

KANSAS FARMER

For the improvement  of the Farm and Home

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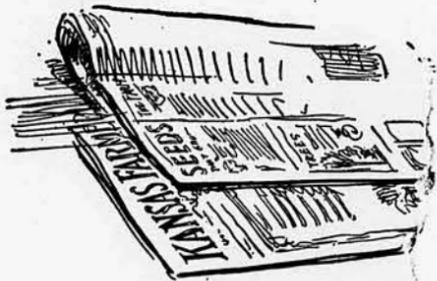
IT'S near planting time—for garden, or ~~or~~ berry patch, as well as for corn, kafir and oats. The field crops should not be all the ~~is~~ ^{is} to the farm—even though in many cases they are. W.P. 2

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KANSAS FARMER

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POULTRY FOR BOYS AND GIRLS.

The Extension Division of the Agricultural College is sending out a call for 10,000 boys and girls to enter a great poultry contest this year. Poultry fans, substantial farmers, progressive bankers, and school superintendents, and other organizations could not get a better scheme for advancing the welfare of the boys and girls of the community than to further this plan for teaching them something concerning this great industry. It is merely a country proposition but to be applied equally well to the cities and villages. Many of these villages and towns are already beginning to plan for garden contests and it should be an easy matter to get the poultry contests started. All that it requires is enthusiastic leadership and the contests will be accomplished make it well worth while. A. K. S. A. C. boy, who is secretary in Portland, Oregon, has done wonders for the boys and girls of that big city along this line. The plans are simple and should be adapted to fit each community. This is only a local matter although the college will be glad to support the plans. Poultry speakers will be sent to help young folks after a contest is organized. Bulletins will be sent to every contestant. A central committee must be organized although any one person can start a contest. The college would recommend the giving of 15 eggs from pure-bred chickens. It would be well for the committee to buy eggs by the dozen after entries are made and all sales should be made by the middle of March or earlier. There should be three classes—the "meat" class, Plymouth Rocks, etc., and the "egg" class, Leghorns, etc. Next fall at the local boys' and girls' poultry show, each contestant should show a trio, a pen, or three pullets or one cockerel or whatever the local committee shall decide. The boys and girls who already have pure-bred chickens might have a class arranged for them in which a dozen eggs from a dressed chicken are shown. Varieties may be used for prizes. Prizes offered for younger children need not be expensive. It would be a splendid idea if at least two prizes could consist of free trips to the State Institute, which will be held in Manhattan in December. These should be offered, however, only to boys and girls under 15 years of age. All professionals should be barred from these poultry contests unless special classes are arranged for them. Pamphlets will be supplied through the Extension Division of the College in Manhattan, giving full details.

POULTRY MEN GET TOGETHER.

During the State Show recently held in Wichita the leaders of the two state poultry organizations got together and determined to amalgamate the two. It is evident to all that the two state poultry associations could not long survive without friction, and that better work for the poultry interests of the state could be accomplished by one large organization than by two smaller ones; that by pulling together we would be more likely to secure a state appropriation again. Inasmuch as the Kansas State Poultry Association was a chartered state institution, the Federation agreed to come in under that name, and the State Association agreed to a revision of its constitution and by-laws conforming to those of the Federation. With these mutual concessions it was decided by all that a great show of unequal proportions could be held in 1915. County representatives will be appointed in every county in the state to further the interests of the poultry industry in general, and the State Show in particular. The managers decided to hold the next State Show in Wichita and to publish the fact at once, so that early and ample preparation could be made for the event. A delay in the naming of the town will a few weeks before the show, as

has been the custom heretofore, has served no useful purpose; in fact, has been a handicap. Some persons have complained because Wichita has had the State Show for several years in succession, but the fact of the matter is, no other town has been willing to finance the show. It takes all of \$1,000 to run the show and guarantee the premiums, and no town has offered to donate anywhere near that amount for the show. Wichita has not been hoggish in the matter at all. She is willing, and has been willing for years, to surrender the show to any town that will agree to properly finance it so that no backward step will be taken.

REVIVING COMMUNITY LIFE.

Bala, a farming community only a few miles from the Kansas Agricultural College, never had a farmers' institute until a few months ago. In fact, it had no single organization of any sort strong enough to hold the people together. But that was before a young man student in the agricultural college and a college pastor revived that neighborhood. Now Bala, with its 275 persons—forty of whom live in the village—has a thriving institute with members from twenty-two families. More than that, the people of the Bala community will tell you that through this organization social and educational conditions have greatly improved.

When C. O. Levine, a senior student in animal husbandry and president of the college Y. M. C. A., with the Rev. W. L. Goldsmith, college pastor for the First Congregational Church in Manhattan, first visited Bala, that little community was sleeping soundly. Only a few of the older people and the younger children attended church services at one of the two churches in the community. The people were down on the community. It held no attractions for them. But today, as one of the citizens remarked, recently, "Bala is no longer dead. We will, no doubt, have our relapses, but the effects of the work done by these leaders always will be felt. We never can go back to where we were a year ago."

Everyone in the community attends the farmers' institute meetings. Two meetings during the past year had an average attendance above 200. The farmers, with help from the college extension department, the college pastor, and other outside speakers, provided interesting programs. The women bring well-filled dinner baskets for the hungry visitors and farmers.

The community has two churches within less than one-half mile of each other. Neither church is strong enough to support a local resident pastor—a situation common all over the country today. A movement, which will no doubt finally prove successful, has been started to unite the two denominations as one church, and secure a pastor who will live in the community and be a leader in community activities.

HARDY EVERGREENS.

The exceedingly dry weather of the past season has been very hard on trees—both in orchards and ornamental plantings—all over the state. Knowledge as to the most hardy varieties to plant is very important if the best results are to be secured along this line. E. F. Reinisch, landscape architect in charge of the Topeka parks, was recently in KANSAS FARMER's office and gave us some valuable experience from his observations along this line the past season.

He referred especially to the hardiness of what is known as the Jack pine (*Pinus divaricata*). Fifty of these trees averaging four feet high, were set out in nursery rows four feet apart in Gage Park last summer. These trees were given no water and were not mulched. They were given only the ordinary cultivation for conservation of moisture. Out of the fifty only thirteen were lost, which might be considered a remarkable showing in the transplanting of pines

of that size in such a season as last. This Jack pine is not an especially handsome tree, except when massed, owing to its somewhat straggly habit of growth. Mr. Reinisch stated that the beautiful Japanese red pine (*Pinus densiflora*) made a fine growth and did not appear to suffer from lack of moisture. These trees likewise were not watered and received no mulching of any kind. The Bull pines in the nursery row also stood the summer remarkably well, there being no losses whatever. The same is true of the Chinese Arbor vitae.

SYSTEM IN SELLING STOCK.

Those who constantly give advice and furnish information along various lines feel greatly encouraged to find here and there that the things they are advocating are actually being practiced with success.

W. J. Cody, of KANSAS FARMER's live stock department, delivered an address before the Improved Stock Breeders' Association recently, in which he furnished much valuable advice and information regarding the business end of selling pure-bred live stock. A few days after this address was given, W. B. Van Horn, one of the prominent live stock breeders of Osage County, who is now advertising in our columns, wrote us as follows: "When I returned home from the meetings at Topeka I found three letters from parties I had written to in connection with my advertisement of Holsteins for sale. These three men all stated that they would take the cattle described to them, at my price. Each of these buyers was secured as the result of the follow-up letter system spoken of by Mr. Cody in his address before the Improved Stock Breeders' Association."

On another page of this issue appears a portion of the address referred to. The breeder of pure-bred stock who makes no effort to handle the selling end of his business in a systematic, business sort of way, has mistaken his calling. The desire and ambition to carry out the various details necessary in the proper conduct of this line of the live stock business is what differentiates the breeder of pure-bred stock from the market producer of live stock. The man producing market stock may and should have just as good individual animals, but from choice or personal inclination he does not care to concern himself with the many details necessary to the handling and selling of pure-bred stock for breeding purposes.

We would heartily commend the system of handling correspondence and sales described in detail in the article already referred to. It is not complicated, and requires but little time. It is important, however, that the necessary entries be kept up to date. Once get behind and endless confusion will result.

WESTERN FARMERS MEET.

The great success which attended the District Farmers' Convention held in Parsons last week and also the one in Wakeeney has led to the planning of a similar one to be held in Western Kansas at Oakley on the 4th and 5th of March. The convention at Parsons had a registered attendance of over 500 people, with an average attendance at each of the six sessions of about 450. Judging from the active support which is being given by the farmers and business men of Western Kansas it is believed that the Oakley meeting will surpass even the Parsons meeting in interest and attendance.

W. A. Boys, demonstration agent for this territory, has done a great deal in the interest of better agriculture and it is largely as a result of his activities and that of his co-operators that this Oakley convention has been planned. Six sessions will be held. President H. J. Waters of the Agricultural College, and Dean J. H. Miller of the Extension Division and other prominent speakers will be present. Dry farming, dairying, irrigation, co-operation and home management will be particularly emphasized at this convention.

BOYS' AND GIRLS' CONTESTS.

It has been estimated that Kansas farmers buy 50 per cent of the vegetables they use during the year. A very small number of the people in towns and villages grow enough vegetables for their own use and yet the expert gardeners of the Agricultural College say that an industrious boy or girl can grow from 400 to 800 pounds of vegetables on a plot of ground 60 by 65 feet.

The Extension Division of the College is endeavoring to make the boys' and girls' contest work of this year greater than it has ever been before. The contests being recommended are, "Corn Contests," "Kafir Contests," "Potato Contests," "Tomato Contests," "Garden Contests," "Poultry Contests," "Baking, Canning and Sewing Contests." The family "Garden Contest" ought to interest many of the boys and girls. It calls for a plot of ground 50 by 50 feet, the idea being to contest for weight of vegetables for the table. The "Tomato Contest" should be an interesting one. It is advised that committees make their own plans, authorizing the use of one-tenth acre or one rod square plots or possibly the use of 25 plants. There is also a "Flower Garden Contest," which should appeal to the girls. There is not a village or town in Kansas that could not be made more beautiful by the proper handling of the yards and lawns. In October every village, country and town school should have an "Exhibit Day" and every child in the school should be encouraged to bring something he or she has grown or made, and the whole town should visit the school.

Local farmers' institutes should offer as many prizes as possible in the form of free trips to the State Institute. Nearly 500 boys and girls attended the last one held at Manhattan, having all their expenses paid—a never to be forgotten trip to these boys and girls.

The boys and girls who may read this or others who are interested should by all means secure a copy of the pamphlet giving the rules of these various contests for 1914. This pamphlet has already been mailed out to rural teachers, institute officers, bankers and others interested in promoting the welfare of the boys and girls.

Readers will recall that in the silo map printed in our issue of January 10, Chautauqua County did not appear as having a single silo. The week following we estimated Chautauqua as having twenty-five silos. The lack of information regarding this county was due to the fact that our correspondents through whom we solicited information gave no heed to KANSAS FARMER's inquiry. This is a pointer to the effect that those persons to whom we write for information regarding their counties are overlooking a good bet when they fail to make the best replies their information will permit. Since the publication of the silo map we have received numerous letters from Chautauqua County and the number of silos credited to the county is estimated as ranging from 50 to 100. A letter from a reader who seems to be familiar with the silo situation in that county places the number at 80, and we think our readers can safely conclude that this is a conservative estimate and are justified in giving Chautauqua County credit for this number.

This year the annual meeting of the Kansas branch of the Farmers' Educational and Co-operative Union convenes in Hays, Kansas, on Wednesday, February 18, the first session being at 10 o'clock in the morning. There is a widespread interest over the state among farmers in movements of a co-operative nature. This organization has done much pioneer work along this line in various parts of the United States. It has organized quite a number of locals in Kansas during the past year and hopes to have the membership up to 20,000 before the annual meeting.

LAND OF GRAIN SORGHUMS

Extracts From First Chapters of Sorghum Book By Kansas Farmer Editor

THE grain sorghum belt is so named because it is an area to which the sorghums have proven themselves better adapted to the farmers' needs for grain and forage than any other crops now known and so are more generally grown than in any other section of the United States. It is an area in which a profitable and permanent type of general farming has not yet become fixed. This is so because the conditions of soil and climate are so different from those with which the settlers were formerly familiar that they have not yet adjusted themselves to a system of farming which insures a permanent prosperity. No locality or country can be a fit place for general farming unless its lands will provide, through intelligent cultivation, average good management and reasonable frugality, comfortable homes and a contented people. It is my belief that the dependence upon the early-maturing and dry weather resisting grain sorghums, with live stock to consume the grains and roughages of these, will for the sorghum belt farmer build permanently prosperous homesteads.

The greater proportion of the early settlers of the sorghum belt came from Indiana, Illinois and Ohio, and even farther East. They planted the seed of those crops they grew at home—wheat and corn. These crops on the new farms were not dependable. With them there were too many "off" years. The short crop years came when the granaries were already nearly empty. There was no reserve upon which to draw. In my judgment, farming is poorly done in any locality or country when a single "off" year seriously affects the stability of the farmer. To guard against the usual seriously depressing results of the unavoidable "off" year should be the first effort of every farmer.

However, the watchful eye of the Federal Department of Agriculture was on the sorghum belt farmer. The department knew of the failure of wheat and corn as crops to be depended upon, and sought to locate adapted varieties of these and other crops. The importation of seed of winter wheat from Russia improved the outlook for success through wheat. Later the department introduced the grain sorghums from the dry, hot regions of Africa, and so well have these deported themselves that they have in twenty years given the grain sorghum belt its name as well as its hope.

Providence has provided a useful crop for every region—usually the place does not find the adapted crop until after a considerable time, but sooner or later the two will come together. Man sometimes thinks he knows better than the Maker of things—eventually he will discover his mistake. The farmer who attempts to grow crops to which his soil and climate are not adapted, will fail. For this reason adapted crops only will prevail in the sorghum belt.

Not so many years ago the sorghum belt was an important live stock country—it was the cattle country of 25 years ago. In those days countless thousands of cattle roamed its prairies and grew fat upon its grasses. Later it was fenced into ranches. Since has come the settler—the farmer who sought his livelihood and hoped for plenty as a quarter or half-section farmer. * * *

But, as the years passed, a better understanding of those uses to which the prairies could be put, dawned upon a farmer here and there, and he built a permanent home and bank account. I have met hundreds of sorghum belt farmers—these not so widely scattered as might seem—who have said, "This country has treated me well and I have no complaint." In most instances the realization of this satisfaction and the inspiration of this contentment was live stock—usually cattle—and if the sorghum belt ever becomes a home for the two million or more quarter-section farmers it can accommodate, it will be through the grain sorghums and live stock. God made the sorghum belt a cattle country when he placed the buffalo thereon. This should have been sufficient suggestion to the settler that it was the habitat of cattle. Also that whatever he did, through live stock as a basis, must come the hope for his permanency. * * *

The grain sorghum belt, as set down in the literature of the day, is a portion of that wide stretch of high, dry, rolling prairies extending south from the

Canadian line to the border of Mexico and from the 98th meridian of longitude on the east to the Rocky Mountains on the west. The south half of this region is the grain sorghum belt, being approximately 400 miles wide and a thousand miles long. * * * This, then, includes the western half of Kansas, the western third of Oklahoma, the western half of Texas, and all that part of New Mexico and Colorado east of the Rocky Mountains. * * *

It is not to be understood that the eastern boundary of the grain sorghum belt is arbitrary. Indeed, the 98th meridian which crosses Kansas near or through Beloit, Hutchinson and Anthony is not the eastern limit of the area to which grain sorghums are adapted or should be used in the scheme of the most profitable and permanent general farming. In Kansas almost one-half of the state's total kafir crop is grown east of the 98th meridian, and extending to

sorghums increase their acre yield of grain and forage tonnage in the proportion that the rainfall is greater and the soil more fertile. Kafir planted on the best of lands, under the most favorable conditions, is in bushel yield and acre tonnage a near competitor of corn in the best years, and in the "off" year excels corn. From this standpoint, therefore, in so far as Kansas is concerned, the sorghum belt may properly be said to include the entire state.

That section of Oklahoma and Texas lying between the 95th and 98th meridians has conditions of soil, climate and rainfall similar to those existing between those meridians in Kansas, and in this section for each of the two states, grain sorghums can displace corn on the uplands with great advantage. While the areas best adapted to the various grain sorghums are discussed in detail later, it will add to the understanding at this point to say that the kafirs will accomplish most for the grower in sec-

side receiving the heavier rainfall and the moisture decreasing westward. Three-fourths of this falls during April to September inclusive, this being the growing season. The rains generally are torrential—that is, falling rapidly and so largely running off, unless the soil is so handled as to reduce the escape of water to a minimum. The area is subjected to protracted high winds, and fairly high summer temperatures, resulting in rapid and continuous evaporation during the growing season. The limited rainfall exists an unusual combination of moisture-dissipating forces, and to offset this requires methods of soil handling the purposes of which are to store as well as to conserve moisture. * * *

The character of sorghum belt soil varies greatly, but practically every soil has been proven as adapted to sorghum growing. The sorghums yield well on the red clays of Central and Western Oklahoma, on the dark clays of the Texas Panhandle, and on the very sandy soils of Northwest Oklahoma and Southwest Kansas. However, the dark sandy loams which are the prevailing soils of the sorghum belt, give the best cropping results. Sorghum belt soils generally, have a deep, uniform subsoil which permits the storage of water, and this is a prevailing condition highly encouraging for the success of the growing settler.

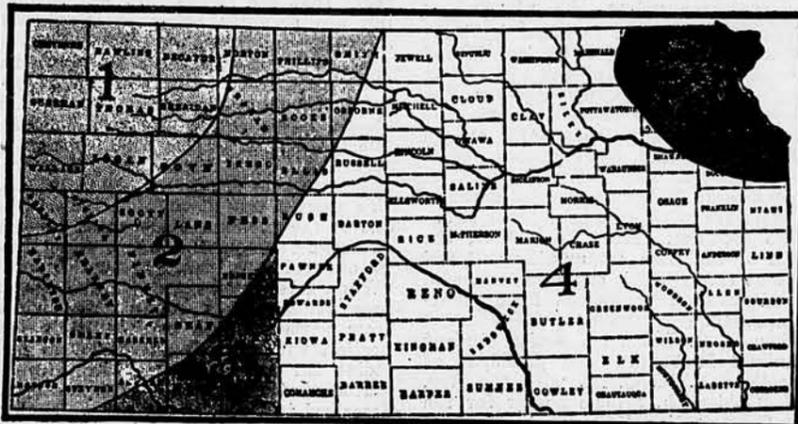
"All in all," says Widstoe, "the position of arid soils is much more favorable to plant growth than that of humid soils." Just why this is so, is a story too long to relate here. In the soils of the arid sections has been placed a large amount of fertility, which, with a small amount of water, can be utilized by the plant to the greatest possible advantage. The sorghum belt farmer must accept these soils as they now are, and determine to make the best of them, and feeling that Providence has endowed them with superior qualities which in measure offset light rainfall. To be sure the sorghum belt farmer can improve the physical condition of soils by proper handling, and can likewise increase the moisture-holding capacity and crop producing ability. In every instance Providence has left a few things to be done by man, but he who most intelligently takes advantage of Nature's gifts will succeed in the greatest measure. * * *

The sorghum belt farmer may properly inquire whether or not the rainfall he may reasonably expect as indicated by the records of the annual precipitation for his locality, will produce profitable grain and dependable feed crops. He has observed that the amount of water required varies with the different plants, also that some plants are capable of obtaining from the soil more water and so make greater and more certain growth than other plants. He has observed, too, that not all the water falling on the land is absorbed, also that no method of handling soils has yet been devised by which it is possible to conserve for the use of the growing plant all the water taken up by the soil.

In short, the sorghum belt farmer must have long since realized that his method of using precipitation is tremendously wasteful. He is interested, then, in knowing whether or not he can pursue such methods of soil handling as will enable him to convert a greater part of the rainfall to his use. That he may use more of the precipitation is not a matter of further doubt. What he may expect through the use of practical methods of conservation is recorded by Widstoe, president of the Utah Agricultural College, in his book, "Dry-Farming." He says: "Experience has already demonstrated that wherever the annual precipitation is above 15 inches, there is no need of crop failures, if the soils are suitable and the methods of dry-farming are correctly employed. With an annual precipitation of 10 to 15 inches, there need be very few failures if proper cultural precautions are taken." Widstoe is a foremost investigator of dry-farming possibilities, and his quoted statement holds much hope for sorghum belt farmers. It is certain that dry-farming has in actual farm practice accomplished sufficient to prove its principles as sound; however, the reader must understand that it is not a panacea for all the difficulties attendant upon a region of light rainfall.

[Continued on Page Seventeen.]

Sorghum Areas For Kansas



AREA No. 1 in the above map shows the district where dwarf milo, feterita and Freed sorghum have been grown successfully for the production of grain. Dwarf black-hulled kafir and white-hulled kafir mature grain in the more favorable seasons. Home-grown or northern-grown seed should be planted if obtainable. Freed sorghum and the early-maturing strains and black and red Amber sorghum will mature seed. These varieties and kafir are all suitable for forage production.

In Area No. 2, dwarf black-hulled kafir, white-hulled kafir, milo and feterita will mature seed in average seasons. The standard black-hulled kafir seldom makes a profitable seed crop. All varieties of kafir make excellent forage. Freed sorghum, Amber sorghums and early-maturing varieties of Orange sorghum do well in this area.

Dwarf milo, feterita and Freed sorghum are at home in Areas No. 2 and No. 3. The kafirs are also dependable crops. Home-grown and northern-grown seed produce better in Area No. 2 than does southern-grown seed. Southern-grown seed can be planted with success in Area No. 3.

Kafir does well in Areas Nos. 2, 3, 4 and 5. The dwarf black-hulled kafir and the white-hulled kafir give best results in Area No. 2, while the standard black-hulled kafir is the favorite variety for Areas No. 4 and No. 5.

In Area No. 5, standard black-hulled kafir produces excellent forage, but is not satisfactory for grain yields. Orange sorghum is an excellent forage in this district.

The map above was prepared by G. E. Thompson, superintendent of branch experiment stations in Kansas, at the request of KANSAS FARMER. Mr. Thompson writes that three members of the Manhattan Experiment Station agronomy force concurred with him in the conclusions. Readers will find it interesting to compare this with a similar map printed in March 18, 1913, issue of KANSAS FARMER, and note changes. The latter map was prepared jointly by KANSAS FARMER editor and Kansas Agricultural College agronomists. This is only one of the interesting and instructive sorghum maps appearing in Mr. Borman's sorghum book.

the 95th meridian. In actual Kansas farm practice the usefulness of sorghum crops extends from the boundary line on the west across the state to the eastern tier of counties. In reality, the sorghum belt extends 160 miles east of the line set down as its limit.

The cultivated uplands of this 160-mile strip across Kansas are recognized by good farmers as being better adapted to kafir and milo than to corn, as "sure feed crops." In other words, Kansas farmers have marked only the most fertile lowlands—river and creek bottoms—as those best adapted to corn, while the thin, high and rolling lands are recognized as sorghum lands. It is my conviction that uplands east of the 98th meridian and west of the 95th, in Kansas, should be planted to grain sorghums. On such lands either kafir or milo in a ten-year period will not only outyield corn, but will convert the uncertainty of a corn crop into an almost assured grain sorghum crop. The grain

tions having 25 or more inches of rainfall, and the milos where the rainfall is 25 inches or less. On the uplands of Kansas, Oklahoma and Texas, between the 98th and 95th meridians, the kafir and milo acreage can at once be profitably increased in the proportion that the grain and roughage can be fed on the farm and later to the extent that the cash market therefor may be developed. It is certain that the grains of the sorghums will rapidly become a commodity of commerce and that soon they will be as readily sold in the markets of the country as is corn. When the maximum feed supply is required and the greatest certainty of such supply is desired, the grain sorghums are superior to corn in a belt at least 160 miles wide across Kansas, Oklahoma and Texas, and at least that far east of the generally considered sorghum belt limit.

The average annual rainfall in the sorghum belt west of the 98th meridian varies from 15 to 25 inches, the eastern

January 14, 1914

STOCK FARMS VERY FERTILE

Pure Bred Stock Breeders Boost Jackson County Agriculture

point of settlement Jackson County is one of the oldest counties in the state. It has a rich, fertile soil, and at the present time 54.5 per cent of the county is tilled land. Only 2.7 of this land is in alfalfa and five per cent in clover. As was pointed out at a recent banquet held by the Jackson County Improved Stock Breeders' Association the acre yields of corn and oats steadily declined, the figures presented at this time going back to 1885. The rolling nature of the county and its adaptability to the growing of a wide variety of crops makes it naturally a stock county. In view of the fact that a much larger area of the county can be farmed in grasses, legumes and forage crops, the necessity for increasing the live stock interests of the county has become apparent to the more progressive farmers and the organization of these men into an Improved Stock Breeders' Association for this purpose already received mention in KANSAS FARMER columns. The associate editor of KANSAS FARMER recently had the pleasure of visiting a number of the members of this organization and found a great deal of interest in connection with their methods of farming and handling live

cattle are absolutely essential on farms where legumes, grasses, and other crops are grown, it is but natural that many of these farmers interested in the breeding and handling of both pure-bred and dairy cattle. The Scotchman always been a lover of live stock and when we drove on to the farm of George McAdam, a few miles north of Holton, we were not surprised to find a splendid little herd of pure-bred Angus cattle. Black Knight of Highlands 10th, Erica topped bull from a Blackbird sire is sire of most of the cows. Other fine families are also found in this splendid little herd. Mr. McAdam thought to be somewhat unbalanced, but his neighbors, when he paid as high as \$600 for a few of his foundation cows. The most interesting thing to the writer, on this farm, was the evidence of the painstaking care used in the handling of the calves of the herd. Any calf that is ruined by lack of proper feeding and care during the first year. On this farm the calves which are dropped late in the summer were kept in a yard by themselves where they had the best of shelter. Their principal feed consisted of silage and they gave every evidence of being in extremely thrifty, happy condition. The live stock farmer missing much of his profit in farming if he fails to take care of the manure which accumulates on his farm. On this farm at the present time all the yards and stables are systematically cleaned each Thursday and the manure carefully spread on the fields with a manure spreader. Last season on a wheat field which had received a coating of manure two years ago, the wheat stood six to eight inches higher on the manured portion of the field and the heads of wheat were fully a third longer. Hogs are almost necessary where cattle are being handled and Berkshires have been the breed kept for a good many years on this farm which was originally started by the firm, McAdam Brothers. The famous Berkshire boar, Berryton Duke, was bred by Mr. McAdam. Not far from this farm is that of Ed Steglin, who is handling a 400-acre farm on Straight Creek, which happens to be the most crooked creek in Kansas. This man gave every evidence of being handled with considerable thought and system. Sixty acres of the farm has been covered with manure this winter. From Monday to a day and a half each week is spent with the three-horse manure spreader in cleaning up the yards and stables. This winter spreading is really the best possible way of securing the greatest returns from the barn yard manure. Mr. Steglin is purchasing straw from his neighbors at \$1 per load and using it in bedding his stock. In actual fact utilizing constituents straw at the prevailing price of commercial fertilizers contains over twice the value in fertility than is being paid for the straw. Another well-handled method was observed on this farm, namely, that of blank listing ground in the fall which is to be planted with corn, over 30 acres being listed in this way at the time of our visit. As soon as the weeds start in the spring a harrow can be run over this listed ground and a very large portion of the weeds will be destroyed. The corn can then be planted by splitting these ridges with

the lister and another crop of weeds will be destroyed. On land that can be listed this is a splendid method of preparing for a big corn crop. Early preparation pays in corn growing. While Mr. Steglin did not grow much corn in 1913 he stated that he had produced some very large yields, actually weighing out at one time a few years ago, 1,154 bushels from 15 acres. Steers have been fed upon this farm for a good many years, this practice having been discontinued only for the past three years. A farm of this kind does not show the steadily decreasing yield of the county average.

About 60 head of Polled Durham breeding cows are maintained on this farm at the present time, among them being Lady Marshall, an undefeated show cow. The herd is headed by Sultan of Anoka. A 16x40-foot silo, an almost necessary equipment on the live stock farm, was erected last year. The breeding cows on the farm are being wintered on a ration consisting of 20 to 25 pounds of silage daily per head, made from corn containing very little grain and five or six pounds of alfalfa daily. Some of the cows are fat enough for the butcher at the present time.

A few miles from this farm Brown Hedge is farming 160 acres. This farm also has the air of thrift that goes with the live stock farm. Shorthorn cattle and Poland China hogs constitute the chief live stock interest of this farm and silage is the chief winter ration be-

of the oldest towns in Jackson County, where we found as good a bunch of jacks and jennets as can be found anywhere in Kansas. M. H. Roller, the owner, has bred and raised these animals in Kansas for over 40 years. A very short conversation with him revealed the fact that he was thoroughly proficient with every phase of this particular line of live stock production.

Jackson County has not progressed as rapidly as it should in the growing of high class draft horses. Good farming methods require plenty of horse power and well bred drafters should be kept on every farm in the county. We found one of the best stallions owned in the county on the farm of Bruce Saunders who lives a mile and a half south of Holton. Mr. Saunders has a splendid home, modern in every respect and has also a barn well equipped for the line of live stock business which he has chosen as his specialty. He makes a practice of working his draft mares for the work of the farm and even works his imported stallion. Hitched to the road drag in single harness is where he finds the best use for this stallion. Our visit with Mr. Saunders was rather brief owing to the fact that he and his wife were about to start to an oyster festival being conducted by the Grange of which he is a member. This organization is forming a very important part of the community life of this county. A contest in securing new members has been recently conducted, two sides being

males will still continue to be necessities upon practically every well organized stock farm in the United States. Among the hog breeders visited were J. D. Mahan, whose farm is a short distance from Whiting. Mr. Mahan's herd of big Poland Chinas is headed by the boar, Expansion Look. There are quite a number of sows and gilts by this boar in the herd at the present time. The greatest of economy is being practiced in wintering these hogs, alfalfa hay being used quite extensively in feeding the mature stock. Every hog man who has tried it knows this to be a splendid feed for carrying his breeding sows through in strong, thrifty condition. Plans are being made by Mr. Mahan for early spring pasture. Rape, oats and other crops of that nature will be sown in order to supply green feed at the earliest possible time. Mr. Mahan had a patch of wheat pasture in which he is planning to sow some rape seed early in the spring. This is somewhat of an experiment but may be the means of supplying some additional pasture.

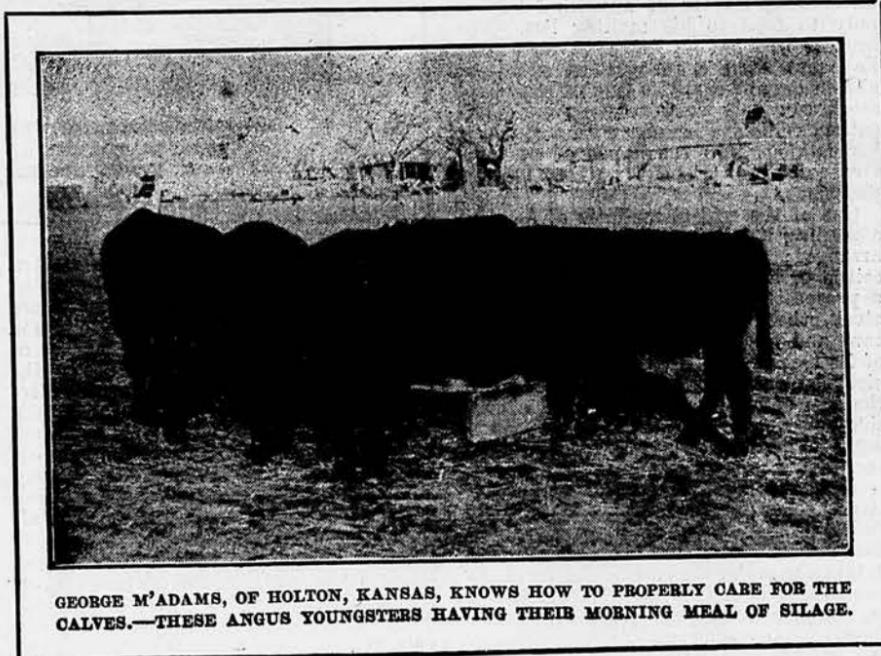
A visit to the red hog farm of George Klusmire west of Holton, proved most interesting. Here again alfalfa hay fed in racks is being used as the standby in wintering the mature stock. They had just been given their morning allowance and it was certainly an interesting sight to see these brood sows eating this hay like cattle. Mr. Klusmire has a 160-acre farm all fenced hog tight so that, as he expresses it, his "hogs have the run of the farm." Having hog fences throughout makes it possible to save much feed of various kinds which would otherwise be wasted and it should be the ambition of every hog farmer to extend his hog fences until he can turn his hogs into any field desired. This farm also has a well equipped farrowing house for the early litters. Mr. Klusmire topped the Laptad sale at Lawrence, Kansas, last fall in securing his new herd boar, K's Golden Rule. This farm is also the home of a splendid flock of Black Langshan chickens. It was a beautiful sight to see his flock as they were turned out from their well equipped hen house in the morning. Well bred poultry was seen on all the farms visited.

Another one of the good hog men of this county is O. B. Clemetson, whose farm is several miles east of the town of Holton. The manure spreader was at work on this farm also, Mr. Clemetson being out in the field spreading a load when we reached his place. He is covering his alfalfa fields with manure this winter. There is no better place on a farm to spread manure than on the alfalfa, especially if it is to be used for pasture. Mr. Clemetson, who has been breeding Poland Chinas for the past 12 years has laid the foundations well for a high class breeding herd. His sows are almost all of Expansive breeding, his foundation stock coming largely from John Blain. He had just been securing a new head boar from M. M. Hendricks of Falls City, Nebraska, sired by Blue Valley Gold Dust, one of the noted sires of the breed. Like the rest of the hog men, Mr. Clemetson has had to do some close figuring in order to hang on to the cream of his breeding herd. All his stock is immune to cholera and the animals are of such quality and type that he should be well repaid for his efforts in carrying stock through under such adverse circumstances. Cows are milked on this farm also, in fact Mr. Clemetson remarked that in a year like this he had to milk cows in order to be able to hang on to his breeding herd of hogs. Good milk cows have helped out many a farmer in tiding over a period of adversity.

Probably few of the breeders in Jackson County are aware of the fact that a well bred herd of Hampshire hogs has been started in the county. The Logan Brothers, who are Mr. Clemetson's near neighbors, have for several years past been breeding this breed and while they have at the present time only a small number they are splendid specimens of the breed.

Over near Circleville is another good hog farm where Duroc-Jerseys are grown. This farm is owned and operated by F. M. Clowe. Part of the land is in the creek bottom and runs back in the edge of the hills. Abundance of shade is available in the pastures. Mr. Clowe has made some trials in "hogging down corn" as a labor saving method. His first experiment which he

(Continued on Page Seventeen.)



GEORGE M'ADAMS, OF HOLTON, KANSAS, KNOWS HOW TO PROPERLY CARE FOR THE CALVES.—THESE ANGUS YOUNGSTERS HAVING THEIR MORNING MEAL OF SILAGE.

ing used for maintaining the breeding herd. A small flock of sheep was also noted. This class of live stock would be found profitable on many Jackson County farms. The ever-present manure spreader was noted here as at practically every live stock farm visited during this trip. If all the farmers in the county were as careful in keeping up the fertility of their soil as these farmers visited, the statistics on crop production would soon begin to show a turn in an upward direction.

Over near Holton another live stock farm was visited, farmed by Robert Schulz. Mr. Schulz evidently believes in placing a high class sire at the head of his herd, having purchased the bull, White Starlight by Searchlight, as his herd bull. Something unusual was noted on this farm; the shortage of rough feed was almost universal, but here there seemed to be an abundance of feed for wintering even more cattle and stock than is at present on the farm. Noting some splendid clover hay, Mr. Schulz was asked concerning the growing of this hay and he stated that he had "oceans" of feed, both clover, timothy and corn fodder, with a small quantity of alfalfa. From one 9-acre field of clover in the bottom, 36 loads of clover was hauled off at the first cutting. This was afterwards measured in the stack, showing 21 tons. Another 11-acre field of mixed tame hay yielded two tons per acre. This was certainly splendid results to secure in such a season as 1913, and probably could have come only from a live stock farm.

During the course of our "rambles a-field" we got over to Circleville, one

chosen, the losing side to furnish the oyster supper for all the grangers.

The writer was especially interested in visiting the home of James C. Hill, who has long been interested in mules, but recently purchased six pure-bred Percheron fillies. These fillies are being carried through the winter without great expense and are rapidly growing into money. They are having the run of an open lot with a good, tight shed for shelter. For roughage they are receiving principally oat hay of especially good quality. This is a class of feed that should be grown much more largely on live stock farms than is the present practice. There is no better feed grown for horses. It can be cured free of dust and is as large in feeding nutrients as timothy and clover hay. Although the part of the county in which Mr. Hill lives is somewhat undeveloped, the fertility of the soil was easily apparent to even a casual observer. There ought to be some splendid opportunities in securing and developing some of this class of farm land.

The men of this Stock Breeders' Association who are making a specialty of breeding and growing pure-bred hogs have not found conditions so favorable the past year owing to the great scarcity of corn. A reasonably abundant supply of corn is almost essential in the hog business and for that reason the hog farms have been culled very closely. The breeders who have spent years in establishing high class herds, however, could not afford to let go of this high class breeding stock because of one short corn year. Hogs have always made money on Kansas farms and these ani-

BUSINESS METHODS SELL STOCK



W. J. CODY.

*From Address
Before Kansas
Improved Stock
Breeders' Ass'n
By W. J. Cody
Kansas Farmer*

THE selling of stock for breeding purposes is one of the most important features of the pure-bred business, and one that probably receives less attention than any other branch of the breeder's business. A majority of breeders pay more attention to the details of breeding, feeding and developing the herd than they do to the details necessary to insure the successful selling of the surplus stock.

The first essential to success is to have a high class offering, selecting for sale only animals that can be classed as herd improvers. The next is publicity. An offering properly advertised is half sold. The advertising is for the purpose of getting in touch with the buyers and when the breeder receives inquiries concerning his offering the advertising has served its purpose and the matter of selling is entirely in the hands of the breeder. Lack of good business methods are too often responsible for the complaint that inquiries were received but no sales were made.

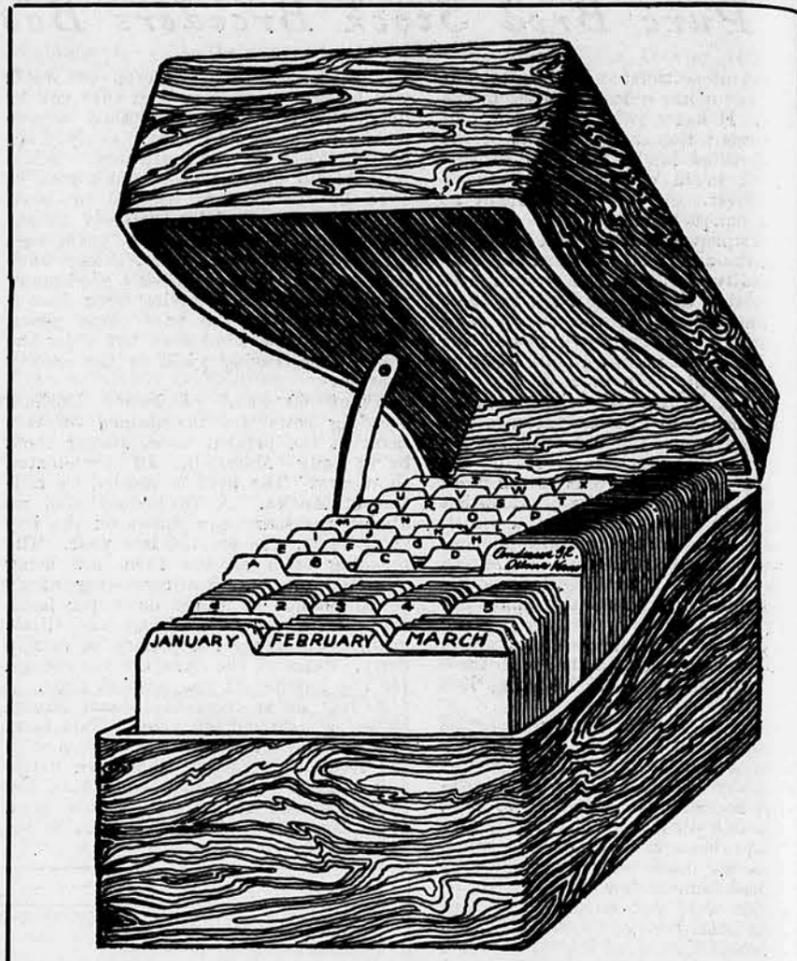
The first important step in handling inquiries is the correspondence. A prompt reply to every letter of inquiry is one of the most essential features of the business. The reply should answer every question asked in the letter of inquiry, fully, and each question should be answered in a separate paragraph. Every inquiry concerning the offering should be fully answered and any additional information that the breeder can give that will help the inquirer to judge the offering will help in making sales. Many breeders promptly answer a letter of inquiry and if they do not receive a reply in a short time consider the matter closed and drop the correspondence. This often proves to be a mistake. One of the most successful salesmen of pure-bred hogs and one who has the reputation of selling more breeding stock by mail order through correspondence than any other breeder in his state, has adopted a follow-up system of correspondence that has proven highly successful. When he receives a letter of inquiry it is promptly and fully answered. A record of the dates that the inquiry was received and answered is made and if in a reasonable time a second letter is not received the breeder sends out a letter of inquiry to learn if the prospective buyer is still on the market for breeding stock or if he has made a purchase from some other herd. It very often occurs that the prospective buyer has simply been dilatory in the matter and the re-opening of the correspondence results in a sale which would otherwise have been lost. The experience of this breeder has been that sales are frequently made after even the third follow-up letter has been sent out. Some breeders object to this method on the theory that it may appear to the prospective customer that they are unduly anxious to sell. This ground is not well taken and it can well be classed as false modesty. The raising and selling of pure-bred stock is not only a legitimate but a necessary business. It is just as necessary to raise and sell pure-bred stock as it is to manufacture and sell farm machinery, clothing, drygoods and hardware, and no one ever heard of a company manufacturing farm machinery hesitating to crowd the products of their factory to the front. They never lose an opportunity to call the attention of prospective buyers to what they have to sell. The same is true of wholesale and retail merchants of every line. Mail

order houses, insurance companies, and all of the larger manufacturing concerns have adopted an almost perfect system of follow-up letters in conducting sales. Banks solicit business in various ways and there is no reason why the breeder of pure-bred stock should hesitate to use every legitimate means to sell his surplus breeding stock to the best advantage possible. His business is in the interest of the welfare of the millions of consumers of the country, and none is of greater importance.

Another feature frequently overlooked by breeders is in the matter of securing a mailing list of possible customers for future use. The breeder who fails to maintain a live mailing list loses a large per cent of the value of his advertising. On the other hand the one who does is in a position at all times to get in touch with possible customers and should he desire to send out advertising matter in the way of cards, calendars, catalogs or advertising matter of any kind he has only to turn to his mailing list. The breeder who has no list must wait until he hears from a prospective customer, and in case of a public sale of pure-bred stock can only send catalogs on application, while the breeder with a list gets his catalogs into the hands of prospective customers without waiting for applications.

One of the easiest methods of keeping a mailing list is by cards alphabetically arranged; whenever an inquiry is received or a breeder obtains the name of a prospective customer for his breed of stock, the name can be entered on a card and filed. If an inquiry, the date of its receipt can be entered on the card, also the date of answering. If a card the size of a postal card is used a considerable amount of memoranda concerning the inquiry can be entered on the card and a very convenient record concerning the inquiry is accessible at all times. Any breeder who adopts some such method of building up a mailing list will find that for the few minutes it takes to make the entries he will save hours of time and by being in a position to communicate with prospective customers at any time can more readily dispose of his offering.

If a card system is adopted the filing case and the necessary cards, including the alphabetical markers or guide cards, can be obtained in almost any store where a line of office supplies are carried, at almost trifling cost. If they cannot be found conveniently the case can be made by anyone who is handy with tools and the cards can be supplied in any printing office where commercial printing is done. In this case the alphabetical markers would also have to be made.



THIS CASE MOST EFFICIENTLY CARES FOR BUSINESS TRANSACTIONS OF LIVE STOCK BREEDER.—COMPLETE RECORDS IN A SMALL SPACE.

This, however, is a very simple matter. These markers can be made by using a card just a little wider than the record card so that when the marker is placed in the case the letter on the marker or guide card can readily be seen above the other cards. A card 3 inches by five inches is commonly used, and this is a very convenient size. The first and most important entry is the name and address of the person from whom the inquiry is received. This entry should be placed at the top of the card, and can be followed by such entries as the date of inquiry, date of answer, date of second letter from inquirer and if none is received, date of follow-up letters which may be sent. If a sale is made the date of sale can be entered on card and any memoranda as to report of the buyer when stock was received.

A good method of caring for follow-up correspondence is to keep it separate from the regular routine correspondence. This can be done easily by setting aside a space in the case and indexing a set of cards for the express purpose of keeping a line on this feature of the business. The arrangement of this compartment in the case is the same as the other except that it will need less space and instead of the guide cards being labeled

alphabetically they should show the numerals from one to thirty-one, as shown in the cut on this page. When an inquiry is received and answered the card can be placed in this numbered compartment under the date it has been decided to send a follow-up letter in case a reply is not received before that time. Each day during the selling season the section of the case must be gone over and the cards placed in the alphabetical section after they have been answered and the notation made on the card to that effect. A third section of the case should be supplied with guide cards bearing the names of the months. Someone may write that at a certain time he will be on the market for breeding stock; it may be a month or several months in the future. An entry should be made in this file and a few minutes each day or every two or three days is all that is needed to go over the files to see just what letters should be sent out.

All letters should be filed for reference in a letter file alphabetically indexed, which can be purchased for forty or fifty cents. No business correspondence is complete unless copies of all letters written are retained and pasted or pinned to the letters to which they refer. Where typewriters are used the making of carbon copies of letters written is a simple matter. Those not using the typewriter must copy their letters by hand or make carbon copies by using an indelible pencil in writing the letters.

Some breeders say that all these details take entirely too much time, but they should stop to consider that breeding up a herd takes time; feeding takes time. It takes years of time to build up a high class herd to the extent that there is a surplus of breeding stock to be disposed of, and unless a little more time and attention is given to the system of selling the surplus quickly and to the best possible advantage, a large per cent on the investment will be lost.

Very little time is necessary to keep up the system described. The work is very simple; almost any school boy or girl can make the entries on the cards after a very little instruction, and a few minutes each evening employed in this way would not only build up a mailing list but it would be an education in business for the boys and girls doing the work.

KANSAS FARMER can supply a record outfit such as illustrated in this article for \$1.50 shipped express collect.

*Jones - J.W.
Riley Kans.*

<i>Poland Chinas - St. Cattle</i>	
<i>1/14</i>	<i>Inquiry for Bull</i>
<i>2/3</i>	<i>Quoted price - \$100 - Roan calf - description</i>
<i>2/11</i>	<i>Follow up letter</i>
<i>2/13</i>	<i>Reply with check - Shipped calf Express 2/14</i>
<i>2/17</i>	<i>Letter - Highly pleased with calf.</i>
	<i>Inquiry for Bred Sow</i>
<i>2/18</i>	<i>Quoted price and description - \$40.00</i>
<i>2/20</i>	<i>Rec'd check - Shipped Sow 2/21</i>
<i>2/22</i>	<i>Papers mailed</i>
<i>2/24</i>	<i>Letter - Sow arrived OK - (over)</i>

SAMPLE CARD FROM FILING CASE SHOWN ABOVE.—ONLY A FEW WORDS ARE REQUIRED TO RECORD EACH SEPARATE TRANSACTION.

Beef Cattle Shrinkage in Transit

All cattlemen know that their stock arrives on the market weighing less than they did when started. This loss in weight is commonly referred to as the shrinkage. Sometimes the cattle must be driven considerable distance from farm or ranch before they are loaded on cars. The railroad journey may consume from a few hours to several days. The loss in weight during the journey is due to excretions from the alimentary canal, from the urinary organs, and from moisture given off by the lungs in breathing. A portion of this loss may be regained at the market by the food and water taken into the system. The consumption of this food and water at the market is termed the "fill."

The shrinkage in weight of cattle in transit to market is the difference between the weight of the animals at the point of origin and the weight of the animals on arrival at destination. The net shrinkage is the difference in the weight at the point of origin and the weight of the animals when sold at the market after taking the fill.

This matter of shrinkage or loss of weight in beef cattle in the course of shipping from the farms and ranches to the central markets has been made the subject of special study by the United States Department of Agriculture. Very little authentic information on this subject has ever been previously compiled. These investigations by the government have covered three years of time and have been carried on in the various cattle raising sections of the West. In all, 265 shipments have been weighed, involving over 19,000 cattle in the study of this question. Wherever shipments were on the road several days they were weighed at various unloading points enroute as well as at the first shipping point and at the final destination.

The shrinkage of cattle in transit is such a variable factor that no one can say definitely how much it will be during a journey, but by the use of very large numbers of cattle an average shrinkage will be obtained which may be used as a basis for estimating the amount of shrinkage on cattle shipped under similar conditions.

The net shrinkage was found in the department's investigations to range all the way from 15 to 75 pounds per head, from 2.14 to 7 per cent, depending upon the length of time and other conditions. The time that the cattle were in transit varied from less than 24 hours to more than 72 hours. The normal shrinkage may be regarded as from 2 to 6 per cent of live weight.

The extent of the shrinkage depends upon various factors, among which are the conditions at the time of shipping and the treatment during the drive to the loading pens; the length of time the cattle were held without feed and water before being loaded; the nature of the fill before loading—the greater losses occurring when this consisted of succulent grass, beet pulp or silage; the weather and climatic conditions at the time of loading, while in transit, and at the market; the character of the run to market, greater shrinkage naturally being caused by slow, rough runs; the time of arrival at market. If the cattle arrived just before being sold the fill was small. Cattle that were shipped a long distance and arrived at market during the night usually did not fill well. If they arrived the afternoon before or about daylight of the same day they generally took a good fill.

An exceedingly large fill at market is not desired, as it will detract from the selling price.

The shrinkage of cattle was found to vary in direct proportion to their live weight when conditions were the same and all other factors were equal.

The shrinkage during the first 24 hours is greater proportionately than for any succeeding period of the same duration. The shrinkage on cattle is proportionately smaller for each 12 hours they are in transit after the first 24-hour period is passed.

The difference between the shrinkage of cows and steers is not as great as is ordinarily supposed. Steers will usually shrink somewhat less than cows of the same weight.

The shrinkage on calves seems small, but under normal conditions it holds about the same in proportion to their weight as is found with grown cattle.

The shrinkage of range cattle in transit over 70 hours during a normal year is from five to six per cent of their live weight. If they are in transit 36 hours or less the shrinkage will range from three to four per cent of their live weight.

The shrinkage of fed cattle does not differ greatly from that of range cattle for equal periods of time. Cattle fed on silage have a large gross shrinkage but usually fill so well at market that the net shrinkage is small. Pulp-fed cattle shrink more in transit than any other class of cattle, and also a greater net shrinkage.

For a long journey the common method of unloading for feed, water, and rest is to be preferred to the use of "feed and water" cars.

Cattle should be weighed before being loaded wherever practicable, since a comparison of this weight with the sale weight will show the net shrinkage. Moreover this weight at point of origin may be of material benefit to the shipper in case of a wreck or a very poor run to market.

There is no way of entirely preventing shrinkage in the shipping of cattle, but by judicious care in handling and feeding the cattle just previous to shipping the shrinkage may be lessened. If cattle are to be in transit for 24 hours or longer it is a good plan to feed about two bales of nice bright hay for each carload a few hours before loading.

When care is used in trailing the cattle to the loading pens, not driving them too fast or too far in a day and giving them five or six hours a day to graze on the way, long distances may be covered with no apparent injury to the cattle. On arrival at the pens it is well to give the animals a light feed of hay with a little water, or allow them to graze a short time before loading them, unless the grass is very luxuriant. An excessive fill of water or green fodder or grass just before loading is not good for the cattle, as it may cause them to scour in transit; then, too, they will not stand up as well in the cars.

The bulletin describing in detail the results of the investigation summarized above, should be in the hands of every cattleman.

It is number 25 of the Bureau of Animal Industry series and is entitled, "The Shrinkage in Weight of Beef Cattle in Transit." It can be secured by addressing the Secretary of Agriculture, Washington, D. C.

Flax to Precede Alfalfa.

We have on inquiry from Mrs. M. T. from Anderson County, concerning the matter of sowing some alfalfa next fall. This correspondent is planning to sow flax on this land in the spring. The chinch bugs have been such a serious menace to crops that oats would likely be very seriously injured. The point at issue seems to be whether a good alfalfa seed bed can be prepared on flax stubble. While we have no personal knowledge of this particular crop preceding the sowing of alfalfa, there is no reason why it would not be fully as good a spring crop as oats for this purpose. Where a spring crop of this kind is grown on a well prepared seed bed the preparation of the alfalfa seed bed for fall sowing is not a very difficult operation. The main point is to disk the stubble ground as soon as possible and keep it in the best of tilth until time for seeding the alfalfa. All weeds and grass must be kept down and it is also important to conserve as much moisture as possible and have the surface of the soil worked down good and fine for the alfalfa seed.



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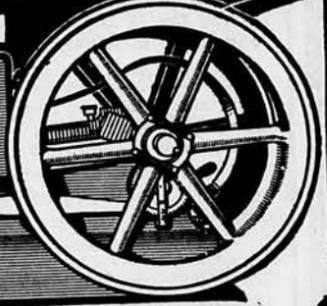
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It is cheaper and easier to own a "WITTE" engine than to do without one. My New Offer makes it easier to get the work done by machinery than by muscle or brute power. No need now to get along without a "WITTE." My New Book—the finest in the whole engine business—explains all. It tells you how to be sure in your selection, even if you don't pick a "WITTE." Send me your address today, so I can send you this book FREE with my New Offer.

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Soil Robbing vs. Soil Building

By WILLIAM GALLOWAY

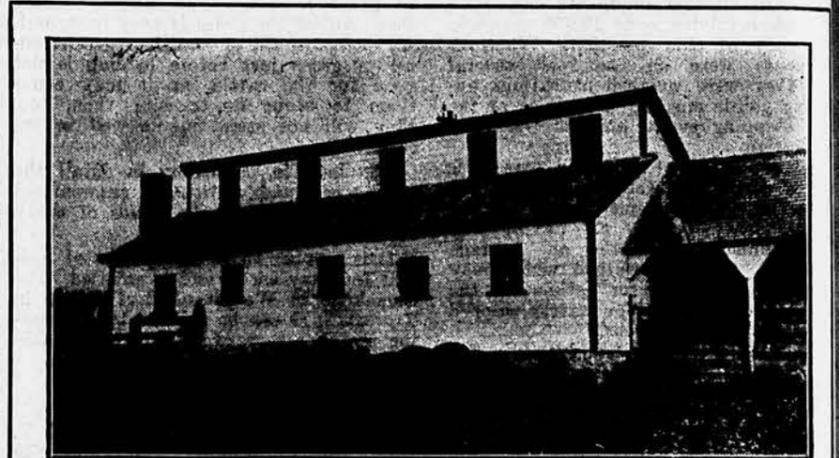
THE average American farmer has often been accused of robbing his soil by the methods he uses to farm it. This accusation being made by soil culturists who know what good farming is, should long ago have been heeded. We have been called soil robbers for the simple reason that we have been taking from the soil more than we have returned to it. Possibly this has been true because we did not really know what to return to the land to keep up its fertility. But it is doubtful if any man really thought about his farming operations and overlooked the fact that what he was feeding to the soil was out of proportion to what he was trying to take from it.

Soil farming is common sense farming. It is taking off crops and restoring used plant food-soil fertility. Taking off crops and returning chemical fertilizers is not soil farming, though at times chemicals must be restored so that the land be put quickly into shape to grow crops that will enrich itself. When a cover crop of cowpeas or soy beans or vetch is turned for the green manure it feeds to the soil, the process is nothing but simply chemistry applied to farming. You put the green manure under the ground so the land will get the nitrogen, humus (which is rotted vegetation that makes a soil black) and other organic matter as well as the phosphorus contained in the cover crop.

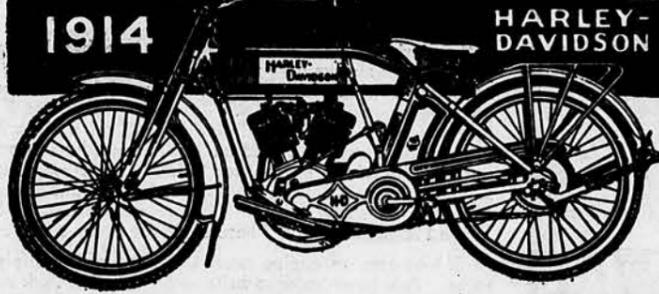
age and takes it with him when he moves into new ground. He puts in a great deal of time in getting it in the right state of fertility and he would rather move it than build up another soil.

Any soil can be improved. In fact it can be made to improve itself. Sow thin soil to vetch, cowpeas, clover or alfalfa and they will grow in fertility while you take off a yearly crop of seed or grain, which can be used as meal for live stock feeding. Many farmers have found that sowing legumes in corn, cotton or small grain, and then turning this legume under when the seed bed is prepared for the following year's crop adds greatly to the soil's condition and supplies large amounts of available plant food. Thousands of farms have been saved with a three year rotation of clover, clover following a crop of corn or oats, being seeded with the oats and yielding two cuttings, then being turned for the next year's crop.

In soils where clover inoculation is abundant, clover has been used to wonderful advantage because of its ability to take nitrogen from the air and store it in its roots. All legumes, if properly inoculated, will take nitrogen from the air and store it in the little wart-like bunches in their roots. The soil contains air and wherever air is found it contains nitrogen, the elemental plant food. If your soil is hard and your



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YOU can start the motor on all chain driven models at will, without even dismounting or putting the machine up onto the stand. A simple downward push on either pedal operates the Step-Starter and the motor begins to throb. (The Step-Starter is a patented feature found only on the Harley-Davidson).

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You can operate the clutch either with clutch pedal or by a hand lever. No need to let go of the grips that control the throttle and the spark or to take either hand off the handle-bars. Just a pressure of the toe or the heel and you engage or disengage the clutch.

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You can ride over, really rough roads in perfect comfort because the Harley-Davidson Ful-Floteing Seat (a patented feature) absorbs all the jolts, jars and vibrations.

There are five models of the new Harley-Davidson ranging in price from \$200 to \$285. Catalog describing the models will be forwarded together with the name of the nearest dealer on request.

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You can operate the brake by back pedaling on either pedal or by a lever convenient to the foot. This foot control of both clutch and brake gives you practically automobile control of the machine, a distinctly new and very desirable exclusive feature.

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When on tours and long rides you have a variety of positions at your command. The foot boards are long and accommodate a rider of any height. The pedals can also be used as foot rests if desired.

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Butcher your hogs, cure your meat with Wright's Ham Pickle and smoke it with Wright's Condensed Smoke. Sell meat by parcel post to city people. Let Uncle Sam Be Your Errand Boy.

Wright's Ham Pickle, a scientific combination of meat curing materials all recommended by Dept. of Agriculture. A \$1 box cures a barrel of meat. Wright's Condensed Smoke, a liquid made from hickory wood, for smoking all meats. A 75c bottle smokes a barrel of meat. Send names of five neighbors who cure meat for Free Sample and Book.

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Deep plowing brings to the surface plant foods that shallow rooted plants cannot reach. That is the why of a good crop following deep plowing. The roots of the growing crop feed nitrogen, phosphorus, potash and other plant foods that deep plowing brings up where the crop can feed upon them. Legumes are nearly all tap rooted plants that burrow their way down into the soil and feed upon these plant foods, bringing them nearer the surface and making them available for the grain or other crops which follow. The ability of properly inoculated legumes to store nitrogen in their roots also stores in the soil this first element of all plant food; and in addition to storing nitrogen for crops that may follow them, legumes may be used for money crops, stock feeding crops and other purposes, and will not deplete the land upon which they are grown.

A part of the small roots of all legume plants die off annually and form humus, which makes the soil porous and consequently adds to its physical condition. Commercial fertilizers must be used annually because the crops on which they are used and their constant leeching away, demands it. Fertilizers are too expensive for permanent farming in the first place, and they do not improve the soil's physical condition. Dig into any virgin soil and you will find it full of humus and plant food. With a little working this soil will become loose and in perfect physical condition to produce most any crop. Ask any greenhouse man why he is so particular about the soil on his benches. Ask him what he does to make a good rich soil. He will tell you that humus, nitrogen, and phosphorus are all essential to perfect plant growth. Soils that are porous, black and full of humus are filled with plant food and the roots of whatever crop sown on them can feed easily through the soil. The French farmer removes the top soil of his small acre-

seed bed in which you sow legumes, or any other crop, is not properly pulverized, it will take longer for a legume crop to build up your soil. It is easily possible by the proper use of a few simple crops to bring back any soil into a state of fertility that is indeed an improvement on its virgin conditions. And it is the purpose of these series of articles to point out the how and why of these facts. Any questions that the readers may want to ask me I will be pleased to answer for I want to make these articles as plain as possible and of benefit to all.

Good Drafters Scarce.

Good big horses are scarcer than they ever were, and geldings of any kind weighing 1,700 pounds and over are remarkably hard to find, saying nothing of those that have quality. The writer would not know how to go about gathering a load of geldings that weighed 1,800 pounds in decent farm flesh. He would not know what price to ask of anyone offering such a contract, because no estimate would be placed on the expense. On the other hand, it might not be so hard to bunch a load of decent chunks loaded with fat to make them weigh 1,800 pounds apiece, but, when the tallow is melted out of that variety, only a chunk remains and often neither a very good one nor a very shapely one. Breeding heavy horses seems to be going out of fashion. As they become scarcer prices are likely to advance and therefore the farmer who produces the good ones with big weight will be the fellow who gets the big money.—J. H. JOHNSTON.

Silos.

Wanted—A good live farmer to act as our local agent to sell the best silo on the market. Liberal commissions to the right party. Address Box 133, Topeka, Kan.

Interest Rates May Be Reduced

Increase Certainty of Paying Principal By Engaging in More Sure Business

There is much meat in this article by President Worst, of the North Dakota Agricultural College. The thoughts are along the lines of those numerous times given in KANSAS FARMER, editorially, but the repetition by so prominent a man as President Worst gives them greatly added weight.

There is no question that if farmers were to engage more largely in dairying and raising live stock, and were to farm their land more scientifically, the rates of interest they are required to pay the banks would be materially lowered. Why, do you ask? Because certainty of receiving prompt payment when principal and interest are due, to a very large extent, determines the rate of interest.

It is a well known fact, judging from the manner in which much North Dakota farming is done, that there is but little assurance of profitable crops, should the season prove unfavorable—and such seasons will come—hence the banker makes a rate that takes into account the probabilities of poor crops when seasons are bad—and then some. Why not? You would do the same.

As a matter of fact, there is not much charity in matters of a purely business character. Even should some new banking system be devised, a banking system calculated to benefit the farmer by furnishing him with cheap money, yet money must be safe before it will become cheap. Good farming offers reasonable assurance of profitable crops. If all farmers were good farmers, the crops would be more likely to prove profitable than where many of them are careless, or rather where they undertake to farm so many acres that failure or a very low yield per acre is likely to be the result. In other words, if all the land under cultivation were well tilled and otherwise properly managed, the assurance of profitable crops almost every year would cause interest rates to gravitate toward a lower level.

On the other hand, if farmers generally were to engage quite generously in raising live stock—a department of agriculture not readily menaced by such calamities as hot winds, hail storms, early or late frosts, etc., the assurance of a fair annual profit for the farmer would tend to lower the rates of interest. It is true that live stock must have feed and that the elements just enumerated exert a baneful influence on corn for feed or silage or on meadows and pastures; nevertheless, the actual losses are never so great nor do the elements injure them in the same degree. Moreover, at the very worst, the live stock can be disposed of at prices that will still enable the farmer to pay his debts and get started again. It beats a total cleanout by hail, frost, or hot wind, where the entire dependence was put in wheat, by a mile.

Cheap money, therefore, depends more upon the assurance of profitable crops than upon the abundance of money. The surest crop for a farmer is live stock,

and the surest and most profitable division of live stock is dairying. If practically every North Dakota farmer patronized a creamery, had an eye for good dairy stock and gratified his eye's desire, and otherwise managed his dairy herd on business lines, the rate of interest would not be worth bothering about, and largely because we would have changed our system of farm management from one of considerable uncertainty to one of almost absolute certainty.

Another great advantage would accrue to the farmer from the fact that his ability to pay cash, or at least to pay promptly, would enable him to purchase his supplies much cheaper than where the merchant, like the banker, must take a chance at ever getting his pay.

Many of the ills we complain of can be cured thus by our own foresight and sagacity. The wide-awake farmer will eliminate the element of chance as far as practicable by substituting reasonably certain things for things uncertain. For a steady and almost sure income, dairying doubtless stands first among farm enterprises. It requires good judgment and steady work, but without intelligent labor little can be accomplished in any pursuit.

Other kinds of live stock also are remunerative and afford a fairly certain income. As a matter of fact live stock of any kind is more certain to produce regular profits than the cultivation of grain. Naturally the two should go together. It would enable the husbandman to distribute his work throughout the year, with fair assurance of profitable income together with by-products that would replenish the soil with fertility taken from it by the cereal crop. It would also enable a farmer to convert many things that otherwise would be wasted into ready cash.

By all means establish a system of farm management that will come as near as possible to affording a sure annual income, even if it does require more thought and labor. When a man is so situated he should be able to borrow money from the banks at as low interest rates as business men do.

Secretary Mercer, of the Kansas Live Stock Association, hopes to enroll as members five to six thousand feeders, shippers and growers of live stock. The permanent headquarters of the association have recently been located in Topeka, with branch offices at the Kansas City and Wichita stock yards. The principal work of Mr. Mercer at this time is that of securing members that the organization may have the widest possible influence. However, he is keeping in touch with the freight rate question and the Kansas City stock yards situation now pending before the Public Utilities Commission. The next annual meeting of the association will probably be held in Wichita.

Bermuda Habits of Growth

As we have not seen Bermuda grass, tell us how it looks. Compare it with something that we do know, and give its value as a feed.—R. B., Sedgwick County.

Bermuda is in some respects similar to buffalo grass. It forms a very thick mass on the ground, occupying every atom of space. It remains green until late in the fall and when a severe freeze cuts the outer stems they will still remain green at the roots. In grazing upon the green, stock will consume the cured parts which still retain their feed value. During the growing season it grows better if closely pastured, being at that time as rich in protein as wheat bran. It is almost impossible to injure it from over-pasturing. The only injury would come from robbing it of its natural mulching, which protects it from the more severe winters in Kansas than it has been accustomed to in its more southern home. After it has become acclimated to Kansas conditions it will be hardier. It is generally considered as a pasture grass, as it is planted upon the poorest soils on the farm. On good alfalfa land it would make several cuttings of the best of hay each year. At the state fair in Oklahoma in 1911 there were two Bermuda exhibits, each ten feet long. The stems are fine, resembling bluegrass, and matted so closely together that it makes a beautiful lawn

and a none-better pasture.

I had Bermuda growing upon a pond embankment made from the subsoil taken from the bottom of the pond. It grew about 18 inches high and thicker than my whiskers. In the field there were cowpeas growing upon land from which had been harvested a crop of oats, giving a fine growth of oats and cowpeas and Bermuda all in the same field. I was saving this Bermuda to take to the Dry Farming Congress at Tulsa, but one day while I was away from home my son turned 32 mules and a bunch of cattle into the field to graze. I found every mule with teeth and heels possessing their full complement of Bermuda, while the cattle were grazing around the edges. It is the most palatable and nutritious pasture grass in all the southland.

Again, it resembles the strawberry plant in that it is propagated from the roots instead of seed. Only yearling roots should be set, as they have the greater vitality. Also like the strawberry, runners form from the parent plant and about every three inches send rootlets into the ground, forming a new plant from which shoots extend in every direction and in turn establish other plants until the ground is fully occupied, leaving no room for weeds and no opportunity for soil blowing or erosion.—F. A. MITCHELL, Chandler, Okla.



A Studebaker that served 4 masters in 49 years and still on the job.

NEARLY half a century of usefulness is the life history of a Studebaker farm wagon, at present owned by Levi Dallas of Topeka, Ind. A letter received by Studebaker states:

"I bought a Studebaker wagon in July, 1864 from Mr. Walsh, your dealer at that time at Goshen, Ind. I had the wagon eight or ten years, then sold it to a neighbor, John S. Yoder. The wagon was then sold to Thomas Cullet. When Mr. Cullet died the wagon was sold to Levi Dallas who lives two miles east of Topeka, who now owns the wagon and who is using it right along."

THIS IS CONCLUSIVE PROOF

It is economy to buy a Studebaker Wagon. Suppose the wagon now owned by Mr. Dallas which was purchased in 1864—cost at that time \$110.00—divide the amount into 49 years—the wagon has cost \$2.24 per year—and every year it continues to give service it reduces the cost per year.

If some other make of wagon had been purchased at a cost of \$90.00 and that wagon had lasted the usual life of such a wagon—ten years—or to be liberal let us say 20 years—divide the cost into 20 years—that wagon would have cost \$4.50 per year, or twice as much as the Studebaker wagon, even

though the Studebaker cost \$20.00 more at the time of purchase.

The same thing holds good today. Don't let a dealer sell you a wagon "just as good" as a Studebaker, even if you could buy it for \$25.00 less.

Studebaker has been building wagons for over sixty years and there are thousands and thousands of farmers all over the country who are using Studebaker Wagons today that were purchased anywhere from 35 to 50 years ago.

And remember, Studebaker Buggies and Harness are just as reliable as Studebaker Wagons.

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Our valuable new book, "Better Farming," tells how to regenerate old orchards, how to plant new orchards most successfully, how to increase the fertility of the land, and how to do many kinds of work with Atlas Farm Powder. Get it now—mail the coupon.

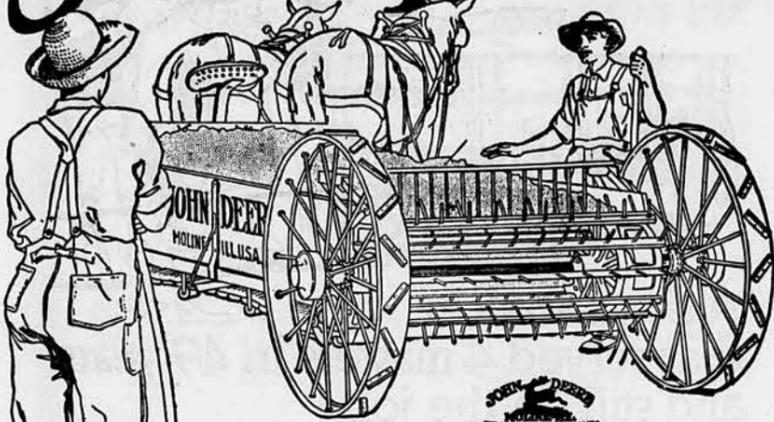
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Here's the reason for the strength, simplicity and good, everyday working qualities of the John Deere Spreader—

Beater and all driving parts mounted on the rear axle (patented). No strain on frame. No shafts to get out of line. No chains, no clutches, no adjustments. Only half the parts heretofore used on the simplest spreader.

Light draft because of few parts, the roller bearings and the beater and apron being driven directly from the rear axle. Built of steel, securely braced.

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Write **John Deere, Moline, Illinois** Today

MENTION KANSAS FARMER WHEN YOU WRITE.

Old-fashioned Nails did not Rust

Look at these two nails

THE old-fashioned iron nail, after thirty-eight years' service is still as good as it was the day it was driven. The modern steel nail, after only eleven years of service, is practically eaten up with rust. Iron kettles, iron chains and cables that were made in the days of the American Revolution are still perfectly good and still "on the job," but the "Quick Process" steel products of a dozen years ago have already gone to pieces.

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are made of pure Iron—even purer iron than the famous "Old-fashioned Iron" of Colonial Days. It contains not more than sixteen one hundredths of one per cent. of foreign substances. Because of this high purity American Ingot Iron Culverts show an unequalled resistance to rust. They are strong, tough, elastic, light in weight and easily installed. They represent fundamental economy in road building and maintenance.

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THE FARM



We have several times remarked in this column that the oat crop is more abused from slipshod and indifferent handling than any other Kansas crop. When an oat crop fails the common expression lays the cause to unfavorable weather, whereas the true cause of failure more than anything else is due to poor farming and poor thinking. It is worth while to give consideration to good farming for oats. The grain is not excelled by any other farm seed. The straw is much better than much of the hay that is made, while the hay from oats is as good hay as the farmer can grow, next, of course, to alfalfa or fine quality of red clover. There is many a farm in Kansas which is short of good hay but which might have all the hay it needed if oats were planted and harvested for hay. * * *

The principal trouble, we think, in our oat farming, aside from the use of seed of poor and indifferent varieties, is due to the manner of seeding. An occasional good oat crop has been grown on corn-stalk land on which the oats were sown broadcast and jobbed in with the corn cultivator. A good crop, however, from such practice is the exception instead of the rule, particularly so in dry seasons. The stand from such seeding is usually poor. If a stand is obtained by such methods more seed must be sown than is necessary. Such method results in a poorly prepared seed bed and under the conditions of which the oats do not start off as rapidly and under as favorable conditions as they otherwise might. The disking of the field preparatory to sowing oats, if the disking is thoroughly done, is the rapid preparation for seeding oats. Following the disking they should be seeded with a drill. We believe, however, in plowing for oats in the spring of the year if the land has not been fall plowed. Oats drilled in spring plowed land and the surface of the field left rough so as to prevent blowing, is the practice of many good oat growers. The plowing is done shallow if the field has been plowed or otherwise thoroughly worked the preceding season. Fall plowing for oats with a disking in the spring and the seeding done by a drill, is a good method. Deep fall plowing will ordinarily result in placing ground in better condition for a good oat crop than other preparation. * * *

We believe in oats being drilled and the seed put in the ground where it belongs. It cannot be expected that oats will grow well and survive adverse seasonal conditions when sown on the surface and covered with barely enough dirt to result in sprouting. Drilled oats show good results from the time they sprout until ripening. Drilled oats develop good root systems and so the plants are properly nourished. The oat plant is not different from other plants and needs the same good seed bed and opportunity to avail itself of the soil's fertility and moisture as other plants. For three years the Illinois Experiment Station has shown an increase in favor of drilling over broadcast seeding. The Manhattan, Kansas, Experiment Station has found a considerable increase for drilling as compared with broadcasting in seven years of trial. In a three-year test in New York, an increase was shown in favor of drilling, also that the drilled oats seem to withstand dry weather better than broadcasted oats. * * *

It is our opinion that the disk drill is best, not only for seeding oats, but all other farm crops. We have reference to that type of drill which has a hoe carrying the grain into the furrow cut by the disk. Such drill will place the seed at a uniform depth and will get all the seed into the ground because it cuts through the cornstalks and the trash. We like a drill also of which the boot or shank is so made that it will mold the furrow, believing that small grain will germinate more evenly when the furrow bottom is slightly packed than in a loose furrow. For successful drilling and seeding of oats it is necessary that the seed be thoroughly cleaned. All straw and bits of weeds should be removed. No drill can feed evenly when it is necessary to grind through its seeding machinery oats as they usually

come from the threshing machine. The cleaning of oats is essential, if for no other reason than to remove the weed seeds. The quantity of oats to be sown per acre depends, of course, upon the fertility of the land and probable moisture available for the growing crop. A bushel and a peck of clean oats on upland land which receives annually about 25 to 30 inches of precipitation, is sufficient. Under heavier rainfall and on better land the rate of sowing can be increased. The central third of Kansas can grow profitable oat crops if good varieties are grown and the seeding properly done. The western third can grow oats profitably, at least for hay, and can get an occasional good grain crop. The preparation of the seed bed has much to do with the rapid maturity of the crop and its seeding in advance of hot dry weather. That section needs oat hay in its feeding operations. * * *

The time for spring work is on. The job of stalk-cutting unfortunately will on most farms prove a much smaller chore than last spring, practically all of the corn and kafir having last year been cut and shocked and fed during the winter, leaving the ground clean and in almost ideal condition for beginning preparations for spring crops. Already in Shawnee County many fields have been disked once in preparation for corn planting. A few days ago we met a man who had finished the first disking of his corn land. He said that he was surprised to find it dry enough to disk, but chancing on the field he found that it needed disking because the surface was crusted and checked with little cracks. This, he said, was indication to him that the moisture was already passing from the soil and that the breaking of the surface crust was needed to retard evaporation. This man was one of the most successful corn growers in Shawnee County. Further conversation developed the fact that he appreciated the need and conservation of soil moisture and understood how to accomplish such results. He will blank list this field at once and between now and planting time will work the ridges down with a disk as a result of several cultivations before he finally plants. This man grew corn last year when most of his neighbors failed. This circumstance is related to show the preparation which some men give their corn fields and is offered as a contrast to the methods employed by many, namely, that of giving the corn ground no attention whatsoever until planting time arrives. * * *

We think we have recalled in these columns how unusual it seemed to us to note on the occasion of our first visit to Northeastern Kansas early in the spring, some thirteen or fourteen years ago, the amount of work done on corn land in advance of planting. The reader will recall, probably, that Northeast Kansas is noted for its good corn growers and their uniform, successive corn yields: We were in these counties at least a month or six weeks in advance of corn planting, but every farmer was industriously engaged in his corn field, and if he had been actually planting corn he could not have been busier. Some had disked and cross-disked and diagonally-disked their fields, while others had blank listed and were disking. Their idea was to save soil moisture, to work up a seed bed and keep the land in such condition that the early spring rains would be absorbed. All this work for a corn crop seemed surprising and unnecessary to a lad whose corn growing experience had been confined to Central Kansas and in which section the prevailing practice was to do nothing to the corn field until actual planting time arrived. Fields in that section in that day were planted to corn if it was possible to drive a sulky lister through the field. The little formality of breaking down sunflowers, cockleburrs and other weeds was left until the corn was planted. Another advantage in working the corn field in advance of planting time is that millions upon millions of early-starting weeds are destroyed before the corn is planted. * * *

Throughout Kansas road work has already begun. Roads can be put in shape

with less work in the spring of the year than at any other season. If the working is deferred until the latter part of the summer when the surface is baked dry and hard, the work is not only difficult to do but will be unsatisfactory when done. Earth which is loose and dry will remain dusty as long as the dry weather lasts, and will turn to mud when the rains begin. By using the road machine in the spring while the soil is soft and damp, the road surface is easily shaped and packed into a hard dry crust which puts it in condition to shed the later rains. This is a hint that the road gangs should be put to work at once.

A reader the other day remarked that he had seen somewhere a statement to the effect that good crops usually followed an extremely dry, hot season, and wanted to know what there was to this. Results obtained through investigations by the Federal Department of Agriculture show that as a rule the production of crops following a year of dry weather is above normal, even though the rainfall is about the average. Mr. Cunningham, assistant professor in crops of the Kansas Agricultural College, says there are two reasons for this: "Because of the limited amount of growth made by the crop as a result of the dry weather only a portion of the plant food developed in the soil is utilized and there-

disc harrow pulverizes the ground too much. It is better to use a cultivator or a spring-tooth harrow in sections where there is danger of the soil blowing badly. Listed ground blows very little, if the listing is done at right angles to the direction of the prevailing winds. Manure, straw, or trash furnishes effective protection when spread upon the ground uniformly. The experiment stations in western Kansas succeeded in checking the blowing out of fields of wheat by planting the wheat deeper than usual, so that the ground was left furrowed after drilling."

Haymaking Methods.

"Make hay while the sun shines," is the old maxim, and according to that at the present season of the year we should not be concerned in the subject of haymaking; however, many of our subscribers can take the time to write of their experiences and observations only at this season of the year. It is also true that this is the time of year when the greatest opportunity comes to the farmer for studying and learning more as to the best methods of conducting his business. One of our eastern Kansas Correspondents, B. F. V., writes to us a very instructive letter along the line of methods and plans involved in haymaking in the eastern part of the state. His letter follows:

"I see a large number of inquiries in



PURE-BRED PERCHERON FILLIES OWNED BY JAMES C. HILL, HOLTON, KANSAS, BEING WINTERED IN YARD WITH OPEN SHED. —OAT HAY PRINCIPAL FEED AND IS GIVING FINE RESULTS.

fore some of it is left over for the next year. In other words, the ground has had a rest. Due to the thorough drying out of the ground it is deeply and extensively cracked, thus allowing the air to enter the deeper subsoil, all of which tends to develop the plant food to a greater depth than normal and to put the ground into a better physical condition when it again becomes well supplied with moisture." The dry season of 1913 was unusually severe, and for this reason its effect on the soil was more potent than usual. The heavy fall rains which prevailed generally throughout the state have supplied the soil with an abundance of moisture and it would seem that the ground was in splendid condition at the present time and would indicate an extremely favorable crop outlook. Should the season prove normally favorable in 1914, abundant crops should be produced. The extent of the crop, however, will to a great degree be governed by the preparation of the seed bed, the variety and quality of the seed planted, and the cultivation given the crop during the season.

Rough Land Won't Blow.

It is the way the soil has been handled in the blown-out areas of western Kansas, rather than the character of the soil, that is largely responsible for the damage done by wind every year in that section. If the land were kept rough or corrugated, blowing largely could be prevented, said W. M. Jardine, dean of agriculture at the Kansas State Agricultural College, to several hundred farmers at the state institute. Dean Jardine told the farmers of the western counties they must give more attention to the prevention of soil blowing, and assured them of the co-operation of the state experiment stations.

"In many instances," said Dean Jardine, "land has been plowed for years with a disc plow to a depth not exceeding three to five inches. Sometimes the disc harrow was the only instrument used in preparing the seed bed for wheat. Straw has been burned annually. Such land, of course, is soon in very poor physical condition, and under such conditions wind storms of twenty miles an hour have been known to do a great deal of damage.

"Keep the surface rough, or corrugated, if you wish to prevent blowing. The

your paper in regard to curing hay in eastern Kansas. I assumed control of a large farm of overflow land and found that every time it rained my meadows stood under water. Having had some engineering training I proceeded to make a topographical survey of the land with the following results: I drained close to 100 acres with one day's work by myself, two men and four teams. After that when it rained the water seeped into the shallow ditches and gave the surface a chance to dry.

"When haying started I kept my mower going more during the rain than any other time, having as high as 80 to 100 tons of clover down at one time. I find that by cutting when the weather is wet and rainy most grasses and clover cut easier and that the leaves pump the sap out of the stem leaving only the water from the rain to be dried off. As soon as drying weather comes and the hay begins to dry a little I take a side-delivery rake and rake the hay into medium windrows. My rake is a combined tedder and rake but I like the raking best for most hay, however, occasionally I find I need a tedder. The hay lies loose in the windrows and dries in a hurry. If it gets dry enough to stack I always manage to get it into the stack that day; if it does not get dry enough more rain will not hurt it much and the windrows can be turned by the side-delivery rake the next day.

"As my meadows are practically all subject to overflow I have to haul my hay to a high knoll, necessitating the use of a hay loader. I have a stacking and loading outfit capable of handling five to ten tons per hour and I always try to have hands enough to keep the stacking outfit busy continually.

"I cut a patch of clover during the past summer when it was raining and the first dry day that came along I had about four tons raked when it again rained. This particular field made close to two and a half tons per acre and laid about a week, but upon opening the stack this winter I find the clover perfectly cured. The leaves are as green as the day they were cut and the color of the flowers, pink and white combined, was as bright as it ever was.

"I have between 300 and 400 acres of hay to handle and by using the above method I find I can handle my hay better than in any other way."

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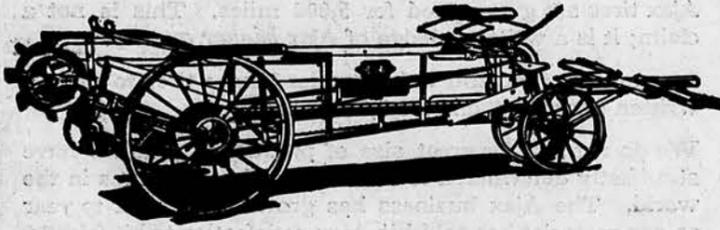
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Making Prize Farm Butter

Mrs. Arthur Child, Dickinson County, Tells How She Made Best Butter

DICKINSON County not only has the finest cow testing association in Kansas, but has for the year 1914 the best farm butter maker.

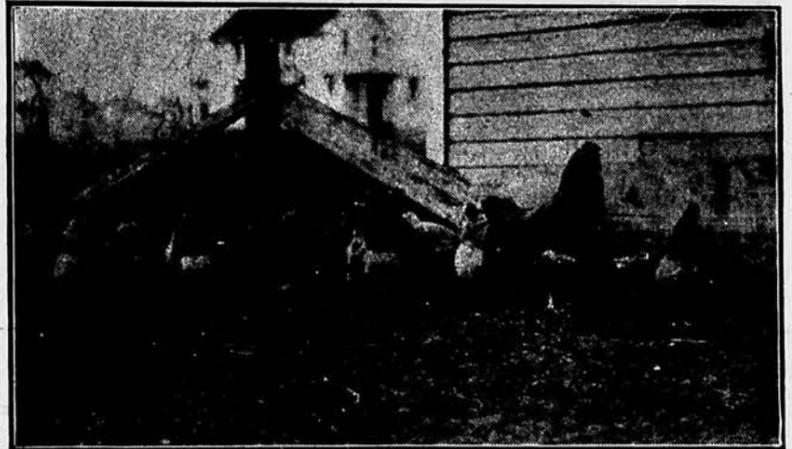
Mrs. Arthur Child who lives near Manchester, won the first prize of \$10 in the country butter contest of the Kansas State Dairy Association recently held. There were 37 entries in the contest, from all parts of Kansas. Frank Bouska of Lincoln, Nebraska, one of the greatest butter experts in this country, scored the butter and he said it was the best exhibit of country butter he had ever seen. Mrs. Child's butter scored 96 out of a possible 100 points. Mrs. Child's home paper, the Abilene Reflector, prints an article from which these paragraphs are taken:

Mrs. Child lived in town all her life until six years ago, when she was married to Mr. Child and went to live on his farm of 240 acres. She is the daughter of the Rev. J. W. Keiser, a retired minister of Wichita. She had never lived on a farm or had any experience in farm work or butter making until she went to the farm. What she knows about butter making she learned first by careful reading and study of the subject and from practical application of what she read to her everyday work on the farm. Mrs. Child has four pure-bred Jerseys and one which is one-

jar and add some of the soured cream to that, too, and this serves to sour them without putting them on the back of the stove. I stir them often while they are souring. I always let the cream from the second and third milkings cool before adding the sour cream. It takes about a day and a half for the cream to sour properly.

"When I have four or five gallons of cream, which usually comes from three milkings, I am ready to churn. I use a barrel churn. About an hour before I churn I put two or three gallons of scalding hot water in the churn and let it stand and keep turning the churn gently so the hot water will warm the churn evenly throughout. I never warm the cream. The warm churn will do that. Many women fool around the stove too much with their cream. The only warming my cream ever gets is that of the first batch of cream that I set on the back of the stove. And I take that off and let it cool before I churn it.

"In summer, instead of putting hot water in the churn, I put two pails of cold water in three hours before I churn, so the churn will be cool. And if it is very warm weather I pour that out and fill it again with cold water. That keeps the butter cold. In summer, also I keep the cream in a bucket in the well



BREEDING PEN OF BUFF WYANDOTTES.—PEN OF THIS BREED FINISHED IN SECOND PLACE IN SECOND NATIONAL EGG-LAYING CONTEST OF MISSOURI EXPERIMENT STATION, S. C. WHITE LEGHORNS BEING FIRST.

half Jersey. From those five cows she makes an average of 28 pounds of butter a week. She sells it to families in Manchester and when she has any left over the hotel in that town takes it.

"In the first place," said Mrs. Child, "it is important to milk always at the same hour morning and night and never miss milking. When the cows are accustomed to be milked at a certain hour their milk will be just right and perfect at that hour for taking away and will give the best results.

"Another important thing is to always have your hands clean and the cow's teats clean and, above all to have every utensil that is touched by the milk, cream or butter, scrupulously clean. That is the most important of all. I never even touch a rag to one of my utensils. Some farm women laugh at me for this. But I say that no matter how clean a rag or cloth is it is never clean, there are always germs on it. And those germs will get into the cream or butter.

"I cleanse with scalding water always, as scalding hot as fire will make it. And then I let the utensils drain dry. That kills every germ and washes away every particle of dirt.

"As soon as I have finished milking I run the milk through the separator. The cream I put in a stone jar, never a tin. I place this jar on the back of the stove where it will warm gently and I stir it every few hours till it sours just right. Now I can't tell you just how to know when it has soured to just the right flavor. I tell that by my experience. And every woman must learn to judge that for herself.

"The cream from the second milking I put in a jar by itself and add to it some of the soured cream. The cream from the third milking I put in a third

and let it sour there. And be careful to have a cover on the bucket that fits down over the sides to keep the water from dripping into it.

"I churn until the butter gathers in lumps the size of an egg. I leave it in the churn and let the buttermilk drain off. Then I add a gallon of cold water from the well. That washes off more of the buttermilk. I add some more cold water to wash off some more of the buttermilk. Then I work it a little with the butter ladle, but not too much—just enough to squeeze out the remaining particles of buttermilk and to gather the lumps together in a solid mass. I add salt and mix it well in with the ladle and close the churn and let it stand four or five hours so the salt will melt thoroughly. Then I mix out all the salt water with my ladle and my butter is ready to mold.

"It is important not to work the butter too much because that spoils the texture of it. The churn is washed out with scalding hot water, allowed to drain and let to stand open a day."

Mrs. Child made \$308.31 from her butter last year. From eggs and butter last year she made \$491. She has 300 Rhode Island Reds. Last year was a poor one for eggs on account of the drouth. She attends to the milking and butter making, cares for her hens and has time besides to do her own house-keeping and care for her children.

Testing Association Continued.

The Dickinson County cow testing association will be continued through 1914. We knew it would be. The cow milking farmers of that county could not afford to get along without it. The tester for the year is John V. Jay. Here's for another successful year.

Difference in Producing Capacity.

To show that there is a vast difference in the profit producing capacity of dairy animals, the records of three different classes of cows found in the Wisconsin University herd is interesting. One lot averaged 426.9 pounds of butter fat per year, another 301.8 pounds, and a third 195.8 pounds. The return over the feed cost for the best producers was \$70.64 per year per cow, the second \$42.18, and the last \$19.01. Although each group required about the same care and feed, the total production and profit varied widely. To become skillful and successful in the care, feeding, selecting and breeding of dairy cows means to be successful in the business of dairying.

Nebraska Feed Combination for Cows.

At the Nebraska Dairyman's Association a few weeks ago three "tried and true" dairy rations were exhibited by the dairy department of the Nebraska Agricultural College. Any one will furnish the nutrients for the production of thirty pounds of milk when fed to a 1,200-pound cow of the proper kind. Ration No. 1 consists of one pound of bran, one pound of gluten meal, three pounds of cotton seed meal, four pounds of corn meal, ten pounds of corn stover and thirty-five pounds of corn silage. Ration No. 2 consists of ten pounds of shelled corn and twenty pounds of alfalfa hay.

Ration No. 3 consists of one pound of bran, one and one-half pounds of cotton seed meal, four pounds of corn chop, twelve pounds of alfalfa hay and forty pounds of corn silage.

These rations will produce as good results and are as easily obtainable in Kansas as in Nebraska.

Cow Testing Report.

The Dickinson County Cow Testing Association, through its tester, Ralph W. May, has the following report to make for December, 1913:

Breed of Cow	Lbs. Milk	Pct. Fat	Pounds Butter
1. Jersey	892	4.0	35.88
2. Holstein	942	4.1	38.62
3. Jersey	597	5.5	32.04
4. Jersey	684	4.9	33.52
5. Jersey	516	5.7	29.83
6. Holstein	1,053	3.3	34.75
7. Holstein	966	3.7	35.74
8. Holstein	1,158	3.0	34.74
9. Holstein	1,020	3.6	36.72
10. Holstein	840	3.7	31.08
11. Angus	669	4.5	30.11
12. Holstein	801	4.8	38.85
13. Holstein	885	4.0	35.40
14. Angus	882	4.2	37.04
15. Holstein	1,282	4.2	53.05
16. Holstein	1,277	4.2	49.01
17. Holstein	1,164	5.0	58.20
18. Holstein	756	4.2	31.75
19. Shorthorn	753	4.8	36.14
20. Shorthorn	1,017	4.9	49.83
21. Red Poll	1,113	4.9	54.54
22. Holstein	1,164	3.7	43.07
23. Holstein	1,263	2.9	36.63
24. Holstein	1,275	3.7	47.18
25. Holstein	981	4.8	47.09
26. Holstein	963	3.6	32.36
27. Holstein	891	3.7	32.97
28. Holstein	1,047	3.1	32.46
29. Jersey	855	5.1	43.61
30. Holstein	819	4.0	32.76
31. Jersey-Shorthorn	789	4.6	36.29
32. Holstein	954	3.4	32.44
33. Holstein	942	4.7	44.27
34. Holstein	1,365	3.4	46.41
35. Holstein	951	3.5	33.29
36. Holstein	885	4.0	35.40
37. Holstein	2,007	4.4	88.31
38. Holstein	981	4.1	37.64
39. Holstein	732	4.5	32.94
40. Shorthorn	1,521	4.1	62.36
41. Holstein	816	4.4	35.90
42. Holstein	1,164	3.9	45.50
43. Shorthorn	645	4.9	31.61
44. Shorthorn	998	4.6	46.82
45. Jersey	597	5.2	31.04
46. Jersey	1,197	4.9	58.65
47. Shorthorn	951	5.2	49.45
48. Jersey	771	5.4	41.63
49. Jersey	735	5.8	42.63
50. Jersey	531	6.9	36.94
51. Jersey	618	5.2	32.14
52. Jersey	534	5.8	30.97
53. Jersey	635	5.8	37.78
54. Jersey	838	6.44	55.26
55. Jersey	888	5.11	45.38
56. Jersey	879	5.36	47.11
57. Holstein	753	4.2	31.62
58. Holstein	795	4.1	32.60
59. Holstein	822	4.9	40.28

The cows numbered, belong to the following members of the association: Nos. 1 and 2, R. E. Hershey; 3, 4 and 5, S. Goldsmith; 6 to 9, Alvan Engle; 10 to 14, Dave S. Engle; 15 to 20, L. L. Engle; 21 and 22, J. N. Engle; 23 to 28, George Lenhart; 29 to 37, A. B. Wilcox; 38 and 39, S. Reed; 40 to 47, John T. Leshar; 48 to 56, J. R. Sterling; 57 to 59, E. S. Engle & Son.

Handling Vicious Bulls.

Our comment in these columns a few weeks ago relative to the handling of vicious dairy bred bulls, has inspired a number of KANSAS FARMER readers to express their opinions and the greatest number of which are to the effect that a vicious animal should not under any circumstances be maintained on any farm. The most sensible expression comes from our subscriber, J. L. S., Franklin County, who thinks that farmers themselves are to blame for the disposition of their domestic animals as well as for the disposition of the families they rear. He thinks that viciousness can be bred out of all domestic animals and that an animal known to be vicious

should not be permitted to reproduce its kind. He thinks such animal should be sent to the block. He goes on to say that, "We breed for color, for type and for performance and obtain the desired results. Why not also breed for disposition?" He thinks, with the editor, that the herdsman should be kind but firm and if it ever comes to a test of strength between herdsman and bull, the latter should be so thoroughly defeated that he will never have any desire for another engagement. If he thinks, after decisive defeat, the bull shows a disposition to renew the attack, send him to the block. "Life is too important to have to do with a human being or an animal that has not a good disposition."

There is wisdom in the remarks of our subscriber, and in selecting a herd header—whether it be for a dairy herd or a beef herd—the disposition of the animal should be taken into consideration. The true disposition in most animals of this kind, however, does not develop or manifest itself until the animal is near maturity, so in the case of purchasing a calf it is well enough to inquire into the disposition of its male ancestors. It is well enough to inquire into this disposition even in the case of the purchase of an animal near maturity. However, in the case of the latter the good judge will be able to make a fairly good guess as to the animal's disposition. However, we are not a believer in the killing of animals which are ill-dispositioned. Some of the most valuable bulls we have ever seen had bad dispositions. It would have been a severe financial loss to the owner and in fact to the breed, to have sent such animals to the shambles. However, there is no excuse for keeping a "scrub" of ill disposition. Whether an ill-dispositioned bull be sent to the block or not, should, we think depend almost wholly upon the value of the animal. If he is valuable from the standpoint of his ability to produce offspring of a superior quality, we would handle him in such way as to make him safe and so protect human life.

Increase in Milk Cows.

The government estimates recently published show that the number of milk cows on the farms in the United States is now 20,737,000. This is an increase of 1.5 per cent over the figures for 1910. Farm values of milk cows have also increased from \$35.79 in 1910 to \$53.94, or an increase of over 50 per cent. This increase in milk cows is an indication that progress is being made in the dairy business. The dairyman with his always constant source of revenue from his cows is in a somewhat different position than the beef producer, who must grow his crop out to full maturity, which involves considerable time before he can derive any revenue.

Statistics on Imported Animals.

Breeders of pure-bred animals may be interested in some of the figures furnished by the Bureau of Animal Industry, showing the number of breeding animals of the various breeds of cattle imported during the year 1912. This list includes all animals for which certificates of pure breeding have been issued by the Federal Department. The following table shows the number of cattle which have been imported under such certificates during 1912:

Breed	Bulls	Cows	Total
Alderney	3	46	49
Ayrshire	23	392	415
Dexter	6	54	60
Guernsey	32	561	593
Hereford	5	7	12
Holstein	37	424	461
Jersey	25	70	95
Shorthorn	25	70	95
Total	134	1,554	1,688

The increased importations of Guernseys is one of the noticeable things in this list. Of the four leading breeds of dairy cattle this breed stands at the head in numbers imported. The importations of Holsteins have been almost negligible. The numbers of these different breeds now in this country stand in almost inverse ratio to the numbers imported during this year. There is undoubtedly a great interest being taken in the Guernsey breed which accounts for the unusually large number imported.

Recent tests indicate that oil made from corn can be used economically as a substitute for olive and cottonseed oils in cooking. The lower price of corn oil suggests the wise economy in substituting it for the other oils named. Corn oil is a by-product from cereal manufacturing. It is comparatively cheap, selling at 50 cents a gallon for the refined grade. Cottonseed oil sells at 75 cents and olive oil at \$3 per gallon. The oil of corn has a pale yellow color and a pleasant taste similar to that of freshly-ground corn meal.

1837 1914

JOHN DEERE

HE GAVE THE WORLD THE STEEL PLOW

SEVENTY-SEVEN YEARS the world's standard Plow. Enjoy the pleasure and profit of having the best. The leaping deer trade-mark is your protection, the sign of quality—the mark of staunchness, reliability and great plow value. John Deere plows mean—

- 1 Good Work.** Unless a plow does perfect work you can't afford to own it at any price.
- 2 Ease of Management.** Have regard for your comfort. You are not going to live always nor buy a new plow every year.
- 3 Strength and Durability.** Repairs are expensive, delays annoying. A good plow lasts longer than a poor one.
- 4 Lightness of Draft.** Horse flesh and horse feed cost money. Power is an expense.

John Deere Quick Detachable Shares
Great Improvement—Save Time—Save Temper

No crawling under the plow in the dirt, skinning your hands changing old style bolted shares. Get John Deere plows with Quick Detachable Shares. Only one nut to remove and that handy to reach. Save 80% of the time to change old style shares and all the trouble. You can't afford to buy a plow without this new and exclusive John Deere feature.

BETTER FARM IMPLEMENTS AND HOW TO USE THEM
This is the best and biggest book we have issued. Costs us eight cents postage to mail but we will send you a copy free if you use farm implements. Ask for package No. P13 and address your letter to
John Deere, Moline, Illinois

SAFETY FIRST

Goodrich Unit Molding was the original Safety First tire idea

The quality of Goodrich Tires today is the standard by which all high grade tires must be judged. This is because they represent the perfection of tire-making and tire-knowledge—which gives Goodrich Tires their leadership.

Every layer of the finest fabric, the liveliest, best rubber—the whole tire—tread, side strips, bead and all—becomes one piece in Goodrich Unit Molding—the original Safety First idea in tire building.

All this backs up the Goodrich Safety Tread—the group of bars and the cross-tie that form the Safety First symbol for the motorist.

Goodrich Safety Tires

Best in the Long Run

Here are the lowered prices on Goodrich Safety Treads that make them the best quality tire values motorists ever received. Your dealer can supply you:

Size	Smooth Tread Prices	Safety Tread Prices	Size	Smooth Tread Prices	Safety Tread Prices
30x3	\$11.70	\$12.65	34x4 1/2	\$33.00	\$35.00
30x3 1/2	15.75	17.00	35x4 1/2	34.00	36.05
32x3 1/2	16.75	18.10	35x4 3/4	35.00	37.10
33x4	23.55	25.25	37x5	41.95	44.45
34x4	24.35	26.05	38x5 1/2	54.00	57.30

Free—Send for booklet, "Rules of the Road" and other valuable information. Address Service Dept. 11.

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Factories: Akron, Ohio Branches in All Principal Cities
There is nothing in Goodrich Advertising that isn't in Goodrich Goods

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Kendall's Spavin Cure has now been refined for human use. Its penetrating power quickly relieves swellings, sprains, bruises and all forms of lameness. It is just what you need around the house. Write for many letters from users to prove its effectiveness.

B. Young, Franklin, Va., writes: "I am getting such good results from your Spavin Cure as an all purpose family liniment, and have found it to do all you claim and more."

Kendall's Spavin Cure

For Horses And Beasts For Man

—has been used by horse-men, veterinarians and farmers for over 35 years. Its worth has been proved, for spavin, splint, curb, ringbone and the many other hurts that come to horses. Read this letter from John Freezer, Henryton, Md.



"I recently used Kendall's Spavin Cure on a colt that has been kicked. Before I had used half the bottle the swelling was all gone and he was completely cured. I also find it good for bruises, sores, burns and colds on the chest."

Get Kendall's Spavin Cure as any drug store. For horses \$1 bottle—\$5.50. Refined for man, 50 cts.—\$1 for 25 cts. "Treatment on the Horse"—Free from druggist, or write to

Dr. B. J. KENDALL CO. Elizabeth Falls, Va. U.S.A.

Grain Cleaned and Graded for \$1.00

Send for Free Book on Cleaning and Grading Grain. Then ask for also machine you want, sending \$1.00, and I'll ship 1914 Model Chatham, freight prepaid, with special screens and riddles for all grains, Grasses and Weed Seed where you live. Give it a month's hard test. If not satisfied, send it back and get your \$1.00. If satisfied, pay me any time before next October.

WALSON CAMPBELL, Kansas City, Mo.



Chatham Grain Grader and Cleaner

It lies within your power to wipe out of your herd and keep it out. Use Dr. Roberts' Treatment. Apply it yourself. Properly applied, it never fails to stamp out the disease and clean the herd. Saves lives of calves. Write at once to

Dr. David Roberts

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841 Wisconsin Ave., Waukesha, Wis.

FARM CUSHMAN 4-H. P. All-Purpose Engine

Does everything any 4-h. p. engine does and some things no other engine can do. The Original Binder Engine. Also 2-cylinder 6 h. p. up to 20 h. p. CUSHMAN MOTOR WORKS 2048 N Street, Lincoln, Neb.

THE COLUMBIAN METAL SILO

At last a perfect silo! All metal, all tight, indestructible, only silo reinforced with five thicknesses of metal at joint. Will not shrink, crack, warp nor sag. Absolutely tight metal hinge doors, lever clamp. Sold under guarantee. Perfect silage from wall to center. Non-porous, unaffected by weather conditions. Will last life time. Mail us this ad at once and receive our free illustrated catalog describing the Columbian Silo together with valuable pointers on feeding ensilage. COLUMBIAN STEEL TANK COMPANY 1601 West 12th St., Kansas City, Mo.

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LIVE STOCK



Statistics on Horses and Mules.

According to the government estimates, horses and mules in the United States have increased 1.4 per cent over the numbers shown by the census of 1910. The average price of horses in the United States has increased during this same period from \$108.09 to \$109.33. The mules have increased in value from \$119.84 in 1910 to \$123.84 at the present time. The total increase in value of horses and mules over the value in 1910 amounts to \$191,450,000.

J. F. Stodder of Burden, Kansas, who died February 1, was one of the foremost Shorthorn breeders in the state of Kansas. Although a banker by profession Mr. Stodder early became interested in the cattle business and started his Silver Creek Shorthorn herd, which has since become famous, in 1890. His reputation as a breeder was not confined to this state. He acted as judge at one of the first live stock exhibitions held on the Pacific Coast. He also had collected a splendid herd of Duroc-Jersey hogs in which he took much pride. Mr. Stodder's place among the breeders of Kansas will be hard to fill.

Illinois Live Stock Organizations Disagree.

There seems to be a wide difference in opinion among cattlemen of Illinois as to the proclamations recently issued by the governor of the state requiring the tuberculin test to be applied to all dairy cattle shipped in from without. The members of the Tri-State Dairy-men's Association, which recently held a three days' session in Chicago, are very much opposed to this proclamation and are making the fight of their lives to prevent its being put into effect. On the other hand, the Illinois Live Stock Breeders' Association, which met at Freeport, Illinois, a few weeks ago, took an opposite view of the proclamation and declared in favor of it. The wide spread prevalence of tuber-

ing from sound sires and dams is essential if progress in the improvement of horses is to be continuous. Tendencies toward unsoundness are surely transmitted by sires and dams to their offspring. Ringbone, bone spavin, bog spavin, side-bones, curb, thoroughpin, blindness and unsound wind are the most common defects that must not be overlooked.

"Grading up" is accomplished only by the constant use of pure-bred sires. Grade or 'scrub' stallions cannot accomplish any improvement since improvement means the mating of the best obtainable mares with pure-bred, individually excellent sires. In Wisconsin, all stallions standing for public service are labeled by law so that no farmer need be deceived as to the breeding of the male he intends to use.

"Dr. A. S. Alexander, in charge of the Department of Horse Breeding of the Wisconsin College of Agriculture, shows conclusively in his 1913 report that the stallion enrollment law is steadily raising the standard of Wisconsin horses, a fact also shown by statistics appearing above. He estimates that the difference in value between a mature horse sired by a grade or a 'scrub' stallion is easily \$100. The 1913 report shows that there are approximately 1,700 grade and 'scrub' stallions licensed for service in Wisconsin. They would beget probably 51,000 foals in a year, which had they been sired by a pure-bred stallion would have been worth \$51,000,000 more to the farmers owning them. Despite these facts, owners of mares are so shortsighted that they patronize grade or 'scrub' stallions for the sole reason that the service fee is less. This is 'penny wise, pound foolish' policy," declares Doctor Alexander, 'and it is largely due to the general ill-advised use of grade and 'scrub' stallions that keeps the average value of our horses so low.' "Those contemplating the purchase or the use of a stallion this spring should consider these points carefully. The best



THIS SPLENDID IMPORTED STALLION, INCLUDES, IS OWNED BY BRUCE SAUNDERS, HOLTON, KANSAS.—PREPOTENT SIRE OF THIS TYPE LEAVE INDELIBLE IMPRESS ON HORSE STOCK OF A COMMUNITY.

culosis is such a menace to the cattle business that it is evident some organized effort must be put into effect to eliminate it from our breeding herds. Since the large importations of dairy cattle into Kansas many of our dairymen have suffered serious losses as a result of purchasing cattle having this dread disease. Those shipping in cattle from without should scrutinize most carefully the herds from which they come, paying perhaps more attention to the character and reputation of the men from whom the purchases are made than the pedigrees of the cattle.

Value of Good Stallion.

In the Chicago Live Stock World appeared recently the following which is just as applicable to Kansas as to Wisconsin: "It is estimated that but 10 per cent of all horses sold are sound and otherwise fit for drafters. Breed-

is none too good and the difference in price between a well-bred, well-formed, well-balanced horse of large size and an ill-bred, ill-formed, coarse, round-boned undersized sire of unknown ancestry is money well invested. It will save the community and the state thousands of dollars. Buyers are becoming more and more particular. The market demands weight, quality, soundness, good movement and correct conformation. The law of heredity says, 'Like begets like.' Buy sound, pure-bred stallions of correct type and breed to supply the market demand."

Great Losses From Cholera.

It has been estimated that at least 90 per cent of all the deaths of hogs from disease in the United States are caused by hog cholera. It is true that other infections may and do frequently complicate outbreaks of cholera but even in such cases the germ of hog cholera is

Warranted to Give Satisfaction.

Gombault's Caustic Balsam

Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Neck, Strained Tendons, Founder, Wind Puff, and all lamenesses 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.

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Corner System

The strongest line post and corner on the market. Everything driven with a sledge hammer. Our line posts are full of flexibility and life. Made of open hearth, non-rusting high carbon steel, every ounce placed where it will do the most good.

Our corner can be put up or taken down in 30 minutes with our triangle bracing and anchor system. The corner will positively stay where you put it. No holes to dig. For sale by dealers everywhere. Write us for booklet.

The Selway Steel Post Co

Lincoln, - - - Nebraska.
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H. G. Moore, Kansas City, Mo.

How To Buy A SILO-

USE the same judgment buying a silo that you would in purchasing machinery about the farm, and you'll get a silo that is fire-proof and frost-proof — one that will not rot, rust, warp or crumble — one that needs no paint or trouble-making hoops — one that is wind-proof, strong, durable — one that will last forever. If you buy a silo that lacks one of these particulars, you will regret your purchase.

So far as we know the

Davenport "Iowa" Silo

—built of patented, hollow, curved, vitrified clay blocks (patented under Pat. No. 1,088,477) is the only silo that can claim all the above advantages. Besides these features, our blocks make a silo strong enough to place Water Tank on top, providing practical fire protection for all buildings on the premises. The value of this cannot be over-estimated.

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That comes about as near keeping your money at home as any way you can think of. Write me before you buy.

FREE Service Department that will help you select and install the best type and size engine you need for your work without cost to you. Let me send you my New 1914 Special Offer. Just write for my catalog and new, low prices today.

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WM. GALLOWAY CO.
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Manure Loader and Scraper

You can load 50 loads of anything in 4 days with one team. Save your time and muscle. Indestructible steel frame. Reasonable cost. Foot pads for itself. Portable. Handles stack bottoms, stalks, manure, sand. Write for description and price.

ANDERSON MANUFACTURING CO.

323 Lord Street, Osage City, Kansas.

the primary cause of the disease and the other infections simply give it better opportunity to prove fatal to the hog. It may be set down as a general rule that in every case of a fatal outbreak of hog disease the chances are nine to one that it is hog cholera.

A recent report from the Extension Division of the Iowa Agricultural College shows that almost 3,000,000 hogs were lost to Iowa farmers during the past year, or fully one-third of all the hogs in the state. In addition to this fully two and one-half million hogs were rushed to market in immature condition because of the scare incident to the wide prevalence of the disease. Professor Kennedy of the Extension Division, who claims to have made a conservative estimate, states that the actual money lost amounts to more than thirty-three and one-half millions.

With the knowledge that hog cholera can be eradicated by the proper use of the vaccination method, these tremendous losses furnish a strong argument in support of government inspection and regulations of serum and virus manufacturing plants. In order to secure the best results the product of these serum plants should be standardized in a more effective manner than is possible at the present time. Bad or improperly standardized or tested serum or virus can easily produce very harmful results and many hog men are opposed to the method as a result of experiences which they have undergone. Kansas is to be congratulated on being more free from cholera than for some time. The disease is still with us, however, and efforts to wipe it out and restrict its ravages should not be relaxed.

Garget in Heifer.

Our subscriber, I. M. B. of Pawnee County, writes us that he has a 3-year-old heifer, fresh last July, that has developed a bad case of garget. This heifer is running on wheat pasture and receiving no other feed. The heifer has the garget in one quarter of the udder for a few days and after this gets well another quarter becomes affected.

This difficulty which is commonly called "caked bag" or "garget," usually occurs at freshening time. It is an inflammation of the udder or mammary gland and may be produced by a number of different causes. At freshening time the large secretions of milk and the general feverish condition of the animal is generally responsible for its occurrence at this time. Injuries of various kinds such as kicks or blows, or another animal stepping on the udder when the cow is lying down, may produce it. Letting the cow go too long without milking sometimes brings on an attack of garget. In a great many cases it is caused by germs gaining access to the udder through the opening of the teats.

The simplest and best treatment to give is to remove the milk frequently and to use hot water, bathing the udder for 20 minutes at a time several times a day. After this bathing, the udder should be gently rubbed and an ointment made by dissolving two tablespoonfuls gum camphor in a teacupful of melted butter or fresh lard, applied. An ounce of the fluid extract of belladonna may be added to this ointment with good results. In cases where this difficulty is caused by the entrance of germs, some disinfecting material injected into the udder is a valuable remedy. A carbolic acid solution consisting of one part of the acid to fifty parts of boiled water may be used. It is usually difficult for the farmer to give this treatment since he does not have the necessary equipment. Considerable care is necessary in the use of milk tubes and such instruments. All apparatus of this kind should be thoroughly disinfected or more harm than good may result from the treatment.

In the case of the heifer owned by our correspondent the most important thing would seem to be to locate the cause of this gargety condition. It may be the heifer is compelled to lie down in filthy quarters and the infection is from this source.

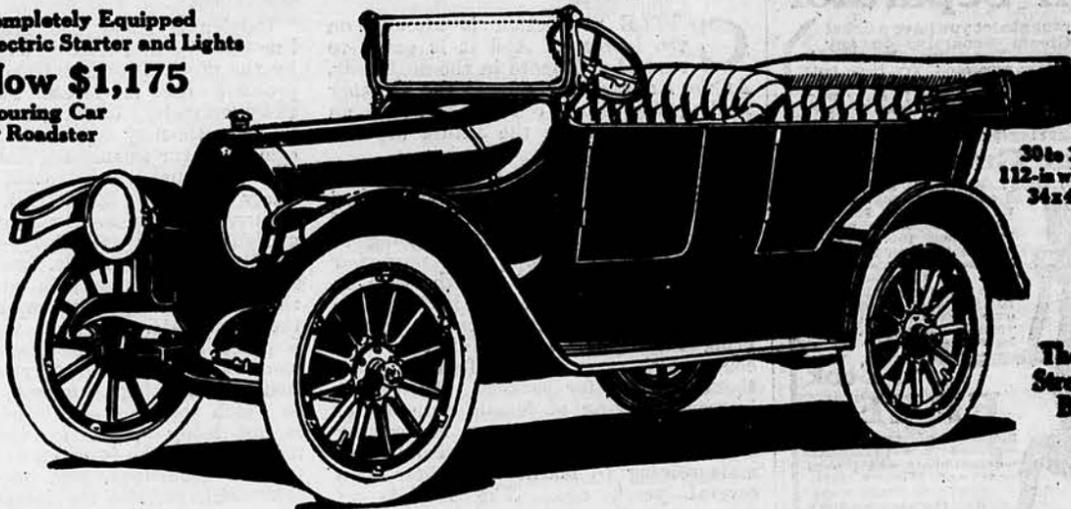
Shorthorn Breeders' Futurity.

A sweepstakes for registered bull and heifer calves born in the United States and Canada within the year beginning on September 1, 1913 and ending on August 31, 1914 to be shown at the American Royal at Kansas City, and at the International Live Stock Exposition, Chicago, in 1914.

Two separate stakes—one section for bulls and one for heifers in each—one stake for senior calves born between September 1, and December 31, 1913, and the other for junior calves born on or after January 1, 1914. Each sex to show by itself.

Reo the Fifth 1914 Summer Series \$220 Less

Completely Equipped
Electric Starter and Lights
Now \$1,175
Touring Car
or Roadster



30 to 35 h. p.
112-in wheel base
34x4-in. tires

The New
Streamline
Body

Mr. R. E. Olds has now done what he aimed at when he brought out this final car. By confining his output for years to one model, he has brought down the cost over 16 per cent.

Up to this season, Reo the Fifth sold for \$1,395 completely equipped, with electric starter and electric lights. Now, with this new streamline body, with better equipment, with 36 improvements, the price is \$1,175 equipped.

How He Did It

Three years ago Mr. R. E. Olds brought out Reo the Fifth as his 24th model. He then announced—after 25 years of car building—that this car marked his limit.

This new chassis, like every new chassis, required an immense investment. New automatic machinery, new jigs and tools. And against each car a charge was made to cover this expense.

This Car jumped at once to an enormous sale, and that machinery investment has been all wiped out. Now this charge is deducted

from the price. Also the lower tire cost. Also the lower cost of electric equipment. As a result, we now announce this \$220 reduction.

The New Things

This year we adopt the beautiful streamline body. All the leading cars, both in Europe and here, are now coming to this type.

All instruments and gauges are set flush with the dash. We use a ventilating, rain-vision windshield. The car comes equipped with electric starter, electric lights and electric horn. The searchlights have dimming attachment.

There are in all 36 new features, most of them in beauty and equipment.

An Honest Car

Reo the Fifth has stood among all men as the highest type of an honest car. All the steel is made to formula. All is analyzed twice. Every driving part, as a margin of safety, is given 50 per cent over-capacity.

The gears are tested in a crushing machine for 75,000 pounds per tooth. The springs are tested for 100,000 vibrations. The car has 15 roller bearings, costing five times as much as common ball bearings. It has 190 drop forgings to avoid the risk of flaws.

It is built slowly and carefully, with countless tests and inspections. Each car is built as though Mr. Olds were building it for himself. So the car stays new. The upkeep is very small. Year after year, when other cars grow troublesome and noisy, Reo the Fifth keeps new.

It is built for men who want the utmost in a car. Men who want low cost of upkeep. Men who buy the car to keep. It could be built for about \$200 less without all these precautions.

And it has our exclusive one-rod control. No levers in the way.

A thousand dealers sell Reo the Fifth. Write for name of nearest dealer. Also our new catalog.

Reo Motor Car Company, Lansing, Mich.

Canadian Factory, St. Catharines, Ont. Canadian Price, \$1,575.

(222)

Only the Janesville Can Do Work Like This

No other plow bottom can duplicate the work of the S & S Auger Twist.

The photograph reproduced here shows the work that won first prize for Frank Boardman, of Wheatland, Ill., at the Wheatland Plowing Contest, Wheatland, Ill., Sept. 27, 1913. You have never seen a cleaner field. His plowing score was 99 per cent perfect—the highest ever made at any accredited plowing contest. Nothing was retouched in the photograph—not a stubble in sight—all trash is buried—the ground is broken thoroughly.

JANESVILLE PLOWS

With S & S Auger Twist Mould Boards

Turn the Furrows that Grow Bumper Crops

It's the work in the field that counts. That's why the Janesville won the sweepstakes prize in all plowing contests entered at Grant Park, Wheatland and Big Rock, Ill., last fall.

The first prize at Grant Park, Sept. 27, 1913, was won by a 14 year old boy. Skilled plowmen did their best in previous contests and could not win until they used the Janesville.

A Janesville plow means better crops—less work—lower cost per acre. It is light in draft, flexible, of course, but it's the bottom that does the work. The S & S bottom is on all Janesville Plows, including walking plows.

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Souvenir Booklet Mailed FREE

It's a truly elaborate piece of literature. Shows photographic views of field work that won prizes—with complete story of every contest. Immensely valuable. Copy mailed free to anyone who writes.

Janesville Machine Co., 42 Center Street, Janesville, Wis.

Entry fee \$5 payable as follows: One dollar with nomination for seniors on or before March 1, 1914, for juniors on or before May 1, 1914; second payment of \$1 for all on or before July 1, 1914, and a final payment of \$3, to be paid on September 1, for entries at the American Royal and a like fee to be paid on November 1, for entries at the International, Chicago. The conditions and entrance fee for each stake to be the same.

In addition to the nomination fee of \$1 for each animal named, each nominator shall pay into the stake fund the sum of \$10 for the bull siring his nomination. Only one eligibility fee shall be paid on behalf of any bull, such single payment making all calves by him, no matter by whom owned, eligible to the stake if otherwise properly nominated and their payments kept good.

All payments must be made in cash on or before the dates specified to the

American Shorthorn Breeders' Association, Union Stock Yards, Chicago, Ill. Failure to make any payments when due shall automatically declare any entry void and out of the stake, and all payments heretofore made shall be paid out in proper course to the winners. Nominations may be dropped at will and payment of any fee does not obligate the nominator to make any other.

Actual ownership is not essential to nomination. Any one may nominate any eligible calf irrespective of ownership providing he pays the necessary fees. Nomination follows the calf if sold. All nominations transferable.

On or before July 1, the date of making second payment, any nominator may substitute any other otherwise eligible calf for one originally nominated by him, without additional cost.

The guaranteed value of each of the four sections of this stake shall be \$625—\$2,500 in all—in addition to which, there shall be offered by public

or private subscription, two championship trophies to be competed for respectively by the two male and two female winners of first prizes, and a third Grand Sweepstakes prize, to be known as "The President's Prize," to be competed for by the respective bull and heifer champions and to be considered as emblematic of supreme victory in the stake. That is to say, after the winners of first prizes in the four various sections of this Futurity shall have been selected by the judges, the two first prize bulls shall contest for the male championship trophy, the two first prize females likewise for the female championship, and then the champion bull and champion heifer shall compete for the "President's Prize."

This is the Live Stock World Futurity plan originated by J. H. S. Johnstone. For entry blanks and all desired information, address, American Shorthorn Breeders' Association, Union Stock Yards, Chicago, Ill.

Any Kind of a Free Trial You Want—On Any Great Western Cream Separator

We will arrange to let you have a Great Western Cream Separator on any kind of a trial you want. Test the Great Western side by side with any other separator. Try them both on any kind of milk—warm, cold or stale. See how much better the Great Western is in every way. Then decide. We know that the Great Western beats them all. Comparison will prove it to you. You are safe in trying or buying a Great Western. Our 5 Year Guarantee protects you absolutely. Write us. Let us send you our book so you can read up on better fat facts and cream separator profits. Read about the many features that make the Great Western pay enough more than any other separator to pay for itself quick. \$5.00 to \$15.00 more on each cow every year. You should invest now even if you have a separator.

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Our Book FREE tells best methods of separating—gives results of extensive experiments and proves Great Western superiority in many ways. Mail postal now—don't depend on any machine till our book comes.

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AMERICAN OIL SEPARATOR

A SOLID PROPOSITION to send fully guaranteed, a new, well made, easy running, perfect skimming separator for \$15.95. Skims warm or cold milk; making heavy or light cream. The bowl is a sanitary marvel, easily cleaned.

Absolutely on Approval. Gears thoroughly protected. Different from this picture, which illustrates our large capacity machine. Western orders filled from Western depots. Whether your dairy is large or small write for our handsome free catalog. Address:

AMERICAN SEPARATOR CO. Box 1091 BAINBRIDGE, N. Y.

BOWSER

FEED MILLS
GIVE BEST RESULTS

Handy to operate, lightest running. Crushes corn (with or without shucks) and grinds all kinds of small grain and feed stuffs.

10 sizes 2 to 25 H. P., capacity 6 to 300 bushels. Conical shaped grinders—different from all others. Investigate.

Write for Catalog that tells all about them, with free folder about values of different feeds and manures.

C. H. P. BOWSER CO.
South Bend, Ind.

This Automobile
Sells Steady Free Job

to everyone who takes our Correspondence Course and qualifies for agency. 10 lessons teach you to be a successful, expert repair man, auto salesman. Answer the questions and get a diploma. Diploma fits you for \$100 to \$200 monthly job. Write and get full information. Then get free auto. We'll tell you how.

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Save money on a monument.

Keep in the bank one-third of the money you expected to put into a monument, and get one of beautiful Bronze that will last forever.

Marble and granite are very expensive and disappoining, too, because they go to pieces gradually under the weather. Bronze is everlasting. Never mildews, becomes moss grown or weather worn.

Send for Catalog—128 designs. Recut \$12,500 to get up the designs in this catalog. You'll find many that will please you, at prices that mean a big saving. Dealers and agents write for our terms. Bronze Monument Company Dept. 14 Des Moines, Iowa

1 1/2 H.P. GASOLINE \$24.75

Simple, durable, powerful. Carefully made to give satisfaction. 24 sizes and kinds. Shipped anywhere on trial. Fully guaranteed. Send for Big 48 page Catalog. It will help you to buy a better engine for less money.

OTTAWA MANUFACTURING CO., 549 King St., Ottawa, Kansas.

Optimism in Cattle Trade

Tick Order Arousing Protests—Demand for Better System of Grain Inspection and Control of Produce Dealers

CATTLE production is already on the increase. And it is going to expand still more in the next year. At the Kansas City market and at other leading live stock centers, signs of an increased output in the future are numerous.

"Yes," remarked an old salesman at the Kansas City yards when asked about prospects for an enlargement of the output of beef, "we are going to have more and more in the next few years. I cannot believe otherwise in view of the fact that thin heifers suitable for breeding purposes frequently bring more than heifers of the same class which carry enough flesh to make them desirable for packers. Besides the increased buying of female animals for breeding purposes, it is a noteworthy fact that the proportion of female animals coming to market is lighter than several years ago. The receipts of calves are falling off everywhere, reflecting a desire to produce more beef. Registered cattle of the beef breeds are commanding the highest prices in years."

Just what will be the effect on prices of the increased production of beef in the United States cannot be forecasted with any accuracy because no one knows the extent of the prospective expansion in supplies or the volume of foreign meats which will reach American ports from foreign exporters.

In the annual estimates of the national Department of Agriculture, many statistics which appear bullish on the surface are presented, but too much reliance cannot be placed upon them. The figures show relatively fewer meat animals and a larger population in this country than a few years ago, but who knows how long this situation will continue in view of the great producing possibilities of this land? Still, there is no sound reason for hesitating about the future, as long as one operates conservatively. From the standpoint of the market prospects, there is more encouragement to the live stock producer than to the grain grower. In fact, the newer agricultural countries of the world are more likely to come here with their grain than with their meat, which should, of course, give the stock grower an advantage.

So far as the immediate market outlook is concerned, confidence pervades cattle trade circles. There is perhaps a little too much optimism among feeders and breeders. At least, this is the conclusion one can hardly help forming from a comparison of the very narrow range between fat cattle prices and the cost of stockers and feeders. One class should advance or the other decline. Perhaps both will rise, and in that event, of course, the rise in fat cattle must exceed the advance in stockers and feeders.

The top on fat cattle for the new year to date is \$9.25 on the Kansas City market. This is a record price for the season. In fact, most beef animals have been selling around record values in the past month, but, in view of the high cost of feed and the cost of the thin animals, profits have not been heavy with the most successful feeders. Instances of losses have not been infrequent.

Kansas City has been receiving more cattle, as well as hogs, fattened on feeds other than corn this winter than in any corresponding period in her history. Commission dealers generally admit that but for the cattle which were fattened on wheat pastures, the shortage in receipts from last year on the Kansas City market would have been greater than the 20 per cent now reported. In addition to the cattle pastured on wheat, both Texas and Oklahoma have been sending a larger number of animals fattened on cottonseed feeds than in many years. These states increased their feeding operations last fall in anticipation of decreased supplies of corn belt farms.

Now that the feed lot offerings are diminishing, packers are beginning to look to ranges for supplies. Texas is expected to come forward at least three weeks earlier than usual with grass-fat cattle, and may upset the calculations of feeders who are expecting considerable advances in prices in the spring. A factor which is imparting a strong tone to the trade in general is the reduction in interest rates over the country and the improvement in business in many sections. The number of idle laborers in the country is smaller than at any other time this winter.

Cattlemen below the tick quarantine line have been stirred up as never before by the proposal of Secretary Houston to prohibit the interstate movement of tick animals. Under the existing law ticky cattle may be moved in interstate commerce for immediate slaughter. Secretary Houston's proposal is hardly likely to be put into effect, as the cattlemen of Texas are making too strong a fight. They are also supported by the Kansas City and St. Louis live stock interests. The new rule would cut off thousands of quarantine cattle from their markets. Kansas Cityans have large sums invested in Texas cattle and would suffer losses if they were prohibited from moving them out of the state in which they are quartered. The tick is not being spread by the interstate movement of the infested animals under present conditions, and to repeal the law which permits the interstate movement would be costly to the growers of cattle below the quarantine lines.

Of course, Secretary Houston's aim is to obliterate the fever tick, which costs American stockmen millions of dollars. The new secretary's determination to remove this pest is commendable, but stockman who would be affected by his proposed plan insist that it is too hasty.

If the fever tick were eradicated, or even if Secretary Houston succeeded in obtaining the passage of the prohibitory law he proposes, the supply of stockers and feeders available for Kansas farmers would be increased.

Dealers in the principal farm products of the country are deeply interested in the desire of states and the federal government to assume greater control over their markets. The most revolutionary step in this direction is the recent promulgation of new corn grades by the United States Department of Agriculture, effective July 1. These grades will be in force in all of the leading markets of the country by the time the next crop is harvested. It is not improbable that the United States Senate will, in the meanwhile, adopt a law which will call for the inauguration of a federal inspection of grain. The KANSAS FARMER market correspondent believes this would benefit farmers provided the government insured against political influence in the conduct of the federal inspection and grading service.

Even now some of the great grain markets of the country have their own grain grading and inspection boards, due to the fact that the state inspection systems failed to give satisfaction because of the frequent changes in their inspectors. The KANSAS FARMER market correspondent has heard numerous instances of the grading of No. 2 hard wheat as No. 3 by incompetent state graders, and of other blunders even worse. If Uncle Sam can give farmers a grain inspection and grading service that no one will question, he will enable the grower to obtain a little larger per cent of the final selling prices of his wheat, corn, oats, barley and other grain crops.

Another reform which is imminent in markets is the placing of a state license on commission dealers in fruits, vegetables and produce. There are more scoundrels in the produce, fruit and vegetable commission business than in any other. In the first place, the chances for dishonesty in this business are greater than in any other market for farm products because fruits and vegetables are highly perishable. If one is so fortunate as to get into the clutches of dishonest men with produce, he has difficulty in recovering inevitable losses.

New York has a law which requires all commission produce dealers to take out a state license and put up a deposit of \$3,000 with a commission which tries to safeguard the interest of the grower. The deposit is held as a security against dishonest transactions.

Ratekin's Seed House, Shenandoah, Iowa, has issued another of its big, handsome and complete catalogs, listing everything in seeds. Mr. Ratekin states that in this catalog he has given honest descriptions and made everything plain. He invites anyone interested to write for his catalog, and also to write for advice on seeds and planting. He takes a personal interest in anyone to whom he sells, and requests that they keep in touch with him on the growing and results from any seeds and nursery stock ordered from him. A post card requesting it, to Ratekin's Seed House, Box 18, Shenandoah, Iowa, will bring this big 1914 catalog to you.

SEE ANNOUNCEMENT FOR POULTRY breeders' printing elsewhere in these columns.

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At the recent session of the National Grange at Manchester there was placed upon the master's desk a block of marble which was brought from Greece and was taken from the original temple of Ceres at Eleusis. This ancient block was used as a gavel by National Master Wilson during the entire session.

A Record of Service.

At the last session of the National Grange Mrs. Eva S. McDowell was elected treasurer for the twenty-first consecutive year. What makes this more remarkable is the fact that she succeeded her husband as treasurer, he having served twenty-one consecutive years.

Farmers' Institute a School.

I believe the value of farmers' institutes is vastly under-estimated, not only by the public in general, but by a very large percentage of farmers themselves. This is an age of enlightenment and a day of specializing. The boy or girl who arrives at the age of maturity without having learned to do something and to do that thing well, will go through life with a very serious handicap.

The man who has no trade, who has no special object or purpose in life and no fitness to accomplish a purpose if he had one, is the world's "roustabout," tossed from pillar to post, and in demand only when the better qualified person is not available.

More than ever, the world is demanding people who are trained for the different walks of life. No one these days is allowed, or should be allowed to teach school who is not qualified in the theory and practice of teaching. The privilege of practicing medicine is accorded only to those who by special preparation are qualified for that calling. It is so in most all the callings of life, and while the requirements for the farmer are not provided by statute, the world is expecting those who are entrusted with the source of our daily bread to make it produce the most of which it is capable and to hand it to succeeding generations unimpaired in productivity, that they also may be fed.

I once heard ex-President Taylor of the State Normal say that the purpose of an education was "to learn to accomplish the most in the best way, with the least effort."

Do not understand me to say that education consists entirely of "book cramming." "Learn to do by doing," for experience is one of the greatest teachers, but if every one had to learn in that school only, very little progress would be made in the world.

Every fact discovered in life has been the result of some one's experience. Here is where the farmers' institute becomes a school. It is a place where men and women, learned in the art of agriculture and the many phases of farm life, exchange ideas and give their neighbors the results of their experiences, where the results of scientific investigations by men employed by the state are promulgated to the farmer, thereby saving him the great amount of loss in time and expense incident to groping blindly through his work.

I have had men say to me—and farmers at that—that they believe farmers' institutes amounted to nothing, that the theories advanced were not practical and that anyone could farm on paper. I really think the man who places no higher estimate upon these institutes than that should sell his farm to someone with more progressive ideas.

It is true that no farmer can ever expect to control the whimsical elements of nature, nor to foresee the storms and pests and drouths to which we are subject, but we do know that when nature smiles it is generally upon the man who has done his own part intelligently and left the rest to a Higher Power.

Success, or luck in farming as well as in other walks of life is generally the result of wise management one year with another.

The farmer who can go to a farmers' institute and go away not feeling that it has been time well spent is certainly not alive to the problems and duties

that confront him and to the opportunities that present themselves for advancement in his sphere of life; so here's to the farmers' institute, one of the real schools of farm life.—S. W. MCDANIEL, before Admire Farmers' Institute.

Land of Grain Sorghums
(Continued from Page Four.)

It is not my purpose to here discuss the subject of "dry-farming." However, it is an important topic for the consideration of every sorghum belt farmer. Kansans and Oklahomans in particular dislike the term, "dry-farming"; they feel that to apply it to the farming of their neighborhoods or states reflects discredit thereupon. While the term is a misnomer, nevertheless it is the best we have to express a particular type of soil cultural methods adapted to sections having an annual rainfall of 20 inches or less. To sections having 30 inches of annual rainfall, but affected by winds and high temperatures, dry-farming also applies. Considerable portions of Kansas, Oklahoma and Texas are within these limits, and the farmers of these sections cannot escape dry-farming methods. The Eastern Colorado, Eastern New Mexico and extreme Western Texas farmer has accepted dry-farming more generally than farmers farther east. * * * It should be remembered that dry-farming is a topic of world-wide concern and farmers of the Great Plains are not alone in the evolution of farming methods adapted to light rainfall. Dry-farming is a "world problem," as will be realized when it is understood that six-tenths of the world's surface has an annual rainfall of 20 inches or less. * * * Suffice it now to say that the sorghum belt farmer must give heed to dry-farming ideas and by exercising care in their execution can greatly increase both surety and profitability of those crops best adapted to his conditions. * * *

The foregoing would indicate that in the sorghum belt much depends upon the utilization of precipitation to the fullest possible extent and that by following well defined cultural methods the cropping possibilities are greatly increased. Also, that such cultural methods are those long since recognized as typifying the best farm practice in regions of rainfall greatly exceeding that of the sorghum belt. It is therefore recommended that the sorghum belt farmer's attention be directed as follows: He should plow deep to create a large reservoir and to encourage absorption of moisture. He should practice such cultivation as will to the greatest extent possible prevent evaporation. He should keep down the weeds, which upon many farms draw upon the moisture to as great extent as do the season's crops. He should plow into the soil all the manure and vegetable matter he can, that the water-holding capacity of the soil may be increased. He should follow a crop rotation. He should grow those crops which obtain and utilize moisture to the best advantage. And, above all things, he should govern his rate of planting by the moisture supply. It must be remembered, too, that there are controlling factors, aside from moisture, in crop production, but which will be discussed in connection with the growth of specific crops.

Stock Farms Very Fertile
(Continued from Page Five.)

tried upon brood sows was not very satisfactory. He gave these sows the run of a small patch of corn in addition to some other pasture which they had, and while they were in splendid condition through the winter and at farrowing time, they did not produce strong thrifty litters. It is evident that this method of harvesting corn should be used with considerable discretion where brood sows are involved. Too much corn in the ration is detrimental to the best results in handling the brood sow. Mr. Clowe is very well satisfied with the practice of "hogging down corn" as applied to market stock. The brood sows could probably be used to clean after market hogs, not permitting them to have the run of the corn field until the bulk of the corn had been cleaned up by the fattening hogs. In fattening hogs in the corn field it is necessary to take them out or give them fresh fields to work in before all the corn is cleaned out. They will spend too much time in ranging over the fields and will not secure a large enough supply to keep them gaining rapidly.

There are a number of high class herds of pure-bred dairy cattle in this country. It was impossible to visit any of these farms at the time, but we hope to visit them in the near future and may have something to say on the subject of dairying and the handling of dairy cattle on Jackson County farms.

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Gertrude Snyder, thirteen years old, daughter of Robert Snyder of Natrona, Pa. was born with Club Feet and was brought to this Sanitarium in May, 1911. The position of her feet at that time is shown in left picture, while the position and condition of her feet at the present time, after treatment at this Sanitarium, is shown in picture on right. Write Mr. Snyder; he will be glad to tell you of his experience. The correction was made without Chloroform, Ether or any General Anesthesia. Plaster Paris was not used.

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This thoroughly equipped private Sanitarium is devoted exclusively to the treatment of crippled and deformed conditions, such as Club Feet, Infantile Paralysis, Hip Disease, Spinal Diseases and Deformities, Wry Neck, Bow Legs, Knock Knees, etc.

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759 Aubert Avenue, St. Louis, Mo.



Housekeeping at the White House

By MARY ELEANOR KRAMER

It may be of interest to our readers to learn something of the manner in which housekeeping is carried on at the White House. Mrs. Woodrow Wilson has retained as housekeeper, Mrs. A. J. Jaffray, the Canadian woman, who had charge of the work during President Taft's administration.

Few of Mrs. Jaffray's admirers know her personally. It is her works that have won her fame. The cuisine of the Taft regime has become famous for its excellence and the manner of fete giving at the White House is the envy of the smartest hosts. Multimillionaires who pay their chefs \$10,000 yearly are not able to match the products of the White House kitchens, and millionairesses who have aimed to make good by living up to the maxim, "the way to a man's heart is through his stomach," cast envious glances upon the way things are done at the White House.

Caterers, who previous to the coming of Mrs. Taft, had found the White House their best patrons, bewailed the lost trade. No matter how perfect their

wares, they had no sale at the White House, where Mrs. Jaffray made it possible for "home cooking" to grace every occasion. The biggest fete planned, as, for instance, the silver wedding anniversary of the President and Mrs. Taft, was provided for down in the big White House kitchens. Mrs. Jaffray worked out a tentative menu and presented it to Mrs. Taft. Mrs. Taft made whatever additions or eliminations she wished and returned the menu to Mrs. Jaffray, with the number of possible guests to be served. Mrs. Jaffray, with the help of Flora Hamilton, chief cook, and a squad of competent women assistants, did the rest.

As a usual thing, not less than 1,200 persons in a year eat at the White House tables, in addition to the everyday necessities of the White House family. Besides, for the big receptions, where sometimes as many as 1,500 persons served, there are thousands of big cakes and hundreds of elaborate desserts made, besides ices by the tubful, salads by the barrel, petis gateaux by

35 BUSHELS PER ACRE
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WESTERN CANADA
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Grows anywhere, on soil that will grow little else. Improves run-down, badly washed fields. Makes good hay and fine pasture. New crop, Kansas grown, cleaned and tested. Also Alsike, Red Clover, White, Crimson, Burr and Japan Clover at lowest prices.

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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.



6289—Ladies' Maternity Gown: Any of the pretty silk materials can be used to make this gown. The gown is made with the empire waist line and can have either the long or short sleeves. The waist of the garment is made with a body lining. The pattern, No. 6289, is cut in sizes 34 to 42 inches bust measure. Medium size requires 6 3/4 yards of 36-inch material, 1/2 yard of 22-inch all-over and 1 1/2 yards of 36-inch lining. 6253—Ladies' Dress: This simple dress consists of a plain blouse, with ornamental front closing, wide collar and long or short sleeves, joined to a four-gored skirt, which also has an ornamental outline to the front seam, where the closing is placed. The pattern, No. 6253, is cut in sizes 34 to 42 inches bust measure. Medium size requires 5 yards of 36-inch material. 6356—Girls' Dress: This pretty little dress closes at the front and can be made with either the long or short sleeves. The plaited skirt is attached to the waist with a belt. The pattern provides for a removable shield. The pattern, No. 6356, is cut in sizes 4 to 12 years. Medium size requires 2 1/2 yards of 44-inch material and 1/2 yard of 27-inch contrasting goods. 6300—Ladies' Work Apron and Cap: Gingham, calico and the like are suitable materials for this apron. The apron is made with an empire waist line, with a plain blouse and a plain gathered skirt, short sleeves and patch pockets. The closing is in the back. The pattern, No. 6300, is cut in sizes 34 to 42 inches bust measure. Medium size requires 5 3/4 yards of 27-inch material. 6339—Girls' Dress: Serge, linen or gingham can be used for this dress. The dress closes at the front and is made with a low neck and short sleeves. The skirt is cut in two pieces. The pattern, No. 6339, is cut in sizes 4 to 12 years. Age 8 years requires 2 yards of 44-inch material and 1 1/2 yards of ribbon for the belt. 6247—Girls' Middy Blouse: The middy blouse of this season is somewhat changed from the old style. It has the usual drop shoulders and open neck with fancy collar. The sleeves are plain top and bottom and the lower edge of the blouse is gathered into a wide flat belt. The pattern, No. 6247, is cut in sizes 6 to 12 years. Medium size requires 2 3/4 yards of 36-inch material. Price of each pattern, 10 cents.

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We are the only house in Kansas City authorized to sell these good Pianos: **Steinway, Vose, Kurtzmann, Elburn**

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We Will Sell You a Guaranteed Piano on Easy Terms

No Piano house in this section of the country has sold as many good Pianos as we have. No other house carries a bought-and-paid-for stock as large as ours. We have twelve great stores in this great southwest territory. We have customers near you to whom we can refer. It pays to deal with a big, reliable house, near home, rather than send far away to a concern whom you or your friends never see or never know anything about. Right near where you live we have customers who will tell you about us. The probability is you yourself know of several pianos that were bought from us. Before you buy any piano anywhere at any price, get our offers.

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Remember, we handle great pianos like the Steinway, Vose, Kurtzmann, Elburn and others. We can suit you in price, for we have new pianos from \$125.00 up, and we have a few sample and used pianos from \$40.00 upward. Also we have a wonderful line of genuine player pianos—new and used.

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Will plant a large flower garden, which will be in perpetual bloom—the delight of everyone. One package each of Salzer's Radiant Sweet Peas, Elegant Aster, Gorgeous Eschscholtzia, Blue Cornflower, Brilliant Poppies, Sunny Cosmos, all for 10 cents.

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Above flower collection and one package each Earliest Cabbage, Short Horn Carrot, Early Market Cucumber, Prize Head Lettuce, Mixed Onion, Flashlight Radish, all for 20c, postpaid, or send 25c and get both collections and our Novelty Red Riding Hood Tomato. Now is the time to send your quarter for these seeds. Ask for **Big Free 1914 Catalogue**, 226 S. Eighth St., La Crosse, Wis.

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SAVE \$7.50

LOOK! Greatest Value on Earth! One 40lb. Feather Bed, one 6 lb. pair of Pillows, all new, clean feathers, Amoskeag Ticking with Ventilators; one pair full sized Blankets, one full sized Counterpane. Retail value \$17.50. Shipped nicely packed for only \$9.92. Delivery guaranteed. Money back if not satisfied. Mail money order today or write for order blanks and full details to nearest factory.

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BEST IN THE WORLD

Prices Below All Others

I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.

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Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses

R. H. SHUMWAY, Rockford, Illinois

OTTAWA Business College

OTTAWA, KANS.

the basketful, while sandwiches of infinite variety top off the preparations for the president's entertainments.

Mrs. Wilson is charmingly domestic, understanding the art of cooking quite as thoroughly as she understands the art of painting and landscape gardening. She is proficient in all household arts; she does beautiful needle work, understands the scientific preparation of food, and is in fact a marvellously well-rounded woman.

She is a southerner by birth, but has lived over half her life in the North. She, however, retains her native southern love of cooking, for in the South cooking is regarded as a fine art. She can make the most delicious things to eat, and when she first married she did all her own cooking. Her cooks she trains herself, for her recipes are very fine and she knows exactly how they should be carried out. Her cakes, cookies and gingerbread are especially delicious.

FOUR OF MRS. WILSON'S FAMOUS RECIPES.

Pound Cake.—Take one pound of butter and the peel of one lemon chopped fine, and work it to a creamy consistency, then add one pound of sugar and work these together for ten minutes, add nine raw yolks of eggs and the juice of five lemons, work these all together for ten minutes more, then mix in a quarter of a pound of stoned raisins, a quarter of a pound of Sultanas, quarter of a pound of dried and well-washed currants, a quarter of a pound of cherries cut in little square pieces, a quarter of a pound of mixed peel cut up fine, and a quarter of a pound of chopped almonds. Whip the whites of the nine eggs until stiff with a pinch of salt, and then mix them into the other ingredients with one pound of fine flour that has been warmed and passed through a sieve, a quarter of a pound of rice flour, and one ounce of baking powder, mixing the flour and whites by degrees. Have a cake tin buttered and prepared, put the mixture into it and bake in a very moderate oven for about two and one-half hours, or it can be put into small tins if liked, and baked for one and one-half hours. If these cakes are turned out and the paper left on them, they will keep for weeks.

Old-Fashioned Gingerbread.—One and one quarter pounds of flour, three-quarters of a pound of molasses, half pound of brown sugar, quarter of a pound of butter, one ounce of ground ginger, one teaspoonful of ground allspice, one teaspoonful of ground cloves, one teaspoonful of baking soda, two eggs, and buttermilk to mix. Melt together the butter, sugar and molasses with the milk; mix together all the dry ingredients; pour in the molasses, etc., and add the eggs well beaten, mix well, pour into a greased tin, bake in a slow oven about one and one-half hours.

Buttermilk Sweet Cake.—Three-quarters of a pound of flour, two ounces of currants, one tablespoonful of molasses, quarter of a teaspoonful of mixed spices, one egg, two ounces of lard or drippings, two ounces of sugar, quarter of a teaspoonful of baking soda and half a pint of buttermilk. Rub the lard or dripping into the flour, add all the dry ingredients together except the baking soda; blend the baking soda in a little buttermilk; put the egg, molasses and rest of the buttermilk together, then add the dry ingredients to make a stiff batter; beat well, and the last thing add the blended baking soda. Bake at once in a moderate oven for an hour.

Old-Fashioned Cream Cookies.—One-third of a cup of butter, half a cup of sugar, two eggs, half a cupful of thin cream, two level teaspoonfuls of baking powder, one teaspoonful of salt, two teaspoonfuls of yellow ginger, and flour to roll. Cream the butter, add the sugar, the eggs and the cream. Sift thoroughly the flour, the baking powder, the salt and the ginger, and chill. Roll on a floured board as thin as possible, using a small part of the dough at a time. Cut into shape and bake in a moderate oven.

Coaling Done by Girls.

Coaling at Nagasaki, Japan, is done entirely by girls. Big coal barges bear down upon a ship as it approaches the shore, and as soon as it comes to anchor a rough ladder is placed between the liner and the foremost barge.

On each rung of it a girl takes her place. Men in the barge quickly shovel the coal in shallow baskets holding half a bushel each to the sound of a monotonous chant, and these baskets then pass from hand to hand up the living ladder with marvelous celerity.

Each girl seizes one and swings it straight up in front of her, above her head, when it is caught by the next girl. Down a second ladder, likewise packed with girls, the empty baskets pass in similar manner back into the barge to be refilled.

Barge after barge is emptied in this way. The monotonous chanting never ceases; the living elevator goes on hour after hour with its never ending stream of baskets, until the last bunker is full, when the ladders disappear as if by magic and the ship is ready to proceed on her voyage.

A Pacific mail steamer will "bunker" twenty-three hundred tons of coal in six and a half hours, an average of three hundred fifty-three and three-quarters tons per hour, or nearly six tons per minute—an almost incredible record.—The American Woman.

Kansas Orchard Doctor Busy.

Thousands of family orchards in Kansas are not producing good apples because of diseases, improper care, or, more often because of no care at all. Acting on the advice of Mr. Greene, horticultural specialist for the Extension Division of the Kansas Agricultural College, who visits the orchards, diagnoses the ailments and shows how to spray and prune, many farmers have, by practicing these methods, made their orchards profitable. Farmers in a neighborhood co-operate in paying the traveling expenses of the "tree doctor," which is the only charge made by the college. As "tree doctor" for indisposed Kansas orchards, Mr. Greene probably has a wider practice than any physician in the state. Farmers in nearly every county where apples are grown have had his advice on at least one of his annual consulting trips. In fact the demand for the college "tree doctor" is so large this year that he is to have an assistant. Mr. Greene's schedule of visits begins this week.

At last the cat is out of the bag. It has long been supposed that uninteresting preachers were responsible for the members of the congregation sleeping during the sermon. It was for the plumbing inspector of Wichita to find that the impure air within the churches was responsible for sleeping. He says: "Breathing impure air for two hours is as dangerous as drinking from a public cup." It is likely that the city commissioners of Wichita will enact an ordinance compelling churches to be better ventilated.

**Cuts
Burnt-in-Grease
From Oven Pans**



Old Dutch Cleanser

Easily dislodges crusts of burnt-in-grease and quickly removes the hard sticky substances. No form of uncleanness can resist its magic power.

Keep a Can Handy **LARGE CAN 10c**

READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS



The Victrola satisfies your love of music

The love of music is born in every one of us, and we naturally come to love the kind of music we hear the most.

In this day of the Victrola it is easy for every one to hear the world's best music—and not only to hear it, but to understand and enjoy it, for this wonder instrument gives to you a thorough appreciation of the masterworks of music.

The Victrola opens to you a new and ever-increasing vista of musical delight, as elevating as it is entertaining, and completely satisfies your longing for musical recreation.

Any Victor dealer in any city in the world will gladly demonstrate the Victrola to you and play any music you wish to hear. Write today for the illustrated Victor catalogs.

Victor Talking Machine Co., Camden, N. J., U. S. A.

Berliner Gramophone Co., Montreal, Canadian Distributors

Always use Victor Machines with Victor Records and Victor Needles—the combination. There is no other way to get the unequalled Victor tone.

Victor Steel Needles, 5 cents per 100
Victor Fibre Needles, 50 cents per 100 (can be repointed and used eight times)
New Victor Records demonstrated at all dealers on the 28th of each month



Victrola XL Mahogany \$100 or oak



My Belle City Now Eight Times World's Champion Hatcher

Two more World's Championships in 1913, make my Belle City the 8 Times World's Champion Hatcher. No other incubator in the world approaches this record. Yet it is the lowest priced. When you buy my Belle City

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Less Work—No Guessing

Start every hill in the field with corn that you are positively sure is 100% good.

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Give every kernel the same test. Write us—learn the ideal way—more efficient than any ever known. Iowa alone has 500 in use. Shipped on approval—freight prepaid. Write today. NATIONAL MFG. CO., 1227 Locust St., Des Moines, Ia.

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PEDIGREEED SEED CORN.

Our Specialties for 1914: Riley's Favorite Pedigreed Field Corn—This corn has superior breeding qualities and the greatest amount of shelled corn to cob. Small cob, deep grains, rich yellow. A great yielder. Just the corn to fatten your stock. Boone County White—The best white corn ever originated. The largest yielding corn ever planted. Has won more first premiums than all other white corn put together. A great fodder producer, a splendid ensilage corn. Other varieties are Reid's Yellow Dent and Imp. Leaming. Send for 1914 circular. Write today. **JAMES RILEY & SON, The Originators, Thorntown, Ind.**

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 95 per cent of every hatch. All poultry raisers should write Mr. Reefer for one of these valuable FREE books.

STANDARD POULTRY

TURKEYS. GEESE. DUCKS.

Let us save you money on stock and eggs for hatching. We have lots of stock of the different varieties of standard poultry for breeding and show purposes. Write for description and prices. Address **W. F. HOLCOMB, Nebraska Poultry Co., Clay Center, Neb.**

Plans and specifications of pure air poultry house sent FREE.

WHITE SCOURS CAN IT BE CURED?

Write the **CHICK LIFE REMEDY COMPANY, Clay Center, Kansas.** About their Portable Brooders.

43 VARIETIES—Poultry, Pigeons, Ducks, Geese, Water Fowl. Incubators, feed and supplies. Catalog, 4 cents. Missouri Squab Co., Dept. D. R., Kirkwood, Mo.

BLACK LANGSHAN COCKERELS \$1.50 each. Satisfaction guaranteed. Also see J. E. GISH, Manhattan, Kan.

POULTRY



Beef scrap gets more eggs than red pepper and doesn't hurt the hens.

The mating of the breeding pens should be completed by this time and the hens steady down to business.

If the pens are not yet mated, the sooner the matter is attended to the better, for it is the early hatched chicks that count.

The proper mating of the pens is a serious matter, and takes lots of thinking and study to do it correctly. Each breed of fowls has its own distinctive methods of mating and what would be correct mating in one breed, would be utterly wrong in another.

One general rule, however, is good in all breeding, and that is, do not breed from immature fowls. You cannot expect hardihood and great size of progeny from undersized cockerels and pullets. Let at least one of the parents be an old bird.

Another good rule to follow is, do not have too many hens for the male bird in the pen. Remember that you can place more of the lighter-weight hens with a male than of the heavy breeds. Also that you can have almost twice as many hens to a male when the fowls have free range and are not confined in a small yard.

Laying hens require lots of food and won't eat more than is good for them. We know that hens sometimes get too fat to lay, but we believe they are more often too thin to lay. After hens once get to laying, we do not believe you can feed them overmuch.

That grasshopper plagues help turkey raisers was demonstrated at Garden City recently when 154 birds from the E. R. McCue ranch brought \$329.70 on the local market. The birds lived on live grasshoppers during the plague last summer, and have been fed largely on dead hoppers since that time. The total cost of feeding for the flock was \$24.

That some feed or condimental can be called an egg-producing feed is erroneous. Often meat scrap or other feed, when added to the ration, will cause hens to lay. The value is not in the feed, but in its ability to balance the ration. A balanced and nutritious ration is as important for egg production as for milk production.

Still another new variety of fowls is now advertised, and this time it is Buff Columbian Wyandottes. We had the Buff Wyandotte, the pure buff color, with true Wyandotte shape, and a beautiful bird it is. We also had the Columbian Wyandotte, the true Wyandotte shape, with the coloring of the Light Brahma, white with black points, and a magnificent bird it is. But how the two are blended into a Buff Columbian Wyandotte we do not know, and hardly care to know. Is not this making of new breeds liable to go a little too far, especially when a person tried to blend into one, two such admirable breeds as the Buff and the Columbian Wyandottes?

The ordinary poultry raiser would be hard beset if he were to follow the directions of all the advertisements he reads. In one part of a poultry journal we read, "Buy a grain sprouter and feed sprouted grain." On another page of the same journal we read, "Don't feed green food, but buy our condensed tablets." One of the great advantages of the green feed is that it gives bulk to the green ration, as well as being juicy and succulent, and is well worth the trouble of sprouting it. The tablets may contain some of the elements of green food, but to give a chicken such food would be like feeding a man in this climate with a North Pole ration of pemmican and blubber when he could just as well have roast chicken and mashed potatoes.

Barred Plymouth Rock Club.

The Kansas Barred Plymouth Rock Club was organized on closing evening of the State Poultry Show at Wichita. Sentiment had been working to this end for some time, and the results encouraged the more active to take steps

looking to permanent organization. R. A. Ogden of Wichita was elected president; C. C. Lindamood, Walton, vice-president; H. E. Gonder, Wichita, secretary-treasurer; and J. C. Hoyt, El Dorado; J. K. Thompson, Topeka; C. Widaman, Pratt; L. V. LaDow, Fredonia; Charles A. Hawk, Atchison, and W. H. Wright, Lebanon, as additional members of the board of directors.

Provision was made for a county vice-president in each county, whose duty it is to urge breeders to become members, and to keep in touch with the sentiment of the breeders in the county in order to intelligently act in an advisory capacity to the board when desired. These officers will be appointed by the board as suitable timber is recommended. The annual cost to the members is 50 cents each per year. Applications may be made to the secretary, or to any member of the board.

Pekin Ducks.

We have four Pekin ducks and a drake, and have been informed by our neighbors that four is too many ducks to go with a drake, as they go in pairs. Please let us know if this is so, and answer through your paper, as others may be as ignorant as we are.—P. G.

Ducks do not go in pairs, and four or five ducks to a drake is about right. Possibly more of smaller breeds of ducks, such as the Indian Runner, could be allowed with each drake to secure fertile eggs.

Barred Plymouth Rocks.

You ask me why the Barred Plymouth Rock is the best variety of fowl. It isn't. Some varieties are larger in size; any variety can be bred for good egg production, and the bantam is more cute as a pet.

The reason for the popularity of the Barred Rock is in its shape and color. You see a pen of white, or black, or buff, or penciled varieties, and are struck with their beauty; but after long association the breeder often tires of them. But not so with the Barred Rock. It seems to be of that permanent beauty of which one never tires, the same as some varieties of food. In the poultry industry it is what bread is to our daily fare.

In common with the other varieties of the Plymouth Rock, the Barred is neither a heavy nor a light weight. It is profitable for the reason that it is staple, and there is a heavy, steady demand for stock and eggs. And even when allowed to run down, the flock will retain its original semblance of color longer than any other variety of fowl. But it would show unpardonable prejudice or ignorance on my part to assert that it was superior as an egg-producer or table fowl. But I can say that it has no superior in those respects.

Now I hope that all your readers will not agree with me to the extent of forsaking their favorite breeds and taking up the Barred Rock exclusively. Should such a thing happen, it would make for failures of our poultry shows, which would be detrimental to the poultry industry. Therefore each one to his individual choice. The Barred Rock needs no defender. He champions his own cause, and stands out the undisputed champion of poultrydom. Pretenders to this exalted position come, and pretenders go; but the Old Reliable holds the fort, and will continue to do so in the future as in the past.—MRS. H. E. GONDER, Wichita, Kan.

How to Prevent Roup.

Dear Sir: "I have been in the poultry business for years, and if it will help others, you may say I have used Walker's Walko Remedy for 7 years. I used to have lots of trouble with Roup until I found this remedy. I have cured cases with it that were frightful, but I don't have any trouble any more. If my birds catch cold or are exposed, I give a little in the drinking water and it stops it right away. I use it also for bowel trouble in little chicks—it's the best thing I ever saw. It prevents bowel trouble or white diarrhoea; makes chicks grow stronger and feather quicker. Readers can get it by sending 50c (M. O.) to the Walker Remedy Co., E 3, Lamoni, Iowa. I wouldn't try to raise poultry without it."—MRS. LOU HORNER, Davis City, Iowa.—Adv.

Nebraska Upland Alfalfa Seed—Fresh, cleaned, will pass the strictest state inspection; low prices. All kinds fresh Vegetable, Flower and Farm Seeds, Clovers, Grasses.

Nursery Dept. A full line of Fruit, Forest and Ornamental Trees, Small Fruits, Grape Vines, Shrubs, etc.

Roses Perennials, Low prices; best quality. Guaranteed fresh on arrival. I pay freight on \$10 tree orders. Large Garden Book free, English or German.

GERMAN NURSERIES & SEED HOUSE

25 GERMAN BLDG. (Carl Sonderogger) Beatrice, Neb.

Hill's Evergreens Grow

Best for windbreaks. Protect crops and stock. Keep house and barn warmer—save fuel—save feed. Hill's evergreens are hardy, nursery-grown—low priced. Get Hill's free illustrated evergreen book and list of Great Bargain Offers—from \$4.50 up per Thousand. 56 years experience. World's largest grower. Write. **HILL NURSERIES CO., Inc., Specialists.** 221 Cedar St., Dundee, Ill.

GUARANTEED SEED CORN.

Reid's pure-bred Yellow Dent, Iowa Silver Mine, Iowa Yellow Dent, Early Boone County White, Bloody Butcher, and old-fashioned Calico. Grown in the famous corn valley of the Nishnabotna River in Southwestern Iowa. None better. Germination, 98 and 100 per cent. Prices, \$1.75 per bushel for shelled and graded seed, \$2.50 for selected ear seed in crates. We ship on approval. Satisfaction guaranteed or money refunded. Write for catalog and free samples. **Botan Valley Seed Company, Box 114, Lewis, Iowa.**

POTATOES FIELD and GARDEN SEEDS

Send for Catalogue

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Write for catalog and price list of Fruit Trees, Grape Vines, Berry Plants, Rhubarb, Asparagus and Speciosa Catalogue. Certificate of nursery inspection with each shipment.

J. W. HINSHAW, Prop., EUREKA, KANSAS

NURSERY STOCK, DOLLAR SPECIALS

50 Concord Grapes, \$1.
20 Apple, \$1. 20 Peach, \$1.

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

FAIRBURY NURSERIES,

Box L. Fairbury, Neb.

PLANTS THE GREAT REMINGTON STRAWBERRY

The new strawberry that made Steamboat Springs, Colorado, famous. We are the largest growers there. Orders now taken for plants to be delivered next spring. We guarantee our plants hardy and true to name. Are members of the Association. Send in your orders early so that you will be sure of getting plants. For prices, terms, etc., address **WHITAKER BROS., Ottawa, Kansas.**

SEED CORN - Reid's Yellow Dent

SEED OATS - Kherson Seed Oats

Also Alsike, Timothy and Clover Seed. All seed guaranteed to please. Samples and prices named free.

F. M. RIEBEL & SON, ARBELA, MO.

STRAWBERRY PLANTS

Millions of Aroma, Klondyck and Gandy at lowest prices. Cabbage, tomato and sweet potato plants.

John Lightfoot, East Chattanooga, Tenn.

SEED CORN

Four varieties. Also garden and field seeds. Poland China hogs and Barred Plymouth Rock cockerels. Catalog free.

JOHN D. ZILLER, Hiawatha, Kansas.

SELECT SEED CORN

Big White Diamond Joe 1912 crop. Shelled, \$2.50 bu.; also 100 bu. select alfalfa seed \$8.00 bu. F. O. B.

F. P. MCCOLOUGH, Rossville, Kan.

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Samples and prices on request.

THE DEMING RANCH, Oswego, Kansas.

BELOIT SEED COMPANY

2,000 bushels seed corn, leading varieties. Texas-grown red seed oats. High-grade alfalfa seed. Kafir, sorghum and garden seeds.

BELOIT, KANSAS.

25 PEACH TREES by mail postpaid for \$1.00. Elberta, etc. Eight grape vines for 50 cents, eight varieties; 20 packets flower seeds, 50 cents. Catalog free.

W. A. ALLEN & SONS, Geneva, Ohio.

White Plymouth Rocks

Again prove their superiority as egg layers in the National Egg-Laying Contest, one White Rock hen laying 281 eggs; 645 hens competing. I have bred White Rocks exclusively for 20 years and have them as good as anybody. Eggs from three high-scoring pens, \$2.00 per 15; \$5.00 per 45, delivered free by parcel post or express. Safe delivery guaranteed. A limited number of eggs from a specially fine mated pen, \$5.00 per 15. You will get what you order, or money refunded.

THOMAS OWEN, Topeka, Kansas.

"HEAVEN AND HELL," Swedenborg's 400-page work, 15 cents, postpaid. Pastor Landenberger, Windsor Place, St. Louis, Mo.

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KANSAS FARMER, TOPEKA, KAN.

Getting Ready For Garden

By L. H. COBB

PLANTING time will soon be here. Catalogs are arriving. De we cast them aside and think nothing of the garden work until we are ready to begin? If that is the way we have been doing it is time to make a change, for there is a better way.

Some prefer to purchase their garden seeds of the home merchant, and that is all right if they can get good seeds. Others prefer to order their seeds of a mail order house. I would strongly advise all to get their flower seeds of reliable houses. Those in the stores are often worthless, much more often than the vegetable seeds. There is another advantage in patronizing a large house because you can get just the kinds and varieties you want, which is often impossible from the home merchant.

PLAN GARDEN EARLY.

Plan your garden ahead. Rotation of crops where sensibly followed will enable you to get much greater returns from the same plot, and the work of keeping clean will be much less compared with the crop harvested. Celery can follow any crop that will come off the ground by the middle of June. Late cabbage can follow early potatoes, and mustard, peas, beans, radishes, lettuce, and many of these quick maturing crops can follow each other, thus covering a long season, and making a small plot do a maximum amount of service. A little study on your part will enable you to plan the garden so it will pay you well for the trouble, but this must be done before you are ready to plant, for then you will be too busy to figure out rotation schemes.

There are many vegetables that may be had much earlier in the season, if the seed is sown during the winter or very early. Radishes, lettuce, mustard, spinach, onions from sets, and turnips may all be sown thus, and the seed will remain in the ground until a fit season arrives for germination, when it will come on quickly. There are so many times in the early spring that one has to wait because soil cannot be worked that the plants will grow all right if the seed is already sown.

GET MANURE ON GROUND NOW.

It is important that all manure that you wish spread over your garden be put on now, for it will wash down into the soil when the rains come unless you can have it plowed under soon, which is better, for then it will have a season to begin decaying before you need to work it. Newly turned under trash is a nuisance in the garden. Even if it lays on the surface it decays some, and becomes compacted enough so it plows under better. Do not think that your garden is rich enough. Few gardens but will be benefited by a good dressing of well rotted manure, or less rotted if plowed under early. You intend to give this garden good culture, and you want the greatest possible return for the labor expended. You cannot afford to work thoroughly a poor soil, when a little expenditure of money or time will make it rich.

GAIN TIME BY STARTING PLANTS.

Start your early vegetable and flower plants, that transplant easily and grow slowly at first, so as to have them ready as soon as the soil outside will be warm enough for them. I have sown tomatoes the first of February, but they were transplanted to smaller plots later. Some transplant tomatoes, peppers, and such plants to flats—that is, shallow boxes—and later to a cold frame if they have to be handled again before the weather is warm enough to permit outside planting. The great thing is to keep the plants of good color and rather sturdy. A spindling, soft plant will not give good results. If you intend to leave them in the boxes the first of March is early enough.

COUNTY AGENT ORGANIZES CLUBS.

One of the most valuable things a county agent can do is to arouse the interest of the boys and girls of the farm in agricultural matters. F. P. Lane, the county agent of Harvey County, is thoroughly at home in the school room and pig clubs and acre-yield corn clubs are being organized rapidly under his direction in that county. During the week ending January 17, he perfected the organization of two clubs of each kind. Mr. Lane says that the boys of the county take a great deal of interest in his proposed plan and that the teachers in the schools are ready and willing to help. Pure-bred pigs are being offered as prizes in the pig contests and some good cash prizes in the corn contest. Bankers, millers, and some breeders of pure-bred hogs are helping in providing prizes.

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Let the Chickens Make It For You

Wouldn't you like to know how easy it is to have chicken profits pay the grocer, the butcher, the coal man and the horde of others who seem to be shareholders in your pocket-book? Let the chickens make your living and save you other profits. How to do it is fully told in the Old Trusty Book. It is from this book that half a million people got their ideas on making big profits with chickens. Let me send it to you, too. Unless you have actually used an Old Trusty Incubator and Brooder you can have no idea of how easy it is to raise chickens in big numbers.



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That's because it's so simple—practical and easy to operate and because the Old Trusty gets biggest average hatches for beginners as well as old timers, in coldest weather or warm weather, in every locality, month after month, year in and year out. Even if you haven't thought much about making more chicken profits write for the Old Trusty book anyway. I just want you to see how easy and simple the whole thing is. You do not have to drop doing anything else—you do not have to wait until you get the time, and you do not have to worry over a string of high-falutin' instructions. Start any time—but start right, with the proved hatcher. Don't buy only on price. Investigate and use your own reason.

I Guarantee the Old Trusty to Do Its Part Or You Trade Back

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DIAMOND JOE'S BIG WHITE—A strictly new variety. None like it. It is the Earliest and Best Big White Corn in the World—because it was bred for most Big Bushels, not fancy show points; because grown from thorough bred pure stock. Every stalk bears one and two good ears, because scientifically handled, thoroughly dried and properly cured, and of good strong germination. Write for our **BIG SEED CATALOGUE, IT'S FREE.** It tells you about all our varieties of Seed Corn, also all Farm, Garden and Flower seeds. A Postal Card will BRING IT TO YOUR DOOR. (Mention this Paper.) Address Box 18
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BEST VARIETIES OF ACCLIMATED SEED CORN. ALFALFA SEED
Pure and Re-cleaned—Tested. Northern and Home-Grown Seed Potatoes of proper varieties. Seed Oats, Feterita, Millet, Cowpeas, Kafir Corn, Milo, Sorghums, etc. Plenty of alfalfa and prairie hay on all railroads. A full line of Field and Garden Seeds. Send for our price lists and samples.
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GREAT BEND SEED & PRODUCE CO., Great Bend, Kansas.

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GERMAN NURSERIES & SEED HOUSE (Carl Sonderegger) 25 German Bldg. BEATRICE, NEB.

THEY SAID THE FARMER WOULD NOT BUY

A FEW years ago advertising in the farm papers was confined almost entirely to the announcements of implement manufacturers and other lines strictly agricultural in character. Advertisers of things to wear, things to eat, things to improve the home and things for enjoyment seemed to think the farmer was not like other people. Then, gradually, one by one, they discovered the farmer and his family were human and were interested broadly in all phases of our very complex civilization. Now, as you will see by inspecting the advertisements, there is quite a variety of merchandise advertised in KANSAS FARMER.

RELIABLE POULTRY BREEDERS

PLYMOUTH ROCKS.

PURE-BRED WHITE ROCK COCKERELS. Mrs. W. C. Potter, Jenkins, Mo.

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

BARRED ROCK COCKERELS.—FLORENCE Belle Ziller, Hiawatha, Kan.

SEE ANNOUNCEMENT FOR POULTRY breeders' printing elsewhere in these columns.

PARTRIDGE ROCKS—BEST STRAINS Fifteen eggs, \$1.50; hens, \$1.50 each. Stella Weigle, Winfield, Kan.

IVORY WHITE ROCK COCK FOR SALE, \$2.00. Cockerels, \$1.50 and up. Minnie Clark, Haven, Kan.

PRIZE-WINNING BARRED ROCKS—Booking orders for eggs, show and utility. Send for booklet and price list. Mrs. D. M. Gillespie, Clay Center, Kan.

CHOICE BARRED PLYMOUTH ROCK cockerels at \$1.50 to \$5 each. Also eggs. E. Leighton, Ethingam, Kan.

BUFF ROCKS—WHITE FOR MATING list today. William A. Hess, Humboldt, Kan.

WHITE IVORY ROCKS—COCKERELS, pullets. Large fine quality. Gracia Dolson, Neal, Kan.

BUFF ROCK EGGS, \$1.50, 15; TWENTY prizes in 1913. A. H. Olmsted, Route 1, Lawrence, Kan.

FULL BLOOD WHITE ROCK COCKER-els, \$1 to \$1.50 each. Nora Lamaster, Route 1, Hallowell, Kan.

WHITE PLYMOUTH ROCKS AND SINGLE Comb White Leghorn cockerels. Mrs. M. Kildea, Hope, Kan.

FAVORITE POULTRY FARM BREEDS six varieties of Plymouth Rocks. Fifteen eggs, \$3.00. Stafford, Kan.

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

MAMMOTH SNOW WHITE ROCKS—None better. Stock about all sold. Place your order for eggs now. Charles Vorles, Watness, Kan.

STANDARD BARRED ROCK COCKER-els, three for \$5.00; extra fine, two for \$5.00. Satisfaction guaranteed. Mrs. L. W. Heller, Ladora, Iowa.

RINGLET BARRED ROCK EGGS FOR sale. Three pens. All birds barred to skin and mated right. T. J. Embury, Baxter Springs, Kan.

PARTRIDGE PLYMOUTH ROCKS—WIN-ners at four state fairs. Stock and eggs at all times. Circular free. H. E. Burgess, Osceola, Iowa.

BARRED ROCK BOOSTERS FOR SALE. Bred from one of best flocks in Kansas. Large and finely marked. \$3 and \$2.50 each. A. C. Irvine, Jetmore, Kan.

WHITE ROCKS—EGGS FROM WINNERS of five first prizes at Albert Lea, Minn., Poultry Show, December, 1913. D. M. Terry, 608 East Sixth St., Muscatine, Iowa.

BUFF ROCKS—UTILITY COCKERELS, \$2.00 to \$5.00; pullets, \$1.25 to \$2.00; exhibition birds, \$5.00 up. Write for my mating list. T. H. Lucas, Pattonville, Mo.

WHITE ROCK COCKERELS—SHOW winners; vigorous stock; \$1.50 to \$10. Bred for eggs and show. Will Curtis, St. James, Minn.

WHITE ROCK EGGS FOR HATCHING—Birds won Missouri State Special. Thirteen years' experience. Satisfaction guaranteed. Flower Crest Poultry Farm, Mrs. J. W. Porter, Holt, Mo.

SEND FOR BOOKLET, "PROFITABLE Poultry Selling," issued by Kansas Farmer. Free for the asking to anyone interested in poultry. A post card request will bring the booklet by return mail. Kansas Farmer, Topeka, Kan.

WHITE PLYMOUTH ROCKS—PULLETS, hens and cockerels for sale at reasonable prices. Eggs, \$2 per 15. Write for winnings. Address The White Rock Farm, Morrilton, Ark.

FOR SALE—THOROUGHbred BARRED Rock eggs, \$2 per 15. Settings from first pen, headed by Sensation, winner of first 1913, 1914 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—A FEW fine cockerels and pullets for sale at right prices. Have won many prizes in state and county shows. No better rocks in Kansas. Eggs after February 1, \$2 per 15. J. C. Hoyt, Barred Rock Specialist, El Dorado, Kan.

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BLACK LANGSHAN COCKERELS, \$1.50. Indian Runner duck eggs, 75c per 15. J. E. Gish, Manhattan, Kan.

BUFF AND BLACK LANGSHANS—NO better bred. Stock and eggs ready. J. A. Lovette, Poultry Judge, Mullinville, Kan.

PIGEONS.

GOOD HOMERS FOR SALE.—MARTIN Glebler, Catharine, Kan.

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S. C. BLACK MINORCAS—HIGH-CLASS prize winning stock. First premium hen and nine others mated with very fine cock for 1914, for sale at bargain. Eggs in season. W. H. Biddle, Wellston, Okla.

LEGHORNS

FINE S. C. WHITE LEGHORNS.—ALEX Spang, Chanute, Kan.

ROSE COMB WHITE LEGHORN COCK-erels, \$1.25 each. Stella May, Speed, Kan.

R. C. W. LEGHORN COCKERELS, \$1.50 each. F. W. Cornell, Wakefield, Kan.

CHOICE S. C. W. LEGHORN COCKER-els, \$1 and \$2 each. J. H. Vinsant, McPherson, Kan.

S. C. BROWN LEGHORN COCKERELS, extra quality. Mrs. L. E. Hastings, Thayer, Kan.

CHOICE S. C. WHITE LEGHORN EGGS, \$1.25 per 15; \$5.00 per 100. Mary Helm, Solomon, Kan.

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HINKLE'S STRAIN S. C. BROWN LEG-horn, standard-bred. Write for mating list and show record. Oliver C. Hinkle, Muskogee, Okla.

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STRICTLY HIGH-GRADE LIGHT BRAH-mas—Stock and eggs for sale. Mrs. F. O'Daniel, Westmoreland, Kan.

LIGHT BRAHMA COCKERELS—BEST stock. Prices right. Write us your wants. Schreiber Farm, Sibley, Iowa.

WARD'S LIGHT BRAHMAS, STILL UN-defeated. Eleven firsts, 8 seconds, 6 thirds, 3 fourths, 1 fifth, in the largest shows in Kansas. Thirteen yards of fine birds, Buff and Barred Rocks, Black Langshans, White Leghorns. Eggs, \$2.00 straight. W. H. Ward, Nickerson, Kan.

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FOR SALE—MAMMOTH BRONZE TUR-keys. W. F. Hirsch, Ellinwood, Kan.

SEE ANNOUNCEMENT FOR POULTRY breeders' printing elsewhere in these columns.

PURE-BRED WHITE HOLLAND TUR-keys for sale. Mrs. C. R. Hudspeth, Buckner, Mo.

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MAMMOTH BRONZE TURKEYS—30 toms and 35 pullets, sired by first prize State Show tom. Pullets, \$3.50 to \$5.00 each; toms, \$5.00 to \$10.00. Eggs in season. Mrs. H. E. Bachelder, Fredonia, Kan.

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R. C. Red Chickens

Four yards of splendid birds, headed by State Show winners. Eggs, \$2.00 per 15. Farm range, good birds, \$4.00 per 100.

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Pure white, every first (5) at Kansas State, in strong competition. Eggs, \$2.50 per 12. Fawn-white. Large yards, classy birds. Eggs, \$1.50 per 15; \$8.00 per 100.

Bourbon Red Turkeys

The big, red, blue ribbon kind. Eggs, \$3.00 per 11.

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ROSE COMB REDS—BLUE RIBBONS, Stock and eggs. L. Shamleffer, Douglas, Kan.

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SPLENDID DARK R. C. REDS—EGGS, \$1.50 and \$2.00. Mrs. H. F. Martindale, Madison, Kan.

ROSE COMB WHITE LEGHORNS—EGGS for hatching. Price, \$5.00 per 100 eggs. F. J. Nesetril, Munden, Kan.

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RHODE ISLAND REDS, BOTH COMBS. Eleventh year of sending our guaranteed fertility and safe arrival. Low priced eggs considering quality of stock. Mating list free. H. A. Sibley, Lawrence, Kan.

SINGLE COMB WHITE LEGHORNS—Winners American Royal, Convention Hall. Cockerels from 200-egg hens, \$2 up; hens, \$1.50. Send for catalog. Woodland Poultry Farm, Route 1, Stilwell, Kan.

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UTILITY WHITE ORPINGTONS—INCUB-ator eggs, \$6 per 100. Eli Sharp, Iola, Kan.

S. C. WHITE ORPINGTON EGGS FROM large vigorous stock. Pen No. 1, \$1.50; No. 2, \$1.00. Mrs. R. A. Jenne, Eureka, Kan.

BUFF ORPINGTONS FOR SEVEN years. Eggs, \$1.50, \$2, \$3 per setting; dandy cockerels, \$5. The Ennis Farm, Horine Station, Mo.

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WRITE FOR OUR COMBINATION OF incubator and eggs or brooder and chicks from Rhode Island Reds, Barred and Buff Rocks, White Leghorns and White Orpingtons. Smith & Bates, Quincy, Ill.

WATERS POULTRY FARM—WHITE Orpingtons, Silver Wyandottes, White Indian Runner ducks. Winners at Ft. Scott, Pittsburg and Pleasanton. Pen eggs, \$3 per 15, \$5 per 30; range, 75c per 15; \$1.25 per 30. Book orders early. Waters Poultry Farm, Uniontown, Kan.

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FIFTY PURE-BRED BABY CHICKS free. Send stamp for our offer. Kansas Poultry Co., Norton, Kan.

MAMMOTH BRONZE TURKEYS, \$5 AND \$6. Mary E. Gibson, Eureka, Kan.

WYANDOTTES

WHITE WYANDOTTE COCKERELS, \$1 each. Mrs. J. B. Edgerton, Dwight, Kan.

WHITE WYANDOTTE COCKERELS—Laying strain, prize-winning stock. Eggs in season. N. D. Ramsey, Hutchinson, Kan.

GOLDEN WYANDOTTES—GOOD COCK-erels, pullets, hens. J. K. Hammond, Wakefield, Kan.

GOLDEN WYANDOTTES, SICILIAN BUT-tercups. Stock and eggs. J. R. Douglas, Mound City, Kan.

SILVER WYANDOTTES, THE KIND that lay. Birds that can win in the show room. Send in your order. M. B. Caldwell, Broughton, Kan.

PARTRIDGE WYANDOTTES—IF YOU wish a start or improve your flock, ask us of our past winners. Have two excellent pens. Fred Karrs, Cotati, Neb.

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PARTRIDGE WYANDOTTES—FINE cockerels, \$2.00 to \$3.00. Order from this ad. I will treat you right. Ralph W. Owen, Mt. Pleasant, Iowa.

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

EGGS, \$2.00 PER 15, FROM CHOICE Silver Wyandottes, by parcels post. Sioux Poultry Yards, E. P. Hunt, Jr., Prop., Sioux City, Iowa. Mating list free.

FOR SALE—A FEW PARTRIDGE WY-andottes. Cockerels, springs, at \$1.50 each; hens and pullets at \$1.25 each, of good quality. H. W. Hudson, Sylvia, Kan.

FOR SALE—WHITE WYANDOTTE EGGS from pure-bred good utility fowls, per setting (15 eggs), \$1.50. Pure-bred Partridge Wyandotte eggs, per setting, \$2.00. Address with stamp, Lena Croan, Mound City, Kan.

TWENTY-FIVE YEARS A BREEDER OF Silver Wyandottes, Barred Rocks, White Crested Black Polish. Cocks, cockerels, hens and pullets for sale. Pairs, trios and pens properly mated. Wm. Nefera, Cascade, Iowa.

FOR SALE—PARTRIDGE WYANDOTTE eggs. Birds were mated early and eggs are now ready for immediate shipment. Also a few cockerels, the best I ever raised. My fowls are of near the very best. B. F. Meeks, El Dorado, Kan.

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INDIAN RUNNER DUCKS—WHITE AND fawn and white. Eggs, white, \$2.75, 12; fawn and white, \$1.25, 12; \$6.75, 100. Mrs. Annie E. Kean, Carlton, Kan.

FAMOUS HARSHBARGER BLUE RIB-bon strain American Standard Fawn and White I. R. Ducks. Bargain if taken at once. Mrs. R. L. Hart, West Tulsa, Okla.

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LIGHT FAWN AND PURE WHITE IN-Indian Runner duck eggs. Harshbarger Blue Ribbon strain. 280 egg record. Circular free. All about this "Peerless Strain." Orders filled without delay. Mrs. Wm. Harshbarger, Waveland, Ind.

THE STRAY LIST

H. N. HILDEBRAND, COUNTY CLERK, Gray County. Taken Up—By C. B. Rhodes, on October 6, 1913, one dun old horse mule, no brands, gray hairs on right front foot, ears lop. Valued at \$30. Eight miles southwest of Ingalls, Kan.

HERMAN BROEKER, COUNTY CLERK, Douglas County. Taken Up—By Conrad Altenbernd, Eudora, Kan. R. F. D. No. 2, one yellow Jersey cow with white spots on body, split right ear, coming about 3 years old; will be fresh soon. Appraised value, \$75, on December 13, 1913.

FIELD NOTES

T. J. Blake Offers Show Bulls. Shorthorn breeders wanting extra high class bulls should look up the card of T. J. Blake in Kansas Farmer. Mr. Blake owns a very select herd of Shorthorns. He selects only the outstanding individuals to send out as breeding stock and at this time is offering two young show bulls, one White Merry Hampton bred, and a Roan Duchess of Gloster bred bull. Anyone on the market for extra high class bulls should investigate this offering.

Mayetta, Kan., February 7, 1914.
Kansas Farmer, Topeka, Kan.
I have just sold the Jersey calf I have been advertising in Kansas Farmer. He goes to Harry Riggins, of Illinois.
This was the only bull I had left except my herd bull, so I enclose change of copy for my ad. I would hate to advertise anything in Kansas Farmer that I didn't want to sell. Yours very truly,
H. A. GILLILAND, Mayetta, Kan.

General Farm Inquiries

Ohio Seed Corn.

We are in receipt of an inquiry from C. A. S., one of our subscribers in Dickinson County, making inquiry as to why Ohio seed corn is not as good for Kansas as Illinois, Missouri or Wisconsin corn. It has been clearly demonstrated that seed corn brought from such remote states is not as good as seed corn from the home locality. Moving seed corn fifty or one hundred miles, even, has been observed to give poorer results as compared with equally good seed which was home-grown. As far as possible, farmers of Kansas should select their 1914 seed from corn now on hand. This advice has been given many times in KANSAS FARMER columns during the past few months. Our subscriber states that he has three or four hundred bushels of fine corn which went over one hundred bushels per acre in 1912. If this corn was grown in Dickinson County it would be far better for seed than corn shipped in from Ohio or any of the other states mentioned.

Price of Silage.

An inquiry comes from H. H. C. of Cloud County, asking us to give our opinion as to the price of silage made from fodder that stood in the shock until January 10. Our correspondent asks how its value would compare with that of alfalfa priced at \$15 per ton. As a result of various experimental studies into the value of silage, it would appear that good average silage ought to be worth about one-third as much as good hay. Alfalfa hay is almost in a class by itself as regards its feeding value and this rule might perhaps not apply in comparing silage with first class alfalfa hay. Silage made from dry fodder which has stood in the shock until January would not be equal in quality to silage which had been harvested at the

KANSAS FARMER have not had the opportunity of reading the valuable information furnished during the past twelve months, we will answer these various questions briefly.

Sweet clover, like alfalfa, cowpeas, clover and other legumes, has the power of adding nitrogen to the soil, taking it direct from the nitrogen of the air. It is fully the equal of the legumes mentioned as a soil builder and under some conditions probably superior. It may be seeded any time from January until the last of May with equal chances of success. As a rule twenty to twenty-five pounds of clean or hulled seed per acre is used. If the seed is sown unhulled, at least five pounds more per acre should be used. This large amount is required since a large proportion of the seed has hard seed coats and will not germinate the first year. It requires a very firm, compact seed bed and it is usually best to seed on corn land or some other inter-tilled crop, merely stirring the surface in the preparation of the seed bed.

One crop of hay may be secured the first year. It should not be cut until the new crown shoots have made a good start. Two and perhaps three crops of hay may be secured the second year. The first one should be cut just before the first blooms appear and should be cut high enough to leave a few leaves and branches on each plant. The next cutting may be allowed to go to seed if a seed crop is desired, or the first crop may be allowed to mature seed. It is a biennial plant and of course must be reseeded. In nature it reseeds itself naturally.

In saving a seed crop it may be harvested with a binder or mowed and raked in the same manner in which the alfalfa seed crop is handled. It shatters badly and should not be handled when very dry and brittle. The



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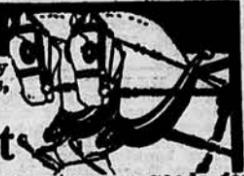
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GROW TEN TONS OF MANURE

BY L. E. CALL, PROFESSOR OF AGRONOMY, KANSAS AGRICULTURAL COLLEGE.

SWEET CLOVER is one of the best crops to grow on a soil that is in a low state of fertility, for the purpose of adding organic matter to the soil. A good crop of sweet clover will add as much organic matter when plowed under as an application of ten tons of barnyard manure.

Sweet clover should be plowed under when in full bloom. At this stage of growth it will supply the maximum amount of organic matter and yet the plants will be tender and decay rapidly in the soil.

proper stage of maturity. Since corn the last year produced almost no grain, a lower price would necessarily have to be placed on the silage than in a year in which a large yield of corn was produced. It is hardly likely that the silage referred to by our correspondent should be given a cash value of more than three dollars per ton as compared with alfalfa hay at fifteen dollars.

Since silage and alfalfa hay go together in the proper balancing of a ration, it is evident that better results would be secured by feeding some of both of these feeds than by placing the same money value in alfalfa alone. The fact that these two feeds are so different in composition makes it difficult to compare them directly in feeding value. It is only by properly combining the two that the highest returns are secured from each feed.

Sweet Clover Question.

A. R. O., a KANSAS FARMER reader of Neosho County, writes to ask a number of questions concerning the growing and handling of sweet clover. Much valuable information has appeared during the past year in columns of KANSAS FARMER on this subject. Assuming that this is a new subscriber we are sending a copy of our August 30 issue in which appeared an article describing in considerable detail the handling of this new agricultural plant.

Our correspondent wishes to know the best time for seeding, how much seed per acre, how long it will stand without re-seeding in case it is not allowed to go to seed, whether it will make a seed crop the coming season if not pastured and whether a hay and seed crop both can be secured in one season. He also wishes to be assured whether it has been proven beyond a doubt that it is a soil builder and to what extent, and whether it is equal to clover and alfalfa as a fertilizer. He wishes to know how best to prepare the ground for seeding and what kind of a machine is used for threshing.

Since the many new subscribers of

ordinary threshing machine is used, or better, the regular clover huller.

We would suggest that those interested in the use of sweet clover write to the Kansas Experiment Station for circular number 34, written by C. C. Cunningham.

Sugar Beets as Feed.

Our Colorado subscriber, R. A. B., writes to ask what we know as to the feeding value of sugar beets for hogs. he asks regarding methods of keeping the beets for winter feed and offers the suggestion that possibly they could be utilized in the silo by putting in about two parts of dry kafir fodder to one of beets. All the root crops are valuable in the feeding of live stock. In countries where root crops are easily grown they are fed in large quantities and it has been found that a pound of dry matter contained in the average root crop is equal in feeding value to a pound of dry matter in corn or similar concentrated feeds.

The sugar beet is richer in feeding value than most of the other root crops due to the fact that it contains a large amount of sugar. Sugar beets will form a very valuable addition to the diet of the hogs through the winter season and when grain feeds are scarce might be relied upon quite largely in the wintering of stock hogs. They can best be preserved by storing them in some sort of root cellar or pit in the ground. It is necessary to prevent them from freezing and stored in this way they will retain their succulence through the winter season.

The suggestion as to their use in the silo is a manner of storing them that has not been tried to our knowledge. Root crops alone can better be stored as already suggested. In all probability in the combining of beets with this amount of dry fodder the resulting mixture would not be moist enough to pack solidly and make good silage. We would not advise trying this experiment on a very large scale. It might be tried out in a small pit silo.

POULTRY BREEDERS' PRINTING

The season opens—you will want some stationery, mating lists and business cards.

Our facilities for the production of poultry breeders' requirements meet the desires of the most particular.

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NEW YEAR BARGAINS IN SUNNY South Missouri. Homes for those of moderate means. Write for list, free. Avery & Stephens, Mansfield, Mo.

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REAL ESTATE.

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SEED CORN—REID'S YELLOW DENT, Commercial White, Early White Flint, Early White Dent. Graded, sacked, \$2.00 per bu., f. o. b. Hay Read, Jr., Coffeyville, Kan.

CALICO SEED CORN FOR SALE— Graded, sacked and on track. Price, \$2.00 per bushel. W. J. Carpenter, Clay Center, Kan.

GOOD SEED CORN—REID'S IMPROVED Early Dent, \$2 per bushel, tipped and butted ear or shelled, f. o. b. Weeping Water, Neb. J. W. Sperry, Grower, Box 157.

ALFALFA SEED, \$6.60 PER BUSHEL, sacked. My own growing and free from any kind of weed seed. Certain to please. Chas. Hardwick, Lamont, Okla.

FOR SALE—FINE DRIED SEED CORN from leading varieties: Brown's Choice, Silver Mine, Reid's Yellow Dent and Yellow Rose. For particulars write Emery Brown, Mitchellville, Iowa.

D. V. BURRELL'S SEEDS ARE FAMOUS for quality. Send 10 cents for five trial packets, cantaloupe, cucumber, water melon, cabbage, tomato, and free catalog. Write today. D. V. Burrell, A-18, Rocky Ford, Colo.

SEED CORN FROM GROWER—PURE- bred Boone County White, 1912 crop, raised on best Kaw Valley land. Ear corn only. Guaranteed extra fine. \$2.00 per bushel. J. W. Cochran, Route 6, Topeka, Kan.

THE BRODBECK SWEET CHERRY— Twice the size of Early Richmond. Only one failure in past 20 years. Two hundred trees for sale. Write for its history. S. S. Brodbeck, Gallatin, Mo.

DWARF MILO MAIZE IN HEAD, CARE- fully hand selected for years, \$2.25 per cwt. Peterita, recleaned, \$3.50 per cwt. Sourless cane, recleaned, \$1.75 per bushel. Buy direct from grower. E. H. Taylor, Liberal, Kan.

KAFIR SEED—BLACK HULLED WHITE, germination test 99 per cent. This kafir has been given special attention. Threshed and graded. \$3.25 per hundred, bags free. Reference, Bank of Gage. G. E. Irvin, Gage, Okla.

ALFALFA SEED—RECLEANED, HOME- grown, non-irrigated alfalfa seed, \$5.40, \$6.00, \$6.60, \$7.20 per bushel, our track. Seamless bags, 25c each. Delivered price on request. No weed seed in this section. The L. C. Adam Mercantile Co., Cedar Vale, Kan.

FOR \$1.00 I WILL SEND YOU EIGHT apple, peach, pear or plum trees or six fine cherry trees, or 75 raspberry, blackberry or dewberry, or 20 grape, currant, gooseberry or rhubarb, or 100 asparagus, or 200 strawberry plants, or 20 red cedar or other evergreens. Catalog free. Nicholson Nursery, Manhattan, Kan.

SEED CORN.—WE HAVE A FEW HUN- dred bushels of extra good seed corn, shelled, nubbled, butted and sacked, \$2.85 per bushel, f. o. b. here. Mostly Hildreth's Yellow Dent and Boone County White. This was no doubt the best field of corn grown in Kansas in 1913. It produced 50 bushels to the acre, and was grown on W. E. Brooks' homestead a few miles north of here. It was the best corn exhibited at the State Fair at Hutchinson, Kan. Order now, and if over-sold, we will return your check. Brooks Wholesale Co., Ft. Scott, Kan.

CATTLE.

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

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

REGISTERED JERSEYS. IF YOU WANT a good Jersey bull calf, write Sable & White Stock Farm, Seward, Kan.

AN EXTRA WELL BRED HOLSTEIN bull calf, born January 27. Price reasonable. Carl Snyder, Route 7, Topeka, Kan.

MARCH RED POLL BULLS—WEIGH 600 pounds. D. F. Van Buskirk, Blue Mound, Kan.

EIGHT HOLSTEIN COWS AND HEIF- ers, fresh in less than 60 days. Also Berp's Trogan, registered. Write Jack Hammel, 215 Adams, Topeka.

FOR SALE—LIMITED NUMBER DOU- ble standard Polled Durham bulls, cows and heifers. Write soon. C. M. Albright, Overbrook, Kan.

FOR SALE—HIGH-GRADE WELL- marked Holstein bull calves, sired by son of King of the Pontiacs, \$18 each, crated. Lovers' Lane Dairy, St. Joseph, Mo.

HOLSTEIN AND GUERNSEY HIGH- grade calves crated for shipment anywhere. Write for prices. Wisconsin Live Stock Exchange, 894 27th St., Milwaukee, Wis.

FOR SALE—TEN CHOICE REGISTERED bull calves, from 2 to 12 months old, from high-class heavy-producing Jerseys. Write me for prices, stating age you want. D. S. Mayhew, Monnett, Mo.

FOR SALE—TEN HEAD OF REGIS- tered Aberdeen Angus bulls, sired by Elder Erica 70728. They are low-down heavy-boned growthy fellows, ready for service. W. L. Maddox, Hazelton, Kan.

FOR SALE—SCOTCH SHORTHORN herd bull, Victor Knight 338567. A large thick four year old. Good, sure breeder, good disposition. Sire, Barnston Knight, sire of grand champion female 1910 Royal; dam, 4th Elderlain Victoria, first prize winner World's Fair 1904. Wm. B. Parker, Lakin, Kan.

JERSEY COWS FOR SALE—I HAVE 110 non-registered pure-bred and high-grade Jersey cows and heifers, 80 in milk or be fresh in spring, and only 58 stanchions. Must sell 25 head. Am not a dealer, but have a practical working dairy and ship the product to Kansas City; raise my own cattle, using registered bulls. If you want such cows, write me at once. Geo. S. Linscott, R. F. D. 3, Bonner Springs, Kan.

REGISTERED HOLSTEIN FRIESIAN herd bull for sale, Canary Butter Boy King No. 70508. Age, 3 years, 11 months. Weight, 2,300 pounds. Two-thirds white. Dam and granddam average 25 pounds butter in 14 days. A fine straight bull. He is absolutely gentle and a sure breeder. If you want size, type and milkers in your future herd, don't miss this fellow. Come see him and the heifers sired by him. Harry W. Mollhagen, Bushton, Kan.

HAY, GRAIN AND FEED.

BALED ALFALFA FROM THE BIGGEST alfalfa farm in North Kansas. Address Robert Hanson, Concordia, Kan.

HOGS.

HAMPSHIRE HOGS—TWO EXTRA GOOD spring yearling boars for sale. Also a few sows and gilts bred for spring farrow. Ernest Sewell, Independence, Kan.

MISCELLANEOUS.

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

STRICTLY HAND-MADE BUTCHER knives from old files, 6 1/2-inch blades, post-paid, 50c. Chas. Meler, Henry, Ill.

WANTED—FEW BUSHEL SWEET CLO- ver seed. Give price and variety. Harmon Catt, Encino, New Mexico.

PAYING 14 CENTS FOR HEAVY HENS and springs; stags, 11c; turkeys, 18c. Coops loaned free. The Copes, Topeka, Kan.

YOUNG MAN, EXPERIENCED FARM hand, wants steady job on farm. Understands handling stock. Address Willie Worley, Barclay, Kan.

GROCERY AND MEAT MARKET DOING \$5,000 per month. Best town in Kansas. Cash or trade. Lock Box 71, Manhattan, Kan.

RICE—NEW CROP. 100 POUNDS BEAU- tiful, clean, white table rice, put up in double sacks, freight prepaid, \$4.50, east of Rockledge, Cabanis, Rice Man, Box 13, Katy, Texas.

WHEAT RAISERS—THIS ADVERTISE- ment cut out and mailed to me with your name and address will bring you a certificate worth one dollar. Do it now. W. S. Wells, Sterling, Kan.

GIRL OR WOMAN WANTED TO DO general housework on farm. Liberal wages and a good long job for good help. State wages wanted and reference in answering this ad. A. W. Kilne, Route 1, Mullinville, Kan.

SEND FOR BOOKLET, "PROFITABLE Poultry Selling" issued by Kansas Farmer. Free for the asking to anyone interested in poultry. A post card request will bring the booklet by return mail. Kansas Farmer, Topeka, Kan.

EVERYBODY HAS TO SLEEP! IF YOU want to make sure of restful sleep, send us \$10.00 and secure a famous Restwell 36-pound Feather Bed and receive a 8-pound pair pillows. Freight on all prepaid. Satisfaction guaranteed. Fine proposition for agents. Catalog of bedding supplies free. Turner & Cornwell, Dept. 91, Memphis, Tenn., or Dept. 91, Charlotte, N. C.

PATENTS

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SEND FOR FREE BOOKLET, ALL About Patents and Their Cost. Shepherd & Campbell, Patent Attorneys, 500-R Victor Bldg., Washington, D. C.

FIELD NOTES

FIELD MEN.

O. W. Devine.....Topeka, Kan.
Jesse R. Johnson.....Clay Center, Kan.
W. J. Cody.....Topeka, Kan.

PURE BRED STOCK SALES.

Feb. 17—Joe Dvorak, Marion, Kan.
Feb. 25—J. C. Robinson, Towanda, Kan.

Jacks.

Feb. 24—H. J. Hineman & Sons and D. J. Hutchins, Sterling, Kan.
March 9—G. C. Roan, La Plata, Mo.

Shorthorns.

Feb. 16—C. S. Nevius & Son, Chiles, Kan.
Feb. 26—Hoadley & Sigmund, Selden, Kan.
Sale at Norton, Kan.
March 25-26—Central Shorthorn Breeders' Association, W. A. Forzythe, Manager, Greenwood, Mo. Sale at Kansas City, Mo.

Jersey Cattle.

March 5—Everett Hays, Hiawatha, Kan.
May 11—H. C. Johns, Carthage, Mo.

Poland Chinas.

Feb. 17—C. S. Nevius, Chiles, Kan.
Feb. 17—L. E. Klein, Zeandale, Kan.
Feb. 17—E. M. Wayde, Burlington, Kan.
Feb. 18—J. R. Cline, Iola, Kan.
Feb. 18—J. H. Harter, Westmoreland, Kan.
Sale at Manhattan, Kan.
Feb. 19—W. Z. Baker, Rich Hill, Mo.
Feb. 19—J. L. Griffiths, Riley, Kan.
Feb. 20—W. A. Baker, Butler, Mo.
Feb. 20—A. J. Swingle, Leonardville, Kan.
Feb. 20—A. Davidson, Simpson, Kan.
Feb. 25—W. R. Reystead, Mankato, Kan.
Feb. 25—George Wedd & Son, Spring Hill, Mo.
March 4—L. V. O'Keefe, Bucyrus, Kan.
March 4—John Kemmerer, Mankato, Kan.
March 10—W. M. Watt & Sons, Green City, Mo.
March 10—Joshua Morgan, Hardy, Neb.
March 24—Herman Groninger & Son, Bendena, Kan.
Oct. 28—George S. Hamaker, Pawnee City, Neb.

Duroc Jerseys.

Feb. 21—Dana D. Shuck, Burr Oak, Kan.
March 7—E. G. Munsell, Herington, Kan.
March 11—W. W. Otey and Sons, Winfield, Kan.
March 12—G. C. Norman, Winfield, Kan.
March 13—Samuel Drybread, Elk City, Kan.
March 18—R. P. Wells, Formoso, Kan.
March 25—W. H. Mott, Herington, Kan.

The Holstein cattle sale held by H. C. Glissman of Omaha, Nebraska, February 10, was well attended by breeders. Sixty-five pure-bred cows averaged \$180 per head. There was a strong demand for pure-bred bulls and the number offered in the sale was not sufficient to supply the demand. Thirty high grade cows sold at an average around \$110 per head and several of them sold from \$160 to \$180 per head.

H. C. Wittorff, Medora, Kan., owner of one of the good herds of Hampshire hogs, is offering some choice spring gilts bred and a few tippy spring boars sired by Hillwood Jack by Earlander 1039. He is also offering a choice lot of fall pigs sired by Medora John and Hillwood Jack. He can furnish pairs or trios not akin. Look up his card and write him. He is making very attractive prices on this offering.

J. P. Mast of Scranton, Kan., owner of Butter Bred Holstein herd, is offering a fine herd bull for sale. He is offering this bull at a bargain for the reason that he cannot use him longer. Mr. Mast also offers some choice bull calves. Mast's Butter Bred Holsteins make good. Anyone on the market for a Holstein bull should write him at once as they will go quickly.

Durocs Sell at Hope, Kansas.

E. N. Farnham, Duroc Jersey breeder at Hope, Kan., announces a bred sow sale for Saturday, February 21. The offering of 30 head will comprise 12 extra choice tried sows and 18 select spring gilts. This herd was established some years ago with stock from the very best breeders, and the sows and gilts contained in this sale will all be good individuals and are representatives of the best Duroc families. Everything will be bred for spring farrow to the herd boars now at the head of the herd. One of these, Taylor's Model Chief, traces to Ohio Chief and was himself second prize boar at the American Royal in 1912. The other herd boar is a son of the noted show boar, Crimson Wonder Again. Both of these boars are good individuals and this offering will please. Everything in the sale is immune. Mr. Farnham also offers a fine lot of fall pigs at private treaty.

W. M. Watt & Sons, Green City, Mo., owners of one of Missouri's greatest herds of big-type Polands, claim March 10 as the date of their bred sow sale. On that date they will sell one of the best offerings of bred sows that will be sold in the corn belt this year, consisting of 20 tried sows and yearlings and 30 extra large smooth gilts. Among the yearlings will be two by Long Surprise and out of Ruby's Glantess. There will also be daughters of Big Orange, Colossal, Max Dude, Pawnee Pete, Pfander's Wonder, and other noted boars. Watch Kansas Farmer for further announcement. Send for catalog now.

Ernest E. Graff, of Rosendale, Mo., owner of the famous Missouri herd of Mulefoot hogs, one of the best herds of that breed in the West, is offering very high-class breeding stock at very attractive prices. His offering at this time includes his great herd boar, Dodger Chief, one of the biggest and best boars of the breed now in service. This boar is an outstanding individual and one of the best breeders of the breed. Mr. Graff can not use him longer. He is also offering a select lot of August and September boars and a number of choice bred gilts at very reasonable prices. His herd is made up of representatives of the best herds of that breed, including the Scanlon and Dunlap herds. Look up his card and write him for prices.

The Jumbo Herd.

At the head of this herd, which is owned by James W. Anderson of Lenardville, stands Clay Jumbo and Joe Wonder, two massive boars that have been worthy of their places. The matrons of the herd are large, useful, roomy individuals and sired by great big boars. Among them is Elnor, a granddaughter of Big Bone; Miss Glantess 2nd by Expansion Wonder 2nd; Big Lady Wonder by Big Bone; Keep Me by Big John; an extra choice individual by Blue Valley Gold Dust; Tecumseh Gold Dust by Chief Gold Dust; Long Hutch by Captain Hutch, and a great many daughters of the herd boars. The Jumbo herd is immune to the cholera and will stand inspection of the most critical breeders. All are invited to come and see them.

Tomson Brothers Shorthorn Cattle. The name Tomson is well established among Shorthorn breeders. For the past 25 years the Tomson herds have been headquarters for herd bulls and show cattle and today they have one of the best herds of breeding cattle in the west. Their show cattle have been prominent in the strongest shows, including the International. They have used a number of herd bulls of note, including Gallant Knight, and his best son, Gallant Knight's Hair is yet in service, also St. Clair, Imper's Victor, Barmpton Knight. Please read Tomson Brothers ad and if you want good cattle you can find them on the Tomson Brothers farm. Address J. G. Tomson at Carbondale, Kan., and John R. Tomson at Dover, Kan. Kindly mention Kansas Farmer when you write.

On page five of this issue a reference is made to the purchase of a new herd boar by O. B. Clemetson, a Poland China breeder of Holton. This boar is sired by Blue Valley Gold Dust, as stated, but was not purchased from M. Hendricks, the well known Duroc Jersey breeder of Falls City, Neb. The reference to Mr. Hendricks in this connection is an error on the part of the writer of the article.

The attention of Shorthorn breeders is called to the advertisement of E. S. Myers, of Chanute, Kan. Mr. Myers is offering a number of excellent young bulls sired by Royal Gloster 23255, and Col. Hampton 353998, two of the good Shorthorn sires now in service. These bulls are out of the best cows of Mr. Myers' herd. They are high-class cows and good milkers. The young bulls are beefy, rugged, good-boned fellows, well grown, and some of them are herd headers. He also offers a number of extra high-class Scotch and Scotch-topped heifers, including several show prospects. Look up his card and write for description of stock. Please mention Kansas Farmer.

Riley County Sale Circuit. Every Kansas farmer and Poland China breeder should bear in mind the big Poland China bred sow sale circuit to begin February 17 and end February 20. There will be 150 bred sows sold in the circuit, and all of the sales are close to each other and can be attended with very little expense. L. E. Klein opens the circuit with a sale on the farm, Tuesday, February 17. Those attending the sale take the train to Zeandale on the Rock Island, or St. George on the Union Pacific. J. H. Harter sells at the college pavilion, Manhattan, next day, then follows J. L. Griffiths at Riley, and A. J. Swingle closes the circuit at Leonardville on the 20th. Either attend or send bids to fieldman for this paper.

Last Call for Robison's Sale.

On February 25, 1914, J. C. Robison, owner of the famous Whitewater Falls Stock Farm at Towanda, Kan., will sell 150 head of imported and home-bred Percheron stallions, mares and colts at the sale pavilion on the farm near Towanda, Kan. The reputation of Whitewater Falls Stock Farm for its splendid Percherons is widely known and that of its owner for square and fair dealing and honesty of purpose is beyond question. Every horse man in the corn belt knows J. C. Robison and all know him to be a fair man to deal with and a perfect gentleman in any company. When a man gets along in his business so far that he can command the repeated purchases from his old customers and from a number of state agricultural colleges, he has very nearly reached the top. Mr. Robison has broken numerous state records and several world records in the previous sales held at the Whitewater Falls Stock Farm. He knows what his customers want and he breeds to that type. He now has the largest number of pure-bred Percheron horses to be found on any farm in the United States. All of the imported stallions and mares have been here long enough to be thoroughly acclimated and everything will be sold exactly as represented. To the breeder or farmer who wants good horses this sale will offer an unusual opportunity no horse man can afford to miss. Please read sale ad in this issue and send for a catalog and kindly mention Kansas Farmer when you write.

G. C. Roan's Great Jack Sale.

On March 9, 1914, G. C. Roan, of Clover Leaf Valley Jack Farm, La Plata, Mo., will hold his fifth annual jack and jennet sale. This will be the largest sale of its kind that will be held in the United States this year, not only in quantity, but in quality. Mr. Roan has purchased the entire sales herd of L. M. Monsees & Sons, of Limestone Valley Jack Farms, and this combination of the tops of these two great herds will make one of the greatest offerings of jacks and jennets ever sold in Missouri. There will be more herd headers in this offering than ever seen in a sale ring in one day. Among the jacks that will go in this sale will be Missouri King, conceded by many of the best judges to be the best jack in Missouri. Missouri King is not only a great individual, but he is without doubt one of the best breeders in service today. He has never been defeated when shown with his colts, and has sired many colts that have sold for from \$125 to \$175 at weaning time. A feature of the offering will be a great lot of two-year-old jacks sired by Missouri King. Send your name and address for the greatest jack and jennet catalog ever printed. Please mention Kansas Farmer.

Howell's Durocs Pleased.

The annual Duroc Jersey bred sow sale made by Howell Bros., Herkimer, Kan., February 3, was well attended, although the day was cold and raw. Doubtless a better day would have added at least \$2 per head to the total receipts of the sale. The offering was an unusually good one. J. B. Dunne, the wide-awake young breeder of Piush, Kan., bought the top sow, paying \$71 for No. 1 in the sale, a very valuable tried sow sired by Wide Awake Lad. Col. R. L. Harriman did the selling in his able way, assisted by James T. McCulloch and F. E. Kinney. Following is a list of representative sales:
1—J. B. Duncan, Piush \$71
2—Henry Kruse, Bremae 45
3—A. Mayhew, Herkimer 36
4—A. J. Turinsky, Barnes 47
5—Herman Krueger, Herkimer 38
6—Glen Keesecker, Washington 31
7—F. Mack, Oak Hill 31
10—P. W. Mack, Longford 41
11—Joe Bloom, Herkimer 49
12—J. B. Duncan, Piush 32
13—Fred Walker, Wymore, Neb. 32
14—Glen Keesecker 36
17—Shadler Bros., Wymore, Neb. 34
18—Chas. D. Knight, Oketo 36
21—Herman Krueger, Herkimer 40
22—C. K. Rodney, Blue Rapids 46
23—C. A. Miller, Wymore 43
23—H. Hoglan, Marysville 50
25—J. B. Duncan 41
30—Herman Lau, Marysville 33
33—Peter Morlissy, Frankfort 40
34—Joe Bloom 36
37—P. H. Hanson, Wymore, Neb. 40
41—J. B. Swank, Blue Rapids 36
47—J. O. Hunt, Marysville 36
48—R. E. Wells, Formoso 40
49—T. P. Teagarden, Wayne, Kan. 36

BARGAINS IN LAND

ARKANSAS VALLEY HAY AND STOCK RANCH

170 ACRES in fine alfalfa, sweet clover and prairie hay. All well fenced, house of 7 rooms, bearing fruit trees; nice grove, 3 miles town, 7 miles county seat and Division Ranch joins free range. Price, \$50 per acre. Can furnish good title and terms. 6% int. Owner must retire on account of old age. Also have a few quarters smooth raw land real cheap. Commission to agents. Write today. BOX 451, SYRACUSE, KANSAS.

FOR SALE

Ideal Stock and Grain Farm, Overlooking the State University of Lawrence, Kansas.

444 ACRES

Bluegrass and plough, finely watered, rich black soil, only about 30 acres of rough land and that fine pasture.

Beautiful building site, fine oak grove, and lies just across road from old home farm of ex-Gov. Robinson. Price, \$75 per acre. Reasonable terms.

JOHN S. TOUGH
Bismarck Grove,
LAWRENCE, KANSAS.

BUY or Trade with us—Exchange book free. BEESIE AGENCY, El Dorado, Kan.

100 ACRES, well located, Franklin Co., Kan.; 6-room house, other good improvements. \$9,000. Time on \$4,000, 6 per cent. ALLEN MANSFIELD, Ottawa, Kan.

HAY AND DAIRY FARM, 20 miles north of Colorado Springs; 85 acres in timothy and clover, 120 cultivated, good improvements, running water, 5 miles to good market. Price, \$10,000; one-third cash, balance to suit. B. J. Gwillim, Colorado Springs, Colo.

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

FOR SALE—240 Acres, 7 1/2 miles north of Hays City, Kan. Level wheat land, fenced and cross-fenced; 30 acres pasture; 155 acres wheat; good 8-room house, good barn, granary, two stone chicken houses, well, windmill, water piped to corral at barn. Price, \$42.50 per acre; \$4,000 cash, balance time. Will sell quarter with buildings for \$45 per acre, half cash, balance time. No encumbrance. GEO. HUBBELL, Owner, Hays City, Kansas.

WE HAVE BOUGHT, sold and traded, land, merchandise and city property, for others, and can do it for you. List your wants with us. KUHLMAN REALTY CO., Wichita, Kan.

Wakarusa Bottom 100 ACRES—135 in. cult., alfalfa, timothy; 80 hog-tight; 6-room house, good barn, near schools, 3 1/2 miles to railroad. \$70 per acre. W. M. FORBES & CO., Topeka, Kan.

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130 ACRES, 1 1/4 miles of fine city of 2,000; high school etc., best wheat, corn, alfalfa land in world; 80 a. in wheat now and you ought to see it, balance in best of timber. Produced better than 40 bu. wheat per a. 1913. In center of oil-gas belt. Unleased, can lease any time for cash rental and share. No income-brance. Will sell at once, \$60 a., and is worth \$100. Come and see—you will buy. Terms. LOCK BOX 926, Fredonia, Kansas.

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.

LOOK 200 ACRES, \$4,000. \$1,200 cash, terms to suit buyer on balance. We sell or trade lands of anything anywhere. "Ask Kirwan & Laird about it," West Plains, Howell Co., Mo.

\$55.00 Per Acre.

320 Acres, 70 acres fine creek bottom, 185 under cultivation; a lot of fine level up-land, good black loam soil, improved, fine water, more can be cultivated, balance pasture and meadow, some alfalfa, a fine stock and grain farm. WEAVER & MYERS, Wakefield, Kan.

MUST SELL. 115 Acres, Franklin Co., Kan., 2 miles of Ottawa, town 10,000, all in cultivation; 40 a. clover; fine buildings. Price, \$8,500. Write for list. MANSFIELD LAND CO., Ottawa, Kan.

TWO RANCH SNAPS, BUTLER COUNTY, KANSAS. Finest bluestem, abundance water, improved and fenced. 1,600 acres, 5 miles El Dorado, level, \$25. 1,800 acres, 5 miles Rosalia, \$22.50. V. A. OSBURN, El Dorado, Kansas.

ONE, TWO, THREE SNAPS. 160 Acres—100 acres fenced, 80 acres broke out, 60 feet to water. Price, \$25 per acre. 320 Acres—Good wheat land, 9 miles north of Dodge City, Kan. Mortgage \$5,000, can run 4 years, 6 per cent. Price, \$40 an acre. A bargain for someone. \$40 Acres of land north of Dodge City, Kan., 3 miles; 75 acres wheat, share goes with place. Price, \$17. \$500 against it due 3 years. H. B. BELL LAND CO., Room 5 Commerce Bldg., Phone 2, Dodge City, Kan.

MONEY-MAKING FARMS, 21 STATES—\$15 to \$50 an acre. Live stock and tools often included to settle quickly. More for your money in productive land near good markets here today than elsewhere on earth. Get the facts. Big illustrated bargain sheet free. E. A. Strout Farm Agency, Station 77, New York City.

140 ACRES, 2 1/2 Miles McAlester, city of 15,000. All tillable, bottom and second bottom; no timber or rock; no overflow; 35 a. cultivation, balance meadow. \$32 per acre, terms. No exchange. SOUTHERN REALTY CO., McAlester, Okla.

FOR SALE—Well improved smooth 80 acres 1 1/2 miles from Garnett, Kansas, 50 acres clover and timothy, 2 acres prairie grass, balance in cultivation. Some fruit, peaches and grapes. Plenty of good water. Good 6 room house. New barn 32 x 40. Cattle shed 25 x 50. Corn crib 14 x 20 and other outbuildings. Also have a highly improved 40-acre suburban home, which I would trade for unimproved prairie hay land. For particulars, write W. L. WARE, Garnett, Kansas.

COLORADO The Land of Sunshine, Health and Good Crops, for Cheap Land. No hot winds, cool nights. Land very productive for all kinds of crops, and where dairying and general farming is assured. 320 acres improved Elbert County farm, with 100 acres in cultivation and fenced, with open range for 300 head of stock; average 11 miles to two good towns; good roads the year round; coal field short distance. This farm is a No. 1 and will bear close investigation. Price, \$25.00 per acre. If interested, deal direct with owner and save commissions. Any and all information accurately given. F. E. JANKE, 121 N. Walnut St., Colorado Springs, Colo.

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HOLSTEIN CATTLE.



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. Send for FREE Illustrated Descriptive Booklets. Holstein-Friesian Assoc., F. L. Houghton, Sec'y, Box 114, Brattleboro, Vt.

Bonnie Brae Holsteins

A choice lot of high-grade heifers and cows. Also high-class registered bulls.

IRA ROMIG

Station B. Topeka, Kansas

Butter Bred Holsteins

For Sale—A herd bull, also choice bull calves. Prices very reasonable. Write today. These bargains will not last long. J. F. MAST, Scranton, Kan.

SUNFLOWER HERD

15—BULLS—15 All registered, all ages. Best of breeding. Well grown nice condition. I can meet your requirements. F. J. SEARLE, Prop., Okaloosa, Kan.

M. E. MOORE & CO.

CAMERON, MISSOURI. Choice young Holstein cows and heifers for sale. Also few young bulls. Tuberculin tested.

PURE-BRED SELECTED HOLSTEINS. We now have about 50 head cows, three to six years old, mostly springers, some to freshen soon; 12 head two year old first calf heifers; a few young bulls. Cows are high grade and bred to registered bulls. Edmunds & Young, Council Grove, Kansas.

HIGH CLASS HOLSTEIN COWS

Both registered and high grade. Breeding stock for sale at all times. Write us your wants. ARNOLD & BRADY, Manhattan, Kan.

HOLSTEINS FOR SALE. Large registered bulls, cows and heifers. Also five carloads of grade cows and heifers. Our herd is state inspected and tuberculin tested.

THE SPRINGDALE STOCK RANCH. Concordia, Kansas.

CHENANGO VALLEY GRADE HOLSTEINS Two hundred nicely marked well-bred young cows and heifers, due to freshen within the next three months. Also registered bulls ready for service. F. J. HOWARD, Bouckville, N. Y.

HIGGINBOTHAM HOLSTEINS. Several registered bull calves for sale. Call or write. C. W. HIGGINBOTHAM & SONS, Rossville, Kansas.

HOLSTEIN BULL CALVES always on hand, and worth the price. H. B. COWLES, Topeka, Kansas.

RED POLLED CATTLE

AULD BROTHERS Red Polled Cattle

Heifers and young bulls for sale. Prices right. Herd headed by Prince, one of the best sons of Actor. AULD BROS., Frankfort, Kansas.

RED POLLED CATTLE

For Sale—A choice lot of registered cows, bulls and heifers. Several herd headers. HALLOREN & GAMBILL, Ottawa, Kansas.

RED POLLED CATTLE A few choice bulls, ready for service, priced reasonable. I. W. FOULTON, Medora, Kan.

RESER & WAGNER'S RED POLLS. 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.

RILEY COUNTY BREEDING FARM. Registered Red Poll Cattle. Fifty head in herd headed by 2,400-pound Commander 11872. Six extra choice coming yearling bulls for sale. ED NICKELSON, Leonardville, Kansas.

GUERNSEY CATTLE

GUERNSEY The Utility Cow

Which makes every pound of feed into dairy products. Write for facts. GUERNSEY CLUB, Box K. F., Peterboro, N. H.

ONE COMING YEARLING GUERNSEY BULL. ONE GUERNSEY BULL CALF 6 WEEKS OLD. ONE GUERNSEY COW—all for sale reasonable. Dr. E. G. L. Harbour, Baldwin, Kan.

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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, Blaine County, Oklahoma.



JERSEY CATTLE.

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.

REGISTER OF MERIT JERSEYS.

Offer a fine young cow in milk and bred to Oakland's Sultan for \$150. Also a grand daughter 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. LINSBOTT, Holton, Kansas.

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.

JERSEYS FOR PROFIT

AMERICAN JERSEY CATTLE CLUB, 324 W. 23d St., New York.

JERSEY CATTLE FOR SALE.

Choice young bulls by Golden Fern's Lorne out of 45-pound dams. Also high choice cows and heifers in milk and springers. All registered. D. A. KEAMER, Washington, Kansas.

BENFER JERSEY CATTLE.

A few bull calves for sale, sired by Sultan of Comortholm. Dams of Golden Lad breeding. Also high scoring S. C. White Leghorn cockerels. E. L. M. BENFER, Leona, Kansas.

GOLDEN RULE JERSEY HERD

Headed by Cicero's Rochette Noble, mated with cows of equal merit and breeding. Young bulls for sale. JOHNSON & WYLLIE, Clay Center, Kan.

SHORTHORN CATTLE

Pearl Shorthorn Herd

Yearling bulls all sold. Have 20 bull calves, oldest a March calf. Reds, roans and red with white marks. Some of them from extra heavy milking dams. Some sired by the big roan Scotch bull, Valiant, and some by Highland Chief. Few coming two. Visitors always welcome. C. W. TAYLOR, Abilene, Kansas

UPLAND SHORTHORN HERD

Headed by Urydale, a great son of Avondale. For sale, ten choice bulls in age from 6 to 15 months, out of dams close up in the breeding of Choice Goods, Gallant Knight, Lord Mayor and Imp. Day Dream's Pride. GEO. W. BEMIS, Cawker City, Mitchell County, Kansas.

Cedar Heights Shorthorns

Offers two choice bulls, one red, one roan, 14 and 16 months old. Ten head cows from 3 to 5 years old. Prices reasonable. HARRY T. FORBES, Route 8, Topeka, Kan.

TOMSON BROS.' SHORTHORNS

200 HIGH-CLASS CATTLE, 20 leading Scotch families, other standard sorts also. We offer 20 heifers, yearlings and two-year-olds, choice breeding and quality; 10 select bulls of Augusta, Victoria and other Scotch families; breeding stock of all ages. Address either farm. Jas. G. Tomson, Carbondale, Kan., R. R. station Wakarusa, on main line Santa Fe, or Jno. E. Tomson, Dover, Kan., R. R. station Willard, on main line Rock Island.

Cedar Lawn SHORTHORNS

FOR SALE—Scotch and Scotch topped bulls, in age from 8 to 16 months. Good individuals and representatives of best families. Fifteen choice fall boars and gilts, big type. S. B. AMCOATS, Clay Center, Kan.

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For Sale—Show Bulls: One white, Merry Hampton bred, and one roan, Duchess of Gloster bred bull. They are the show kind that win. T. J. BLAKE, Hawatha, Kan.

TWO CHOICE SHORTHORN BULLS

Fourteen months old, sire Lord Hastings out of Scotch dams. Prices reasonable. Write us. J. M. RHODES, Topeka, Kan. Route 1, Box 144.

MARCH BULL CALF.

Big and beefy, nice red, just right for few cows next summer. Few cows and heifers bred to our beefiest bulls. Write or come and we will show you. JEWELL BROTHERS, Humboldt, Kansas.

SEAL'S MILKING SHORTHORNS.

Eight choice young red coming yearling bulls, sired by Seal's Gauntlet, grandson of Gifford's Red Gauntlet. Same number of choice young heifers. Attractive prices for a short time. Joseph Seal, Wakefield, Kan.

SHORTHORN CATTLE

Dual Shorthorns, Hornless. 5415 1/2 pounds butter sold 1911. No calf tasted skim milk. Infant male calves. J. H. Walker, Lathrop, Mo

HEREFORD CATTLE

Star Breeding Farm

HEREFORD CATTLE

DUROC JERSEY HOGS

FOR SALE. 20 TWO-YEAR-OLD BULLS 55 COMING TWO-YEAR-OLD BULLS 20 BIG STRONG YEARLING BULLS All registered and sired by high-class herd bulls. A carload of cows and heifers with calves at foot or bred to drop calves early in the spring. Prices reasonable. Write, or come and see me. Sam Drybread, Elk City, Kan.

LANDER'S Brookside Herefords

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. WARREN LANDERS, Savannah, Missouri.

DUROC JERSEYS

WALNUT GROVE DUROCS

THIRTY DAYS SPECIAL PRICES. Tried sows, \$40; spring gilts, \$30 to \$35; two herd boars, \$40; fall pigs, \$30 per pair; Model Top boars at \$25. Stock in good condition. Old hogs vaccinated. Sows bred to R. C. Buddy, Watson's Col. and Watson's Model Top. E. C. WATSON, ALTOONA, KAN.

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. LEON CARTEE, Asherville, Kan.

IMMUNE DUROCS—Fifty big-type sows and gilts, fall boars and spring pigs. Choice breeding and guaranteed immune from cholera. Inspection invited. F. I. NELSON, Assaria, Saline Co., Kan.

BELLAIRE 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, Bellaire, Kan.

50—SUMMER DUROCS—50

Both sexes, rich breeding and well grown out. \$20 for choice. Pair for \$35. Trio, \$45. Here is the opportunity for the beginner. Write for description. M. M. HENDRICKS, Fall City, Kansas.

CLEAR CREEK DUROCS

Headed by Clear Creek Col., grandson of Dreamland Col. No stock for sale at present time. J. R. JACKSON, Kanapolis, Kan.

Summer and Fall Boars

Durocs—Best breeding. Also a fine herd boar, cheap. R. F. WELLS, Formoso, Kansas.

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. DANA D. SHUCK, Burr Oak, Kan.

QUIVERA DUROC JERSEY HERD. Thirty choice fall pigs, either sex, sired by richly-bred boars and out of big mature dams. Pairs not related, \$25 per pair. E. G. MUNSELL, Herington, Kansas.

DUROC JERSEY BOARS of early spring farrow, sired by Joe's Price 118467, a son of Joe, the prize boar at the World's Fair, out of large mature dams. Will ship on approval. Prices very moderate. HOWELL BROS., Herkimer, Kan.

TATARRAX HERD DUROCS

Some choice gilts by Tatarrax and G. M.'s Tat Col., bred for late April and early May litters, at reasonable prices. HAMMOND & BUSKIRK, Newton, Kansas.

DUROCS OF SIZE and QUALITY

Herd headed by a son of B. & C.'s Col. Immune spring boars and gilts of Tatarrax, Col., Ohio Chief and Neb. Wonder breeding at farmers' prices. JOHN A. REED, Route 2, Lyons, Kansas.

MODEL AGAIN Duroc Boars, \$15. Bred Gilts, \$25. R. W. BALDWIN, Conway, Kansas.

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POLAND CHINAS

ERNHART BIG TYPE POLAND CHINAS

50 head of strictly big type Poland China pigs for sale at reduced prices for 30 days. Herd header and herd sows prospects. Sired by Major B. Hadley the Grand Champion, American Royal, 1911. Young Hadley—Giant Wonder—by A Wonder. Write today. We want to sell quick. A. J. ERHART & SON, Beeler, Kansas.

Spotted Poland Chinas

Some splendid spring gilts for sale, bred for early spring litters. A few dandy boars left, also fall pigs. These are the old original big-boned spotted kind. The Ennis Farm, Horine Station, Mo. (20 Miles South of St. Louis.)

BIG ORANGE AGAIN BOARS. Extra good March and April boars, sired by "Big Orange Again," and "Gritter's Surprise." Dams—By "A Wonder," "Miller's Chief Price," and Podendorf's "Chief Price Again." Immuned. Priced right. A. J. SWINGLE, Leonardville, Kan.

BIG POLAND CHINAS. Six spring boars sired by Missouri Metal out of Big Logan Ex. Sows, ten fall pigs, five gilts and five boars out of same sows; sired by Chief Mogul. Prices reasonable. Write us. J. M. RHODES, Topeka, Kan. Route 1, Box 144.

TWO GOOD POLAND CHINA SPRING BOARS. Sired by U Wonder and out of Mogul sows. A few spring gilts by U Wonder and Orange Lad by Big Orange. Ninety fall pigs, will sell pairs or trios. Write us today. THURSTON & WOOD, Elmdale, Kan.

HARTER OFFERS POLAND BOARS. No fall sale. Twenty choice spring boars, tops of 35, best of breeding, \$20 each. Also five fall boars, good ones, \$25 each. Nothing but the best shipped. J. H. HARTER, Westmoreland, Kan.

BIG POLAND CHINA SPRING PIGS. Sired by Peter Mouw boars. Here is where you can get big-type pigs at a low price. Never before was there such a bargain offered. Write me your wants. Ben Bademacher, Box 13, Mulberry Grove, Illinois.

THE JUMBO HERD. Immunized Poland China brood sows and open gilts sired by Clay Jumbo, the half-ton hog, bred to Joe Wonder, a son of the noted boar, Big Joe, for which \$1,000 in cash was refused. Write me your wants. JAMES W. ANDERSON, Leonardville, Kan.

CLOSING OUT BIG POLANDS. Herd boar Melbourne Jumbo, two tried sows daughters of Gold Metal, two July gilts by herd boar, and 20 choice fall pigs. Low prices for quick sale. R. B. DAVIS, Hiawatha, Kansas.

Otey's Sensational Grand Champion Bred Sow and Gilt Sale of FIFTY DUROCS. Winfield, Kansas, March 11. One of the very greatest offerings East or West. Send for catalog. W. W. OTEY & SON, Winfield, Kansas.

POLAND CHINA BRED SOWS. For sale, bred to a good son of Big Ben. The sows are granddaughters of Gold Metal and other big boars. Also select fall boars. AUSTIN SMITH, Dwight, Kansas.

BOARS READY FOR SERVICE. Five-months-old big-type Polands, sired by Blue Valley Look, out of big sows. Low prices for quick sale. C. F. Behrent, Oronoque, Norton Co., Kan.

TWENTY IMMUNE BRED GILTS. Big-type Polands, bred to A Big Orange Again. Extra good individuals, \$25 and \$30 each. Twenty choice fall pigs by same boar. Reasonable prices. HUBERT J. GRIFFITHS, Clay Center, Kan.

FOLEY'S BIG POLAND GILTS. FOR SALE, bred to my great young boar, The Giant. Also one extra choice spring boar and fall boars ready to ship. J. F. FOLEY, Oronoque, Norton Co., Kansas.

POLAND CHINA BRED GILTS. Sired by First Quality and bred to our great new boar, Longfellow Again. Fine individuals. Also fall pigs, either sex. JAS. ARKELL, Junction City, Kansas.

Merten's Big Smooth Poland Chinas. Headed by King Hadley 3d and Kansas Wonder, mated with daughters of Old Expansion, What's Ex, and Grand Look Jr. Stock for sale. E. E. MERTEN, Clay Center, Kansas.

BRED SOWS FOR SALE. I will sell a few choice Poland China brood sows, sired by Missouri Governor and bred to a son of Kansas Hadley by Big Hadley. A few extra good spring boars for sale. Write me. L. E. WILEY, Sr., Elmdale, Kan.

Faulkner's Famous SPOTTED POLANDS. We are not the originator, but the preserver, of the Old Original Big-Boned Spotted Polands. Write your wants. Address H. L. FAULKNER, Box K, Jamesport, Mo.

FIFTY IMMUNE POLAND FALL PIGS. Extra choice, either sex, sired by the great King of Kansas, and out of mighty big sows. Attractive prices. J. L. GRIFFITHS, Riley, Kansas.

PECKHAM'S IMMUNE BIG POLANDS. Six fall and spring boars; 25 tried sows; fall yearlings and spring gilts. Big and smooth. Want to sell half of them. Take your choice. All tried sows bred to the great "Blue Valley Gold Dust" gilts sired by him. Inspection invited. E. J. PECKHAM, Pawnee City, Nebraska.

WONDER POLAND CHINA HERD. Headed by Model Wonder, assisted by a son of Blue Valley. Mated to as big sows as can be found. We offer spring gilts by first named boar and bred to the other one at reasonable prices. O. R. STRAUSS, Milford, Kan.

CLARK'S EXTRA BIG SMOOTH POLANDS. Choice spring boars for sale by a grandson of the noted A Wonder. Also bred gilts and fall pigs. L. L. CLARK, Meriden, Kansas.

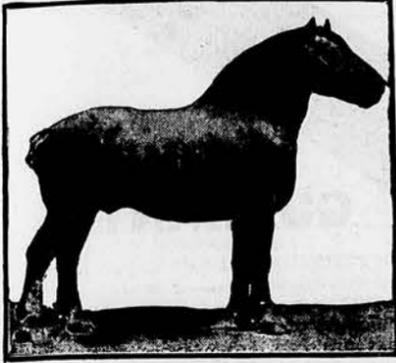
MULE FOOT HOGS

Graff's Mule Foot Hogs

For Sale, Extra herd boar, August-September boars, choice bred gilts. ERNEST E. GRAFF, ROSENDALE, MO.

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IMPORTED MARES AND STALLIONS



Importation arrived October 1, 1913. I have personally selected the best young stallions and mares I could buy in France and Belgium, two and three years old. They all have good breeding quality, sound and good colors, and will make ton horses. Every horse absolutely guaranteed. If you are looking for a first-class stallion or a good pair of mares, come and see me. I mean business. My barns three blocks from Santa Fe depot.

W. H. RICHARDS Emporia, Kansas

PERCHERONS SHIRES BELGIANS

We now have in our barns a new importation of extra big high-class stallions. We are pricing these horses very reasonably and also have a few first-class home-bred stallions which we will sell at from \$200 to \$600.

It will pay you to come to Lincoln and see these horses or send for our free catalog.

Watson, Woods Bros., & Kelly Co.

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LOCUST BLUFF STOCK FARM

Jacks, Jennets, Herefords and Holsteins. Twelve fine Missouri-bred jacks for sale, sired by None Such, the best son of King of Giants. Also extra fine Holstein bull and one extra Hereford bull ready for service. We also have younger bulls. We are breeders, not speculators. All stock guaranteed as represented.

JOHN G. THOMAS & SON, Harris, Mo.

OSAGE VALLEY JACK FARM. Sixteen jacks, from 4 months to 3 years old. Yearlings up to 15 hands standard. One jack just turned 3 years old, weight 1,050. Forty jennets in herd, second to none, some for sale. Twenty years a breeder.

W. D. GOTT, Xenia, Bourbon County, Kan.

JACKS AND JENNETS. Eighty large-boned black mammoth jacks, 15 to 16 hands standard, guaranteed and priced to sell. The kind all are looking for. Also good young Percheron stallions. Reference, banks of Lawrence. Forty miles west of Kansas City, on Santa Fe and U. P. Railroads.

AL E. SMITH, Lawrence, Kansas.

JACKS AND JENNETS. 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.

PHIL WALKER, Moline, Elk Co., Kansas.

JACKS. Five and six years old, 15 1/2 and 16 1/2 hands, weigh up to 1,200. \$1,000 each, no trades. Also Durocs. Owner of grand champion sow, Model Queen. Stock for sale.

LOUIS KOENIG, Solomon, Kan.

20 PERCHERONS, JACKS AND JENNETS. Imported black Percheron stallions, 5 to 7 years old, strong bred in the Brilliant strain, weights from 1,700 to a ton, well broken. Black registered mammoth jacks and jennets, 15 to 16 hands, 1 to 5 years old; jacks old enough, well broken. Farm 30 miles northwest of Hutchinson. Meet trains at Raymond or Chase, Santa Fe Railroad.

J. P. & M. H. MALONE, Chase, Kansas.

Kentucky Jack and Percheron Farms. Big bone Kentucky mammoth jacks; Percheron stallions, mares, saddlers. Special prices in half car or carload lots. Write for catalogs. Cook & Brown, Lexington, Ky.

FOR SALE. Three big black jacks, guaranteed, and a well improved farm of 230 acres, best of soil, bluegrass, alfalfa, abundant; finely located home. Stock must go. No trade. Write. Better come and see if you mean business.

CLEM L. SMITH, Lawson, Mo.

HORSES AND MULES.

DIAMONDS IN THE ROUGH

I am offering for sale at very low prices a fine lot of young Percheron, Belgian, French Draft and Coach Stallions and mares. These horses are not fat, but in good, thrifty condition and will make good. Come and see me.

J. M. NOLAN, Paola, Kansas.

IMPORTED STALLIONS. Percheron and Belgian, also Percheron and Belgian mares, and a few registered jacks. These horses were prize winners at Topeka, Hutchinson, and American Royal, including grand champion and reserve champion at each show, winning 28 first and champion ribbons, three gold medals and two silver medals. These prize winners and others for sale and can be seen at my farm 7 miles northwest of Alma. Reference, any bank in Alma or Wamego.

LEW JONES, E. R. No. 1, Alma, Kansas.

JACKS AND JENNETS. Six fine 3 and 4-year-old jacks and 17 mammoth black jennets for sale. Will sell worth the money.

JNO. A. EDWARDS, Eaglewood, - - - - Kansas.

SEVEN SHIRE AND PERCHERON STALLIONS. Sire and dam of Shires imported. Prices, \$250 to \$650. Farm 3/4 miles from Wakefield. Will meet trains if notified in time.

JAMES AULD, Wakefield, Clay Co., Kan.

POLLED DURHAM CATTLE

ROAN HERO 3613 - 229963

THE INTERNATIONAL CHAMPION, AND ACACIA PRINCE X 8079-308159

The grand champion at Topeka, 1913, head my herd of double-standard Polled Durhams. Young bulls, cows and heifers for sale. Missouri Pacific R. R., 17 miles southeast of Topeka, Kan. Farm adjoins town. Inspection invited.

D. C. VAN NICE, Richland, Kansas.

POLLED DURHAMS FOR SALE

TEN HERD BULLS sired by Roan Choice, the junior champion of 1911. Prices reasonable. Come and see my herd.

C. J. WOODS, CHILES, KAN.

Scottish Baron For Sale

Double standard, weight 2,200; extra individual. Also 12 Shorthorn cows in calf to him, and younger bulls. Inspection invited.

JOSEPH BAXTER, Clay Center, Kansas.

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Travel over the country and make big money. No other profession can be learned so quickly that will pay as big wages. Write today for big free catalog of Home Study Course, as well as the Actual Practice School, which opens Monday, April 6, 1914.

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L.R. BRADY Fine Stock Auctioneer. Ask those for whom I have sold. Manhattan, Kansas.

Col. Jesse Howell Live Stock and General Auctioneer. Up-to-date methods. Herkimer, Kan.

TOO LATE TO CLASSIFY TENNEHOLM SHORTHORNS

For Sale—Five young bulls, the oldest 14 months, the youngest 7 months old. Sired by Royal Gloster 325681 and Col. Hampton 353998, from our best cows. Beefy, rugged, strong-boned and well-grown; best of breeding. Some of them fit to head good herds. A few high-class heifers, Scotch and Scotch-topped, will be priced right. Price on bulls, \$100 each.

E. S. MYERS, Chanute, Kansas.

SHORTHORN BULLS FOR SALE

Choice individuals, sired by Lord Barmpton, out of fine richly-bred dams. Ready for service. These bulls are bargains.

C. E. OLSON, Solomon Rapids, Mitchell County, Kansas.

PUBLIC SALE IMMUNE DUROC BRED SOWS

Hope Kansas, Sat., February 21, 1914

THIRTY HEAD—Twelve tried sows and eighteen big strong spring gilts, representatives of the very best Duroc families. All bred for spring farrow to Taylor's Model Chief, descended from Ohio Chief, and some to a great son of Crimson Wonder Again.

Also a fine lot of fall pigs for sale privately.

E. N. FARNHAM,

Hope, Kansas

AUCTIONEER, W. C. CURPHEY.

FIELD NOTES

Klein Opens Circuit February 17. L. E. Klein, the well known breeder of big-type Poland Chinas located at Zeandale, in Riley County, Kansas, opens the big Riley County sale circuit Tuesday, February 17. The sale will be held on the farm near Zeandale, on the Rock Island, and St. George, on the Union Pacific. Trains will be met at both places. The offering will be Mr. Klein's best, and contains a large number of his very best tried sows and fall yearlings. Twenty-five of them are well grown out and bred for spring farrow to the good herd boar, Chief Price—Mr. Klein's big Iowa-bred boar—and Black Jack, a son of old Mogul's Monarch. Still others are bred to Bell Metal Again, a son of Bell Boy by Bell Metal. Quite a large number were sired by Chief Price. This boar weighed 600 pounds when in his two-year-old form, and is a very large smooth boar and has sired some outstanding good stock. The tried sows are rich in the breeding of big-type boars of note. All of them have done well in the herd and are now offered just in their prime. The Klein offering will go through the ring in fine breeding condition, and every one will go out and make money, as sows bought here always of the circuit and plan to attend all four sales or send some bids.

Big Practical Poland Chinas. On March 4, L. V. O'Keefe of Bucyrus, Kansas, will sell 50 head of Poland China brood sows and gilts of the big practical kind. They have been well grown out but are not fat. They are sired by and bred to the three boars, Big Logan Ex, Missouri Metal, Model Prince, three great breeding boars strictly big smooth Poland China type. Big Logan Ex has been in service in the herd for four years or more and the mature sows by him show that he is a great sire of hogs that get big and are smooth. Missouri Metal has had two years' service in the herd and these two boars sire stock so much alike that they are molding a great type. Some of the great sows in good herds of Missouri are Missouri Metal sows purchased of the former owner of this boar. Model Prince is a fall yearling by the great north Missouri hog, Bell Prince. He was purchased to use on Big Logan Ex and Missouri Metal females and the cross should make good. The set of the two former boars with some seasonal fall yearling gilts by Long King's Equal and Big Orange will be sold in this sale. It will be a splendid opportunity to buy some new blood. Please send for a catalog and attend this sale. Remember the date, March 4, and sale will be held at farm two miles south of Stilwell, Kan., and kindly mention Kansas Farmer.

The Passing of the Long Winter Evenings. It hasn't been so many years ago that the long winter evenings on a farm were more or less monotonous, but these conditions have changed completely. Music has been one of the most dominant factors in bringing about the change, and to the Victor and Victrola must be given a great part of the credit, for these wonderful instruments have made it possible for every home to enjoy the world's best music. Wherever the farmhouse is that contains a Victrola you will find happiness and real joy in place of a general apathy and discontent and restlessness that formerly existed. No form of amusement is so wide in its scope, nor combines such a wealth of instruction as that furnished by this instrument. And herein lies one of its most potent charms. It lessens the arduousness of learning by blending attractiveness with all it imparts—it amuses while it educates. It not only enables the farmer to enjoy the same music that is entertaining the residents of the big musical centers, but gives to him a thorough understanding of all the beauties of music. The influence for good that the Victrola exerts upon everyone is beyond calculation, and this is particularly so in the case of the young folks, for it inclines them toward the genuineness of the farm rather than toward the lure of the city. They are content to remain at home because home is more attractive to them, because without going a step from home they can enjoy many of the attractions the city holds out to them. No matter what they desire in the way of music, the Victrola can satisfy them, and when it is so easy for every home to have a Victrola, there seems to be no reason why the young folks, and the grown-ups as well, should be denied the pleasure this instrument brings with it. There are various styles to suit every purse, and easy terms can be arranged with the dealer if desired. There is a Victor dealer in your neighborhood who will be glad to demonstrate the Victrola to you and play any music you wish to hear. He will give you copies of the handsome illustrated Victor catalogs, or you can write direct to the Victor Talking

BERKSHIRE HOGS

BERKSHIRE PIGS

Choice pigs, 10 to 16 weeks old, either sex. Sired by Robin Hood, Premier 2d, or Adam, a son of Rival's Lord Premier. Nothing but the very choicest specimens shipped. Price, registered, crated, F. O. B. here, one, \$20; two, \$35; three, \$50.

W. J. GRIST, Ozawie, Kan.

40—BERKSHIRE BOARS—40 Cholera Proof (Hyper-Immunized) Big and growthy. Ready for service. Price, \$25 to \$50.

SUTTON FARMS, Lawrence, Kansas.

OHIO IMPROVED CHESTERS

Crystal Herd O. I. C's

Headed by Frost's Buster 29745 by Thea 30442. A few choice boars by this great sire, \$25 while they last. Will weigh 225 pounds and up. Bred gilts, March farrow, \$35 to \$50. Gilts bred to Frost's Buster, Expectation, and Illustration. They are the kind that win the ribbons.

DAN WILCOX, Cameron, Mo.

WOLFE'S O. I. C. SWINE. Large, prolific kind, March and April boars. Gilts bred or open. Fall pigs. Prices low. Pedigrees free. Write your wants.

D. W. WOLFE, Route 2, Carrollton, Mo.

O. I. C. SWINE Harry W. Haynes, Meriden, Kansas.

HAMPSHIRE HOGS

HIGH QUALITY HAMPSHIRE.

Have a few choice bred gilts, extra fine, also some June and July boars of good quality and best of breeding. Prices right and satisfaction guaranteed.

S. E. SMITH, Lyons, Kan., E. F. D. 5, Box 18.

ECLIPSE FARM HAMPSHIRE. Bred sows, spring and summer pigs for sale. A. M. BEAR, Medora, Kansas.

ATTRACTIVE PRICES. Bred gilts and spring boars by Hillwood Jack by Earlanger. Fall pigs, either sex, by Medora John and Hillwood Jack. F. C. WITTOFF, Medora, - - - - Kansas.

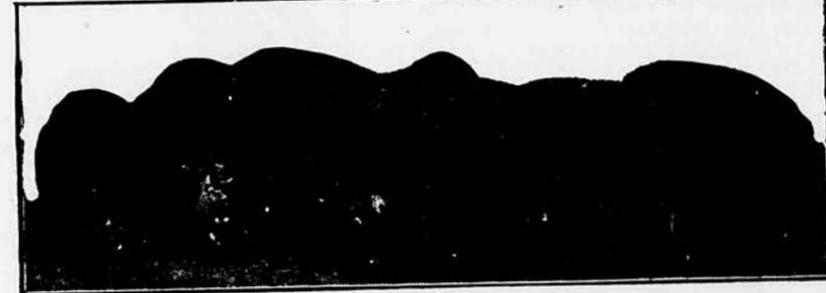
Registered Hampshire Hogs

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

E. S. TALIFERRO, Route 3, Russell, Kan. Shipping point, Waldo, Kan.

Machine Co., Camden, N. J., for them and they will be sent to you promptly.

Wedd's Poland China Sale. On March 3, 1914, George Wedd & Son, Spring Hill, Kan., will sell 56 head of tried sows and gilts. Wedd & Son have always put up a good offering, and this one promises to be the best one they have ever put through a sale ring. Ten tried sows by Kansas Wonder, Expansion Wonder, Wedd's Expansion, Big Designer, Bell Metal and Peter Sterling. The 25 fall gilts sired by Wedd's Long King by Long King's Equal that probably the largest and best descendant of old Long King. This boar weighed on January 20, 1914, 830 pounds, just in breeding flesh. He is one of the large, smooth kind, and his gilts should be in good demand and a good buy. There will be 20 spring gilts by Wedd's Long King, Wedd's Expansion, and Bell Prince. They will be bred to the herd boars not related to them. Please read ad in this issue and send for a catalog, and arrange to attend this sale. The offering is the best Wedd & Son ever made, and no farmer or breeder can make a mistake in buying at George Wedd & Son's sale.



Big-Type Polands on Farm of W. M. Watt & Sons, Green City, Missouri.

FARMERS! STOCKMEN! WE ARE GIVING AWAY THIS BIG 42 INCH FIVE SECTION TELESCOPE

This Telescope will give you real SERVICE. It is a real Telescope and not a toy. You need it in your business—let us tell you why: One farmer writes that he uses his Telescope to watch his windmill over a mile away. Another locates his horses and watches his stock in a distant pasture. Still another uses his to watch for uninvited hunters who shoot indiscriminately in his neighborhood. You will find dozens of similar uses for this telescope when you get one, that you never thought of before. Its possession will save you lots of time and gives you an unusual satisfaction. This Telescope is made by one of the world's best known manufacturers, of the best materials throughout, and is brass bound. With all five sections pulled out as shown here the full length is over 42 inches. With each Telescope we furnish a Solar Eye Piece for viewing the wonderful sights in the heavens. The Eye Piece is a powerful magnifying glass, too, and can be used to study insects mentioned in crop bulletins, fungus growths on plants, and for a sun glass.

MAKES DISTANT OBJECTS SEEM NEAR

The lenses, which are the most important part of any Telescope, are carefully made and adjusted by experts. With the Telescope you can see objects miles away that are impossible to be seen with the naked eye. You can watch cattle, horses or men when far distant, and by watching the clouds with this Telescope some can tell the approach of a storm or locate a prairie fire and prepare for it. This instrument is needed by every farmer or ranchman, and its use will prove interesting and entertaining to everybody who uses it, young and old alike.

The prairies, plateaus and long sloping plains of Kansas offer an unusual opportunity for the use of a Telescope. It takes a good long-range Telescope to see all over the average Kansas farm, and the "Excelsior" described here is just what you want. Not long ago a Telescope as good as this one sold at from \$3 to \$5. It is practically indestructible, is easily adjusted to any vision, and is guaranteed to be just as represented or your money will be refunded. Only some recently improved methods of manufacture whereby the output of this Telescope was largely increased at the factory, together with the new low parcel post rates, make it possible for KANSAS FARMER to offer our readers this fine Telescope as we have here.

WITH EACH TELESCOPE WE FURNISH THIS EXTRA SOLAR EYE PIECE AND MAGNIFYING GLASS



OUR GUARANTEE

We guarantee that this Telescope will be just as represented, or better, or we will cheerfully refund your money. We have given away dozens of these Telescopes and our orders for them are increasing every day. We have received many enthusiastic letters from those who have accepted our offer telling how useful they found the Telescope and praising its value. If you will accept our offer and secure one of these useful telescopes yourself, you will be more than pleased. Until recently Telescopes with as powerful a range as this one sold for \$3.00 or more, and it is only greatly improved methods of manufacture and large orders that make it possible for us to purchase at a price low enough so we can give them away free on this liberal subscription offer. No offer we ever made has grown in favor so fast as this one. We guarantee that you will be satisfied or we will refund your money.

OUR UNUSUAL FREE OFFER

We will send one of these big Telescopes free and postpaid to all who send \$1.50 to pay for one Two-Year subscription to KANSAS FARMER or for one renewal and one new subscription for \$1.50, each subscription to be for one year. For convenience for may fill out the blank in the corner of this advertisement, or write a letter. Your personal check is good, or remit in any convenient way you like. Address all orders to

KANSAS FARMER, Topeka, Kansas.

Enclosed find \$1.50 for which renew my subscription to KANSAS FARMER two years and send me free and postpaid the 42-inch Telescope. (If you prefer you may have one year's subscription for a new subscriber. Send new subscriber's name on separate sheet of paper.)

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KANSAS FARMER

625 JACKSON STREET, TOPEKA, KANSAS

Hauling Manure From Town.

An inquiry comes to KANSAS FARMER from G. D. of Osage County, regarding the desirability of hauling manure from town livery stables to a small 60-acre upland farm, one and one-half miles from town. This correspondent states that the road is good and that he has already hauled over 100 loads during the past three years, hauling about one and a half tons to the load. This manure is costing at the livery barn 25 cents a load and is being spread on the farm at the rate of about 12 loads to the acre. Already about half of the farm has been covered, but our correspondent seems to think he has not been receiving much benefit and is seriously considering the advisability of stopping the practice.

The hauling and spreading of barnyard manure is most certain to build up the producing power of the farm if persisted in. It is a well established fact that live stock farms and especially dairy farms where a large number of cows are kept on a small area, steadily increase in fertility.

One of the oldest experiments in studying the value of farm manure as a fertilizing agent is that of the Rothamsted experiments in England. In these experiments wheat has been grown continuously on the same land since 1844. A 55-year average made in 1906 shows that the plot to which had been applied farm manure each year, had made an average yield of 35.5 bushels per acre. An unfertilized plot made an average yield for the 55 years of but 12.9 bushels per acre. In this country probably the best information available on the actual value of farm manure when used in the production of the ordinary crops, is that from the Pennsylvania Experiment Station. This gives farm manure an actual value of \$1.65 per ton, where 12 tons per acre are used, applied once in a four-year rotation, or in other words an annual average of three tons per acre. This data was secured in the growing of ordinary farm crops grown in a good rotation, the value of these crops produced being figured at average prices for the corn belt.

We certainly would advise our correspondent to "weary not in well doing." This continued application of farm manure to his land cannot help but in-

crease its fertility and producing power, provided other conditions are favorable and a good rotation system is practiced. In order to be most valuable, farm manure should be hauled to the field and spread as soon as possible after it is produced or else allowed to accumulate in some covered shed in a compact moist condition. The manure which has stood out in a yard for any considerable length of time has lost a large proportion of its fertilizing constituents. It should not be allowed to heat and ferment as this results in a loss of fertility. Farm manures may be applied to pasture lands at almost any time of the year with marked benefit to the grasses and additional benefit to succeeding crops, in case the pasture is later plowed up. A heavy application of coarse, fresh manure in the spring, plowed under, is likely to give undesirable results, especially in a dry season. Possibly this

explains why our correspondent has not been securing satisfactory returns during the past three years as a result of his spreading of manure from the town stables. The application of these farm manures to the land has its effect a good many years after the application and with favorable conditions this year we predict that the results of spreading manure during the past three years will be apparent in the crops produced.

February and March Institutes.

The institute circuits for farmers' institutes held during the months of February and March, as announced by Superintendent Johnson, are as follows:
 Jamestown, February 13; Clifton, 14. Speakers: H. W. Avery and Miss Adah Lewis.
 Florence, February 13; Burns, 14; Hillsboro, 16; Windom, 17; Sterling, 18; Maize, 19; Cheney, 20; Pretty Prairie, 21. Speakers: P. E. Crabtree and Miss Frances L. Brown.
 Basehor, February 13; Potter, 14; Spring

Grove, 16; Brenner, 17; Severance, 18; Robinson, 19; Highland, 20; White Cloud, 21. Speakers: W. S. Gearhart and Dr. Charles A. Pyle.
 Wymore, February 23; Centralia, 24; Onaga, 25; Havensville, 26; Wheaton, 27; Fostoria, 28. Speakers: Prof. C. O. Swanson and Dr. Charles A. Pyle.
 McCune, February 13. Speakers: H. J. Bower and Miss Edith Allen.
 Ossawatimie, February 13; Bucyrus, 14; Rantoul, 16; Edgerton, 17-18. Speakers: C. H. Taylor and Miss Florence Snell.
 Harlan, February 13; Denmore, 14; Long Island, 16; Alma, 17-18; Athol, 19; Clay Center, 20; Riley, 21. Speakers: A. S. Neale and Riley E. Morgan.
 Waterville, February 23; Washington, 24-25; Hanover, 26; Hollenberg, 27; Marshall Center, 28; Oneda, March 2; Sabetha, 3; Bern, 4; Powhattan, 5; Huron, 6; Elmont, 7. Speakers: L. G. Hepworth and Miss Edith Allen.
 Gypsum, February 24; Marquette, 25; Bushon, 26; McCracken, 27; Brownell, 28; Ransom, March 2; Utica, 3; Healy, 4; Moccasin, 5; Beeler, 6; Alexander, 7. Speakers: C. H. Taylor and Miss Adah Lewis.
 Pratt, March 2-3; Greensburg, 3-4; Minneola, 4-5; Liberal, 6-8; Meade, 6-7; Fowler, 9; Kingsdown, 10; Bucklin, 11; Ford, 12; Mullinville, 13; Haviland, 14; Arlington, 16; White City, 17. Speakers: P. E. Crabtree and Miss Florence Snell.

FIELD NOTES

C. W. Higginbotham & Sons, Rossville, Kan., are offering a number of fine registered Holstein bull calves for sale. They will make prices that will interest Holstein breeders wanting high-class stock.

I. N. Green Has Good Sale.

The sale of jacks, Jennets, horses, mules and cattle held by I. N. Green of Kiowa, Kan., January 29, was well attended and the stock offered sold for good prices. The sale aggregated \$19,360. The jacks sold for an average of \$425 per head, including a number of colts. The cows also sold for a good average.

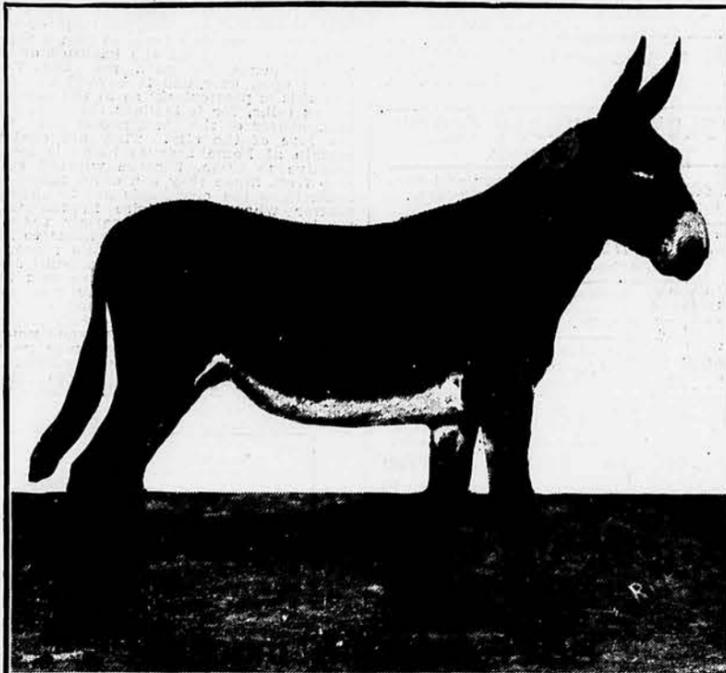
Poland China Sale Circuit.

On February 17, E. M. Wayde, at Burlington, Kan., will sell a draft of useful Poland China sows and gilts. On February 18, J. R. Cline, at Iola, sells 50 head richly bred from the Big Hadley family. On February 19, W. Z. Baker, Rich Hill, Mo., will sell his prize winning Poland, bred to his grand champion herd boars, and on February 20, W. A. Baker, Butler, Mo., will sell a useful lot of brood sows. They are the big medium kind that always make good. Don't fail to attend their sales if you want good Poland.

Get a Catalog.

The catalog for J. R. Cline's Poland China sale are out, and they show a grand lot of big-type breeding of the Big Hadley family. If you have not received one, don't fail to write at once. You cannot afford to miss this sale. Mr. Cline has bought from the best herds in Missouri and Kansas, and has three boars that are as good as any we know of. No one will be disappointed in the sale offering. Please remember the date is February 18, and sale is right in town at Iola, Kansas.

When writing advertisers, please mention KANSAS FARMER.



This Great Jack to Go in G. C. Roan's Sale March 9.

JACKSON COUNTY BREEDERS' ASSOCIATION

MOST PROGRESSIVE BREEDERS OF JACKSON COUNTY UNDER THIS HEAD



Bruce Saunders
President



Devere Rafter
Secretary

SHORTHORNS.

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

ABERDEEN ANGUS.

"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.

FOLLED DURHAMS.

"TRUE SULTAN" heads herd. Shown at 9 leading fairs last year, winning 9 firsts and 8 junior championships. We are mating him with cows of equal breeding and merit. **Ed. Steglin**, Straight Creek, Kan.

HEREFORDS.

HEREFORD BULLS. Choice, richly bred individuals, ready for service. Also Duroc Jersey gilts bred for spring farrow. Percherons for inspection. **M. E. GIDEON**, Emmett, Kansas.

HOLSTEINS.

SHADY GROVE HERD. For immediate sale, four choice young bulls of excellent breeding and out of high record dams. Also three-year-old herd bull. Inspection invited. **G. F. MITCHELL**, Holton, Kan.

SEGRIST & STEPHENSON. Breeders of registered working high testing Holsteins. Choice young bulls out of record cows for sale. Farm adjoins town. **Holton, Kan.**

"BUFFALO AQUEINALDE DODE," son of a 24-lb. cow, heads our Holsteins. Cows are as good as we could find. Young bulls for sale later. Visitors always welcome. **DAVID COLEMAN & SONS**, Denison, Kan.

HOLSTEINS. Best of breeding and individuality. Registered and unregistered O. I. C. swine of the best strains. Also White Wyandotte chickens. Stock for sale. **J. M. Chestnut & Sons**, Denison, Kansas.

PERCHERONS.

BANNER STOCK FARM—Home of "Inclus," champion American Royal, 1911; weight 2,240. Two 8-months-old stallions, one 2-year-old filly for sale. **BRUCE SAUNDERS**, Holton, Kansas.

PERCHERONS FOR SALE.

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

JACKS AND JENNETS.

M. H. ROLLE & SON

Circleville, Kan.



Fourteen big jacks and 25 jennets for sale. One imported Percheron and one high-grade Belgian stallion. **P. E. McFADDEN**, HOLTON, KANSAS. Live stock and **AUCTIONEER** general farm

JERSEY CATTLE.

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. **R. J. LINSOTT**, Holton, Kansas.

SIZE—PRODUCTION—BEAUTY Registered Jersey bull, 4 weeks old. Dam is giving 30 pounds 7 per cent milk daily. Cheap if taken soon. **E. A. GILLILAND**, Mayetta, Kansas.

SUNFLOWER JERSEYS, headed by Imp. "Castor's Splendid," mated with real working cows. Choice young bulls of serviceable age for sale. **H. F. ERDLEY**, Holton, Kansas.

SPRING HILL DAIRY FARM Offers for sale bull dropped June 19, 1913. Sire, a grandson of Sultan of Oaklands; dam, first prize Nebraska State Fair. **J. B. PORTER & SON**, Mayetta, Kan.

"Fontain's Valentine" Heads our Jerseys. Unregistered cows bred to this bull for sale. Also bull calf. **W. R. LINTON**, Denison, Kansas.

POULTRY.

BLACK LANGSHANS.—Eggs from two pens and farm stock. First pen headed by cockerel scoring 96. All prize winning stock. Write for prices. **GEO. M. KLUMIRE**, Holton, Kan.

DUROC JERSEYS.

OAK GROVE FARM DUROCS. Headed by "Freddie M" 94761, grandson of the noted Colossal. Sows in herd of equal breeding and merit. Visitors welcome. **F. M. CLOWE**, Circleville, Kansas.

POLAND CHINAS.

ORANGE CHIEF 68739 heads my herd of the big smooth kind. Fall boars and gilts sired by Sunny Colossus and Blue Valley Giant 2d, out of sows with both size and quality. **WALTER DODSON**, Denison, Kan.

HIGHLAND STOCK FARM. Poland Chinas Shorthorns. 15 choice, big bone, spring and summer boars for sale, sired by "Expansive Wonder." Also fall boars. **BROWN HEDGE**, Whiting, Kansas.

MAHAN'S 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. **JOHN COLEMAN**, Denison, Kan.

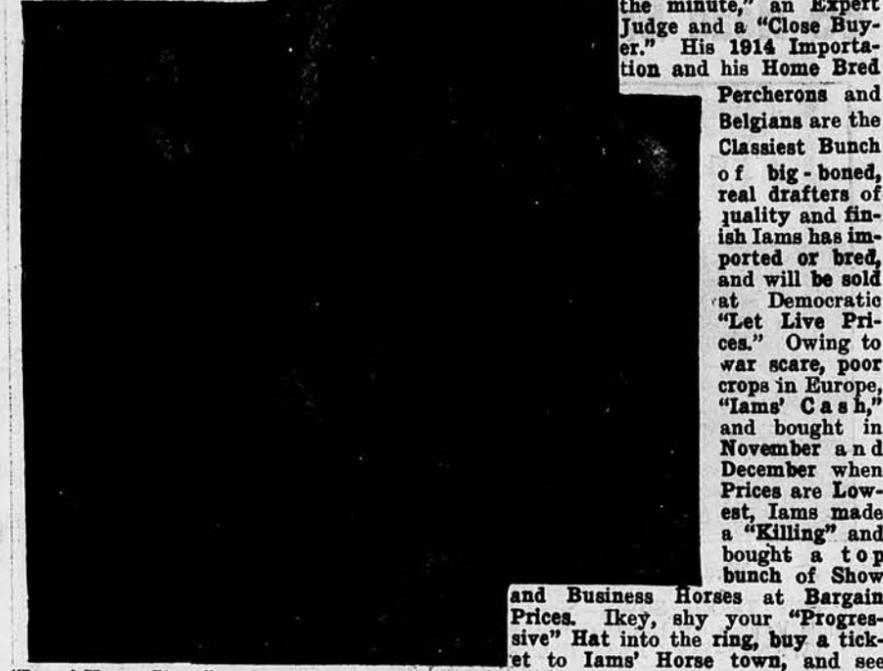
TEN BRED GILTS and tried sows. Big kind bred to a splendid son of Blue Valley Gold Dust. Dams trace to John Blain's breeding. **IMMUNE.** **O. B. CLEMETSON**, Holton, Kansas.

FRANK IAMS'

Key Buyer: Be a "Wise Guy." Buy "Show Horses" of Iams, who has crossed the ocean 50 times for horses and sold 5505 Registered Horses. Iams' 33 years of success in the Horse Business make him a Safe Man to do business with at Special Hard Time Prices. Guarantee backed by "Million Dollars."

New Importation of Horses are the "Big Noise." The "Big Black Boys" and "Hard Time Prices" make "Ikey Buyers" "Sit Up and Take Notice" and Buy Horses of Iams. The "Peaches and Cream" Horse Importer is "up to the minute," an Expert Judge and a "Close Buyer." His 1914 Importation and his Home Bred

Percherons and Belgians are the Classiest Bunch of big-boned, real drafters of quality and finish Iams has imported or bred, and will be sold at Democratic "Let Live Prices." Owing to war scare, poor crops in Europe, "Iams' Cash," and bought in November and December when Prices are Lowest, Iams made a "Killing" and bought a top bunch of Show and Business Horses at Bargain Prices. Ikey, shy your "Progressive" Hat into the ring, buy a ticket to Iams' Horse town, and see



"Iams' Horse Show" and get his "Bargain Prices." Iams' Kind are all "Show Horses." Only Big Drafters. No Culls.

IAMS' PROGRESSIVE PRICES

and Paris and Belgian winners are the "Town Talk." Iams' "Swell Horses" and "Hard Time" prices are "business propositions" that make the "electric wheels" work fast under a "wise buyer's hat." Ikey, why worry? "Iams' selling clothes" fit all buyers. Iams has

SIXTY PERCHERON AND BELGIAN

Stallions and Mares, 2 to 6 years old, weight 1,700 to 2,300 pounds. All registered, approved, stamped and inspected by Governments of France and U. S., and Certificates "Stamped O. K." All sound, "Bell Ringers," "Iams Kind" need no State Law to make "them sound." Iams sells "winners."

IMPORTED AND HOME BRED AT \$1000 and \$1400

(Few higher.) Registered mares, \$700 and \$1,000. Terms, cash or one year's time at 8%. One year's time and security at 6%. \$100 less price for cash than time. Iams pays freight and buyer's fare. Gives 60% breeding guarantee. Backed by "Half Million Dollars." Can place \$1,500 insurance. Iams' \$1,500 Show stallions are better than those sold elsewhere at \$5,000 to \$10,000. Iams backs up ads with a \$500 guarantee that you find horses as represented and at less price for "Toppers" than elsewhere. Never were such "big show horses" offered at such bargain prices. Write for "Eye Opener" and Horse Catalog. It has a \$1,000 bargain on every page. References: First Natl., Omaha Natl. Bank, Omaha, and Citizens State Bank, St. Paul, Neb.

ST. PAUL, NEB.

125 HEAD STALLIONS and MARES PERCHERONS, BELGIANS AND SHIRES.

More actual ton stallions to be seen in Wiley's barns at Emporia than any other place in the West. If you need a stallion, come and see for yourself. I am going to make special prices for the month of January in order to make room for new consignment to arrive February 7. These stallions and mares are selected with an eye single to the wants of the most critical American buyer. I will save you from \$100 to \$200 on your horse. Write for prices and descriptions, or come and see me. Will meet all trains. Telephone 837. Barns close to A. T. & S. F. depot.

L. R. WILEY, Emporia, Kan.
Importer and Breeder



55 Head Percheron Stallions, Mares and Colts 55

Six coming 3 years old, 1,600 to 1,800 pounds; four coming 4-year-olds, will weigh right at a ton; several 2-year-olds and yearlings. Well grown out and priced to sell. Ten head Shetlands. Write us your wants, or come and see us. We can please you. Farm Ten Miles West of Great Bend, **Ewing Bros., Pawnee Rock, Kansas.**

BLUE VALLEY STOCK FARM

Largest importers of high-class Belgian Draft Horses in the West. Prize winners in Europe and America. Sound, acclimated and ready for service. Our American-bred stock goes back to the blood of Brin d'Or or his descendants. Lowest prices and safest guarantee of any firm in the business. Also a few extra good Percheron stallions. Come and see us, or write. **W. H. BAYLESS & CO., Blue Mound, Linn County, Kansas.**

54 Percheron Stallions

We have 54 as good stallions as can be found in any herd, from coming 2's to 5-year-olds. We can sell a better and a bigger stallion for the money than any firm in the business. We fully guarantee every stallion. Write us what you want. **BISHOP BROTHERS, Towanda, Kansas.**



Lamer's Percheron Stallions and Mares

BUY NOW while there is the most of Variety to select from. **C. W. LAMER, SALINA, KANSAS**

FOALED and GROWN on the farm, offered at farmer's prices, eight coming 2-year studs, nine coming 3-year studs, eight 3 years old and over studs, registered Percheron Society of America. Of the big type with substance and from French ancestry on both sides. Fast trains direct from Kansas City and St. Joseph. **FRED CHANDLER, E. T. Charlton, Iowa.**

FIELD NOTES

This week we start advertising for the Chick Life Remedy Co., Clay Center, Kan. This firm advertises and guarantees their white scour cure and make it possible to raise young chicks easily and with a greatly increased profit. They also make one of the best brooders on the market. Mention this paper when writing them.

Hendricks Offers Duroc Pigs.

M. M. Hendricks, Falls City, Neb., is now a regular advertiser in Kansas Farmer. Mr. Hendricks has for years been engaged in the business of producing registered Durocs and the farm that he now owns and lives upon is one of the oldest breeding farms in his part of the state. He offers 50 head of very choice pigs of August and September farrow, both sexes and in pairs and trios not related. These pigs are well grown out and were sired by the herd boars, Professor Model and Model Hogate. The first named is a grandson of the great Crimmon Wonder I Am, and The Professor, one of the noted boars of the breed. Model Hogate was sired by Hogate's Model, grand champion boar at Nebraska State Fair. The pigs are out of very large mature sows of the very best strains, among them sows rich in the blood of Defender, Proud Advance, Ohio Colonel, Golden Model 2d, etc. Mr. Hendricks has paid special attention to size, and has some of the largest and best sows in his herd to be found anywhere. The pigs offered are well grown out and are being priced very reasonably, considering breeding and quality. When writing, please mention this paper.

Shorthorn Bulls.

C. J. Olson, of Solomon Rapids, Mitchell County, Kansas, starts advertising in this issue of Kansas Farmer. Mr. Olson has some very choice young Shorthorn bulls for sale. A part of these bulls were sired by the herd bull, Lord Barmpton, by Barmpton Knight. Some of them are registered and some others are pure-breds, but owing to the fact that records are not just straight they will be sold as grades and for considerably less money than they would if they were recorded. These young bulls are just about ready for service and all of them are out of large fine cows of the best American

families. Mr. Olson also breeds Percherons and has some of the finest mares to be found anywhere. When writing him please mention Kansas Farmer.

Dispersion Shorthorn Sale.

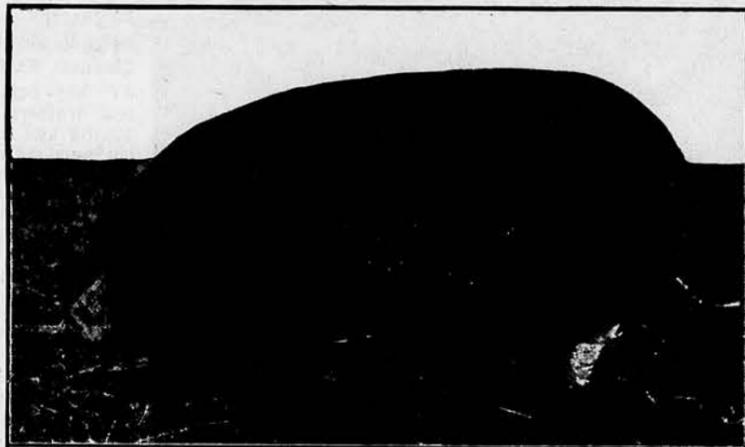
This week we announce a dispersion sale of Shorthorn cattle for Hoadley & Sigmund, well known Shorthorn breeders of Selden, Kan. The sale is to be held at Norton, Kan., on Thursday, February 26. The offering is an unusually choice one and comprises about 40 head of good young breeding cattle that should be eagerly sought after by the farmers and breeders of Central Kansas. There will be about 23 head of females, including a number of extra good milk cows, all of them bred, and a number will have calves at foot sale day. There will not be a cow in the sale that has not been profitable on the farm and all of them are young and just in their prime. A large number, in fact all of the young stuff, was sired by the great white bull British Bond. This cross upon red cows has produced one of the finest lots of roans to be found anywhere. The herd as a whole is very uniform and of good Scotch type. All of them are either straight Scotch or have from five to eight Scotch crosses. The young bulls are all the blocky, sappy kind and will please the most exacting bull buyer. Here will be a great opportunity for the farmer who wants to engage in the business. He can buy first class stock and most likely much cheaper than such cattle would sell for farther east. Write for catalog, mentioning this paper, and plan to attend.

Last Call for Nevius' Shorthorn Sale.

This will be the last call for C. S. Nevius & Son's great Shorthorn sale at Chiles, Kan., February 16. Breeders and farmers should not overlook this offering of Shorthorns that will include the great show bull, Prince Valentine 4th, and a number of young bulls sired by the great bull, Searchlight, that are fine show bull and herd header prospects, and an offering of cows and heifers that for breeding and individuality are not often found in one herd. Among the cows and heifers to be sold is the Butterfly show heifer, one of the best Searchlight heifers ever sold. She is well along in calf to Prince Valentine and will be a valuable addition to any herd.

POLAND CHINA BRED SOW SALE

At Spring Hill, Kan., Tues., March 3, 1914
55 Head Bred Sows and Bred Gilts 55



Wedd's Long King—800-Pound Hog in Breeding Flesh.

TEN TRIED SOWS—Sired by Kansas Wonder, Expansion Wonder, Wedd's Expansion, Big Designer, Bell Metal, and Peter Sterling.

TWENTY-FIVE FALL GILTS—Sired by Wedd's Long King, Wedd's Expansion, Black Prince, Big Logan Ex., and Missouri Metal.

TWENTY SPRING GILTS—Sired by Wedd's Long King, Wedd's Expansion and Bell Prince.

The offering will be bred to the three herd boars, Wedd's Long King, Wedd's Expansion, and Black Prince. We are selling the best lot of brood sows and gilts we have ever offered. They are all bred to good boars and showing safe. Come and spend a day with us. Please send for catalog and if you can not attend and wish to bid on any number, send your bids to O. W. Devine, representing Kansas Farmer, in my care, and I will see that you are treated fair.

GEO. WEDD & SON, Spring Hill, Kansas
AUCTIONEERS—COL. H. S. DUNCAN, COL. J. E. JAMISON.

My fifth annual jack and jennet sale March 9 will be the largest in the United States, both in quantity and quality, during the year 1914. It will be given in the largest jack sales pavilion in the world. Having purchased the entire sales herd of L. M. Monsees & Sons for the year 1914, and taken their date, I will sell the combined best of the two great farms—the Clover Leaf Valley and Limestone Valley Jack Farms. There will be in this sale more splendid jacks that are fit to head any jennet herd than was ever in one sale in America.



WRITE AT ONCE FOR THE GREATEST JACK and JENNET CATALOG EVER PRINTED, GIVING THE PHOTOGRAPHS OF EVERY JACK, TAKEN ON THE SECOND DAY OF JANUARY, 1914, FROM LIFE, ALSO HIS BREEDING.

G. C. Roan, La Plata, Mo.

BIG SMOOTH POLAND CHINAS

WE WILL SELL AT
BUTLER, MO., FEB., 20, 1914
50—HEAD OF BRED SOWS AND GILTS—50

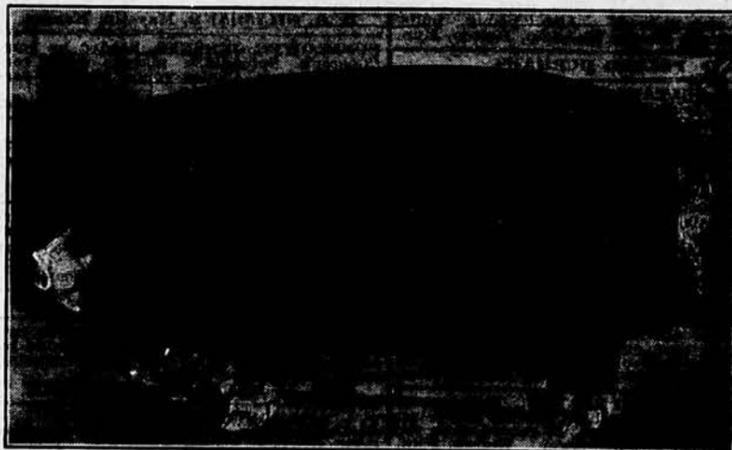
They are bred to our two herd boars, Missouri Wonder 55408 and Big Look 63604. A number of the sows are by King Ex. 3d and the Big Hadley breeding.

This offering is above the average, and you won't be disappointed if you come. Sale right in town. Send bids to either auctioneer or field men. Catalogs are ready. Send for one today.

W. A. BAKER & SON, Butler, Mo.
Auctioneers—C. F. Beard, Clyde Robbins.
W. Z. Baker Sells at Rich Hill, Mo., February 19, 1914.

BIG PRACTICAL POLAND CHINAS

Third Annual Bred Sow Sale At My Farm
Two Miles South Of Stillwell, Kansas
On Wednesday, March 4th, 1914



ONE OF THE BOARS THAT BREEDS BIG.

FIFTEEN TRIED SOWS—Bred to Big Logan Ex. and Missouri Metal and Model Prince.

TWENTY-SEVEN FALL YEARLINGS—Bred to Missouri Metal and Model Prince.

EIGHT SPRING GILTS—Bred to Model Prince.

I am selling a good, useful lot of big practical Poland Chinas. They are not fat, but in good condition. All are safe in pig and, while they will not sell as high as they would if real fat, they will make the purchaser more money by not being too fat. Please send for catalog and come to my sale and buy at your own price. If you can not come, send your bid to O. W. Devine, representing Kansas Farmer, who will buy for you. Send for catalog to

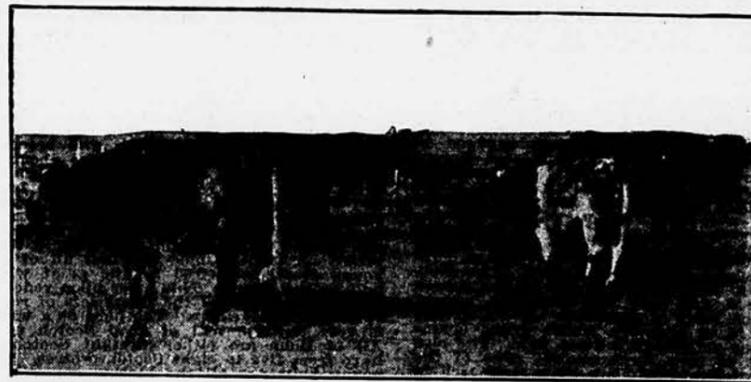
L. V. OKEEFE Bucyrus, Kansas
AUCTIONEERS—H. S. DUNCAN, J. E. JAMISON.

MENTION KANSAS FARMER WHEN YOU WRITE.

DISPERSION Short Horn Cattle Sale

Norton, Kan., Thurs., Feb., 26, 1914

40 Head of Richly Bred Scotch and
Scotch Topped Reds and Nice Roans 40



Twenty-Two Cows and Heifers, Bred to the Scotch Bull, Alex Chief.
Six Bulls of Serviceable Age, Sired by British Bond.
Six Choice Roan Heifers by Same Bull.
Two Six-Months-Old Bulls.

We have sold our farm, and this is the only reason for dispersing at this time. The foundation for this herd came from some of the best breeders in America. All of the offering will be straight Scotch or have a number of Scotch tops. All females will either have calves at foot or will be bred.

Write for catalog giving all information. Sale under cover.

HOADLEY & SIGMUND, Seldon, Kansas
JAMES T. McCULLOCH, Auctioneer. JESSE R. JOHNSON, Fieldman.

Third Annual Jack Sale AT STERLING, KANSAS, Tuesday, February 24, 1914

Twenty-Five Tried Jacks—From two to six years old.
Ten Head Jennets—All are bred to extra good jacks. All are producing and are safe in foal.
The jacks will consist of several tried jacks of very fashionable breeding. We won more first premiums on jacks and jennets than all other exhibitors at Kansas State Fair, 1913, Hutchinson.
Seven Two-Year-Old Jacks—Extra good and nicely broken.
Four One-Year-Old Jacks—Will mature into large jacks. Two are sired by old Pharaoh.

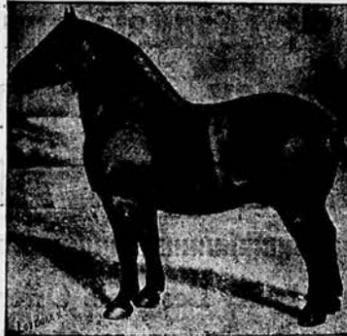


PHARAOH 2491.
Four Four-Year-Old Jacks. Six Three-Year-Old Jacks. Four Five-Year-Old Jacks.
All are nicely broken and sold as represented. This offering comes from two of the best herds of jacks in Kansas, headed by Missouri King and Pharaoh.
Write for illustrated catalog, and come to the sale.
D. J. HUTCHINS STERLING, KANSAS.
H. T. HINEMAN DIGHTON, KANSAS.
AUCTIONEERS—COL. E. L. HARRIMAN, SNYDER, POTTER AND CLAWSON.

PERCHERON SALE

AT
**Whitewater Falls
Stock Farm**
J. C. ROBISON, Prop., Towanda, Kan.
WEDNESDAY, FEBRUARY 25, 1914

20
Registered
Stallions



30 Mares
All Registered
and Bred

Imported and
American Bred

As Good a Lot As
Will be sold in
America This Year

"CASINO."

Buy Where You Can Secure the
Best, With Size and Quality

More than 2,000 Percherons have left this farm—the oldest breeding farm in the West. Stock loaded on cars free of charge. Free conveyance to and from Towanda.

DO NOT MISS THIS SALE

More mares showing heavy in foal included in this sale than in any former sale. Send for catalog to

J. C. ROBISON
Towanda, Kansas

Auctioneers—J. D. Snyder, W. M. Arnold, Boyd Newcomb, W. P. Ellet.

J. R. CLINE'S POLAND CHINA SALE

IOLA, KAN., FEB. 18, 1914

50 - SOWS and GILTS - 50

Bred to the following herd boars for March litters: Tecumseh Hadley 61410, Long King's Equal 2d 68928, Glasford 68796, head of my herd of big-boned Poland Chinas; Tecumseh Hadley, son of Major B. Hadley, grand champion of all breeds at the American Royal of 1911, and Perfection Tecumseh 129157, an 800-pound sow that took second; Long King's Equal 2d, son of J. B. Lawson's famous Long King's Equal 53730, and Black Beauty 2d 143094; Glasford, son of Melborne's Jumbo 61941 and Louise Bell 144794.

The fine sows and gilts that will go in my February 18 sale will be bred to these great boars, and I don't believe there are three better ones in any man's herd. Write for catalog and come to my sale. I will guarantee a good offering and you will be pleased with them.

All my sows are of the very best blood lines, of the big, smooth, easy-feeding Polands. All well grown out and in fine condition. Come to my sale and see my hogs, whether you buy or not. Spend a day with me. Sale right in town. Remember the date is February 18th at Iola, Kansas. If you cannot come, send bids to O. W. Devine, representing Kansas Farmer, in my care and I will see that you have fair treatment.

J. R. CLINE, Iola, Kansas
R. L. Harriman, Auctioneer

45 Immune Duroc Jersey Bred Sows

BURR OAK, KANSAS
Saturday, February, 21, 1914

15 - Tried Sows - 15
25 - Spring Gilts - 25
5 - Summer Boars - 5

Females All Bred for Spring Farrow to the Herd Boars,
Missouri Climax and Crimson Burr.

The spring gilts were about all sired by Model Chief, a grandson of old Ohio Chief, and Harding's King of Cols.

Tried sows include some of the best sows I ever owned. A splendid selection of richly-bred individuals, the big, useful and quick-maturing kind.

The summer boars are tops and richly bred.

Write for catalog giving complete descriptions. If you can't attend, send sealed bids to Jesse Johnson or Walter Ward in my care, Burr Oak, Kansas.

DANA D. SHUCK
Burr Oak, Kansas

Auctioneers—John Brennan, N. B. Price.

150 BIG TYPE POLAND CHINA SOWS ALL IN RILEY COUNTY, KANSAS

KLEIN'S ANNUAL POLAND CHINA BRED SOW SALE

At Farm Near Zeandale and St. George
Kansas, Tuesday, February 17, 1914

45 - HEAD IN ALL - 45

This Is My Best Sale Offering.

25 Fall Yearlings, 5 Tried Sows
and 15 Spring Gilts

The offering was sired largely by my 800-pound boar, Chief Price.
Bred for spring farrow to three different boars—Black Jack by Mogul's
Monarch, Bell Metal Again, and Chief Price.

Strictly big-type and good individuality. The blood of Expansion, Prince
You Tell, Mogul's Monarch, and other noted sires. All gilts out of mature
dams. Write for catalog. Stop at St. George and Zeandale, Kansas, hotels.
Trains met at both places.

L. E. KLEIN, ZEANDALE, KAN.
Auctioneers—Jas. T. McCulloch, Floyd Condray.

HARTER'S BIG POLAND SOWS

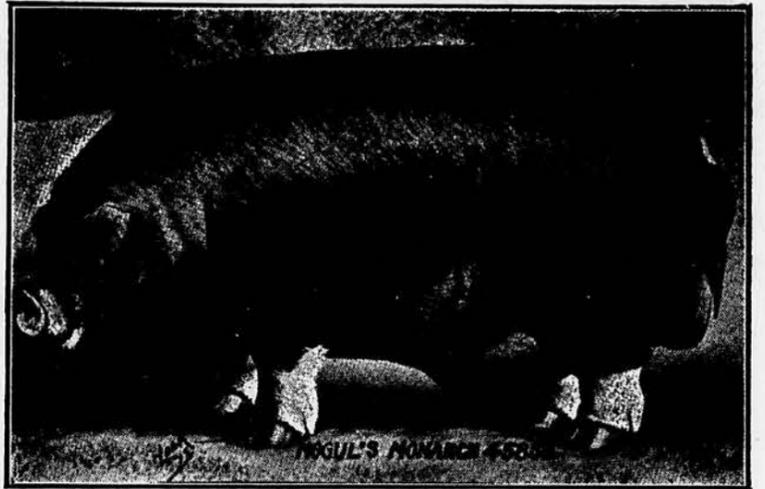
Sale at College Pavilion

Manhattan, Kan., Wed. Feb., 18

40—HEAD OF THE HARTER KIND AT AUCTION—40
Everything Bred for Spring Farrow to My Boars, Long King, Gephert, and
Harter's Long King.

Eighteen Tried Sows and Fall Yearlings.

Twenty-two Spring Gilts, Mostly Sired by Long King.



Twelve of the best Fall Gilts and Tried Sows are by Mogul's Monarch.
This is the last chance to buy his daughters, as he is dead.

This offering, taken as a whole, is a particularly uniform and useful one.
A large per cent of the fall gilts and tried sows and a part of the spring gilts
were sired by the great boar, Mogul's Monarch, and bred to Long King and
Gephert, a pair of extra heavy-boned and well-fleshed sires, both of strong
big-type breeding. My catalog gives all necessary information. Write for it
and be my guest sale day, either as a buyer or spectator.

J. H. HARTER -:- WESTMORELAND, KANSAS.
Auctioneers—L. R. Brady, Jas. T. McCulloch, W. C. Curphey, Jesse Howell.

GRIFFITH'S IMMUNE POLAND CHINA BRED SOW SALE

AT RILEY, KANSAS, FEBRUARY 19, 1914

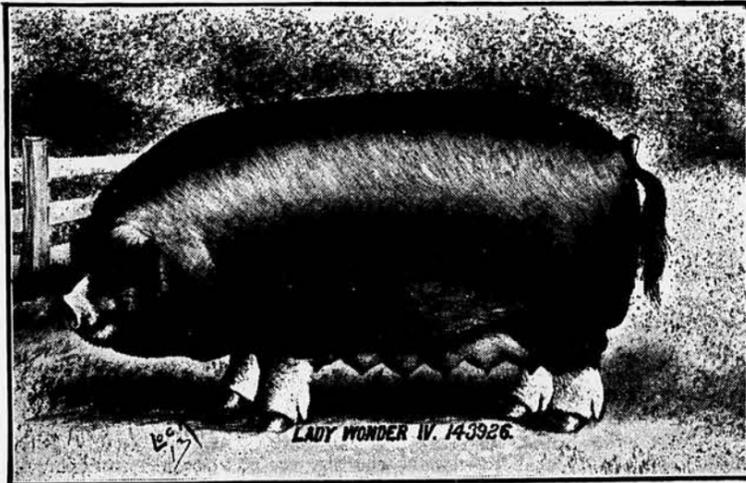
45 Head The Kind I Have Sold at Former 45 Head
Sales, and Immune as Usual.

Uniform and well grown out, and combining the blood of famous big
hogs. Gilts are of January, February and March farrow.

Four extra choice Boars, sired by King of Kansas.

Two Gilts sired by A Wonder's Jumbo; four by Long King's Best. Others
equally as good, sired by Big Bone Pete.

Eight Tried Sows, sired by Mastodon's Best, the great Colossus, and Big
Bone Pete, and all related to the noted Wonder 700-pound sows.



Four Daughters of This Great Sow and Her Full Sister Go in the Sale.

All tried sows and a part of the gilts are bred to my great young boar,
King of Kansas, a son of Long King's Equal and out of a dam by A Wonder.
Others to A Jumbo Wonder, a grandson of A Wonder and Long King's Equal.
Write early for catalog. Parties attending sale stop at Riley and Leonard-
ville, Kansas, hotels.

J. L. GRIFFITHS, RILEY, KANSAS
Auctioneers—Jas. T. McCulloch, Floyd Condray.

SWINGLE'S BIG IOWA IMMUNE

BRED SOWS AT AUCTION

Leonardville, Kansas
Friday, February, 20

32—HEAD OF STRICTLY TOPS, ALL IMMUNE—32
Three Tried Sows

Daughters of Chief Price Again, Big Bone Pete, and Commander.

Nine Big Fall Yearlings

Sired by Big Orange Again and Gritter's Surprise by Long Surprise.

Twenty Select Spring Gilts

Sired by the boars, Big Orange Again and Gritter's Surprise. They trace to
and are mostly granddaughters of Chief Price Again, Big Chief, Jumbo
Wonder, A Wonder, and Big Orange.

The Gilt division of this sale is especially attractive. I don't think there
will be a better lot sold this season for both size and quality. Everything
bred—the fall gilts and tried sows to the boars already mentioned, and the
spring gilts to my young herd boars, Miller's Sioux Chief 1st and Miller's
Sioux Chief 2d. Litter brothers sired by the great Sioux Chief and out of
the noted sow, Lady Longfellow.

Catalog upon request. Parties attending sale stop at the
Swingle House.

A. J. SWINGLE, LEONARDVILLE, KAN.
Auctioneer—Jas. T. McCulloch.

JESSE JOHNSON will attend all four sales, send him bids in care of party making sale