supply from the streams, ponds or marshy places. This feed consists of growing shoots and roots of water plants, snails and the larva of various insects, together with small fish and other aquatic life. Successful duck raisers have learned a valuable lesson from nature and give young ducks no hard feed.

We hear a great deal about the balanced ration for fowls. Carbohydrates, protein and nitrogen are dinned into our ears, but the ordinary poultry raiser has neither the time nor the patience to enter into all the details of a balanced ration. But we certainly ought to know a little about the matter, and be able to counter-balance any excessive feeding of unbalanced rations. The nitrogen in feed is that which produces the flesh of the fowls and the albumen of the eggs. If nitrogen feed is given, then something is given that is largely required. The best substance is lean meat, but at the present prices of beef this is almost out of the question. Besides, it is not always convenient to get, especially for a very large flock of fowls. When the hens can secure grass, especially clover, they thereby can supply themselves with a large proportion of nitrogen. But the fact is sometimes overlooked that green plants contain a large amount of water, and it may not be possible for some hens to eat enough of such feed to supply themselves with the needed amount of albumen for a large number of eggs, when they are laying. They should at such times be given something more concentrated. This is done by filling them up with wheat and corn, for grains contain a large proportion of starch and make the hens fat in warm weather. Grain may be fed more liberally, however, in the winter, as the fat is converted into heat for the body. But in summer the hens need this nitrogen feed in a more con-

centrated form than the green grass, therefore, a little linseed meal is especially beneficial, so also is skimmed milk, blood, liver and clabber cheese, and they are always safe, as well as effective.

Push the Young Stock.

The hatching of a large number of chicks by no means demonstrates that you have made a success of the poultry business, but the raising of them to maturity would prove that you knew something of the business. In other words, it is the rearing of the chicks to marketable size that counts in the poultry ledger, and not the mere hatching of them. It behooves the poultryman, therefore, to use every endeavor to keep his chicks thriving and growing from the very start until they attain their full growth. A lot of enthusiasm during the hatching season, and then a slump to despondency during the rearing season, will never augment the contents of your pocketbook. There must be a continual pushing of the chicks to make them thrive. It won't do, just merely to throw a little feed before them two or three times a day and expect them to get along all right. They should be fed systematically and intelligently, not only during the first few days of their existence, but clear up to the time of their full growth.

This means that as well as the proper feed they should have proper care and proper housing. Under proper care it should be seen that they have always a plentiful supply of pure water, and that they should be examined frequently for lice, and if any are present, they should be banished or killed at once by means of insect powders or lice killers. Proper housing, would be providing them with a roomy, well ventilated house, impervious to rain and drafts. It should be large enough so that the chicks would be comfortable in it during a rainy spell. Of course, it should be kept scrupulously clean, for cleanliness in the poultry business is next to success.

As to the proper feed, that has been told time and time again. For the first few weeks there is nothing better than the prepared chick food, with all the little tid-bits between that you can think of. Feed them the scraps from the table as often as you have some. Any leftover meat, potatoes, vegetables are always relished and always good for the chicks. Some green cut bone or fresh meat should be fed to them at least twice a week. Grit and charcoal should be before them at all times. Keep them growing; don't let them get stunted, for a stunted chick is like a stunted pig, never any good. If their appetite at any time seems to pall, change their feed and feed them something they will relish. We have never seen a chick refuse to eat meat, when nearly everything else would fail. I don't think there is much danger of over-feeding growing chicks, provided you don't let the feed get soiled or sour. There is much more danger in under-feeding than over-feeding. Keep them a-growing and a-hustling all the time and you will have strong, healthy chicks.

White Diarrhoea.

Dear Reader: I see reports of so many losing their little chicks with bowel troubles, so thought I would tell my experience. I used to lose a great many of my little chicks from this cause, tried a good many remedies and was about discouraged with the chicken business. Two years ago they began to die and I thought I would try Walker's Walko Remedy. I used two 50-cent packages, raised 300 White Wyandotte chickens and never lost one or had one sick after getting the medicine. Readers can get it by sending 50 cents (M. O.) to the Walker Remedy Co., E-8, Lamoni, Iowa. I wouldn't try to raise incubator chicks without it.—Mrs. C. M. BRADSHAW, Beaconsfield, Iowa.—(Adv.)

Suppose you give your house, barn and outbuildings a good coat of paint this spring? Nothing adds so much to the appearance of a farm or contributes so much to the pride of those who live on it. Somehow we unconsciously judge the enterprise of farmers by the appearance of their houses and barns.

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SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

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WANTED—CAPABLE CHRISTIAN woman for housework in country; \$20 per month; references. Mrs. E. Mead, Route 8, Topeka, Kan.

MOTORMEN, CONDUCTORS, INTER-urbans; \$75 monthly. State age. Experience unnecessary. Qualify now. Application, details free, Box M, care Kansas Farmer.

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YOUNG MEN—WANTED, 50, TO JOIN us in the live stock business. New plan. Particulars free. Capital required. State age, occupation, resources, married or single. Address Willow Creek Live Stock Co., Janet, Wyo.

FREE ILLUSTRATED BOOK TELLS OF about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-809. No obligation. Earl Hopkins, Washington, D. C.

U. S. GOVERNMENT JOBS OPEN TO men and women. Over 15,000 appointments coming. \$75 to \$150 monthly. Life jobs. Pleasant work. Short hours. Vacations. Common sense education sufficient. Full directions telling how to get position, free. Franklin Institute, Dept. G 81, Rochester, N. Y.

WANTED—RESPONSIBLE PARTY TO take charge of our business in each county handling sale of Automatic Combination Tool, a combined wire fence stretcher, post puller, lifting jack, etc. Lifts or pulls 3 tons, weighs 24 pounds. Sells readily to farmers, shops, contractors, etc. No experience necessary. Descriptive catalog, prices and terms free upon request. Harrah Mfg. Co., Drawer O., Bloomfield, Indiana.

LOCAL REPRESENTATIVE WANTED. Splendid income assured right man to act as our representative after learning our business thoroughly by mail. Former experience unnecessary. All we require is honesty, ability, ambition and willingness to learn a lucrative business. No soliciting or traveling. All or spare time only. This is an exceptional opportunity for a man in your section to get into a big paying business without capital and become independent for life. Write at once for full particulars. National Co-Operative Realty Company, L-473 Marden Building, Washington, D. C.

REAL ESTATE.

REAL ESTATE WANTED—SELL YOUR property quickly for cash, no matter where located. Particulars free. Real Estate Salesman Co., Dept. 77, Lincoln, Neb.

WANTED FARMS FROM OWNERS FOR sale. We have direct buyers. Send description. Magazine, particulars free. Western Sales Agency, Minneapolis, Minn.

FOR SALE—FIVE SECTIONS OF FIRST-class land with good buildings, close to town and schools. \$2,500 cash, balance on long time. Apply to Harry O'Neill, McKenzle, North Dakota.

FOR MISSISSIPPI VALLEY BOTTOM lands, improved or timbered, as fertile and as cheap as can be found anywhere, write M. A. Tucker, McGehee, Ark. Lands now being drained and prices advancing rapidly.

KANSAS CITY BUSINESS PROPERTY, 150x60 feet, corner Fifth and Troost Ave., must be sold to settle an estate. A rare bargain in the fastest growing city in the West. Address K. C. Property, care of Kansas Farmer.

FOR SALE OR EXCHANGE—80 ACRES improved; Southern Michigan farm; sugar beet land; well located. Will exchange for prairie land in Kansas, Dakotas or Minnesota. Address owner, Geo. W. Holl, New Knoxville, Ohio.

FARMS WANTED—WE HAVE DIRECT buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property free. American Investment Association, 43 Palace Bldg., Minneapolis, Minn.

OREGON STATE PUBLICATIONS FREE. Oregon Almanac and other official books published by State Immigration Commission, telling of resources, climate and agricultural opportunities for the man of moderate means. Ask questions—they will have painstaking answers. We have nothing to sell. Address Room 54, Portland Commercial Club, Portland, Ore.

DO YOU OWN OVER 40 ACRES? IF not, you are eligible to register for the Missouri land opening. The finest agricultural and fruit land in the state; 3,000-acre orchard included in the opening; the title held in trust by bank; opening seen; no blanks; free trip of inspection tour to any person securing 10 registrants; application, \$3, balance \$12. Call or mail name, age, \$3 at once. Special inducement to the first applicant from each town. The Railroad Immigration Company, Fourth Floor Times Bldg., St. Louis, Mo.

VICTORIA, AUSTRALIA, WANTS SET-tlers. Special inducements offered by State Government which owns lands, water, railways and free schools. Excellent climate, resembles California; no extreme heat or cold. Small deposit and 8 1/2 years for purchase of lands, adapted to every kind of culture. Citrus fruits, apples and pears; wheat, corn, alfalfa, sugar beets; dairying, hog raising, etc. Ample markets. Exceptional opportunities in irrigated districts. Reduced passages for approved settlers. Free particulars from F. T. A. Fricko, Box 34, 687 Market St., San Francisco.

REAL ESTATE.

FOUND—320-ACRE HOMESTEAD IN settled neighborhood; fine farm land; not sand hills. Cost you \$200 filling fees and all. J. A. Tracy, Kimball, Neb.

A VANISHING OPPORTUNITY.—FOR sale, California farm lands and stock ranches. For particulars address Maguire & Nelson, 378 Wilcox Bldg., Los Angeles, Cal.

CATTLE.

GRADE HOLSTEIN CALVES, BOTH sexes, for sale. Arnold & Brady, Manhattan, Kan.

FOR SALE—REGISTERED HOLSTEIN bulls. Smith & Hughes, Topeka, Kan., Route 2.

FOR SALE—ONE REGISTERED NINE-months-old Jersey bull. Bungalow Ranch, H. Hau, Owner, Spearville, Kan.

JERSEY BULL CALF, ELIGIBLE TO registry. Price, \$35. Harry Schmidt, Route 2, Tescott, Kan.

HIGH-GRADE BULL CALVES FOR SALE from heavy producing dams and sired by registered bulls. Higginbotham Bros., Rossville, Kan.

RED POLL BULLS AND HEIFERS, 6 to 18 months; best of breeding. Only a few and priced to sell. T. G. McKinley, Junction City, Kan.

FOR SALE—20 HIGH GRADE HOL-stein cows just fresh. Heavy springers. Ten heifer calves; 4 registered bull calves two months old. Clyde Girod, Towanda, Kan.

FOR SALE OR EXCHANGE—880 ACRES joining Piggoit (county seat), Clay Co., Arkansas; just across the line from South-east Missouri; well located; all level; no waste land; 150 acres cleared; 3 sets buildings. Want prairie land or farm, Kansas, Dakotas or Minnesota. Address owner, Geo. W. Holl, New Knoxville, Ohio.

HOLSTEINS—IN THE NEXT 60 DAYS I will sell 400 high grade, De Kol bred cows and heifers, as follows: 100 bred 2-year-olds, bulk springing bag to freshen soon; 50 developed, heavy milking cows. A few registered and some 15-16 bulls ready for service. H. L. Dunning, Genoa Junction, Wis.

FOR THE NEXT 90 DAYS WE ARE DIS-posing of all our Holstein calves, from heavy producing high grade Holstein cows and a very fine registered Holstein sire. The calves are from 4 to 6 weeks old, weaned, beautifully marked, strong and vigorous. Either sex, \$17, crated for shipment to any point. If you wish to get a start with good ones, send your order at once. Whitewater Stock Farm, Whitewater, Wis.

HORSES AND MULES

SHETLAND PONIES—WRITE CHARLES Clemmons, Coffeyville, Kan.

FOR SALE—SEVENTEEN GOOD YOUNG work brood mares; were bred to Jack. W. F. Lemmon, Peru, Kan.

THE STRAY LIST

IRA WHIPPLE, COUNTY CLERK, Greenwood County. Taken Up—By Adrain St. Clair, on November 1, 1913, one steer, red, weight 1,000 pounds; on left thigh, O on left side of neck. Appraised value, \$35.

SILOS.

A SIXTY-TON SILO AT ONE-THIRD the cost. None better. Tested four years. Fully guaranteed. Buy early, erect and take agency. Your neighbors will want it. It is the coming silo. Must have orders early. Bonita Farm, Raymore, Mo.

SITUATION WANTED.

FARMERS—YOUNG MAN WANTS JOB on farm where auto or gas engines are used. Has had experience in farming and autos. Write J. J. Coleman, Y. M. C. A., Topeka, Kan.

DOGS.

COLLIES, AIREDALES, TERRIERS—Send for list. W. R. Watson, Oakland, Iowa.

HEDGE POSTS.

ONCE IN A LIFE TIME IS AS OFTEN as you have to set posts if you use hedge posts. We have five carloads for sale. Want a car? Warner Bros., Melvern, Kan.

BEE SUPPLIES.

FOR SALE—BEE SUPPLIES. ROOT'S goods. Send for catalog. O. A. Keene, 1600 Seward Ave., Topeka, Kan.

MISCELLANEOUS.

CLEANING, PRESSING, DYEING. WORK guaranteed. Manhattan Cleaners, 609 Jackson, Topeka.

NEW CYCO BICYCLES. COMPLETE with coaster brake. \$21.50. J. C. Harding Co., Topeka, Kan.

FOR SALE—TELEPHONE EXCHANGE, over 200 telephones. Price, \$8,800. No trade. Part cash, balance terms. Address Lincoln Newsom, Scott City, Kan.

WANTED—TO BUY.

WANTED—TWO SHETLAND PONIES. Give age, description and price. Box 15, Topeka, Kan.

WANTED—AN OLD TWINE BINDER, suitable for Junk. Jesse Persley, 325 Kansas Ave., Topeka, Kan.

TREES, SEEDS AND PLANTS.

FETERITA SEED, TESTED BY GOV-ernment. Graded, guaranteed pure. \$3.00 cwt. A. C. Buchanan, Lubbock, Texas.

PURE FETERITA SEED, TESTS 95 PER cent, cleaned and sacked, at \$3 per bu., f. o. b. O. F. Newell, Lebanon, Kan.

FOR SALE—WHITE AND YELLOW VA-rieties of seed corn. Sold on approval. Write for circular. S. W. Anderson, Greenville, Va.

CHOICE FETERITA HEADS, SELECTED before harvesting; short stems. Ten pounds and over, 10 cents pound, parcels post. H. Emerson, Route 1, Enid, Okla.

SWEET CLOVER SEED, PURE WHITE, blooming variety. Price per bushel, hulled, \$18; unhulled, \$14; each of 60 pounds. E. G. Fennup, Garden City, Kan.

PURE FETERITA SEED A SPECIALTY, test 96 to 99. Threshed, cleaned or in head, \$2.50 per bushel. Also kafir, Manhattan strain. Send for pamphlet. H. M. Hill, Lafontaine, Kansas.

SWEET POTATO PLANTS—NANCY Hall Triumph, Providence and Porto Rico Yam. Price, \$1.75 per 1,000. Full instructions for keeping sweet potatoes all the year around given free with every order. T. K. Godbey, Waldo, Fla.

FOR SALE—AT BERMUDA RANCH, hardy acclimated Bermuda grass roots, \$1 per bran sack full. Also three high-grade Red Polled yearling bulls. Frank Hall, Toronto, Kan.

FOR SALE—CHOICE FIRST CLASS RE-cleaned feterita seed at \$4 per cwt., sacked f. o. b. Hutchinson or Liberal, Kan. Germination excellent. Our supply is limited. Place your orders before it is exhausted. The Liberal Elevator Co., Hutchinson, Kan.

HILDRETH'S YELLOW DENT SEED corn, finest shown at State Fair, Hutchinson, Kan., this year. Tipped, butted, hand shelled, and finest germination. Bargain price, \$2.15 per bu., sacks free. Raised on our own farm here and guaranteed. Order quick. Brooks Wholesale Co., Fort Scott, Kan.

AFRICAN KAFIR SEED. THE EARLY maturing, sure crop kind, direct from its original home. This was tried so successfully here last year that I am importing direct from Africa. Why waste your season's work on the native variety which has become so late that it will not mature even in the best season, while this matures in 75 days? \$5 per bushel, bags extra. But little left. Asher Adams, Osage City, Kan.

AUTOMOBILE ACCESSORIES

AUTOMOBILE OWNERS—FREE CATA-log. All supplies, wholesale prices. State if Ford owner. Consumers' Auto Supply Co., Dept. B, Chicago.

HOGS.

WHITE LILY HERD O. I. C. SWINE—fall born and glits. Spring pigs, either sex. E. E. Smiley, Perth, Kan.

IF YOU WANT QUALITY FOR THE least money order one of Campbell's classy mule foot boars for your fall breeding. Just a few more left. A. I. Campbell, Rice, Kan.

POLAND CHINA BOARS FOR SALE, ready for use. Can make immediate shipment. Animals sired by first prize winners Kansas State Fair. A. F. Battey, Florence, Kan.

POLAND CHINA BOARS, SPOTTED AND black; big-type Orange Looks, Grand Leaders and Big Spots; weight around 200 lbs. \$25 on board the car here. Hall & Rapp, Rocheport, Mo.

POLAND CHINA PIGS—THE BIG EASY-keeping kind, \$8 each, \$15 a pair (not related). Eggs for hatching from pure-bred ducks, turkeys and chickens. Mrs. Maggie Rieff, St. Peter, Minn.

O. I. C. PEDIGREED BOARS, 2 MONTHS, \$8; 3 months, \$10; 4 months, \$12; 6 months, \$16. Sows—2 months, \$10; 3 months, \$12; 4 months, \$14. Sows to farrow in June. \$25. Two-month pairs, \$14.50; trios, \$25. Maple Grove Stock Farm, Billings, Mo.

FOR SALE—PURE-BRED DUROCS. AM offering the best lot of fall boars I ever raised. Ready for service. By G. M.'s Tat. Col. No. 111397 and Billie's Best No. 124581, and from sows strong in Tattarax and Ohio Chief blood. All eligible to registry. Prices reasonable. John Barthold, Jr., Partridge, Kan.

PATENTS.

PATENTS PROCURED OR FEE RE-funded. Official drawings free. Send sketch for free search. Patent Exchange, Jordans Bldg., Washington, D. C.

FIELD NOTES

G. C. WHEELER
Manager Live Stock Department.

FIELD MEN.

O. W. Devine.....Topeka, Kan.
W. J. Cody.....Topeka, Kan.

PURE BRED STOCK SALES.

Jersey Cattle.
June 25—Alvey Bros.' Dispersal Sale, Topeka State Fair Grounds.
Sept. 22—H. C. Johns, Carthage, Mo.

Aug. 20—W. W. Otey & Sons, Winfield, Kan.
Durocs.

Duroc Jerseys, Polands and Berkshires.
Feb. 9-10—Agricultural College, Manhattan, Kan.

Poland Chinas.
Sept. 5—J. E. Willis, Prairie View, Kan. Sale at Downs, Kan.

Oct. 20—U. S. Byrne, Saxton, Mo.
Oct. 21—H. B. Walter, Effingham, Kan.
Oct. 22—H. C. Graner, Lancaster, Kan.
Oct. 28—Walter Hildwein, Fairview, Kan.
Oct. 28—George S. Hamaker, Pawnee City, Neb.

Attention is called to the change in the card of Louis Koenig of Solomon, Kansas. Mr. Koenig is one of the progressive breeders of high class Durocs. He has disposed of all of his April boars and is now offering a choice lot of stretchy fall boars for sale. Look up his card and write him for description and prices. Please mention Kansas Farmer when writing.



SOMETHING NEW IN SILO BUILDING

and how they may be had in each community at actual cost.

Write Silo Dept.

MONARCH CEMENT COMPANY

Humboldt - - - - - Kansas

Tells why chicks die

J. C. Reefer, the poultry expert of 1601 Main St., Kansas City, Mo., is giving away free a valuable book entitled "White Diarrhoea and How to Cure It." This book contains scientific facts on white diarrhoea and tells how to prepare a simple home solution that cures this terrible disease over night and actually raises 98 per cent of every hatch. All poultry raisers should write Mr. Reefer for one of these valuable FREE books.

WHITE DIARRHEA

And Bowel Troubles prevented by using Chick-Life Remedy. Fifty-cent package saves 500 chicks. Satisfaction guaranteed.

Dept. 100, Chick-Life Remedy Co.
Clay Center, Kan.

Any one wanting strictly high class Holsteins should visit or write M. E. Moore & Co., of Cameron, Mo. They have one of the best herds now assembled and representatives of this famous herd are making good in many of the noted herds. When you buy stock from this herd it is fully guaranteed in every way.

Breeders and farmers wanting the old original, big boned, spotted Poland Chinas, should write H. L. Faulkner of Jamesport, Mo., owner of the largest herd of spotted Polands in existence. Although Mr. Faulkner has bought another farm and has increased his herd, the demand for the old fashioned spotted Polands has increased and Mr. Faulkner has booked a large number of orders for pigs at weaning time. Get your order in early to insure getting what you want.

Any one wanting strictly high class O. I. C. breeding stock from a herd that produces prize winners should get in touch with Dan Wilcox of Cameron, Mo., owner of the famous Crystal O. I. C. Herd, headed by the sire of prize winners, Frost's Buster. The offering at this time consists of some choice August boars and February pigs. Look up his card and write for prices. Please mention Kansas Farmer.

J. B. Porter & Son of Spring Hill Dairy Farm, Mayetta, Kansas, are offering some fine Jersey bull calves sired by sons of Gamboage Oxford Princess, 2 pounds 6 1/4 ounces of butter, and Diploma's Fair Maiden, 11,400 pounds of milk in nine months. These bulls are from one to five months old and they are pricing them to sell. They also offer a few choice females. Look up their card, in Jackson County section, and write them for prices and pedigree. Please mention Kansas Farmer.

Scotch Shorthorn Bulls.
In this issue Henry Stunkle of Peck, Kansas, is offering 35 head of Scotch and Scotch topped Shorthorn bulls, from 16 months to two years old. They are very desirable bulls and will please any breeder who wants a herd header. Mr. Stunkle will price one or a carload. They have been grown nicely and are in fine condition. Please go to see them and you will buy. Kindly mention Kansas Farmer when you write.

Angus Association Has Good Sale.
The American Aberdeen Angus Breeders' Association held a very successful sale at Omaha, Nebraska, April 28. A large number of breeders were present and the bidding was fast; 108 head of sired animals were sold through the ring in one day. A number were sold at private treaty. The 108 head sold at an average of \$140 per head. John J. Shea of Oklahoma, purchased Blackbird Lad 3rd, the top of the sale, at \$660. W. H. Hurdle of Mississippi, purchased 28 head and William Robb of Nebraska, a carload.

The attention of breeders of pure-bred stock is called to the card of Col. J. A. Morine of Lindsay, Kan. Mr. Morine is one of the successful pure-bred stock auctioneers, and during the past season conducted a number of sales with splendid results. Among his recent sales was that of George Lungstrom of Lindsay, Kan., in which 28 head of pure-bred Herefords, mostly yearlings, were sold at prices ranging from \$50 to \$80. Col. Morine is booking dates for fall and winter sales. Write him for open dates, mentioning Kansas Farmer.

The Laptad Sale.
The Poland China and Duroc Jersey sale on Wednesday, April 29, was a bit disappointing, owing to the local farmers and breeders being very busy planting corn. A number of farmers, and not a few breeders, are more interested in producing a corn crop than they are of buying hogs right now. The offering was in the pink of condition and should have sold for more money. Every hog sold should make a nice profit for the purchaser. Mr. Laptad invited all his friends back on October 15, at which time he would guarantee a better offering for them to select from for breeding herds. We omit report in full.

Reliable Poultry Breeders

PLYMOUTH ROCKS.

BARRED ROCK EGGS, SETTING, \$1.00. Dradie Dunbar, Columbus, Kan.

RINGLET BARRED ROCK EGGS, \$4, 100. C. W. Smith, Pleasant Green, Mo.

WHITE ROCKS, SIZE AND QUALITY.—Eggs, 15, \$1.50; 100, \$5.50; parcels post or express prepaid. G. M. Kretz, Clifton, Kan.

BARRED PLYMOUTH ROCKS, EXCLUSIVELY. fine stock, farm range eggs, \$4 per 100. Mrs. W. C. Becker, Solomon, Kan.

BARRED ROCKS—EGGS HIGHEST QUALITY. \$1 and \$2 per 15. A. G. Hammond, Vinland, Kan.

BARRED ROCK EGGS, 15, \$1.50; 30 \$2.50. Write Chas. W. Findly, Cambridge, Kan.

PURE BUFF ROCKS—EXCLUSIVELY for twelve years. Eggs, \$2 per 50; \$3.75 per 100. Mrs. Homer Davis, Walton, Kan.

EGGS—FISHEL STRAIN WHITE PLYMOUTH ROCKS, \$1 for 15; \$5, 100. Mating list free. Nellie McDowell, Route 3, Garnett, Kan.

THOROUGHBRED BARRED ROCK EGGS, \$1.50 per 30; \$4.00 per 100. Farm raised. Catherine Beightel, Route 1, Holton, Kan.

EVENUALLY YOU WILL WANT THE best. Whitechurch's Barred Rocks will please you. Eggs, pens, \$3; range, \$2 per 15. Bert Whitechurch, Girard, Kan.

PURE BARRED ROCKS EXCLUSIVELY. Heavy laying strain; no inbreeding. Eggs, 15, \$1; 30, \$1.75; 100, \$5. W. C. Shaffer, Route 6, Burlington, Kan.

BARRED ROCK EGGS FROM EXCELLENT thoroughbred stock, from pens, 85c to \$1.00 per 15; utility, \$2.00 per 50. Write for catalog. H. H. Unruh, Hillsboro, Kan.

BARRED ROCKS—68 PREMIUMS. Topeka, Manhattan, Clay Center, Denver. Eggs, 15, \$3; 30, \$5; 15, \$1.25; 60, \$4; 100, \$6. Mrs. D. M. Gillispie, Clay Center, Kan.

WHITE PLYMOUTH ROCK DAY-OLD chicks, 15c and 25c each. Will hatch April 11. Eggs, \$1, 15; \$5, 100. W. K. Trumbo, Roseland, Kan.

RINGLET BARRED ROCKS, \$3.50 HUNDRED. Buff and White Orpingtons, extra fine, pen, \$1.00 setting; buff, \$4 hundred. S. Peltier, Concordia, Kan.

BUFF ROCKS—DIRECT FROM POLEY'S \$7.00 stock. After May 1, can have 20 eggs for \$1, from my best pen. Mrs. Sarah Houston, Mercer, Mo.

BRAGONIER'S BIG BARRED ROCKS. Best breeding, true type, deep barring. Ckl. bred heavy layers. Eggs, \$2 for 15; \$5 for 45. Satisfaction guaranteed. Write me. R. J. Bragonier, Buckingham, Iowa.

FOR SALE—THOROUGHBRED BARRED Rock eggs, \$2 per 15. Settings from first pen, headed by Sensation, winner of first 1913 State Show, \$5. Mrs. R. J. Molyneux, 523 Baltimore St., Wichita, Kan.

BARRED ROCK EGGS—BUY PRIZE-winning stock. Our birds won eight firsts at Hutchinson and Wichita. Pen eggs, \$3 and \$5 per 15; utility, \$4 per 100. Descriptive circular. C. C. Lindamood, Walton, Kan.

BARRED PLYMOUTH ROCKS EXCLUSIVELY. Pens headed by prize winners at Kansas City, Missouri State and local shows. Strong birds bred for quality, clear, narrow, distinct barring, \$2.00 per 15 eggs. L. P. Coblenz, La Harpe, Kan.

HAWK'S BARRED ROCKS—LEADING winners for years at Missouri State, Kansas City, American Royal, Leavenworth and Atchison. Eggs, \$2 to \$5 per 15; \$4 for 50; \$7 for 100, express prepaid. Mating list free. Hawk's Barred Rock Farm, Atchison, Kan.

BABY CHICKS.

YOU BUY THE BEST THOROUGHBRED baby chicks, guaranteed, for least money, at Colwell's Hatchery, Smith Center, Kan.

BABY CHICKS—BUFF ROCKS, BROWN Leghorns. Ten cents each. Hen hatched. Perle Ralston, Circleville, Kan.

BABY CHICKS, \$10.00 PER 100. WHITE Rocks, White Wyandottes, Reds, Buff Orpingtons, White Leghorns. Hatch to order from now on. Kansas Poultry Co., Norton, Kan.

ANCONAS.

MOTTLED ANCONA EGGS, \$1.50 FOR 15, \$5 per 100. W. Hardman, Frankfort, Kan.

ANCONAS AND 30 OTHER VARIETIES. Booklet free. Erle Smiley, Beaver Crossing, Neb.

MOTTLED ANCONAS, THE WORLD'S greatest egg producers. None better than ours. Eggs, \$2.50 per setting; two or more settings, \$2.25, setting of 15 eggs. Farmers Friend Poultry Yards, Renick, Mo.

ANCONAS—ALL THE REDS AND BLUES at State Show and Hutchinson and sweepstakes special over all breeds at latter place. Eggs, \$2.50 per 15 from pens; \$1 from utility flock. C. K. Whitney, Route 9, Wichita, Kan.

SEVERAL BREEDS

EGGS—REDS, ANCONAS, BOTH SINGLE combs. Mrs. Frank Wallace, Weldon, Iowa.

SICILIAN BUTTERCUPS—NO FINER stock in existence. Eggs, \$2 for 15; \$5 for 50. Frank Miller, Route 7, Oklahoma City, Okla.

DARK CORNISH AND BARRED ROCKS—Eggs from blue ribbon winners. Write me for the mating list you want. W. W. Graves, Jefferson City, Mo.

THE SUNFLOWER POULTRY FARM, Kansas City, Kan. Office, 546 S. 11th St. Breeder of Barred Rocks, Buff Orpingtons, Rhode Island Reds and Black Minorcas, Pekin and Indian Runner Ducks. Settings from prize winning stock, \$2.00; second pens, \$1.00.

LEGHORNS

SINGLE COMB WHITE LEGHORNS—Eggs, 15, \$1. H. Vinzant, McPherson, Kan.

BUFF LEGHORN EGGS, JESSIE CRITES, Florence, Kan.

EGGS FOR HATCHING—EXTRA QUALITY S. C. Brown Leghorns. Mrs. L. H. Hastings, Thayer, Kan.

EGGS—S. C. W. LEGHORNS FROM PEN, 100, \$4; 200, \$7. Prize winning blood. Dave Baker, Conway Springs, Kan.

ROSE COMB BROWN LEGHORN EGGS 15, \$1; 100, \$4. Show winners. Mrs. Frank Seaman, Cedarvale, Kan.

BUFF LEGHORNS, CHOICELY BRED.—Thirty eggs, \$2; 100, \$4. John A. Reed, Lyons, Kan.

ROSE COMB BROWN LEGHORN EGGS, Kulp strain, farm range. Satisfaction guaranteed. M. E. Hoskins, Fowler, Kan.

S. C. W. LEGHORN EGGS AND CHICKS. Look up our winnings. Circular free. W. F. Wallace, Box K. F., Diagonal, Iowa.

PURE SINGLE COMB BROWN LEG-horns. Eggs, \$3.00 100. Mrs. D. A. Wohler, Hillsboro, Kan.

S. C. W. LEGHORN EGGS—THE BEST laying strains, \$1 per 15, \$4.50 per 100. F. H. Mohler, Scott City, Kan.

PURE-BRED S. C. W. LEGHORN AND White Wyandotte eggs, \$1.00, 15; \$3.00, 50; \$5.00, 100. A. F. Hutley, Maple Hill, Kan.

BUFF LEGHORNS 12 YEARS. EGGS from pens and range stock. Also chicks. Mrs. John Wood, Solomon, Kan.

PURE SINGLE COMB WHITE LEG-horn eggs. 75 cents per 15; \$3.50 per 100. Mrs. Frank Odle, Wamego, Kan.

CHOICEST SELECTION OF SEVEN years breeding. S. C. White Leghorn eggs, selected, \$1 per 15; \$4 per 100. H. B. Brownings, Linwood, Kan.

EGGS FOR HATCHING—S. C. BROWN and White Leghorns, R. C. Reds, White Rocks, \$1, 15; Pekin Ducks, \$1.50 per 11. Thomas Ohlsen, Whiting, Kan.

SINGLE COMB BROWN LEGHORNS AT Kansas State Show, 1914. First cock, first cockerel, first hen, first pullet. W. J. Roof, Maize, Kan.

S. AND R. C. WHITE LEGHORNS. Heavy laying strain. State Show prize winners. Prices right. A. L. Buchanan, Lincoln, Kan.

SINGLE COMB BROWN LEGHORN eggs, 15 for 85 cents; 30 for \$1.70, postpaid, or 100 for \$2.90. Mrs. P. H. Streeter, Hamilton, Mo.

SINGLE COMB BROWN LEGHORNS—Free from disease. Fifteen eggs, 75c; 100, \$3.50. Mrs. Nettie Wilson, Route 1, Warsaw, Mo.

EGGS FROM PRIZE WINNING ROSE Comb Brown Leghorns. Outside flock, \$1.00 per 15; \$5.00 per 100; pens, \$4.00 per 15. Mrs. J. E. Wright, Wilmore, Kan.

EGGS FROM MY EXTRA QUALITY S. C. Brown Leghorns balance of season, \$3.50 per 100. Mrs. L. H. Hastings, Thayer, Kan.

S. C. B. LEGHORN EGGS FROM STOCK scoring as high as 94. 50, \$2.50; 100, \$4. Express prepaid. Cornelius Phillips, Route 9, Emporia, Kan.

S. C. WHITE LEGHORNS, THE KIND that lay eggs. Eggs for hatching, \$1 for 17; \$5 per 100. Write J. L. Shaner, Route 1, Maple Hill, Kan.

ROSE COMB WHITE LEGHORN EGGS—15, \$1; 50, \$2.50 per 50; \$5.00 per 100. Panned, \$3.00 per 15. Jennie Martin, Frankfort, Kan.

BUSINESS SINGLE COMB WHITE LEG-horns. We breed for egg production. Eggs and chicks very reasonable. Satisfaction or your money back. R. W. Gage, Mont Ida, Kansas.

SINGLE COMB WHITE LEGHORNS—National Western Poultry Show, Denver, 1914, won \$50 cup, also national western sweepstakes trophy. Big free catalog. Baby chicks, eggs. W. H. Sanders, Box E-275, Edgewater, Colo.

I DEFY ANY MAN ANYWHERE TO give you better quality in combined bred-to-lay and exhibition S. C. White Leghorn eggs. They cannot do it. Ninety per cent fertility guaranteed. \$1 per 15; \$5 per 100. Send for my illustrative mating list. Geo. E. Mallory, Box 476, Boulder, Colo.

TURKEYS

BOURBON RED TURKEYS, PRIZE WIN-ners. Eleven eggs for \$2.00, with directions for raising. Palmer's Poultry Farm, Uniontown, Kan.

TURKEY EGGS—EGGS OF QUALITY. Mammoth Bronze, Narragansett, Bourbon Red, White Holland. \$3.50 per 12. Walter Bros., Powhatan Point, Ohio.

BOURBON RED TURKEYS, BUFF ORP-ingtons. S. C. W. Leghorns, Indian Runner Ducks. These are all from prize winning stock. Eleanor Poultry Ranch, Brighton, Colo.

EGGS FROM MAMMOTH BRONZE TUR-keys, per egg, 35c; 10 for \$3, by parcels post, prepaid. Orders booked and filled as received. Mrs. Iver Christenson, Route 1, Jamestown, Kan.

PIGEONS.

GOOD HOMERS FOR SALE. MARTIN Glebler, Catherine, Kan.

FULL BLOODED WHITE PLYMOUTH Rocks Homer Pigeons, White Angora Rabbits. 219 Huntoon St., Topeka, Kan.

BLUE ANDALUSIANS.

THOROUGHBRED SINGLE COMB BLUE Andalusians. Noted egg-laying strain of large eggs. Eggs, \$2.50 per 15. Satisfaction guaranteed. G. J. King, Holington, Kan.

RHODE ISLAND REDS

Meyers & Stover Poultry Farms Fredonia, Kan.

Rose Comb Rhode Island Reds.

Fifty-two premiums at recent shows. Eggs \$2 to \$5 per 15. Farm range, \$4.50 per 100.

Indian Runner Ducks

Pure White. Thirty-two first premiums, including Missouri State and all five at Kansas State Show. Eggs, \$1.50 per 12; \$10 per 100. P. H. White. Show winners for years. Eggs, \$1 per 15; \$6 per 100.

Bourbon Red Turkeys

Often shown, never defeated. Eggs \$3 per 11. Free Catalog.

ROSE COMB REDS—PRIZE WINNERS. Laying strain, \$1.50 per setting. E. G. Cole, Garden City, Kan.

ROSE COMB RHODE ISLAND REDS—Eggs, \$1.50 up. Free illustrated catalog and list of winnings. F. A. Rehkopf, Route 7, Topeka, Kan.

BIG-BONED DEEP RED SCORED R. C. Reds, red eyes, long back, low tail. Eggs, 25c each. Highland Farm, Hedrick, Iowa.

PRIZE WINNING ROSE COMB REDS—Eggs from four excellent pens. Chicks, 12c, 15c, 20c. Mrs. Alice Clinkenbeard, Wetmore, Kan.

SINGLE COMB REDS, RICKSECKER strain. Fifty eggs, \$2.50; 16, \$1. Gertrude Haynes, Meriden, Kan.

HIGH BRED ROSE COMB RHODE Island Red eggs. \$4 per 100. Baby chicks, \$10 per 100. Mrs. Anna Larson, White City, Kan., Route 4.

ROSE COMB REDS—THREE PENS OF big husky fine colored birds. Eggs, \$2.00 per 15, fertility guaranteed. Fred T. Nye, Leavenworth, Kan.

ROSE COMB RED EGGS, HIGH-SCOR-ing pens, \$3, \$2, \$1.50 setting. Rose Comb Buff Orpington eggs, \$2. V. E. Gillilan, Garden City, Kan.

BRED TO LAY, THOROUGHBRED S. C. Reds, \$1 setting, \$4 per hundred. Satisfaction guaranteed. Finest birds I ever raised. Belmont Farm, Box 69, Topeka, Kan.

WALKER'S STANDARD STRAIN S. C. Reds. Eggs from as fine matings as in Missouri at \$1.50 per 15. Incubator eggs, \$6.00 per 100. Walker Poultry Co., Chillicothe, Mo.

R. C. RED EGGS FOR HATCHING FROM five mated pens, from large prize-winning stock. Prices right. Mating list on application. Write at once. E. H. Hartenberger, R. F. D. 4, Box 1, Newton, Kan.

ROSE COMB RHODE ISLAND RED eggs for setting. Fertility guaranteed. Pen No. 1 headed by son of "Bill Taft Jr.," first cock N. Y., 1910, \$5 per 15. Pen No. 2 headed by 92% point cock, \$3 per 15. Lloyd Blaine, Haven, Kan.

EGGS FROM R. C. B. I. RED HENS AND pullets that scored 90% to 94%, headed by cockerels that scored 93% to 93%. Eggs, \$2 per 15; \$3.50 per 30; \$5 per 50. Runner Duck eggs, \$1.10 per 12; \$3.50 per 50. Sixty per cent hatch guaranteed. S. J. Markham, Council Grove, Kan.

RHODE ISLAND REDS, BOTH COMBS.—"Redville" Eggs and Poultry Farm, the home of as good as the best. Red eggs at live and let live prices. Write for mating list. It's free. A. S. Fellers, Hays, Kan., secretary of the Golden Belt Poultry Breeders' Association.

ROSE COMB RHODE ISLAND RED eggs, from five grand pens, mated to roosters costing from \$10 to \$35. Eggs, \$1.50 per 15 and up. Reduction on larger quantities. Good range flock, \$5 per 100. Safe arrival and fertility guaranteed. Send for catalog. W. R. Huston, Americus, Kan.

WYANDOTTES

PRIZE SILVER WYANDOTTES—100 eggs, \$4. Mrs. J. W. Gause, Emporia, Kan.

COLUMBIAN WYANDOTTES—EGGS from selected matings, \$1.50 setting. J. J. Pauls, Hillsboro, Kan.

WHITE WYANDOTTE EGGS, MATING list free. Also Fox terrier pups. Ginnette & Ginnette, Florence, Kan.

WHITE WYANDOTTE EGGS, \$1.50, 15; \$5, 100. Satisfaction guaranteed. Andrew Kosar, Delphos, Kan.

COLUMBIAN WYANDOTTE EGGS, \$1 setting, \$3 per 50, from free range stock. J. J. Pauls, Hillsboro, Kan.

WHITE WYANDOTTE EGGS FOR hatching, \$1 for 15. Blanche Collister, Route 4, Manhattan, Kan.

FARM RAISED SILVER WYANDOTTES, carefully selected. Eggs, 15 for \$1.00; 100, \$5.00. Baby chicks, 100, \$10.00. Julia Haynes, Baileyville, Kan.

PURE-BRED WHITE WYANDOTTES—Pen of Fishel strain, \$2 setting; utility flock, \$1 setting, \$4.50 100. Effie Acheson, Palco, Kan.

WHITE WYANDOTTES—TWO PENS OF high-class birds. Utility flock of 60 select hens. Dodd's W. Wyandotte Farm, Girard, Kan.

MY PARTRIDGE WYANDOTTES ARE still top notchers. Balance of season, \$5 eggs for \$1.50. Write for mating list; 12 years breeding them. C. J. Page, Salina, Kan.

BUFF WYANDOTTES—BOOKING OR-ders now for eggs and baby chicks. A utility pen and two choice breeding pens mated. Eggs, \$1.50 and \$2.50 per 15; utility eggs, \$5.00 per 100; baby chicks, \$1.75 per dozen. Write for circular. Wheeler & Wylie, Manhattan, Kan.

BRAHMAS.

LIGHT BRAHMA EGGS, SQUARE DEAL. Sarah Bennett, Milford, Neb.

LIGHT BRAHMAS, WHITE WYAN-dottes, Brown Leghorns, White Wyandottes, White Indian Runners and Mammoth Pekin Ducks and other breeds. Stock and eggs. Some extra fine fawn-white drakes. Emma Ahlstedt, Roxbury, Kan.

ORPINGTONS.

WHITE ORPINGTON EGGS FOR HATCH-ing. Gustaf Nelson, Falun, Kan.

WHITE ORPINGTONS—KELLERSTRASS strain. Eggs, \$1.25, 15. W. F. Hirsch, Ellinwood, Kan.

EGGS FROM PRIZE WINNERS, SINGLE Comb Buff Orpingtons, Indian Runner Ducks. George Clary, Fairbury, Neb.

KELLERSTRASS WHITE ORPINGTON eggs, 24, \$1. White Guinea eggs, 15, \$1. Maggie Flesher, Princeton, Kan.

WHITE ORPINGTON EGGS FOR HATCH-ing, utility, \$8 per 100; exhibition, \$5 per 15. P. H. Anderson, Box F-53, Lindsborg, Kan. Booklet free.

BUFF ORPINGTONS—HEAVY LAYERS. Male from 261-egg hen. Eggs, \$2 setting. Utilities, \$4 per 100. M. Spooner, Wakefield, Kan.

SINGLE COMB BUFF ORPINGTON eggs. Exclusively from healthy, vigorous farm flock; \$4 per 100; \$1 per 15. Charles Brown, Parkerville, Kan.

SINGLE COMB BUFF ORPINGTONS—Pure-bred. Fine flock on bluegrass range. Eggs, 80c per 15, three settings for \$2.00, by parcels post, prepaid; \$3.50 per 100 by express, not prepaid. L. H. Cobb, Dunavant, Kan.

DUCKS AND GESE.

S. C. BUFF ORPINGTON EGGS, \$1 PER 15, \$5 per 100. Mrs. S. T. White, Rose, Kan.

INDIAN RUNNER DUCKS AND DRAKES, of heavy laying white egg strain. Ray Rhodes, Maize, Kan.

INDIAN RUNNER DUCK EGGS, \$1 PER fifteen, postpaid. C. A. Fulk, Route 5, Adrian, Mo.

A FEW CHOICE WHITE RUNNER drakes, one year old, \$3 each. Marten Johnson, Russell, Kan.

FAWN AND WHITE RUNNER DUCK eggs, \$1 per 13. Merle B. Peebler, Latham, Kan.

WHITE INDIAN RUNNER DUCK EGGS from winners of sixty premiums. 12 eggs, \$2; 25, \$3.75. Booklet free. J. Drake, Nickerson, Kan.

BUFF ORPINGTON DUCKS—WHITE eggers. Eggs, \$1.50, 12. Mrs. D. A. Wohler, Hillsboro, Kan.

PURE WHITE INDIAN RUNNER DUCK eggs, \$2 per 14. Freda Hoffman, Steinauer, Neb.

WHITE INDIAN RUNNER, FAWN AND White Runners, Buff Orpington duck eggs. Mrs. T. N. Beckey, Linwood, Kan.

PURE WHITE INDIAN RUNNER DUCKS—Eggs, \$2.00 per 12. W. Hardman, Frankfort, Kan.

INDIAN RUNNER DUCKS, FAWNS. Eggs, \$1 per setting, \$5 per 100. Ducks and drakes, \$2.50 each; large stock. J. L. Holbrook, Clayton, Mo.

FAWN INDIAN RUNNER DUCK EGGS, \$1 per 15; \$5 per 100. S. C. W. Leghorns, eggs, \$1 per 15, \$5 per 100. Lucy Johnson, Bosworth, Mo.

BUFF ORPINGTON DUCKS ARE large, noiseless, non-sitters, light eaters and white eggers. Greatest layers known. Eggs, \$1 for 12. Mrs. C. A. Hall, Fredonia, Kan.

INDIAN RUNNER DUCKS—WHITE AND fawn and white. Eggs, white, \$2.75, 13; fawn and white, \$1.25, 13; \$6.75, 100. Mrs. Annie E. Kean, Carlton, Kan.

PURE WHITE RUNNER DUCKS, BUFF Black Orpington chickens, fancy breeding. Free mating list. J. F. Cox, Route 3, Topeka, Kan.

PURE WHITE INDIAN RUNNER EGGS—12, \$1.50 per setting; ducklings, 25c each. Eggs will hatch will duplicate at half price. Ducks are pure white and pure-bred. W. H. Brooks, Beattie, Kan.

INDIAN RUNNER DUCKS FROM IM-ported stock, pencilled variety, and the Fawn and White variety. Guaranteed pure white egg strains. After May 1, can have 20 eggs for \$1. Mrs. Sarah Houston, Mercer, Mo.

WHITE EGG RUNNERS, ENGLISH Pencilled Ducks, from imported stock. Prize winners. Eggs, \$2. Racy type and carriage. "Tom Barron" and Young strain S. C. White Leghorns, \$2.00, fifteen; strain that won at Mountain Grove, Mo., egg contest. Paul Galbreath, West Plains, Mo.

PURE WHITE DUCK EGGS FROM FIS-chel and Ballard strains of White Indian Runners, \$2 and \$1.50 for 13. From Harsh-barger strain of Fawn and White Indian Runners, \$1.50 and \$1 for 13. Write for prices per hundred. Geo. T. Knott, Choctaw, Okla.

LANGSHANS.

BLACK LANGSHAN EGGS, \$1.50, 15; 100, \$7.50. Baby chicks, 15c. Mrs. Geo. W. King, Solomon, Kan.

BLACK LANGSHANS—EGGS FROM two pens and farm flock. First pen headed by cockerel scoring 96. All prize winning stock. Write for prices. Geo. M. Klusmire, Holton, Kan.

EGGS—WHITE LANGSHANS, \$5.00, 100; Bronze Turkeys, \$2.00, 11; Toulouse Geese, \$1.50, 7; African Geese, \$2.00, 7; Rouen Ducks, \$1.50, 11; White Guineas, \$2.00, 17. W. L. Bell, Funk, Neb.

HAMBURGS.

HAMBURG EGGS, FIFTEEN, \$2. NONE better. Harry Inman, Keokuk, Iowa.

SILVER SPANGLED HAMBURG EGGS from prize winners. Edith Gresham, Bucklin, Kan.

SHORTHORN CATTLE

LOOKABAUGH'S SHORTHORNS.

At private sale. Six or nine months' time if desired. Young heifers and bulls, \$100 and up. Two heifers and bull, not related, \$225 for the three. Others higher. High-class herd bulls close to imported Scotch dams, sired by such sires as Lavender Lord by Avondale. Nicely bred young heifers from milking strains. Young bulls, the farmer's kind. Cows with calf at foot and rebred. Great variety of prize-winning blood. If you want breeding stock, do not miss this opportunity. My foundation Shorthorns carry the blood of the best families and most noted sires of breed. Over 200 head from which to select. If you cannot come, write.

H. C. LOOKABAUGH, Watonga, Blain County, Oklahoma.



SHORTHORN CATTLE

TENNEHOLM

Still has 3 good yearling Shorthorn bulls and a few heifers. Some of show yard quality, at very reasonable prices. Write for full description or come to see them and you will buy.

E. S. Myers, Chanute, Kansas.

CHOICE SHORTHORN BULLS

Only three left, by Good News and New Goods. A few good heifers. Prices reasonable. Write for descriptions and prices.

JOHN REGIER, Whitewater, Kansas.

Thirty-five Shorthorn Bulls

Sixteen months to two years old. Pure Scotch and Scotch topped. Sired by Star Goods and Victor Orange, two great bulls. These bulls are from my best cows. They are large and well developed and in good condition, fit to head good herds. Will sell one or a carload. Also a few cows and heifers—300 head in herd. Come and see them. Prices reasonable.

HENRY STUNKLE, Peck, Kansas.

Pearl Shorthorn Herd

Fifteen young bulls ranging in age from 8 to 13 months old. Red or roans of Scotch and Scotch-topped breeding. Herd located at Pearl, Dickinson County. Can ship over Missouri Pacific, U. P., Rock Island or Santa Fe. Address mail to Abilene, Kan.

C. W. TAYLOR
Abilene, Kansas

BULLS FOR SALE

SIX SHORTHORN BULLS—Two 14 months old, red and roan; three coming 2-year-olds, reds; and one coming 3-year-old, red. These are good bulls. Price, \$80 to \$150 per head. In fine condition. These are bargains. Also have 50 registered Hereford bulls for sale.

SAM DEWBREAD, ELK CITY, KAN.

CHOICE SHORTHORN BULLS

Two at \$125, one at \$150. Big, smooth, even-fleshed, old enough for good service. Priced for quick sale.

G. A. LAUDE & SONS, ROSE, KANSAS.

JERSEY CATTLE.

CARLOAD OF JERSEYS

Eight registered cows, three registered yearling heifers, one grade cow, four grade yearlings (bred), and four grade calves. Good types and good dairy animals. \$1,200 will take the lot. Near Kansas, Missouri and Oklahoma line, above quarantine, in section naturally tick-free. These are a bargain. Come and see them. Guaranteed healthy and O. K.

C. W. DAVIS,

JOHNSON, ARKANSAS

Bank's Farm Jerseys

Quality with milk and butter records. One of the best sons of CHAMPION FLYING FOX, imported, at head of herd. Stock for sale.

W. N. BANKS, Independence, Kan.

GREEN HILL JERSEY FARM

For Sale—Several young bulls up to 15 months old, sired by Viola's Majesty. Dams American and imported cows of choice breeding and individuality.

D. LEE SHAWHAN, Lees Summit, Mo.

REGISTER OF MERIT JERSEYS.

Offer a fine young cow in milk and bred to Oakland's Sultan for \$150. Also a granddaughter of Golden Fern's Lad bred to same bull, \$200. Choice heifers, \$100 up. Bulls from high-testing dams, \$50 to \$150, including a son of Gamboe Knight.

R. J. LINSOTT, Holton, Kansas.

GREAT JERSEY BULL YEARLING Out of 45-pound cow, Golden Fern's Lad, Flying Fox and Silverine Lads breeding. He cannot be duplicated for price asked. Write for price and description.

D. A. KRAMER, Washington, Kansas.

FOR SALE—Five bulls, from two to eighteen months; solid light fawn, close up to Forfarshire and Blue Belle's Boy, half brother to Noble of Oaklands, the \$15,000 bull. Few young cows.

S. S. SMITH, Clay Center, Kansas.

BENFER JERSEY CATTLE. Bull calves all sold except some very young ones. Offering three-year-old herd bull and yearling from imported cow; also few non-related cows.

E. L. M. BENFER, Leona, Kansas.

REGISTERED JERSEYS—OXFORD LAD, Eminent bull calf, \$20. Grand Fern Lad bld, \$65. Choice cows, \$110 to \$125.

F. J. SCHERMAN, Route 8, Topeka, Kan.

Bargains in Land

Book of 1,000 Farms, etc., everywhere, for exchange. Graham Bros., El Dorado, Kas.

Buy or Trade with us—Exchange book free. Berse Agency, Eldorado, Kas.

FOR JEFFERSON COUNTY or Northeast Kansas farms, any size, where alfalfa, bluegrass and corn are the staple crops, at from \$60 to \$100 per acre. Write or see. The Harman Farm Agency, Valley Falls, Kas.

COLORADO STOCK, GRAIN AND ALFALFA ranch; 640 acres; improved; irrigated; abundance of water; close to railroad. Must raise money. Will sacrifice. Time on half.

J. W. PHARES, Wakeeney, Kansas.

WE SELL OR TRADE ANYTHING, ANYWHERE. REALTY EXCHANGE CO., NEWTON, KAN.

MR. HOMESEEKER

If you want to buy rough pasture land at \$3 per acre, or good farm land at \$20 per acre where the land is productive and the rain falls, write

Southern Realty Co., McAlester, Oklahoma.

FORCED SALE—160 acres, 6 miles to German Catholic town, Marenthal, Wichita Co., Kan. All smooth plow land, 2-room house, well, fine water, good barn, fencing, 100 a. in cult., plenty of out range. Fine for stock. Must be sold quick. Only \$8 per acre. No trades. D. F. Carter, Leoti, Kan.

Price on above farm reduced to \$6.25 per acre. Act quickly.

D. F. CARTER, Bonded Abstractor, Leoti, Kansas.

ANDERSON COUNTY KANSAS LAND

ANDERSON COUNTY, KANSAS LAND. If you want to buy a well improved farm in this county, priced so you can afford to own it, write me. I have what you want; from 80 to 640 acres in size. Also have some unimproved pasture land for sale. Liberal terms. W. L. WARE, Garnett, Kansas.

FOR SALE OR TRADE. 240 Acres. If on the lookout for a land deal, write us about it. We have a lot of bargains for cash. Send for list.

KIRWAN LAND CO.

West Plains, Howell County, Missouri.

ANY SIZED Arkansas farm, no rocks, hills or swamps, all tillable, general farming and fruit, \$1.50 per acre down, balance 20 years, 6 per cent. Crop failures unknown. E. T. Teter & Co., Little Rock, Ark.

WISCONSIN

Official publications concerning the soils, rainfall and crops of Wisconsin may be had free by writing Wisconsin State Board of Immigration, Madison, Wis. State Capitol 555.

FIELD NOTES

Hereford breeders wanting strictly high class stock should see the offering of Warren Landers of Savannah, Mo., owner of Brookside Hereford herd. This herd is headed by Gay Lad 14th by Champion Gay Lad 6th and out of Princess 16th. Mr. Landers offers only the best, and if you get breeding stock from Brookside herd you may be sure it is right in every way. Write for description and prices. Please mention Kansas Farmer.

Attention is called to the card of C. G. Dittmars & Company of Turney, Mo. They own one of Missouri's noted herds of Duroc hogs. They have three as good herd boars in use in their herd as can be found anywhere and one of the best herds of big, easy breeding brood sows in existence. They are offering a lot of big, growthy boars and out of dams of the most popular breeding. They ship only first class individuals and absolutely guarantee satisfaction. Breeders will find prices and quality right. Write them your wants, mentioning Kansas Farmer.

The attention of Shorthorn breeders is called to the card of E. S. Myers of Chanute, Kan. Mr. Myers is offering three good young bulls. Two of them were sired by Royal Gloster and the other one by Col. Hampton, a Merry Hampton Collingie bull. These are two of the great Shorthorn sires now in service. The dams of these bulls are the best cows in the herd and are extra good milkers. He also offers a few heifers of choice breeding; some show prospects among them, and is offering the lot at prices to sell them quick. Write for prices and description. Please mention Kansas Farmer when you write.

Poland China Bred Sows.

In this issue Oliver & Sons of Danville, Kansas, are offering a number of bred sows and gilts for sale. They are bred to the champion Smuggler for summer and fall litters. Oliver & Sons have some of the best Poland China sows of the kind; they have paid \$400 for one brood sow and \$350 for another. They have been breeding Poland Chinas for 40 years and have the good kind, the big, medium ones that are easy feeders, grow quick and are ready to sell any time, and at the same time they have the size. If you need some new blood please write them for prices, kindly mentioning Kansas Farmer.

Crystal Springs Farm Durocs.

Any one wanting Durocs of the best breeding and individuality, should investigate the offering of Arthur A. Patterson of Ellsworth, Kansas, owner of Crystal Springs Farm Duroc herd. Mr. Patterson's offering includes some extra big, growthy boar pigs sired by his fine herd boar, Bull Col 13825 by King the Col. This boar is not only well bred but he is a great individual. Some of the offerings were farrowed February 25 and they will weigh from 60 to 65 pounds. They are out of some of the best sows of the herd. Mr. Patterson owns a fine herd of sows, including daughters of River Bend Col 89387, Kant's Model by Kant Be Beat, Good E Nuff King, grand champion of Kansas last year, Crimson Wonder 4th, Model Hero and other noted sires of the Duroc breed. Mr. Patterson sells every animal under a guarantee or your money back if you are not satisfied; he also guarantees safe arrival of stock at your station and makes very reasonable prices. Any one on the market for Duroc breeding stock should write him for prices and description. His offering will bear close inspection. Please mention Kansas Farmer when writing.

M. M. Hendricks Reports Good Sales. Attention is called to the change in ad of M. M. Hendricks of Falls City, Neb., who owns one of the extra good herds of Duroc Jersey hogs in the west. Mr. Hendricks writes that the past season is the best he has ever had. He has received orders from eight different states and he says the letters received from his customers are the kind that makes a breeder feel that it is worth while to breed and send out only the best. He has recently purchased a young herd boar for use in his herd. This boar is Disturber Model, son of Disturber, the great show and breeding boar of the Bourning herd. This youngster is one of the best pigs ever shipped to the west and will be in the class with Professor's Model, Sterling Model Top and Model Hogate, the three great boars of this herd. Mr. Hendricks will now have four as good boars in use in his herd as can be found in the west.

Holstein Cattle Sale Good.

The combination sale of Holstein cattle held at Oskaloosa, Kansas, April 30, by F. J. Searle and H. C. Glissman and Ben Schneider, was attended by a large crowd of farmers and breeders. The offering numbered about 50 head of registered cattle; thirteen head of which were bulls, including several small calves and one herd bull. The herd bull, Tiranta Lad 5th, Acuda 5th King, sold for \$440 and was well worth the price to anyone having a few registered cows. The demand for good cows was shown in the spirited bidding. Breeders from Kansas and several other states attended the sale and bought. The top price for females was \$500 for No. 4, Lady Woodcrest Beet, going to the good herd of Ben Schneider, Nortonville, Kansas. Mr. Schneider also bought No. 5 at \$430 and her baby calf at \$20. The average on 12 bulls was \$202. This was considered a good sale and the prices received were very satisfactory to all consignors. Following is list of sales:

Searle, 30 head...	\$8,280 Avg'	\$276 pr. hd.
Glissman, 13 head...	2,125 Avg'	163 pr. hd.
Schneider, 7 head...	1,460 Avg'	180 pr. hd.
Total..50	\$11,865	\$237.30
22 L. M. Bland, Garden City.....	\$160	
93 J. J. Bodde, Nortonville.....	90	
45 C. A. Brock, Nortonville.....	225	
12 Bartlett & Coolbaugh, Stockton..	310	
42½ Bartlett & Coolbaugh, Stockton..	300	
17 A. B. Madison, Kingman.....	300	
40 A. B. Madison, Kingman.....	365	
9 A. B. Madison, Kingman.....	580	
29 A. B. Madison, Kingman.....	175	
42 H. D. Burger, Seneca.....	130	
37 H. D. Burger, Seneca.....	170	
41 H. D. Burger, Seneca.....	145	
10 C. F. Burk, Ottawa.....	300	
19 W. A. Cooper, Stockton.....	205	
28 W. A. Cooper, Stockton.....	175	
33 A. B. Cooley, Goffs.....	155	
7½ J. E. Daniels, Lawrence.....	70	
5½ Willis Eshom, Dunavant.....	120	
44 G. M. Frisbie, Kingman.....	200	
15 Fred Folger, Cawker City.....	235	
20 M. L. Howard, Mulvane.....	170	
Sub. for 15 Roy Johnston, Oskaloosa..	120	
3 F. E. Mockett, Lincoln, Neb.....	215	
43 F. E. Mockett, Lincoln, Neb.....	95	
4½ E. F. Madden, Hays.....	130	
23 A. T. Meyers, Thomsonville.....	265	
10 H. W. Mollhagen, Bushton.....	265	
1 W. H. Mott, Herington.....	440	
35 Oliver & Son, Danville.....	190	
6½ J. W. Stewart, Oskaloosa.....	75	
4 Ben Schneider, Nortonville.....	500	
5 Ben Schneider, Nortonville.....	430	
14½ Ben Schneider, Nortonville.....	180	
10 H. G. Schroeder, Lorraine.....	350	
13 H. G. Schroeder, Lorraine.....	200	
34 J. R. Stephenson, Holton.....	175	
38 J. R. Stephenson, Holton.....	235	
8 J. R. Stephenson, Holton.....	420	
14 J. R. Stephenson, Holton.....	360	
6 H. E. Spires, Elbing.....	380	
7 H. E. Spires, Elbing.....	310	
18 F. M. Seekamp, Mulvane.....	400	
26 J. T. Saunders, Pleasanton.....	150	
32 E. J. Wagner, Lamar, Colo.....	130	
31 E. J. Wagner, Lamar, Colo.....	165	
31 E. J. Wagner, Lamar, Colo.....	75	
9½ F. D. Wiggins, Lawrence.....	110	
2 N. W. Wheeler, Mulvane.....	410	

DUROC JERSEYS

TATARRAX HERD DUROCS

Some choice fall boars ready for service by Tattarrax and G. M.'s Tat. Col. Price reasonable.

C. L. BUSKIRK, Newton, Kansas.

DUROC BOARS

High-class Duroc boars ready for service. Best of blood lines. Big, easy feeding kind; immunized. Prices reasonable. Write postal for prices and descriptions.

DUROC JERSEYS

Bred gilts, \$25. Boars, any age. The big, growthy kind. All immune. Satisfaction guaranteed.

C. G. DITMARS & CO., Turney, Mo.

BON ACCORD DUROCS

Choice September boars, also one fancy April boar by Successor and out of the grand champion sow, Model Queen.

LOUIS KOENIG, Solomon, Kansas.

DUROCS OF SIZE AND QUALITY.

Immune summer and fall boars and gilts sired by B. & C.'s Masterpiece, he by B. & C.'s Col. and out of Tattarrax and Ohio Chief dams. Choice individuals. Also a choice bred sow sired by Good Enuff Again King. Prices reasonable.

JOHN A. REED, Lyons, Kansas.

DUROCS Summer and Fall Boars, sired by Joe's Pride 118467 and Monarch's Model 139777. Also a few bred gilts by Joe's Pride and bred to Royal Climax. Will sell or trade Monarch's Model for good sow or gilt. Howell Bros., Herkimer, Kan.

BELLARE DUROC JERSEY HERD.

Immune boars for sale. Orders for immune gilts to be bred December and January to my two best herd boars. Also September pigs, all immunized double treatment.

N. D. SIMPSON, Bellare, Kan.

Good Enuff Again King 35203, the sensational grand champion of Kansas State Fair, 1913, heads our great herd. Forty sows and gilts for sale.

W. W. OTEY & SONS, WINFIELD, KAN.

THE MEN WITH THE GUARANTEE.

FANCY DUROC BOARS AND GILTS. Fall boars by J. R.'s Col. by Graduate Col., out of best sows. Choice lot of gilts by J. R.'s Col. bred for June litters to Gold Medal. Priced for quick sale.

J. R. SMITH, Newton, Kan.

BARGAIN IN DUROC BOARS.

Few choice boars left. Rich breeding and well grown out. Priced for quick sale. We need the room for our spring pigs. Write for prices and descriptions.

M. M. HENDRICKS, Falls City, Neb.

Crystal Springs Duroc Jerseys. The Big Prolific Kind. Boars by Bull Moose Col. by King the Col. From big, well bred sows. Write for descriptions and prices.

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SHUCK'S RICHLY BRED DUROCS. Fifty Fall Pigs, both sexes, sired by Model Chief and other noted sires. Thrifty and richly bred. Low prices for quick sale.

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GOLDEN RULE DUROC JERSEYS. Twenty spring boars, tops of entire crop. Sired by Dreamland Col. and River Bend Col., out of big mature sows. Priced to sell.

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DREAMLAND COL. HEADS OUR HERD. For Sale—Clear Creek Col., a splendid individual and sire; reasonable figure; fully guaranteed.

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Headed by Frost's Buster 29745 by Thea 30442. Some choice August boars by this great sire of prize winners. They are strictly high class and priced right. Also booking orders for February pigs by illustration and out of Frost's Buster dams. Get in early and get a prize winner.

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FANCY O. I. C. PIGS, \$15 A PAIR.

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200 HEAD

40 Boars, 20 Bred Sows, 40 Open Sows, 90 Fall Pigs, All at Attractive Prices.

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Special Offering. Choice bred sows and gilts for August and September farrow. Choice pigs sired by prize winning boars, either sex, 10 to 16 weeks old, non-related. Price, registered, crated, f. o. b. here, one, \$20; two, \$35; three, \$50.

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SHORTHORNS.

Oak Grove Shorthorns headed by the light "by Searchlight" Dam by Choice Goods. Every cow in herd straight Scotch. **ROBT. SCHULZ**, Holton, Kansas.

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"BLACK DUSTER" heads our herd, mated with as richly bred cows as can be found. Choice cows with calves at foot, and re-bred. Also young bulls. Berkshires. **George McAdam**, Holton, Kan.

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Fourteen big jacks and 25 jennets for sale. One imported Percheron and one high-grade Belgian stallion.

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BANNER STOCK FARM—Home of "In-cleus," champion American Royal, 1911; Weight, 2,240. Two young stallions and one two-year-old big jack for sale. **BRUCE SAUNDERS**, Holton, Kansas.

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A few nice farms for sale. Write **JAS. C. HILL**, Holton, Kansas.

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Part from 2,400-pound imported sire and part from 2,200-pound imported sire and imported dams, my 2, 3 and 4-year old registered Percheron stallions would prove valuable breeders for you. With all their weight and bone they are dressy and straight sound. This is some of the most substantial and most attractive Percheron breeding material in the world. Farm-raised and offered at farmers' prices. Fast direct trains from Kansas City and St. Joseph.

FRED CHANDLER, Route 7, Charlton, Iowa.

IMPORTED and HOME-BRED Percheron and Belgian Stallions and Mares. Two-year-olds weighing from 1,850 to 1,950; older horses, 1,950 to 2,250. We have good herd headers at reasonable prices. Sold with certificates of soundness under Nebraska law. Guarantee and terms right. Come and see us. Seward is 26 miles west of Lincoln and 67 miles east of Grand Island. Farm adjoins city.

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20 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned, broken to mares and prompt servers. A few good jennets for sale. Come and see me.

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REGISTERED GUERNSEY BULL, 16 months old; five grade Guernsey cows; one 2-year-old heifer fresh in summer, and 6-weeks-old Guernsey bull calf. All must sell in next 30 days. Write for prices and description. Closing out.

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ROAN HERO 3613 - 229963

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GRAFF'S MULEFOOT HOGS. Gilts, breeding age. Choice boars, winter pigs, either sex. Herd boar. Prices low.

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Linscott Jerseys. The oldest and strongest herd in Kansas. One hundred head, consisting of cows in milk, heifers and young bulls. Reasonable prices. Island breeding.

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SPRING HILL DAIRY FARM offers bull nearly ready for service. Deep milking dam; will furnish records. Also a few choice heifers, bred. Write for price and pedigree. **J. B. Porter & Son, Mayetta, Kan.**

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DODSON BIG SMOOTH KIND.—Ten big fall boars, ready for light service; sired by Sunny Colossus. Fourteen gilts will be bred to Orange Chief.

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MAHANS BIG POLANDS have both size and quality. Headed by a son of the great Expansive. Sows of unusual size and smoothness. 25 fall pigs, either sex, for sale. **J. D. MAHAN, Whiting, Kansas.**

COLEMAN'S BIG SMOOTH POLANDS. 150 in herd. Herd boars, O. K. Lad, Hadley C. Expansion, Price We Know, Mastodon and Mogul sows. Herd has tops from many sales. 20 bred gilts and 25 fall pigs for sale. Also Jersey cattle.

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TEN BREED GILTS and tried sows. Big kind bred to a splendid son of Blue Valley Gold Dust. Dams trace to John Blain's breeding. **IMMUNE.**

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Part from 2,400-pound imported sire and part from 2,200-pound imported sire and imported dams, my 2, 3 and 4-year old registered Percheron stallions would prove valuable breeders for you. With all their weight and bone they are dressy and straight sound. This is some of the most substantial and most attractive Percheron breeding material in the world. Farm-raised and offered at farmers' prices. Fast direct trains from Kansas City and St. Joseph.

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IMPORTED and HOME-BRED Percheron and Belgian Stallions and Mares. Two-year-olds weighing from 1,850 to 1,950; older horses, 1,950 to 2,250. We have good herd headers at reasonable prices. Sold with certificates of soundness under Nebraska law. Guarantee and terms right. Come and see us. Seward is 26 miles west of Lincoln and 67 miles east of Grand Island. Farm adjoins city.

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RED POLLED CATTLE

A few choice bulls, ready for service, priced reasonable.

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For Sale—A choice lot of cows, bulls and heifers, all registered, with good quality.

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Twelve extra good young bulls. Some extra fine young stallions, among them first prize and champion of Topeka Fair. Also young cows and heifers.

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Richly bred herd headed by Waverly Monarch. Bulls of serviceable age all sold. Fresh cows and young bulls for sale in spring. **Reser & Wagner, Bigelow, Kan.**

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Herd headed by Gay Lad 14th by the champion Gay Lad 6th and out of Princess 16th. Six yearling bulls and ten bull calves for sale. Also seven yearling heifers, the best of breeding and choice individuals. Prices reasonable. Write or call.

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Pure-bred Registered

HOLSTEIN CATTLE

According to figures compiled by the department of animal husbandry of Illinois University, a cow must produce 4,000 pounds of milk and 160 pounds of fat a year to pay for feed and labor. Every 1,000 pounds above this brings a yearly profit of \$10. Thus a 5,000 pound cow earns \$10 a year, an 8,000 pound cow earns \$40, but when production reaches 10,000 pounds the profit is \$63. Systematic investigation confirms the wisdom of those who have taken up the Holstein-Friesian breed.

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CHOICE BULL CALF, born October 1, 1913. Fine individual, nicely marked. Dam, A. R. O. 236 pounds butter, 530 pounds milk, 7 days; sire, son of Pontiac Korndyke with 79 A. R. O. daughters.

FOR SALE—At reasonable prices, 25 high grade Holstein Dairy Cows, all young, good size and well marked. Not registered, but best to be had in the state at prices asked. A few young bulls coming one year old. Independent Creamery, Council Grove, Kan.

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Both registered and high grade. Breeding stock for sale at all times. Write us your wants.

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High-grade cows and springing heifers, also registered bulls ready to use. Exceptionally good breeding. Write

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Two hundred nicely marked well-bred young cows and heifers, due to freshen within the next three months. Also registered bulls ready for service.

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Headed by Jewell Paul Butler Boy.

Eleven choice registered bulls; ages, few weeks to 24 months. From large richly-bred cows with strong A. R. O. backing. Nicely marked. Splendid dairy type. Reasonable prices. **L. F. CORY, Belleville, Kan.**

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Prince Hadra at head of herd. He has 26 A. R. O. sisters, 21 brothers and several daughters. Extra choice young bulls for sale out of 600-pound A. R. O. dams. Farm near town.

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GILTS RAISED ON THE LAVEROCK FARM

Booking orders to ship at weaning time. They are rich in the blood of the great brood sows, Charity, Lady Lavelock Mary, Belle 7th and Sally 2d, and are sired by the noted boars, Widow's Model, Joe Bowers and Kansas Model. Price, registered, crated, one, \$20; two, \$35; three, \$50. Also a few older gilts and boars for sale.

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Bred sows, spring and summer pigs for sale. **A. M. BEAR, Medora, Kansas.**



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Bred gilts and spring boars by Hillwood Jack by Earlander. Fall pigs, either sex, by Medora John and Hillwood Jack.

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For sale, both sexes. Choice belting and type. Priced reasonable.

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Twenty extra choice big-type fall boars, tops from my entire crop, mostly sired by Moore's Halvor, my big Iowa bred boar. Others by Sampson Ex. and Melbourne Jumbo, out of big mature sows. \$25 each while they last. Send check with first letter. Fully guaranteed. Also one pure Scotch Shorthorn bull, solid red color, 12 mos. old.

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Choice September boars and gilts sired by the big boar, A's Big Orange, out of strictly big-type dams. All immune. Also Shorthorn bulls.

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Will book orders for 15 gilts to be bred last of May, for early fall litters, ten at \$40, five at \$50 each. These gilts will be bred to Reputation, that H. L. Faulkner says is the largest hog for his age he ever saw. A few good fall boars left. **Jersey Cattle: Young bulls \$50; bred heifers, \$150.**

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July, August, September farrow. Can breed gilts to suit purchaser. Jerseys ready for service. Will book orders for spring and Special offering. Choice bred sows and Prices right. Write.

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Headed by King Hadley 3d and Kansas Wonder, mated with daughters of Old Expansion, What's Ex. and Grand Look Jr. Stock for sale.

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Biggest possible big-type breeding. Fall boars and gilts sired by him for sale. Be your own judge. Out of Expansion bred dams. **JAS. ARKELL, Junction City, Kan.**

Faulkner's Famous SPOTTED POLANDS. We are not the originator, but the preferred server of the

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A choice lot of fall pigs, either sex. Strictly big-type breeding. High-class individuals, priced to sell.

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Immune and out of big dams. Choice individuals, \$25 to \$35 each. They are bargains.

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