

KANSAS FARMER

For the improvement  of the Farm and Home

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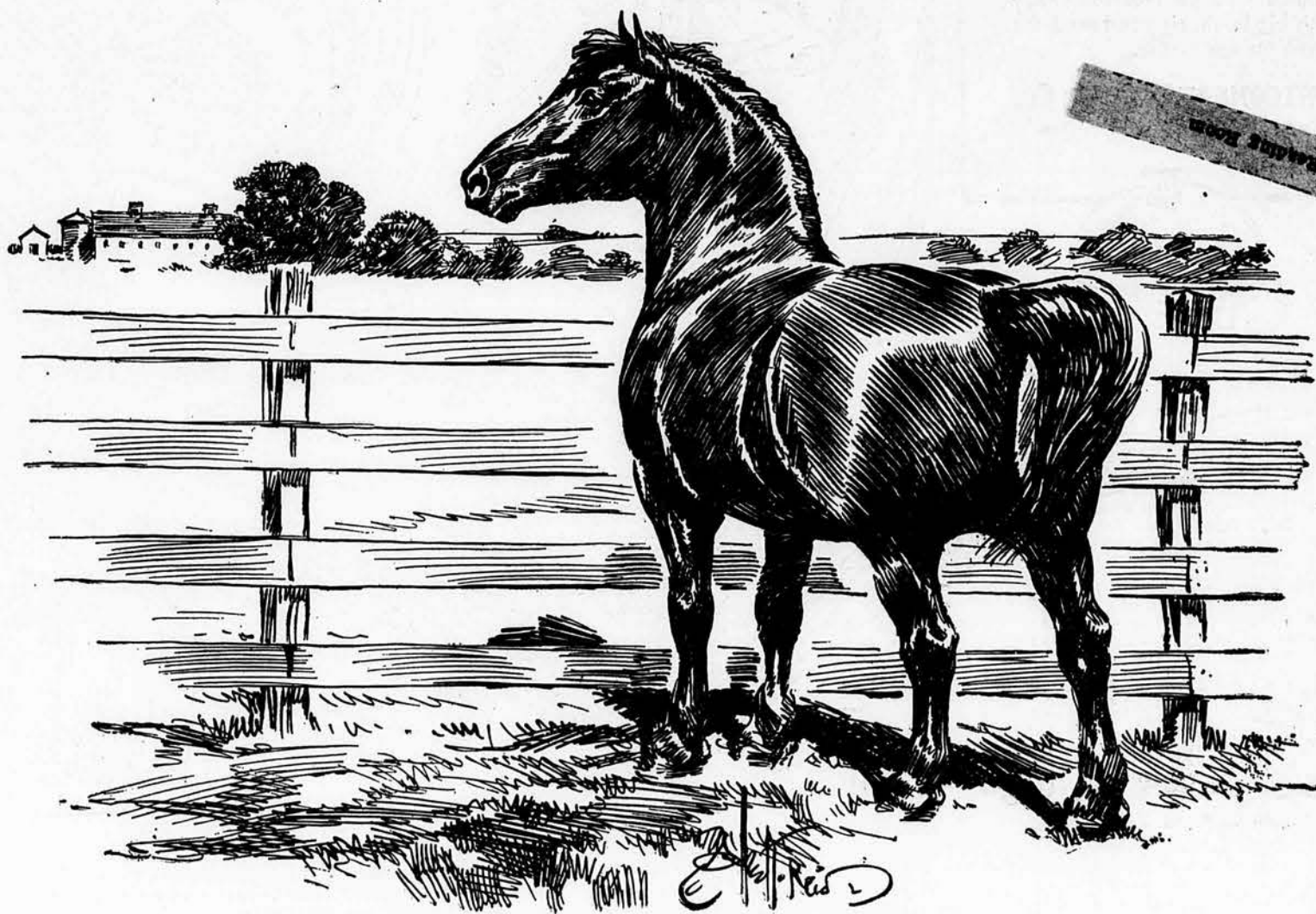
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SORGHUM AND KAFIR POISON.

It has long been known that sorghum and kafir at times seem to be extremely poisonous to cattle. There has been something mysterious about this development of poison in these plants. Animals from time to time have died in a few minutes time after eating only a very few mouthfuls of the plant. Veterinarians from the Experiment Stations have studied the disease most carefully but still know little about what causes tend to produce this poisonous condition. It has been definitely determined that the poison consists of prussic or hydro-cyanic acid, one of the deadliest of poisons. It was believed for some time that this poison developed only on second growth kafir or cane. There was also a theory prevalent that frosted cane or kafir was more apt to be poisonous. Both of these theories, however, were disproven by a careful series of experiments conducted in the study of this peculiar development of poison in the sorghum plant.

Dr. A. T. Peters, formerly of the Nebraska Experiment Station who has probably given it more attention than any other veterinarian in the United States, ventures only one conclusion as a result of his careful work and that was that the poison seemed to be more prevalent after seasons in which a stunted condition of the plant was produced. It appeared that at times the plant was poisonous for only a very short period of time being apparently safe when that period had expired.

A number of reports have recently appeared in daily papers indicating that a number of cases of this kind of poisoning have occurred this year. From what little we know of the circumstances surrounding the development of the poison, it would appear that the conditions are extremely favorable for it at the present time. It would be well for stockmen to be very cautious in permitting stock to graze on immature or stunted cane or kafir. As a precaution it might be well to make a test as to the condition by permitting some inferior animals to eat some of the cane or kafir in question before permitting the whole herd to graze on it.

Apparently the poison does not remain in cured forage from these plants. So far as known we have only one record of the prussic acid in poisonous quantities being found in cured forage. The Kansas Experiment Station last fall received a sample of cured forage from one of the western counties which chemical analysis showed to contain prussic acid in sufficient quantities to be poisonous to animals.

It is to be regretted that positive information cannot be given as to what would be the results if kafir or cane should be placed in the silo when containing this poison. It is to be hoped that the fermentations which take place in silage will destroy the effect of this poison. Bad results following the development of various molds in dry fodder do not seem to be dangerous when the material is placed in the silo. Cases of blind staggers or other diseases following the feeding of moldy corn have never been reported from the feeding of silage. It would be a good plan for those who have any case of poisoning due to this cause to report at once to the State Veterinarian sending a sample of the plants for analysis. There is apparently no remedy that will save the animals when once forage containing the deadly prussic acid is eaten. Death takes place so quickly that nothing can be done to save the animal.

UN-CUT CORN IN SILO.

It is evident from inquiries that are coming in that many western Kansas farmers are still without proper equipment for cutting the silage crops with which they expect to fill their pit silos. Lack of capital is a great handicap to many farmers and perhaps those who have secured the silos have drained their resources to the breaking point in order to avail themselves of the silo. The

careful packing of the material in the silo is very important in connection with its preservation. Air must be as nearly excluded as possible. When silage was first introduced cutters were not used. The material was carefully packed in the silo in an un-cut condition. Where carefully packed the resulting silage was fairly satisfactory. The writer has observed several times, silage of fairly good quality from pit silos where the kafir had been carefully packed in the silo in bundles. The utilization of the crop without cutting would be better than to have no silage at all. The losses, however, would undoubtedly be greater than where the crop is properly cut. It would also be more difficult to get the material out of the silo. Where the silos are round it probably would be more difficult to pack the bundles in sufficiently tight to exclude air than where the silos are built square. If it was absolutely necessary to place un-cut fodder in the silo, a great deal of care and attention must be given to carefully arranging the material so as to exclude all the air possible.

The pit silo does not require any where near as expensive machinery for filling as silos built above ground since no extra power is needed to elevate the material. A small cutter can be used and likewise a small engine. More co-operation among owners might be a wonderful help in solving this problem. The same cutter can be used to fill quite a number of silos. A gasoline engine is getting to be such a necessity on farms for many purposes, that in a neighborhood it would seem that at least one farmer would find it necessary to own a gasoline engine to be used for other purposes through the year. The use of the gasoline engine in pumping water can almost always be made to pay.

FAITH IN CATTLE.

Two weeks ago there was a perfect stampede of cattle to market from Kansas and other states tributary to Kansas City market. This great run of cattle, of course, was due to the discouraging weather conditions. The Rock Island Silo train had just started its tour in Kansas when this great run of cattle began. The experts on this train could see nothing but disaster in draining the state so thoroughly of its cattle and were urging the farmers to use every effort possible to hold back cattle at least as long as possible in order to avoid demoralizing the market.

The Drover's Telegram in a recent editorial comments on the fact that at the beginning of the following week the run of cattle was only normal and not extremely heavy as many had predicted. A large number of country buyers were on hand anticipating a tremendous run on cattle at the beginning of this week. These buyers came largely from states east where the prospects for corn are much better than through Kansas. This great demand for stock cattle is an evidence of the shortage which undoubtedly exists. Fully half of these buyers were compelled to go home without securing the cattle they desired. Drover's Telegram goes on to say, "That this indicates that Kansas and other states evidently have confidence in the business. That the Kansans are not sending larger runs is due in part to the commendable action of Governor Hodges and a few members of the Kansas State Bankers' Association in urging the bankers of the state to co-operate with the farmers in helping them hold their stock until the weather improves and pointing out the folly of premature selling. Extraordinary measures are being adopted by some Kansans to avoid forced shipments, but if the general confidence in the market is well founded, they will be repaid for their efforts."

The action of Governor Hodges and Bank Commissioner Sawyer and the State Bankers' Association of which W. J. Bailey is president, and W. W. Bowman, secretary, is certainly most commendable. This action probably or-

iginated on the Silo Special about the time the great run of cattle was starting to market. KANSAS FARMER was represented on the train by its associate editor and later by Mr. Reid, president of the company. While Mr. Reid was on the train, he and Mr. Cottrell, Rock Island Agricultural Commissioner, discussed most earnestly the situation. It seemed that nothing but disaster could result from such a stampede of cattle to the market. As a result of this conference Mr. Reid immediately called up Governor Hodges by phone and arranged to have a conference at once at the state house. Mr. Bowman, secretary of the State Bankers' Association, who was also on the train, immediately got in touch with C. M. Sawyer, state bank commissioner, and W. J. Bailey, president of the State Bankers' Association. The conference was immediately held in the governor's office and Professor Cochel of the Agricultural College, was prevailed upon to be present as an expert on the Kansas cattle conditions. His thorough knowledge of the handling of stock cattle based upon experimental work, was of great value in framing up the messages which were sent out to the press and the bankers of the state.

The Drover's Telegram commented further on the situation as follows: "The astonishing situation that has developed on the Kansas City market with its larger supply of buyers than stock cattle, shows that the country has given ear to the advocates of increased live stock production. It means that the temporary adversities of a drouth are not going to feaze producers of cattle in the southwest. It means, too, that the United States is not going to be a meatless land."

KANSAS FARMER has always done all in its power to encourage the development of more and better live stock farming in our state. We are glad to know that so many are beginning to realize the importance of placing this great industry to the forefront as the only means of maintaining the permanent prosperity of our state.

MEAT EXPERTS ABROAD.

The Department of Agriculture has just ordered Dr. A. D. Melvin, head of the Bureau of Animal Husbandry, to South America, and Dr. E. C. Joss to Australia to investigate the packing houses of those countries. It has been assumed by some of the big dailies that this move is directly in line of encouraging in every way possible the introduction of meats into this country when the new tariff which is expected to place such products on the free list, goes into effect. Some of them have even gone so far as to call this a most advanced step of the administration in an endeavor to reduce the high cost of living.

It hardly seems possible that Secretary Houston has sent these officials abroad for this specific purpose. Of course if foreign slaughterers begin to ship meat products to the United States it is important that their operations be conducted under such regulations as exist in this country and in all probability these officials are simply sent out for the purpose of carefully investigating the methods of the foreign slaughterers so that the department will be thoroughly familiar with the problems it will be necessary to solve if meats are placed on the free list and any considerable amounts are imported.

Some of our farmers are buying adjoining fields of corn and filling their silos. Any surplus corn is being cut and stored in shocks with the idea of running it into the silo when the first filling has been exhausted. By the addition of water, this corn will make a very palatable feed for the wintering of cattle. Men who are in a position to do this will undoubtedly reap large rewards for their efforts and foresight.

Wheat can be used as a substitute for corn in finishing out the hogs. It must be ground to give best results.

BIG FAIRS OF STATE.

Kansas is fortunate indeed in having within its limits two such splendid fairs as the ones held at Topeka, chartered in 1887 as the Kansas State Fair Association, and the Hutchinson State Fair which, until the present year, has been operated as the Central Kansas Fair Association. These fairs have both made material advances and present each year to the public a splendid exposition of the resources of the state.

The present status of the Topeka State Fair owes much to the energy and public spirited citizenship of Topeka and Shawnee County. The first important step for placing the fair on its present substantial footing was the purchase by Topekans of approximately \$40,000 worth of capital stock in the Association. Shawnee County voted \$50,000 in bonds. The money acquired in this way has been expended in equipping the grounds with splendid permanent buildings; \$150,000 is represented at the present time in equipment and improvements. The grounds are splendidly located, being within three minutes car ride of the state capitol building. Two double track car lines give ample transportation facilities. The site of the fair grounds is extremely valuable land since it is within the incorporated limits of the city of Topeka.

Indications at the present time are that this year this fair will be bigger and better than ever before. Fairs, such as the Topeka and Hutchinson institutions, have a wonderful educational value. The time has passed when people simply attend a fair to satisfy a craving for excitement. To the busy farmer, a trip to a big fair is a vacation. Farmers too often feel that they have no time for vacations of any kind. A vacation trip such as a visit to a high class fair would be a complete relaxation from the work of the farm and would open up so many new thoughts and different viewpoints, as really to be worth many times more than the work that would be accomplished by remaining at home at the same old job. These big fairs have not neglected the amusement feature and have sandwiched in wholesome, clean entertainment with the educational exhibits.

RYE FOR PASTURE.

With the great shortage of feed which is bound to occur this fall and winter, we would call to the attention of the live stock men of the state the great value of rye as a pasture crop. Rye makes an excellent winter pasture for hogs and can be profitably used for all classes of animals. It usually makes a stronger and more vigorous growth than wheat and thus is better for pasture purposes. With favorable conditions this fall, fields of rye would supply a wonderful lot of succulent feed to the live stock of the farm.

Carefully cultivated corn fields will be in ideal condition for seeding either rye or wheat. These fields are almost absolutely free from weeds this year and owing to dry weather the corn crop has removed much less than the usual amount of available soil fertility. A careful disking after the first good rainfall is all the preparation needed, so little expense outside of the seed, will be incurred in putting out some rye or wheat for pasture. It should be seeded in August if conditions are favorable in a carefully prepared seed bed at the rate of one to one and a half bushels to the acre. If conditions are favorable for seeding it this early, a large amount of pasture will be produced in the fall and early winter and it may be again pastured in the spring. If it is desired to use the land for corn or other spring crops, rye may be pastured up until the time it is desired to plow the ground for the spring crop. The plowing under of what rye is left untouched by the stock would be of considerable benefit to the soil in the way of adding humus or vegetable matter. A certain amount of rye pasture might well be used regularly with great profit on every live stock farm.

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

A COLORADO correspondent writes to inquire whether kafir and cane will be poisonous when placed in the silo. There is something mysterious about this development of poison in kafir and other sorghum crops. It has been assumed by some that it was only second growth kafir or cane that developed the poison. Others have thought that it was only frosted cane that became poisonous. Some of the experiment stations have spent considerable time in investigating this problem and their conclusions are that neither one of these conditions are responsible for the development of the poison. Apparently a period of stunted growth is more apt to cause development of the fatal prussic acid poison than any other condition. One instance is on record where this poison was found in cured fodder—this from analysis made at the Kansas Experiment Station by Prof. J. T. Willard. It had formerly been the belief of investigators that the cutting of the forage and the changes through which it immediately passed, destroyed the poison. No case has ever been reported where this poison was ever found in silage. As long as this kafir has the slightest chance of making any further growth due to rains coming, it would be advisable to let it stand. With the first rain it will start up a new growth and will not only be more valuable for the silo, but there will be far less danger of poison being present.

Sweet Clover Seed Crop.

C. E. B. of Doniphan County, inquires as to what crop of sweet clover it is desirable to save for seed and whether there is any danger of stock bloating on sweet clover. The largest return of seed will come from cutting the first crop for that purpose. Under favorable conditions a crop of hay can some times be taken and a fairly good seed crop mature later.

It is the general observation of those who have been having experience in the pasturing of sweet clover that it does not have any where near the tendency to produce bloat in cattle as alfalfa and ordinary clover has. There are some, however, that maintain that it will produce bloat if eaten when damp or at a time when it has been making very rank, succulent growth.

It can be seeded in the fall; the method of seed bed preparation being as when alfalfa is seeded in the fall. It requires a very compact seed bed having a fine, mellow surface.

Smutty Oats For Horse Feed.

We have just received a sample of smutty oats from an Atchison County subscriber with the inquiry as to whether these oats can be safely used for horse feed. It is always desirable to feed horses grain which is as clean as possible. Smut, however, has not been generally considered to be of a poisonous nature. Ordinary corn smut has been fed experimentally to cows by several experiment stations in very large quantities without producing harmful results. Since these oats are somewhat smutty and dusty, it would be well to wet them thoroughly in a pail of water before feeding and then pour off the water. In this way a very large portion of the dust and smut will be removed. Worm eaten corn should be treated in the same way before feeding to horses. The worm dust and mouldy kernels will float to the top and can be poured off.

Common-sense Silo.

D. H. B., our correspondent from Franklin County writes for information concerning the construction of what is known as the "common-sense" or "two by four" silo. He wishes to know how this compares with stave silos and also desires information on how to line the inside of this "two by four" silo so as to make it air tight. Three years ago the two by four silo, built by spiking two by fours in octagon form, was quite a popular type of silo. The inside was lined with a good grade of roofing material. If carefully constructed so as to be absolutely air tight, this form of silo will preserve silage perfectly. It would seem at the present time that with the increase in price on that class of lumber, such a silo would be rather expensive considering the fact that it can hardly be regarded as an absolutely permanent structure. The stave silo sold on the market, where properly cared for, preserves silage perfectly. The common-sense silo cannot shrink

as the stave silo can and for that reason was adopted by many. This two by four silo must undoubtedly be covered on the outside with some material to protect it from the weather. With conditions as they have been this season, a silo of some kind is almost a necessity upon every farm since the immatured fodder crop will give little results except as it is preserved and fed in the form of silage.

Sweet Clover in Meade County.

A Meade County correspondent asks whether more than one cutting of sweet clover hay can be secured each year. The first year sweet clover is seeded one cutting only can be obtained. This cutting should not be made until the crown sprouts have begun to show up just under the ground. The next year the first cutting of hay should be made just before the bloom buds appear and the crop should be cut high enough to leave a few bunches of leaves on each plant. Otherwise some of the plants might be killed. The second cutting should be handled in the same manner as the first. If the conditions as to moisture are favorable, a third cutting may be secured. This third cutting may

growth by certain bacteria which associates themselves with the plants, living on the tiny rootlets. In some mysterious way these micro-organisms have the power to secure nitrogen directly from the atmosphere. No plant can do this directly. By reason of this faculty of securing nitrogen from the air, leguminous plants increase the nitrogen in the soil. Practically all the different varieties of legumes have their own particular forms of associated bacteria. West of the Missouri River almost all soils contain the alfalfa bacteria. East of the river it has generally been found necessary to inoculate the soil before alfalfa can be successfully grown. This is ordinarily accomplished by securing soil from fields which have been growing alfalfa successfully. Artificial methods of handling the bacteria have been worked out in scientific laboratories. Several firms are placing these cultures on the market. The method of inoculation is to soak the seed with a solution of these cultures before the seed is planted. Instructions for doing this are always furnished with the cultures. There is practically no need whatever for inoculation anywhere in Clay County. There are probably

of nitrogen as is stored in this sweet clover plant.

In addition to introducing actual fertility into the soil, it supplies a large amount of organic material, or humus, which greatly improves the physical character of such soils. As a green manure and rotation crop, sweet clover undoubtedly will have a very important place to fill in southeastern Kansas agriculture.

Feeding Wheat.

The following letter comes from a Clay County correspondent:

"Clay County has had no rain for the past six weeks. Some of the corn is all dried up and some will make fifteen or twenty bushels and less per acre if it rains soon. Most everybody is plowing for wheat, although the soil is very dry. There is very little old corn in the country. Everybody is feeding wheat or going to when their little supply of corn is gone. One farmer in this vicinity who stacked his wheat is almost out of corn and asked me if I did not have some wheat to sell for hog feed as it was cheaper than corn. Another farmer threshed 2,900 bushels of wheat and bought 1,000 bushels more to feed out his stock this winter. He said that he could get more out of a bushel of wheat than of corn and concluded that he would feed wheat. In general, most of the farmers in this county who have stock to feed are going to feed wheat."

We ordinarily do not think of wheat as feed for animals. It is usually too high in price to compete successfully with other grains for this purpose. In comparing it with corn as a feed we find that it contains slightly more carbohydrates in the form of starch and likewise a little more crude protein. It is also slightly richer in phosphorus and potash, but contains less oil or fat. It would appear from these facts that it should be slightly superior to corn for building bone and muscle in young or growing animals. Actual experiences in feeding it have corroborated these facts as to its composition. When fed to fattening animals, wheat has usually given about 10 per cent less returns than corn. Owing to the fact that the grains are small and hard, it is almost necessary to grind or crush it in order to secure maximum returns. In the case of corn, the cost of grinding often exceeds the increased value of the corn when ground but with wheat grinding or crushing has been shown by a great many experiments to increase its value from 16 to 29 per cent. Wheat alone is not as palatable a feed as corn since it tends to form a gummy, pasty mass when chewed by the animals. This can be overcome to some extent by mixing a small quantity of bran or cornmeal with the ground wheat. It is a good practice any year to carefully grade all wheat retaining for feeding purposes the inferior, low grade grain which would not bring as high a price in the market. Almost invariably the higher price received for the top grade wheat in connection with the value returned in feeding all the low grade will far more than pay for the cost of making the separation.

In 1893 wheat was extremely low in price and large quantities of it were fed all over Kansas. About this time many of the experiment stations conducted a series of feeding tests to determine its value. An average of the tests conducted by Kansas, Ohio, South Dakota and Wisconsin Experiment Stations show that in fattening hogs for market it required six pounds more of corn meal than of wheat meal to produce a hundred pounds of gain. This difference is so small that we might conclude that for finishing hogs for market, corn and wheat are equally valuable. For feeding young, growing stock or brood sows, wheat is undoubtedly superior to corn.

All His.

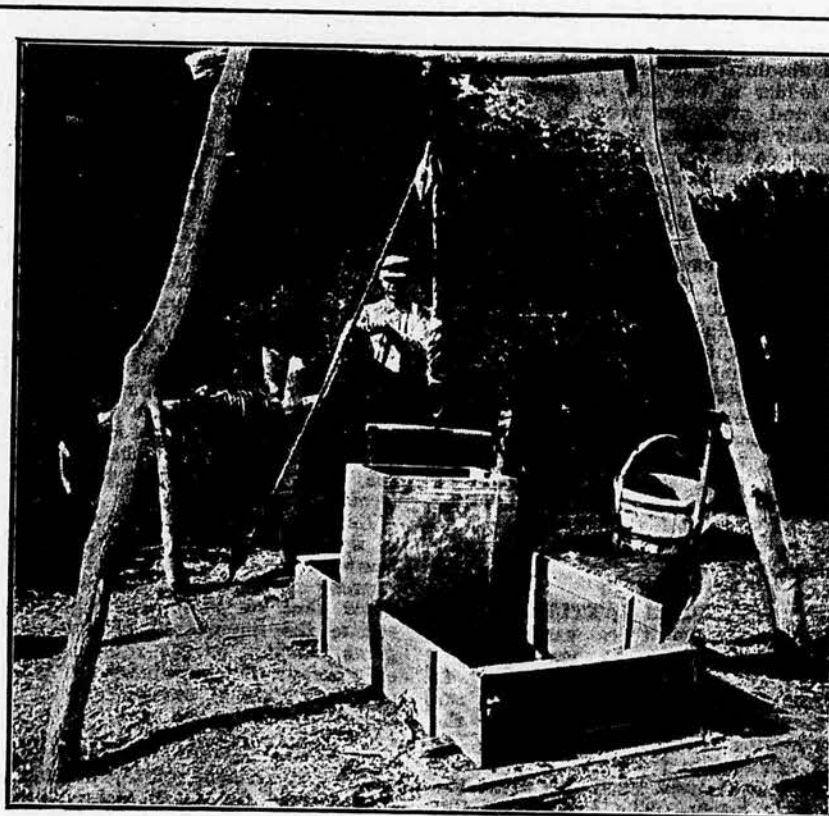
Senator Vardaman, so the story goes, once rented a plot of several acres to one of his negro neighbors. The land was to be planted in corn, and the Senator, then ex-Governor, was to receive one-fourth. Meeting the negro one day he said:

"Look here, Sam; have you harvested your corn?"

"Yes, sah, boss, long ago."

"Well, wasn't I to get a fourth?"

"Yes, sah, boss; dat's de truf, but dar warn't no fo'th. Dey was jes' three loads and dey was mine."



EDWARD WRAY OF NORTON COUNTY, KANSAS, HAS TWO PIT SILOS, 7x25—TOTAL COST, LABOR INCLUDED, \$25.00—SILAGE IS REMOVED BY SIMPLE WINDLESS DEVICE—BOX HAS HINGED BOTTOM—REMOVAL OF PIN LETS SILAGE DROP IN CART OR WHEELBARROW.

be mown close to the ground. The methods of handling and curing are practically the same as in the making of alfalfa hay.

Immature Corn As Silage.

An Oklahoma subscriber reports to us that his corn is only half matured and is dried up in spots and he wishes advice regarding putting it in the silo. His own fields are not sufficient to fill his silos and he expects to purchase corn fodder to fill his two silos to their fullest capacity.

This immature corn by all means should not be rushed into the silo until all hope is past of its making any further growth in case rain should come. It will not make first class silage, but will be of far greater value in a silo than if handled in any other manner. A ration of this kind of silage cannot be expected to place much fat on cattle, but can be used as a large part of the maintenance of stock cattle. It also will give good returns in combination with a little corn and cottonseed meal in putting gains on cattle.

Inoculation of Alfalfa Seed.

An inquiry comes to us from A. P. of Clay County, asking for an explanation of the inoculation of alfalfa seed. He wants to know when, how and why it is done. Alfalfa belongs to the group of plants known as legumes. The leguminous plants are all aided in their

very few sections in Kansas where the alfalfa bacteria are not present. The results of a number of experiments seem to indicate that the form of bacteria associated with the wild sweet clover is very similar if not identical with the alfalfa bacteria.

Sweet Clover as Green Manure.

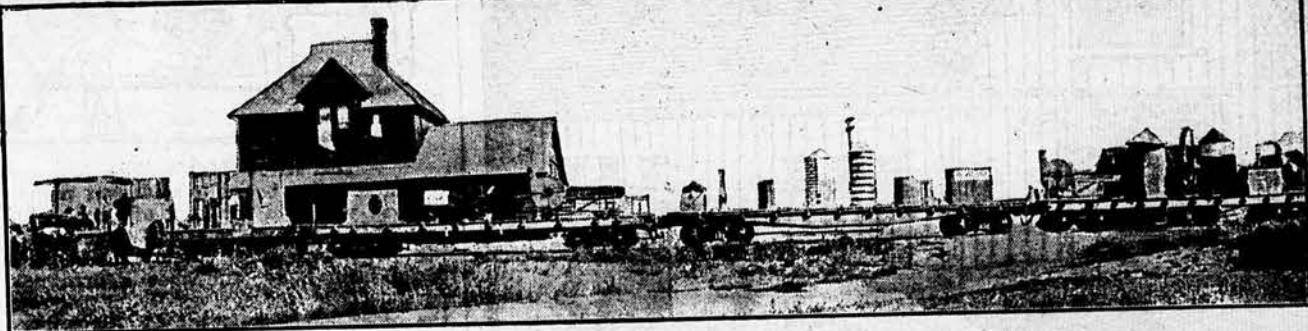
J. M. B., a reader in Cherokee County, wishes to sow a 25-acre field having a hardpan sub-soil, to sweet clover, the purpose being to use the crop for green manuring. He asks us in regard to this. If he had been a careful reader of our columns he would have found practically in every issue of KANSAS FARMER for the past six months, various articles on the cultivation and use of this legume. There is probably no other member of this family of plants which will add more nitrogen to the soil than sweet clover. From the fact that it will grow and thrive on thin soils underlain with hardpan, where alfalfa will not grow at all, makes it especially adapted to the conditions in Cherokee County.

At the Agricultural College two years ago a badly washed, clay hillside was sown to sweet clover and after harvesting a crop of two of hay, it was plowed under this season for the purpose of enriching this impoverished soil. Such lands will be greatly benefited by the use of green manure and especially the use of a crop containing such quantities

SILOS SAVE IMMATURE FEED

Rock Island Silo Special Furnished Timely Information on Handling of Silage Crops

By G. C. WHEELER



FIVE FLAT CARS CARRIED EXHIBITS OF ENGINES, SILO FILLING MACHINERY, MODEL SILOS OF VARIOUS KINDS ON ROCK ISLAND SILO SPECIAL. LECTURES BY EXPERTS EAGERLY LISTENED TO BY FARMERS—MODELS CAREFULLY INSPECTED. GREAT INTEREST SHOWN IN OPERATION OF THE MACHINERY.

AGRICULTURE in the United States has developed in an extremely wasteful manner. Ever since the country was first settled the one tendency has been to spread out over new fertile soils and grow and put on the market those crops which could be most readily and quickly converted into cash. This system could not help but be wasteful, the very cheapness of the lands encouraging the neglect of much that was produced. During the last ten or fifteen years it has become more and more apparent each year that our agriculture in order to become permanent in character must undergo great changes. It is evident that no permanent system of agriculture can be developed without having live stock as its central feature. The increase in the value of lands has been so rapid during this period and the consuming portion of our population has increased at such a rapid rate that exports of food products from the United States have very rapidly reduced in quantity during this period. It is true, however, that the United States still exports not only more meat products than any other one country but more than the aggregate of our five principal rivals, namely, Argentina, Australia, New Zealand, Uruguay and Canada. In spite of this fact, however, it has been evident to all who have given any thought to the future of this country that much of the cheaper feeds which have been going to waste must be used more completely in the production of meat and meat products if we would maintain our supremacy as an agricultural nation.

Transportation companies and other interests are vitally concerned in these matters. This has been evidenced in recent years by the attitude of the railroad companies in spending a great deal of money and effort in disseminating accurate, reliable information as to how these changes can be successfully and profitably brought about. The agricultural colleges have been recognized as being in the forefront in developing improved methods of working out the solution of these serious problems, but in order to be effective, the results of their investigations must be placed before the portion of our population directly concerned in bringing the changes about. Our great railroad systems have introduced agricultural and industrial departments, their sole duty being to aid in developing the most profitable systems of agriculture possible along their respective lines. It has not been a philanthropic move on the part of the railroads but purely a matter of business policy. The more prosperous the farmers are living along their lines, the more business the railroads will have to transact. Accordingly trains have been run by these various railroad companies under the direction of their agricultural commissioners for a number of years through many of the states of the middle west. Through Kansas there have been wheat trains, corn trains, alfalfa trains, dairy trains and later trains in which diversified farming, in-

roduction of the silo and its uses in connection with live stock production have been important features of the instruction. The most recent train of this character is the one which has just been operated by the Rock Island road in charge of H. M. Cottrell, agricultural commissioner for that system.

Mr. Cottrell has had a wide range of experience in the development of our agriculture and has done much to promote better farming along the lines of the Rock Island railroad. Conditions which prevailed the past two or three years over a considerable portion of Kansas have been such as to almost force a consideration of these matters of securing larger returns from the crops that have been grown. In spite of the opposition from some quarters, it is becoming more and more apparent that the agriculture of western Kansas as well as that of the whole state, cannot be built successfully around a single crop. Failures in wheat are bound to come, and while some few farmers through a combination of favorable circumstances may make a good deal of money farming wheat exclusively, the greater number of the farmers of the west must have some assured means of bringing in revenue every year.

The introduction of the silo as a means of utilizing feeds which can be considered as almost sure crops, is to be a very important factor in placing this class of farmers in a position of competence. Since the use of the silo and the feeding and handling of silage was an absolutely new thing in the territory through which the train ran. Mr. Cottrell arranged to have models of various kinds of silos on the train with silage cutters and gasoline engines so that all might have an opportunity to actually see the different kinds of equipment necessary.

The long, dry spell which has prevailed this summer has resulted in reducing the possibility of producing very much in the way of grain. In other words, Kansas farmers this year have produced little in the way of feed outside the fodder and in some sections this fodder is of a very stunted, immature growth. The most important and valuable information presented by the speakers addressing the audiences along the line, showed the absolute necessity for the proper utilization of the forage crop in connection with live stock husbandry. Since immature crops are to be used to such an extent for silage, advice along the lines of handling these crops was extremely timely, and at every station reliable information was given as to how these stunted crops might return the largest value possible as feed. They were told that immature crops while still green contained entirely too much juice to make good silage; that it was daily storing more starch and sugar and thus becoming more valuable as feed although making no apparent growth. This advice was based on careful observation and not mere theory. In order to secure the

best returns from the immature crop, it should be left standing in the field until a portion of this surplus moisture has been evaporated. Another most important matter presented at every station was the necessity for the careful distribution and tramping the material in the silo in order to thoroughly exclude all the air and make its preservation possible.

Through the western part of the state where farmers at the present time have little capital to invest in silos, the possibilities of the pit silo were carefully presented. Scores of men in every county through which the train passed made plans, as a result of this information, to build pit silos at once and fill them with such crops as they had in order to save the available feed for their live stock.

The first few days the train was in Kansas the conditions were such that hundreds of cattlemen in the state thought it necessary to rush their cattle to market. Mr. Cottrell in conversation with Mr. Reid and other KANSAS FARMER representatives on the train during the first few days made the statement that he considered the draining of this state of its live stock to be a most serious disaster to the future welfare of the state. Live stock rushed onto a falling market is bound to demoralize conditions. The absolute necessity of having cattle on hand to consume this class of feed will make it necessary to buy them back the next year. To replace the live stock of the state will be a difficult matter after such a cleaning out and will be an expensive proposition. Through the agency of the State Bankers Association, the Bank Commissioner and the governor of the state, who entered heartily into the attempt to use every effort possible to prevent the unnecessary sacrificing of the live stock at this time, the rush was checked. Numerous messages were sent out over the state urging co-operation of bankers and others interested, and as much publicity given through the press as possible to the points at issue. The results the following week demonstrated the great shortage of cattle over the country. Great restraint on the part of the owners of cattle over the state was apparent from the fact that the rush of cattle was checked. Buyers were on the market from states as far east as New York, Pennsylvania and Ohio, greedy for cattle to convert their low grade feeds into cash products. However, fully half these eastern buyers were compelled to go home without cattle and four thousand cattle were purchased to go back into Kansas.

Over 15,000 farmers were met during the time the Rock Island Silo Special was touring Kansas. At Colby, Goodland and Norton, in the sparsely settled counties of the northwest part of the state, over five hundred were present at each town greedy for the valuable information which was being given out. Down in the part of the state where cattle farming has always been an im-

portant consideration, even larger crowds were in attendance. At White City, seven hundred heard the lecture, at Alta Vista, eight hundred. At Plains, one of the far southwestern towns, special efforts had been made in the way of arranging some local events in advance of the arrival of the train and over a thousand farmers were present to hear the lectures. This section of the country for a number of years has been looked upon largely as a wheat farming section. The great interest shown in the possibilities of live stock farming is certainly significant. The same is true of other towns visited.

The writer well recollects visiting a farmers' institute meeting held in Hutchinson some years ago where there was absolutely no interest whatever in the live stock subject, but one man in the whole audience seeming to have any interest whatever in this most important subject. The all absorbing topic seemed to be fruit farming and while Hutchinson still is a most important fruit center, the importance of live stock has increased tremendously in this territory. One of the men who was present at this previous meeting and who was all tied up in the fruit business, has now developed one of the finest dairy herds of that section, has put up silos and is converting the coarser feeds which he can produce on his farm into a high class, concentrated product. In other words, he has adopted the dairy route as a means of converting the cheap, raw materials of his farm into a highly finished product.

Through all the lectures the thought was pointed out that too much must not be expected of silage. It was but a means of utilizing the coarser feeds of the farm in a highly profitable manner, such feeds as have commonly been wasted entirely. The listeners were reminded that silage was a rough feed and must be fed in connection with concentrates to get the highest possible results. The handling of live stock is far more dependent upon having a supply of good rough feed than it is on corn. Where good, palatable silage is available, corn and other concentrates can be shipped in and profitably fed in connection with it. When a shortage of rough feed occurs, it cannot be profitably transported from other sections where conditions have been more favorable and therefore the stock must go often at a sacrifice. In summing it up it might be stated that introducing silos as a means of having at all times an absolutely dependable source of rough feed on hand, makes possible the handling of live stock as a regular feature of the farming operations. This does away with the disastrous practice of having to skirmish around to secure live stock to consume rough feed which may be produced in abundance some years always paying high prices under these conditions, and having to sell out and drain the farm of live stock in years when there is not an abundance of rough feed available.



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THE FARM



The Hired Man's Side.

I have often heard it said that many a farm was sold for lack of good help to run it. Some farmers have a standing order with some employment agent for a farm hand and when a man reports, either the new comer or one of the older hands gets let out Saturday night, often before they have had a chance to show their ability. A few years ago I engaged by letter from an ad in a daily paper as a reliable, steady farm hand. When I got to the place all the work there was to do was to clear out a three year's growth of briars and underbrush. It cost me about \$4 railroad fare one way. I did not consider that general farm work and only stayed a few days. That same man was always howling about no good farm hands and he had no farm work to do. I was out my railroad fare and some lost time through his misrepresentation.

In my present position I was engaged by mail to work from 7 A. M. to 6 P. M., and care for my horses. That sounds good, does it not? Well, I have twelve to sixteen head to care for (hand corn sheller to shell all their corn). I have to go about three-fourths of a mile up the creek to find them, curvy and harness four to eight and be ready for breakfast at 6:15. We work until 7 o'clock instead of 6 and then we have to get the cows and help milk and drive the cows up the creek again to the pasture. It is 9:30 every night before my work is all done. These are some of the reasons why some farmers cannot get and keep good help. C. A. S.

Corn Ground For Wheat.

Farmers throughout central and western Kansas have ground in corn which has been well prepared and given good cultivation, and upon which the corn owing to dry weather will soon be harvested, either for silage or fodder. Such land will furnish the best possible seed bed for wheat this fall. The preparation of the ground for corn and the cultivation of the corn crop has liberated plant food that has not been used by the corn plant, due to the lack of moisture. This plant food will be available for wheat this fall as soon as moisture falls.

The corn ground should be prepared for wheat by disking after the first good soaking rain and the ground should be worked thoroughly thereafter as is necessary to keep down weeds and maintain a good soil mulch. A seed bed prepared in this way may be better than plowed ground this season. Plowed ground, although plowed early in the summer will not become well settled and firm in time for wheat seeding unless the rainfall during August and September is excessive. Corn land is already firm and well settled and will furnish ideal seed bed conditions when rain comes. All ground however, is dry and where wheat is sown the crop must be produced on the rain that falls between this time and next harvest. The subsoil does not contain a reserve supply of moisture as is often the case at this season of the year. It is therefore important to exert special effort to conserve by good methods of cultivation as much as possible of all rain that falls.—PROF. L. E. CAILL, K. S. A. C.

Fall Seeding of Sweet Clover.

A Leavenworth County farmer recently wrote Demonstration agent P. H. Ross about fall seeding of sweet clover. His reply follows:

"About the sweet clover: it can very successfully be fall sown. If possible the ground that you intended to put in sweet clover this fall should be disked at once if in stubble or plowed shallow if it has not been broken for some time. Sweet clover requires a very firm seed bed and should be sown early in August at the rate of 20 pounds to the acre if sown broadcast. You can very easily gather the seed that you want from the roadside as I have suggested in another letter. You will find that each seed is covered with a hull but this does not make it the less valuable as seed. You cannot expect it to make as rank a growth at once as it does on the roadsides. It has been many years establishing itself there. It requires inoculation which can be given by taking the top four or five inches of soil from a place

where sweet clover is growing and scattering it at the rate of 300 pounds to the acre over the field where the sweet clover is to be sown. This work should be done on a cloudy day or just at sun down for the bacteria that cause the inoculation are killed by direct sunlight.

As to its value as pasture it comes very early in the spring and as there is no other green stuff at that time your cows will learn to eat it. Hogs will also eat it when it is young and tender. Mr. W. A. Kuhnhoft who lives a mile and a half north of Boling has a small pasture in which sweet clover is growing and his cows keep it closely cropped. Mr. Harveson of the same neighborhood has all summer cut sweet clover along the roadsides and has been feeding it to his hogs and has told me that it was very satisfactory as a green feed.

I would not recommend a nurse crop if sown as I have suggested. Do not expect too much of it the first year. It will take some time for the plant to become established. I may add that after sweet clover has been grown for a time on a field it will be in splendid condition for growing alfalfa."

Machinery For Silo Filling.

Farmers who are cramped for working capital often feel that they cannot afford to own the necessary machinery and equipment for silo filling. In many cases this is a serious handicap, especially in communities where the silo is only used by a few. It can often-times be handled very satisfactorily in a co-operative manner, several men owning the equipment in common. In such cases it may not be possible always to put each man's crop into the silo in ideal condition. The advantages, however, of the co-operative plan easily overcome the few slight disadvantages. The corn harvesters in the field can be kept at least a half a day ahead of the silage cutter without injuring the quality of the silage. At times it may be necessary to cut the fodder and let it stand in the shock for several days before it can be placed in the silo. In this case considerable water must be added to the material.

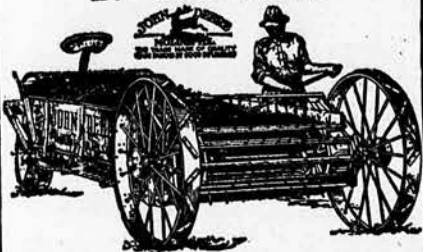
Where machinery is owned co-operatively, it is well to have a cutter of considerable capacity, especially if ample power is available. With a small cutter there is always a temptation to over-crowd the machinery and breakdowns will occur causing serious delays in the work. A good machine man should be placed in charge of the cutter. Often-times cutters have been run through a whole season without a single change of knives. This is a very poor policy. An extra set of knives should be purchased with every cutter and an emery wheel provided for properly sharpening them. A freshly sharpened set should be placed on the machine each day and better results would be secured if fresh sets of knives were used each half day. The silage will be properly cut and the wear and tear on the balance of the machinery will be greatly reduced.

Cutters equipped with blowers having a capacity of twelve to fifteen tons per hour, require from eight to ten steam horse power to successfully operate. The larger sized cutters having a capacity from twenty to twenty-five tons per hour will require from twelve to fifteen steam horse power. Where gasoline power is used it is safer to estimate about one horse power per ton capacity.

During the process of filling the silage must be uniformly distributed in the silo. Some of the cutters sell with their equipment flexible distributors which permit the stream of silage to be directed to any part of the silo. Where these distributors are not used, this work must be done more largely by hand. During the filling process the surface should be kept approximately level, considerable care being directed toward tramping the material carefully around the edges. The center must not be neglected, however, especially toward the top of the silo. Tramping the silage may be neglected to some extent in the lower part of the silo without harmful results, but towards the top it is very important that the material be well tramped.

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Here's your chance to get exactly what you want in a manure spreader.

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Mounting the beater on the axle makes all these things possible in the John Deere Spreader.

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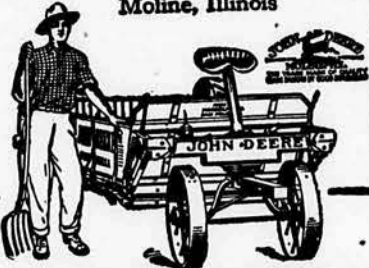
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Sec'y.....C. M. Freeman, Tippecanoe City, O.

Report of Pomona Grange.

Pomona Grange had a splendid meeting recently in Garnett.

On the subject, "What Do You Consider to be the Farmer's Worst Enemy?" the discussion brought out a great many matters of interest, viz: Chinch bugs, root lice in corn, unprincipled politicians, and farmers themselves, for electing those same men to office.

Ernest McClure read a paper on the subject, "How Do the Contests as Conducted by the Farmers' Institutes Interest Our Boys and Girls?" The subject was carefully handled, showing that he had given it thorough study; but in the actual work, they (like others) have been handicapped by the Agricultural College not sending out the literature as had been promised to Farmers' Institutes.

The subject, "Ought the United States Have a Better Standing Army or Spend More on Good Roads?" was taken up (in the absence of those appointed) by Mr. Brown, of Coffey County, who made a very pleasing and sensible talk, showing us where the enlightened people of today need good roads more than the army.

The question box brought out many questions pertaining to farming and politics, which were thoroughly discussed.

The subject, "Resolved, That the United States Government Should Loan Money Direct to Farmers," was very ably discussed, many points being brought out on both sides.

Little Miss Barner, of Union Grange, entertained the audience with a solo, and Mrs. J. D. Hester, with her African Humaniphone, was a pleasing number on the program. They were encored, but Mrs. Hester said, "That was de whole show."

Altogether it was a very pleasing meeting.

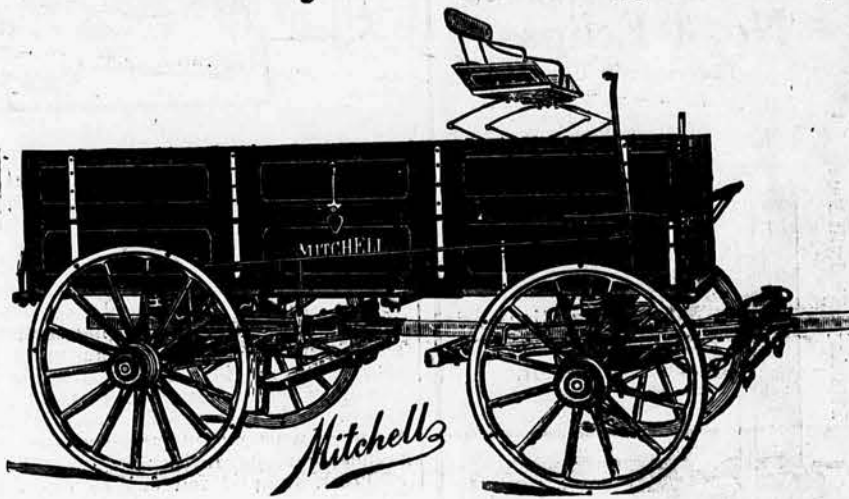
The next meeting will be held at Colony, the second Saturday in October. —MRS. LETTIE A. MYERS, Lecturer of Anderson County, Pomona Grange.

Children as Partners.

Parents on the farm are continually racking their brains to find means of arousing the interest of the children in the many phases of farm life. There is probably no one feature that has so much bearing upon the attainment of this result as taking them into a limited partnership in some feature of the farm's activity. The boy may be given special pieces of ground to cultivate for himself, or the ownership and care of some of the farm animals. The parent who simply orders the child to do certain tasks without ever offering a suggestion as to the whys and wherefores of the work they are requested to perform is doing little to arouse interest in these operations. Boys and girls often-times have visionary ideas about things which they would like to experiment with in connection with farm life, and too often the parent is inclined to throw cold water on their little schemes. Better encourage them even though you know their little experiments will not work. Even though it may cost something, the small loss will be well repaid by the education and training which it gives to the boy or girl. It will arouse interest if they are consulted regarding the various farm operations. Their advice may not be worth much at first, but it will encourage thinking and suggest the idea that all members of the family are interested in the methods of conducting the farm business. In talking over farm affairs it would be far better for the parents to speak of what we ought to do or are doing instead of constantly using the pronoun "I." Where this is the practice, the children cannot help but gradually acquire the feeling that they have little part in carrying on the work of the farm, outside of the work they may do.

Try putting horse radish through a meat chopper instead of grating it. It is much less trying to prepare.

Are you prepared to haul your crops?



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The bottoms of the "BEST EVER" are so hung and the frame so perfectly balanced that an even furrow is maintained at all times.

The moldboards are so shaped that every furrow is completely turned over and thoroughly pulverized.

LIGHT DRAFT The "BEST EVER" is the lightest draft plow built. The wheels and tongue run straight down the furrow like a wagon. The wheels do not dig into the furrow walls nor does the pole run at an angle as on other plows.

EASE OF OPERATION The bottoms are raised and the frame leveled, all by one easy footlift operation. All landside friction can be quickly overcome by eccentric washer on rear furrow wheel. No bolts to bother with.

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ACME STEEL is the only perfect plow steel made. It makes the only steel shares that are positively guaranteed against breaking in the field or in retempering. Anybody can easily retemper them any number of times. Keep them hard and sharp all the time. They scour perfectly, lighten the draft, plow more acres per day and plow them better.

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DAIRY



Silage From Dry Fodder.

A great many reports have come in
from time to time regarding the use of
fully cured corn or kafir in the
silo. Some have claimed that the re-
sulting material was fully equalled to
silage placed in the silo in ideal con-
dition. This is undoubtedly over-stat-
ing the case. Dry fodder placed in the
silo during the winter time must be
thoroughly wet in order to pack and go
through the necessary fermentative pro-
cesses. It is undoubtedly true that dry
fodder can be placed in the silo in this
manner and go farther in the feeding
of stock than if fed out as dry feed.
Those who are long on cattle and short
on rough feed, can profitably handle
their fodder crop in this manner.

Why Ship Grain to Market?

Why should any dry-land farmer ship
his products to market in the form of
hay and grain?

There is but one correct answer to
this question: He shouldn't do it. Yet
the average western farmer of today
fails to do anything else. As a matter
of fact the practice of selling wheat and
corn, hay and other farm crops from the
land, year after year, results in a grad-
ual but constant loss of soil fertility.
It costs no more to till soil which will
produce 40 bushels of wheat per acre
than soil which is so worn that it will
produce but 20. Herein is a funda-
mental principle of farming, and one of
the strongest arguments in favor of live
stock husbandry. The feeding of farm
animals not only means that 85 to 90
per cent of the fertilizing value of the
crops fed can be returned to the land,
but also that such forage crops as al-
falfa, clover, and cow peas, will be
grown to accompany kafir, milo and
corn. The former crops draw from the
air more nitrogen than is sold from the
land in the shape of meat or milk
products and the effect is to build up
instead of to tear down.

Every farm should be a factory. Div-
idends depend upon the cost of market-
ing. Live stock provides a home mar-
ket for the crops grown. Feeding live
stock is a means of condensing a prod-
uct to about one-eighth of its original
weight. Seven pounds out of every
eight are thereby marketed on the farm
reducing the freight charges for trans-
porting grain by 87 1/2 per cent and doing
away with the usual haul to the local
market or elevator. The utilization of
waste roughage, the seasonal distribu-
tion of labor, the added pleasure of farm
life, all are additional points for the
western farmer to consider when map-
ping his course to farm success.

Sealing the Silo When Full.

There is only one way to avoid all
losses of silage on top and that is to
begin feeding at once. This often-times
is not desirable, and it should be the
aim to reduce the amount of spoiling on
top to a minimum. If possible to so
arrange it, some thoroughly green,
heavy material should be used in filling
the top three or four feet of the silo.
There is always a tendency for the top
to dry out at once in a very dry time.
The application of water over the sur-
face for several days after the silo is
filled will tend to keep the silage wet
on top. The formation of a thin layer
of wet, slimy, moldy material forms
the seal which effectually prevents the
silage from spoiling underneath.

After the silo has been filled and
tramped for the last time the surface
should not be disturbed by further
tramping. This would tend to disturb
the layer of moldy material and thus
let air get down into the good silage
underneath. If the tramping has been
properly done, the silage will not draw
away from the wall. In many cases
the tendency has been to neglect tramp-
ing and filling the middle. This results
in the center settling much more than
the sides and the silage draws away
from the wall allowing air to pass down
the side five or six feet. This always
means a great deal of spoiled silage.
Joseph E. Wing of Ohio, reports the use
of half a barrel of salt spread over the
surface as giving good results in re-
ducing the amount of waste on top.

When a silo has been practically
filled with an early crop or one that
must be harvested early in order to save

it, the same method of sealing the sur-
face should be used. When ready to
refill later with kafir or other late
crops, the spoiled material on the sur-
face should be removed. Three or four
different crops may be placed in the silo
in this manner.

Place of Honor to Dairy Cow.

Mr. J. A. Walker, one of the original
founders of the National Dairy Show,
says how he became interested in the
dairy business was that his boyhood ex-
perience demonstrated the great value
of the dairy cow in shaping the destiny
of the great West. When all else
seemed dark and men's souls tired from
many features in the early days of Kan-
sas, the ever-faithful cow was the one
ray of hope.

The other day, when some railroad
men were speaking of the building of a
new country and the trials and tribu-
lations relating thereto, one of them
gave a most interesting account of how
settlers in the Black Hills country were
made prosperous from the results of a
few dairy cows they took along with
them from Minnesota and Wisconsin;
how the creamery check at the end of
each month was almost their sole in-
come for the first year, and how the
dairy business thus grew in that terri-
tory to splendid proportions. Mr. Wal-
ker said that reminded him of his boy-
hood in Kansas, when grasshoppers were
the principal crop and hot winds and
Populism the daily diet. It was there
he learned the value of the dairy cow.
She could take, he says, such elements
of vegetation as were unprofitable to
harvest and in her wonderful system of
economy make them overnight into a
cash article.

It made him think that there was a
great similarity between the dairy cow
and the banking business. Interest
counts up nights and Sundays in the
bank, said Mr. Walker, as much as dur-
ing working hours, so that the banker's
income is not governed by the number
of hours the bank's doors are open. So
it is with a well-conducted dairy. The
old cow's organism for the production
of milk and butter fat is always work-
ing, and she gives us the cash returns
twice a day. All we need is intelligence
in breeding and feeding, and you raise
the standard of your money maker in
the same ratio as a small private bank-
ing institution in a small town is to a
First National Bank in a larger city,
and Mr. Walker recommends a short
course in dairying at the National Dairy
Show, where the work of men who give
their life's thought to problems of the
dairy are open to inspection.

This show is held each year in Chicago
by an association of men who believe
in the dairy business, and are all asso-
ciated with it in some manner, are will-
ing to do all in their power to advance
the cause, believing that if the farmer
can be shown where the most money
can be made they will also make money.
The show is entirely educational, and
any money derived from it goes to the
work of improving the dairy cow on the
American farm, which is given the place
of honor as a producer.

It would therefore seem that the
dairy cow, the National Dairy Show and
the banks were safe propositions for the
farmer to tie to.

Maxims for Wheat Growers.

Plow early for large wheat yield.
Early listing is better than later
plowing.

Double listing is better than single
listing.

Early disking followed by medium
early plowing is good farm practice.

Deep early plowing is advisable.

Never plow deep late in the season.

Summer fallow is the safest practice
in Western Kansas.

Summer fallow accomplishes for the
Western Kansas farmer what early fall
plowing accomplishes for the Eastern
Kansas farmer.

Rotate wheat with other crops.
Continuous wheat growing eventually
spells disaster.

Plant only pure, clean seed.

Use barnyard manure or straw spread
lightly as a top dressing on wheat—it
pays everywhere in Kansas.—Kansas
Experiment Station Bulletin No. 185.

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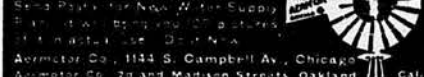
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Sweet Clover in Southeast Kansas

Cherokee and Crawford County farmers have found or been shown a new source of wealth this summer in the form of sweet clover. This is an important source because sweet clover grows along almost every road and fence row in some sections of the counties mentioned, and especially in the north-west part of Cherokee. Everywhere it is found it is luxuriant and will make as many tons to the acre as alfalfa.

Heretofore among the majority of farmers sweet clover has been considered a worthless weed but this spring H. J. Bower, demonstration of the government for the nine counties of south-eastern Kansas, began telling the agricultural men of the value of the "weed." Immediately the more progressive of the farmers set to work and cut all the sweet clover adjoining their farms. Asa Westervelt got two tons and he says he is more than satisfied with it as a hay.

Mr. Bowers says that sweet clover is worth \$18 a ton when bran is selling at \$20, and that it is as nutritious as alfalfa.

"Sweet clover is very much like alfalfa in its habits of growth," he said. "Neither plant will grow on acid soils, and inoculation is very essential to both. The bacteria on the two species of plants are quite similar, in fact almost identical."

"Sweet clover is a valuable crop for making hay on thin soils," he continued. "Also it is valuable on hardpan soils and rocky waste places where no other crop can be grown profitably."

This property of the plant—of being valuable on hardpan soils—should prove of exceptional interest to Cherokee County farmers owing to the impenetrable hardpan that underlies the surface from one to three feet in many sections. Because of it corn is often a failure, as well as other crops. Moisture does not pass through it and consequently the earth does not store sufficient moisture for dry periods. Since sweet clover is a profitable crop and can be raised on hardpan soil it would pay farmers to look into the possibilities of it for them individually.

"It grows very luxuriantly on fertile soils," Mr. Bower goes on to say, "but it is not so profitable as alfalfa on the same fertile soil as, perhaps, only one

cutting can be had the first year after seeding, and only two the second year for hay under the most favorable circumstances. Sweet clover holds only two years without re-seeding."

The clover should be cut before the stems get big and tough, and then the stock will devour every shred of it. If the plant grows until it blooms, especially if it is as high as a man's shoulders at the time, it is almost too old and big for hay as the stems will be hard and pithy. White bloom variety of clover is the best, if not the only kind that the stock cares for. Various men in the vicinity of Mineral have found that their stock will leave alfalfa and sometimes even corn for hay from the white variety.

"Wherever sweet clover is grown"—to quote the demonstration agent again—"the soil is made loose and the same beneficial effect is noted as follows a crop of cowpeas. Owing to its hardness the plant grows readily on washed soils, but owing to its making the soil loose it cannot be recommended as a plant for checking erosion."

"It is a crop that requires attention in cutting, so that the leaves will transpire all the moisture from the stems before they become dry and crumbly. The hay should be cured in the wind-row, raked immediately after mowing."

More than one farmer is preparing to cut what sweet clover they can along the roads and fence rows. Some hope to get enough seed to plant for a crop next year. They are talking in favor of it as a hay and a money producer in the way of seed. Some have waste land on which they have come to the conclusion the clover will grow better than alfalfa.

Since alfalfa has not been a highly successful crop in most of the counties, and since sweet clover seems to grow any place it gets a chance, it would seem that for Cherokee County and parts of Crawford, at least, it is considered to be a superior crop to alfalfa and indications now are that it will become a standard crop.

As a last word Mr. Bower says: "Sweet clover again is like alfalfa as a pasture plant, as it will not endure close grazing. Stock like it; and it makes very good hog pasture."—BARNEY SCOBEE, Pittsburg, Kan.

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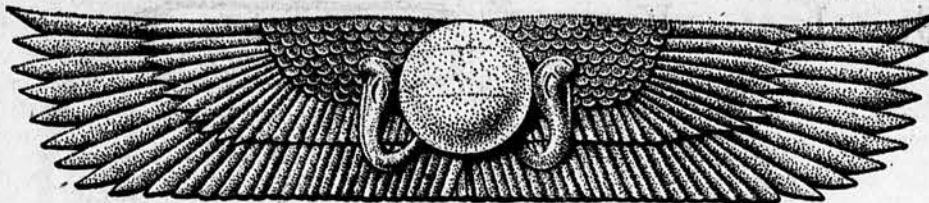
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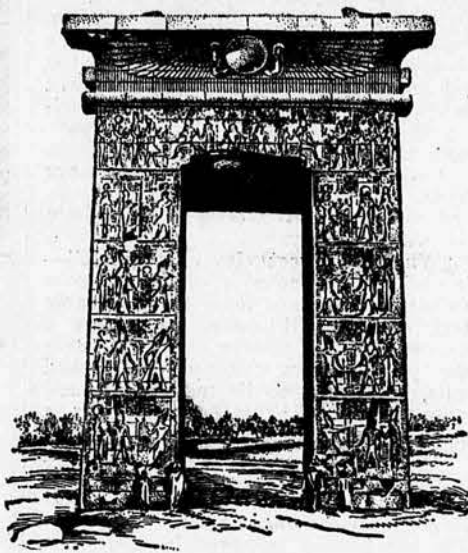
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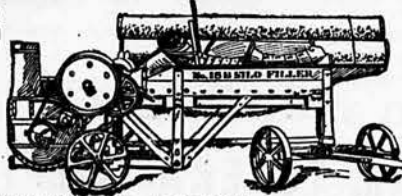
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(Signed) B. M. LITTLE, Supt.
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LIVE STOCK



Meat Supply of the World.

The total value of meats and food animals entering international trade is, according to the latest figures of the Bureau of Foreign and Domestic Commerce, approximately 450 million dollars per annum, of which about one-third is from the United States, and consists chiefly of pork and pork products.

While the total value of meat products and food animals exported from the United States in the year which ends with this month will be but about 150 million dollars, against approximately 250 million in 1906, this reduced total far exceeds that of any other country. Meats and food animals exported from Argentina in 1912 amounted to but 67 million dollars in value; from Australia, in 1911 31 million; from New Zealand, 21 million; from Canada, 14 million, and from Uruguay, 11 million. These six countries—the United States, Argentina, Australia, New Zealand, Canada, and Uruguay—are the chief meat exporting countries of the world. It will be seen from these figures that our meat exports are not only larger than those of any other country but actually exceed the aggregate of our five principal rivals. The fall in our exports of meats and food animals, which has characterized recent years, has occurred chiefly in beef; pork products, always an important factor in the meat exports, show but a slight reduction.

The United States still has, despite the reduction in her live stock in recent years, a larger number of food animals than any other country of the world. Of cattle alone, the number in the United States is 56 million, the only country having a larger number being India, with 113 million, while Russia in Europe and Asia has 51 million; Argentina, 29 million; Brazil, 25 million; Germany, 21 million, and the United Kingdom, 12 million. These figures are in round terms and for the latest available year. Of sheep, the United States has 54 million; Australia, 92 million; Russia, 85 million; Argentina, 67 million; the United Kingdom, 30 million; India, 26 million; Uruguay, 26 million, and New Zealand, 24 million. Of swine, the United States has 61 million; Russia, 13 million, and Germany, 22 million. The total number of food animals (including in this term merely cattle, sheep, and hogs) was, at the latest available date, in the United States, 169 million; Russia in Europe and Asia, 149 million; India, 140 million; Australia, 104 million; Argentina, 98 million; Germany, 51 million; the United Kingdom, 46 million, and France, 39 million.

Typhoid Drinking Water.

One of the greatest dangers of the summer vacation is the summer typhoid. People in the cities or elsewhere where the quality of their drinking water is unquestionable, and where some attention is paid to the matter of flies, fall ready victims to summer or vacation typhoid when they go to our various summer resorts, where the sewage and drinking water are too closely related, and where the flies and food are intimately associated. Either of such combinations is a dangerous proposition. No one knows just how much of our summer typhoid is due to bad water or how much is due to flies.

Now, as to the water question, if there is the slightest doubt as to the quality of the water, the following simple remedy will make it safe: Get a one-pound metal can of chloride of lime or bleaching powder. Take a level teaspoonful of the powder and a few drops of water, and make a thin, smooth paste in a teacup. Then dilute this paste with four cupfuls of water. Place this stock solution in a clean stoppered bottle and keep corked tight. This is enough to disinfect 250 gallons of water. Use a teaspoonful of this stock solution to two gallons of water. Stir well, and use in from a quarter to half an hour. If the water has a slight odor of chlorine, use slightly less of the stock solution. Find out how much stock solution it takes to give a slight odor to the water, then use about one-fourth less than that quantity necessary to produce odors.

Water thus treated is absolutely harmless. The chloride of lime is con-

sumed by the water in 10 or 15 minutes, and even if it were not, in such small quantities it would be harmless.

Fresh stock solution should be made every three or four days, and the powdered lime should be kept in a tightly closed can.

There is little excuse for flies, even in summer resorts. The only practical damage done by flies is in polluting food and milk. They can be screened out of kitchens, dining rooms and cook shacks at little expense. Many summer landlords cannot be made to appreciate this, but if with a suggestion or two good screens are not forthcoming, the best plan is to patronize the other resort. It will be cheapest in the long run.—State Board of Health.

Balanced Rations For Hogs.

One of our readers thinks chicken eating in hogs should be treated from the standpoint of prevention by proper feeding. It has been our observation that when hogs are fed in rather close quarters to which chickens have access, an occasional hog will get a taste for chicken even though fed properly balanced rations. The taste once acquired makes a confirmed chicken eater of a hog. The habit is a bad one and anything in the way of prevention is of value. Here is what our correspondent has to say on the prevention by proper diet:

Blinders as a cure for chicken eating hogs, may be all right, but there is a better way. To my mind a chicken eating hog is prima facie evidence of a wrong system of feeding. Hogs eat chickens because the chicken supplies something that the pig's system craves. If the feeder supplies this need the pig will have no occasion to eat chickens and will not do so. I have been growing hogs for years and both hogs and chickens run together in the lots. A chicken eating hog on this place is a thing unknown. In fact, we want the chickens to run with the hogs as the chicken is the scavenger of the hog as the hog is of the steer.

The balanced ration is the solution of the chicken eating problem. In nature the hog gets roots and grasses, nuts, grains, bugs, worms, snakes, etc., and under artificial conditions his diet should be as near to the natural conditions as possible. He should have a variety of pasture and other foods that will supply both mineral and animal matter. Milk and shorts are good but with tankage are better. Tankage costs two and a half cents to three cents per pound, but even at that it is cheaper than chickens to feed pigs. Care and judgment must be used in feeding tankage. Too much will so derange a hog that he will not recover for days. In other words, be sure that the ration is balanced.

Another thing that might have a tendency toward inducing chicken eating is under feeding. A pig should have about all he can eat all his life and his sire and dam before him should have similar treatment. That does not mean that sire and dam are entitled to all the fat forming food they will clean up. There is little if any profit in stock hogs. I have tried them both ways and know.—ALVAH SOUDER, Harvey County.

Driving on Slippery Roads.

A set of good tire chains at all times kept with the car and put on the rear wheels when the roads are slippery will



pay well for the investment and the time expended in attaching to the wheels. The chains should be properly adjusted. If put on too snug they cut the tread. If too loose they are not effective. The chains should be adjusted so that they will shift around over the tread, distributing the wear.

In emergency cases when no chains are to be had, rope wound around the wheel in the manner shown in the accompanying figure will prove reasonably effective. Note that the rope is tied around a spoke to prevent slipping.

The best cook lets nothing "usable" go to waste.

FIELD NOTES

Fifty of My Best Spring Pigs For Sale.
W. T. Hutchison of Cleveland, Mo., has 100 head of spring pigs, 50 or more are the best we ever saw on the farm and are offered at very reasonable prices. Here is a chance to buy real herd headers or pairs or trios. They are sired by Drexel's Pride and Queen's Wonder. Please look up ad and write your wants and mention Kansas Farmer.

A letter received from V. E. Carlson, owner of Fairview Stock Farm, Formoso, Kan., announces that he has some Kharkof wheat seed for sale. His advertisement appears in this issue of Kansas Farmer. Mr. Carlson together with H. T. Hayman, Mr. Formoso, have just purchased Molle's Jumbo at Peter Mow's sale. He is a tried son of old Jumbo and according to good judges, is the best hog that has ever been brought to this part of the state.

R. B. Davis Writes.
Although conditions are not as good as usual in Brown County there will be enough corn for local consumption and the prospect is not nearly as bad as it might be. Mr. Davis says he has a fine lot of big type Poland China spring pigs weighing right up to 200 pounds. If in need of a first class young boar or some choice gilts look up Mr. Davis' advertisement in this issue and write early.

Coleman in the Ring.
John Coleman, our big type Poland China advertiser located at Denison, Jackson County, writes a very interesting letter in which he says he is still in the ring, and that the pigs are doing fine. Mr. Coleman is culling closely because of the short corn crop and for that reason is prepared to sell only the very best and at prices within the reach of all. Fall pigs are now arriving. The litters are large and all being saved. Mr. Coleman says his spring pigs weigh from 100 to 125 pounds. He has some real herd headers. He is erecting a silo and preparing to keep all the stock possible. Write him about boars.

Double Standard Polled Durham Cattle.
With this issue C. J. Woods of Chiles, Kan., starts a card for his Polled Durhams. Mr. Woods has a good herd of both Scotch and Scotch topped cows. At the head of the herd is Roan Choice, one of the best sons of Roan Hero. Roan Choice is assisted by Matchless Avon, one of the best bull calves raised at the State Agricultural College this year. This calf was sired by Matchless Dale, a son of the champion, Avondale. Mr. Woods is offering 10 young bulls for sale. Among them is the good young bull, Hero's Knight, a two year old by Roan Hero. His dam is by the celebrated Gallant Knight. Mr. Woods has used this bull in his herd and he has proven a sure breeder of very promising calves. In addition to 10 young bulls, Mr. Woods will sell a few cows and heifers. Please look up his ad and write your wants. Kindly mention Kansas Farmer.

Steel Shingles Best.
Steel shingles are rapidly coming into general use because of their numerous advantages over wood shingles from the standpoint of durability and economy. The poor quality of wood shingles of today in comparison with those used a generation ago undoubtedly has much to do with the increased popularity of steel shingles. But even the best grade of wood shingles cannot possibly give the long wear, the economy and enduring satisfaction of steel shingles. Edwards steel shingles are widely known. These shingles are made of the finest open hearth steel, heavily galvanized to prevent rusting. Each shingle is dipped into molten zinc, which gives a uniform coating to sides and edges. The patented interlocking device covers nails and makes a perfect joint, unaffected by heat or cold. The shingles come in large sheets 24 inches wide, 5 feet to 12 feet long and can be applied over wood shingles or sheathing 12 inches apart. Edwards steel shingles are very lasting. They make a handsome roof, that is rust-proof, fire-proof and rot-proof. The use of steel shingles enables the owner of the building to get a reduction in insurance rates. Thousands of barns are burned every year because sparks from passing trains or embers from bonfires ignite them. Steel shingles are sold direct from the factory, at factory prices. A copy of Edwards New Roofing Book can be had by writing direct to The Edwards Mfg. Co., 813-8363 Lock St., Cincinnati, Ohio. If you give the size of your roof, the company will quote a lump price on the job.

Bargains in Shorthorns.
G. A. Laude & Sons of Rose, Kan., are starting a card this week in Kansas Farmer offering three \$500 bargain lots of Shorthorns mated to start small herds. Short description of these lots follows: Lot 1 contains 3 cows, each a good regular breeder. Nellie Blye 23, a splendid, large smooth red cow 8 years old and will calve October 5; Daylight, 7 years old, one of the largest and best cows of the Laude herd—practically a pure Crulk Shank cow—to calve August or September; Golden Brise's 2d, 7 years old, Royal prize winner as well as a winner at other shows, will calve March 31. Lot 2 contains 4 cows. Autumn Rose, 10 years old, a good producer to calve in September; Star Bull white, 6 years old, a good proposition to calve shortly; Athena, bred by Andrew Pringle, a daughter of the \$500 Prime Minister and out of a dam by Imp; Thistletop, 5 years old with fourth calf now—a red heifer; Rosaline, 5 years old, a splendid breeder, medium size, with third calf at foot—a red heifer. Lot 3 contains 5 splendid heifers and a bull to match. One roan heifer 17 months old, out of Nellie Blye 23; 3 red heifers 12 months old by the grand champion show bull, Lord Mayer 3d and out of good cows. One of them is in our show herd for this year and her full sister was our last year's prize winning senior calf; a red heifer of December last by Lord Mayer 3d out of a fine show and breeding cow that won several grand championships. These heifers are good enough to please and the bull that goes with them is dark red calved January 1, and extra good from end to end—sired by Ingelyne out of Star Bright by Laven-der's Best. Ingelyne sold in Ted. Bayer's last year's sale for \$300. The only reason Laude & Sons are offering this stock for sale is because they have not sufficient room for it. They do not have enough surplus to make it pay to hold a public sale and will give their customers the advantage in price of the cost which a public sale would mean to them. The stock is highly desirable in every way, selected, not to cull out their herd, for it needs no culling, but because these individuals will suit and please the purchasers, making them money and Laude & Sons new customers. They also have for sale three bulls that are good show prospects and fit to head Shorthorn herds, one priced at \$150, the other two at \$200. They have some \$100 ones that are big, strong, beefy fellows. Look up their ad and write Laude & Sons, mentioning Kansas Farmer.

POULTRY

Eggs should not be stored in musty cellars, or in rooms with fruit, vegetables or fish.

Hens do not need as hearty food during the summer as they do in winter. If they have plenty of green feed and bugs they will do well.

The increasing price of chicken feed admonishes one to keep no fowl any longer that it is profitable. Sell all that you do not need for next season.

A shipment of six cars of live poultry and two carloads of eggs was recently made from Altus, Okla., to New York. The largest single shipment of the kind that ever left that state. The climate of Oklahoma is specially adapted to the raising of poultry.

If you will use plenty of kerosene on the roosts you will have but little trouble with scaly legs. The parasite that is hidden under the scales of the legs will be destroyed and if the kerosene is used with each cleaning of the coop or house you will have no birds with scaly legs about the place.

"A merciful man is merciful to his beast," and during such hot weather as we have been having lately, will see that his stock does not suffer from neglect. He who does not provide fresh water and shade for his chickens, should try standing out in the hot sun for a whole day without a drop of water.

In feeding cockerels special attention should be given to rapid growth. If you want good sized birds, don't feed a lot of fattening foods. Give them a hopper of wheat bran, plenty of green grass, with a light diet of grain. Instead of feeding corn in quantities, feed oats. Oats contain elements for growth and should be given in large quantities.

Never make the mistake of trying to keep more fowls than you can properly house and care for. It is much better to sell some of them, even at market prices, than to crowd too many into your houses or coops. Hens need plenty of room and fresh air, especially at night, and overcrowding will surely bring disaster. Good eggs and healthy chicks can only come from strong, healthy stock, so do not impair the vigor of your fowls by keeping more than can be housed and cared for properly.

Sugar beets make an acceptable and profitable winter substitute for green food. The beets not to be taken from the ground until just time to keep them from being frozen. If stored in a cool cellar, and kept covered with leaves or sand, they will keep crisp all winter and can be cut up as needed, or hung in the poultry house for the fowls to pick at when they please. Beets are relished by the hens, and help to keep them in good health, and thus the egg production is increased.

When handling your birds carry them so that the feathers will not be broken. In catching them do not scare them so that they will fly and ruffle their plumage. No one wants exhibition birds with broken feathers and ruffled plumage. If you are careful in these respects you will have a flock of fowls that you may be proud of. There is nothing that appeals more to a fancier than a fine flock of well feathered birds. Amateurs often take birds to a show or fair that have clipped wings. This is a waste of time and money for the judge will disqualify all such birds at a glance. No matter how good it may be in shape and other matters, if its wing feathers have been clipped it is thrown out of the competition.

It is quite a hard matter to keep white birds perfectly clean, unless you make some special effort in that direction. If you keep the straw or the litter in good condition and then have a dirt side for dusting, the birds will keep themselves clean without further attention. The straw will act as a brush for cleaning the feathers, and the dirt will remove any marks of stain or soil. It is a strange thing to think of cleaning anything with dirt, but there is such a thing as clean dirt, and the chickens use this for their bath and when all conditions are right they will keep as white as snow. A better cleanser or deodorizer than dry, powdered earth cannot be found. Some use road dust because it is already powdered, but that of course is not pure like dry earth, still that is better than no dust bath at all.

HEAVY CAR TYPE

FISK TIRES

No Transaction Is Complete Until Our Customer Is Satisfied

NO FISK TIRE can be bought that does not carry with it our determination to see that the purchaser receives full value for every dollar invested. When you buy Fisk Tires you get your money's worth plus the satisfaction of having your every requirement met with the promptness, fairness and courtesy which represent the highest standard of far-reaching and complete SERVICE.

We accept our full responsibility with every transaction. If you buy our tires, we must earn your confidence and good will. It is not enough that we supply mileage; you are entitled to our personal interest in your tire equipment and all that pertains to it. Our one aim is to sustain the reputation we have established as the *Squarest Dealing Company, Makers of the Honestly-Built, Service-Giving Tire.*

We are the largest exclusively Pneumatic Tire builders in the world. We are probably the most rapidly growing company in the industry. Our 1912 business was double that of the year previous. To date for 1913 we have increased our 1912 sales by 100 per cent and must continue to add to our building facilities in order to meet the demand for Fisk Tires. Our growth is due to the QUALITY of Heavy Car Type Fisk Tires and the CONFIDENCE which we inspire.

Write Dept. 42 for "Real Rubber—Real Service" Book

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Our new illustrated catalog gives facts showing how "The Wonderful Papec" will save time and money at cutting time. Send for copy today.

PAPEC MACHINE CO. Box 43 SHORTSVILLE, N.Y. 20 Distributing Points in the U. S.

Attention is called to the card of J. W. Elliott of Polo, Mo., in this issue of Kansas Farmer. Mr. Elliott is one of the reliable breeders of Shropshire sheep and owns one of the best flocks in the West. At present he is offering an extra lot of yearling and two year old rams, and a limited number of outstanding ram lambs. He will also sell one imported Dakin ram. This ram won first as a ram lamb at Sedalia. Mr. Elliott has a large number of satisfied customers in Kansas and other states. Breeding stock from this flock is carefully selected and always makes good. Please mention Kansas Farmer when writing.

When writing advertisers, please mention Kansas Farmer.



ECONOMY STEEL SILO ROOF

No silo is complete without it. For Round Silos—wood, cement, hollow tile, brick or concrete. 24 gauge steel. Easy to put on. Rust and Lightning Proof.

DES MOINES SILO & MFG. CO., 542 NEW YORK AVE., DES MOINES, IOWA.

The new 1914 Henderson car has adopted the kerosene carburetor. This is only one instance of Henderson aggressiveness—wire wheels, dash tank, embedded dash layout, seat center control, left drive, over size cooling system, Collins weather curtains, are other advanced features of Henderson cars. Any one wishing information in regard to Henderson Motor Cars should address them at Indianapolis, Indiana.

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Kratzer Carriages embody the finest material and workmanship, which means perfect vehicles in every respect. Made in the West for the West, they are adapted to use on Western roads and are the most durable and economical carriages to buy, while the beauty, design and finish are a source of constant satisfaction.

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stays put and stays tight against sun, rain, wind, snow, heat, cold, alkalis, and acids. Put it on all your buildings. Apply it with the Kant-leak Kleet. Write us for samples and the Good Roof Guide Book. Free. The Barber Asphalt Paving Company Philadelphia
Largest producers of asphalt, and largest manufacturers of ready roofing in the world. New York San Francisco Chicago

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MENTION KANSAS FARMER WHEN YOU WRITE.

HOME CIRCLE

A Toast to Mother Goose.

By Mary M. Finn.
Little Boy Blue is still blowing his horn,
For the same old Cows in the same old Corn,
In spite of the fact that they roll down hill,
Bumps haven't deprived us of Jack and Jill.

Little Miss Muffet, her Curds and her Whey,
Time nor the Spider can scare her away.
The Three Blind Mice have lost thousands
of tails,
The Farmer's wife is deaf to their walls.

The years go by and, Old Mother Hubbard
Makes daily trips to the same bare cupboard.
And the Old Woman still lives in the shoe
With the same old Children who never grow.

Mary Contrary is contrary still;
Jack Spratt and wife haven't yet got their fill.
Daffy Down Dilly still comes up to Town,
Braving Dame Fashion, she sports the same Gown.

Mother Goose, Mother Goose sold for a song,
Smiles for the children, the short and the long.
Panacea for bumps, likewise for dumps,
The surest cure for a bad case of grumps.

Alice is Wonderland and Buster Brown
In the last few years have gained renown,
But we doff our hats and we always will
To Old Mother Goose whom time cannot kill.

To test nutmegs, prick them with a pin.
Oil will instantly spread around
the puncture if they are good.

Have you ever tried this plan when making comforts for winter use? Wrap each roll of batting in a newspaper and place them in the oven one at a time and allow them to remain there until thoroughly heated. It is said the batting will retain its fluffiness much longer and comfortables filled with it are very warm.

While crossing a city street a farmer was knocked down by an automobile. Before he could get out of the way he was knocked down again by a motorcycle which came rushing along behind. A friend of his on the sidewalk yelled to him, "Why didn't you get out of the way?"

"How in the dickens did I know it had a colt!" was the angry response.—Everybody's.

A Festive Sundae.

Order or prepare plain vanilla ice cream and divide among as many glasses as there are guests to be served. Sprinkle the top of each with minced pistachio nuts or almonds and pour around it the syrup from a jar of preserved ginger.

Historical Coincidences.

John Adams was eight years older than his successor, Thomas Jefferson; Jefferson was eight years older than James Madison; Madison was eight years older than James Monroe; Monroe was eight years older than John Quincy Adams. Washington ended his presidential term in the 66th year of his age; and so also did John Adams. Thomas Jefferson, James Madison and James Monroe. Jefferson and Adams died the same day—Fourth of July, 1826, just half a century after the Declaration of Independence. Monroe died exactly five years later—Fourth of July, 1831. Roosevelt is the only president addicted to the wearing of spectacles. It is said that all the presidents of the United States had blue eyes, except William Henry Harrison.



No. 6230—Girl's Dress. This design shows an uncommonly dainty frock. It has the drop shoulder effect, with an ornamental arrangement of the overlapping body portion. The sleeves may be short or long. The skirt is a single straight piece and is gathered and attached to the waist beneath a belt. The pattern, 6230, is cut in sizes 4, 6, 8, 10 and 12 years. Medium size requires 2 1/4 yards of 36-inch material. Price of pattern, 10 cents.

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NO SPECIAL DEALS.
We determine our tuition charges in this way: We add to the cost of employing the highest grade of teachers and maintaining the best courses and equipment, a reasonable profit for the management. While the actual profit on each student is small, our enrollment is so heavy—largest in Kansas, Oklahoma and Colorado—that the total amount is satisfactory.

If we gave you special discounts, we would necessarily be forced to cheapen our training. We are willing to do all we can to assist you to earn part of your expenses while attending school and, perhaps, in that way enable you to save the cash cost of your entire tuition, but we cannot and will not make you a rate other than that advertised. If you can and will do your part, we know we can help you. If you cannot or will not make good use of a W. B. C. course, we will promptly return all your tuition at the end of the first month. For catalog, write now—right now. Address, THE SECRETARY, WICHITA BUSINESS COLLEGE, WICHITA, KAN.

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47th Year. \$100,000 College Building has 15 rooms, including Auditorium and Free Gymnasium. SHORTHAND, TYPEWRITING, BOOK-KEEPING, TELEGRAPHY AND ENGLISH. DAY & NIGHT SCHOOLS. Write to-day for FREE Catalogue "F"

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S. E. PRICE, President, Ottawa, Kan.

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I will prepare several young men for positions in the automobile business in ten weeks BY MAIL, and assist them to secure good positions. NO CHARGE FOR TUITION UNTIL POSITION IS SECURED. Write at once for particulars. R. S. PRICE, Automobile Expert, Box 463 P, Los Angeles, California.

Does Your Salary Grow With Your Needs?

Is there more than enough in your pay envelope to make both ends meet? If not, we can help you. Write for catalog to

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SAVES Its cost in ONE DAY.
Unnecessary heat.
Twenty-five cents by mail, postpaid.
ECONOMY LID CO., Norton, Kansas.

MYSTERIOUS FADE AWAY CARD TRICK

The effect of this wonderful trick is to show three cards, making any one disappear and reappear at will. Anybody can do it. Send 10c for 1, or 25c for 4 sets today.
Wm. A. Droste Co., Suite 136, Detroit, Mich.

ORGANS, \$15 to \$30. Highest Grade

Estey, Hason & Hamlin, Story & Clark, Kimball—C. Cottage & Co., slightly used; like new. Write today. Jenkins Sons Music Co., Kansas City, Mo. Reference, any bank in Kansas City.

Bargains in Land

80 A. Improved Valley Farm, 35 cult., on Ry. 116 a. Robert Sessions, Winthrop, Ark.

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

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

OZARK FARMS—Timber, fruit and pasture lands for sale or exchange, from \$5 to \$100 per acre. If interested write **AVEY & STEPHENS**, Mansfield, Mo.

Central Illinois Farm For Exchange. 250 acres joins town; clear; well improved. Want eastern Kansas or western Missouri land.

CHENAUT BROTHERS, Fort Scott, Kans.

10,000 ACRES Farm Land, Pulaski County, Ark., \$6 to \$15 per acre; 5 years to pay. **MARTIN GAULDIN**, 229 Railway Exchange Bldg., Chicago.

WANTED LOAN. Owner of timber in Washington will pay 8% for three year mortgage loan, or will sell part in order to hold for rising prices. Address, 548 Advocate Office. **A. B. Holloway**, Montezano, Wash.

CLOUD COUNTY LANDS 400-acre stock farm, 160 under plow. Good wheat at low price. **W. O. WHIPP & CO.**, Concordia, Kansas.

ADMINISTRATOR'S SALE.—440 acres, good wheat, corn and alfalfa land; two sets of improvements; in German settlement near church and school; near Carleton, Thayer Co., Neb. Price, \$100 per acre. Must be sold. Address **Wm. Gallant**, Hebron, Neb.

ALWAYS HAVE Just what you want in farm or city property. A new list just out. Write for it. List your sale and exchanges with me. Hardware for sale. **ED A. DAVIS**, Minneapolis, Kansas.

LAWRENCE REALTY COMPANY The Home of the "Swappers," handles exchanges of all kinds with agents or owners. Write us for particulars. **Lawrence Realty Company**, Lawrence, Kan.

CASH BARGAINS—120 acres, well improved, well located, mostly bottom, 40 acres alfalfa, fine home. Price, \$80 per acre. Alfalfa farms any sized tracts. Write for bargain list. **FRED J. WEGLEY**, Emporia, Kan.

320 ACRES good local bottom land on Republican River. No sand. No overflow. All good alfalfa land; all fenced; 65 acres broken out; never failing springs; water crosses one corner. Three miles from town. \$30.00 per acre. **BROWN LAND & LOAN COMPANY**, Superior, Nebraska.

FINE FARM, BUTLER COUNTY, KANSAS. 275 acres; 95 a. first bottom, 40 a. alfalfa, 150 a. cult., 120 a. best blue stem grass; new improvements; near El Dorado; beautiful farm. \$20,000. **V. A. OSBURN**, El Dorado, Kansas.

SNAPP

Owner of that fine home quarter mile and half Palco, well improved, all fine land, instructs us to sell at once for \$30.00 an acre—just half what it should bring. Write for description. **BUXTON**, Utica Kansas.

FORCED SALE, 320 acres improved, 8 miles from Leoti, Kansas; exceptional investment; plenty fine water; school on place. Price, \$7.00 per acre, cash. No trades considered. **D. F. CARTER**, (Bonded Abstractor) Leoti, Kansas.

DICKINSON COUNTY BARGAINS. We have many fine creek and river bottom farms, also splendid upland farms for sale. Soil deep rich black loam, producing the big corn, wheat and alfalfa. Our prices are reasonable. Write for terms and list. **Briney, Pautz & Danford**, Abilene, Kan.

SOMETHING WORTH THE MONEY. 360 acres located in Anderson Co., Kan. Lays smooth and is free from rock. Well improved. Four miles from good town. Ninety acres tame grass, 35 acres prairie pasture or hay land; 30 acres timber; balance in cultivation, with abundance of living water. Price, \$55.00 per acre; half cash, balance at 6 per cent interest. Write for particulars. **W. L. WARE**, Garnett, Kan.

TO TRADE FOR LAND IN ARKANSAS. 320 acres 9 miles north of Dodge City, Kansas; 90 acres in cultivation, new house 16x28. Stable room 28 head stock. Shed barn. Well and windmill, chicken house, good granary. Rural free delivery and telephone. Price, \$4,800. \$1,500 against land due 2 years. Will trade this for a farm near Sheridan, Arkansas. **H. B. BELL LAND COMPANY**, Room 5 Commerce Building, Phone No. 2 - Dodge City, Kansas.

VIRGINIA OFFERS fertile farm lands at \$15 to \$50 per acre. Ideal fruit and grazing land at \$5 to \$15 per acre. Abundant rainfall, long growing season. Nearness to World's best markets, mild and delightful climate, educational advantages and great promise for the future.

VIRGINIA WANTS 10,000 young and industrious practical farmers to occupy and cultivate the vacant farms and help reduce the cost of living. Write at once to **VA. LAND IMMIGRATION BUREAU**, 6 Gale Block, Dr. W. J. Quick, General Manager, Roanoke, Va.

FIELD NOTES

This week we start advertising for Alvey Bros., the well known breeders of O. I. C. swine, located at Meriden, Kan. Thirty choice pigs, both sexes, are offered. Alvey Bros. have bred more show animals than any other breeders in the West. You get the best when buying from them. Mention Kansas Farmer when writing.

Duroc breeders should not overlook the sale of Jeff Constant & Son at Denver, Mo., August 29. The sows and gilts that will go in this sale are an extra good lot. Ten sows bred to the great herd boars I Am Bell's Chief, W. J. C.'s Prince of Coles and Constant's Crimson Wonder Again, will be sold. The entire offering is high class and will be one of the best offerings of the season.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items or stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 300,000 readers for 4 cents a word for one week; 8 cents a word for two weeks; 12 cents a word for three weeks; 14 cents a word for four weeks. Additional weeks after four weeks, the rate is 3 1/2 cents a word per week. No "ad" taken for less than 50 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

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

HELP WANTED.

WANTED—MAN TO MILK 18 COWS, care for them and calves and wash tinware. Liquor and tobacco users not wanted. **Harry W. Mollhagen**, Bush-ton, Kan.

WANTED—MEN AND WOMEN FOR government positions. Examinations soon. I conducted government examinations. Trial examination free. Write **Ozment**, 44-R, St. Louis.

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

GOVERNMENT JOBS OPEN TO MEN and women. \$65 to \$150 month. Vacation. Steady work. Short hours. Common education sufficient. "Pull" unnecessary. Thousands of appointments coming. Write immediately for full particulars and list of positions open. **Franklin Institute**, Dept. S-85, Rochester, N. Y.

YOUNG MAN, WOULD YOU ACCEPT and wear a fine tailor made suit just for showing it to your friends? Or a Slip-on Raincoat free? Could you use \$5 a day for a little spare time? Perhaps we can offer you a steady job? Write at once and get beautiful samples, styles and this wonderful offer. **Banner Tailoring Co.**, Dept. 493, Chicago.

SALESMAN—TO SELL HIGH GRADE guaranteed groceries at wholesale direct to farmers, ranchmen and all consumers. Earn \$4 to \$10 and up per day. A big chance to get into business for yourself. Save the buyers the retailer's profit. Every customer is a permanent one. Demand constantly increasing. Latest plan. **K. F. Hitchcock Hill Co.**, Chicago.

POULTRY.

WHITE AND BUFF ORPINGTONS, **Kellerstrass** and **Cook** strains. **Addie Edwards**, Kahoka, Mo.

SILVER WYANDOTTES. **MARCH** hatched cockerels; reasonable. **Blanche Miller**, Route 1, Wakefield, Kan.

ROSE COMB REDS, COLUMBIAN WYANDOTTES, **Indian Runner Ducks**, **Golden Seabright Bantams**. Eggs for hatching. Mail list free. **A. D. Willems**, Minneapolis, Kan.

BUFF WYANDOTTES—CHOICE BREEDING stock at all times. A few bargains in males and females from our 1913 breeding pens. Must be taken soon. **Wheeler & Wylie**, Manhattan, Kan.

BEE SUPPLIES.

BEE SUPPLIES, ROOTS GOODS. SEND for catalog. **O. A. Keene**, 1600 Seward Ave., Topeka, Kan.

CATTLE.

REGISTERED GUERNSEYS TO SELL. Address **John Bogner**, Mt. Hope, Kansas.

WELL BRED GRADE HOLSTEIN BULL calves crated at \$20 per head while they last. **Arnold & Brady**, Manhattan, Kan.

FOR SALE—4 PURE-BRED GUERNSEY bulls; one of A. R. cow. Address **Phil R. Toll**, Graceland Farm, Lee's Summit, Mo.

FOR BULLS WITH A. R. O. BACKING, see or write to **Harry W. Mollhagen**, Bush-ton, Kan.

FOR SALE—32 HEAD HOLSTEINS, **Shorthorns** and **Jerseys**, all bred from winter cows. Good young stock. Owned by dairymen going out of business. Sell all for \$60 a head. **Jack Hammel**, 215 Adams St., Topeka, Kan.

MISCELLANEOUS.

WANTED—POSITION ON FARM BY man with family. Dept. R—in care of Kansas Farmer.

THE ANDERSON LOADER LOADS manure, cornstalks, stack bottoms, dirt, gravel, sand. No hand work. Write **Anderson Mfg. Co.**, Ossage City, Kan.

FOR SALE—ONE STEAM TRACTION No. 2 Keystone well drill. Also portable gasoline drill. Both rigs in first class running order. Prices right. **Grant Ewing**, Blue Rapids, Kan.

GASOLINE PLOW—JUST THE THING for small farm; 15 H. P. gasoline engine and set of engine plows, as good as new. Only plowed 100 a. Will sell cheap or trade for young cattle. Address "Gasoline Plow," care this office.

SEEDS AND PLANTS.

KHARKOF SEED WHEAT, TEST 62, sacked, 1 a. b. on board car for \$1.10 per bushel. **V. E. Carlson**, Formosa, Kan.

FOR SALE—BUY THE BEST HOME-grown alfalfa seed \$8.00 per bushel. Send for free sample. **C. Markley**, Belle Plaine, Kan.

PATENTS

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

HONEY.

NEW, PURE, EXTRACTED HONEY, two cans of 60 lbs. each \$9.50. Special prices on 10-can lots. Broken comb honey, 2 cans of 60 lbs. each, \$11.00. **J. M. Ruyts**, Carlsbad, New Mexico.

REAL ESTATE.

SNAPPY EXCHANGES TELL ME YOUR wants. **Karges**, Bennington, Kan.

SELL YOUR PROPERTY QUICKLY FOR cash, no matter where located. Particulars free. **Real Estate Salesman Co.**, Dept. 77, Lincoln, Neb.

FOR SALE—CHOICE WHEAT, CORN and alfalfa lands in Clark, Ford and Meade Counties. Write for list tracts. **Nate Neal**, Real Estate, Minneapolis, Kan.

SPLENDID QUARTER SECTION FOR sale in northeast Kansas. Close to town. Well improved. Owner leaving country. No agents. Answer "X" Kansas Farmer.

BARGAIN—A NICE SMOOTH 80 ACRES of tillable land, only 7 miles from Salina; \$3,200.00. Write for list. **V. E. Niquette**, Salina, Kan.

NORTHWEST ARKANSAS FARMS—Benton County. Ideal climate. Good crops as usual. Map and prices free. Write **Behart Land Co.**, Cave Springs, Ark.

DO YOU WANT A HOME IN A WELL-watered, rich alluvial valley; three railroads and near big city—mild climate and natural dairy country; on terms of one-tenth cash, balance nine years. Write **Humbird Lumber Co.**, Sandpoint, Idaho, about cut-over lands.

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

BUY OF OWNER. ONE NINE ROOM house, with bath, barn and good cistern; near normal and new high school. One eight room house, entirely modern, good barn and cistern, five blocks from normal. Good bargain and easy terms. **H. C. Coffman**, 928 Exchange St., Emporia, Kan.

BURLEIGH COUNTY, NORTH DAKOTA lands, 80 to 320 acre tracts; gently rolling prairie of black loam. Near market. Ready for the plow. Will make splendid grain and stock farms. \$15.00 to \$25.00 per acre on ten years. Land will pay for self and make you a fine home. **J. C. Hallum**, 845 15th Avenue South, Minneapolis, Minn.

DOGS.

SCOTCH COLLIE DOGS FOR SALE—Heel workers and farm raised. **E. L. Dolan**, Platte City, Mo.

SCOTCH COLLIE PUPS FOR SALE, farm raised and good workers. **M. B. Turkeys** in season. **L. P. Kohl**, Furley, Kan.

FIELD NOTES

D. C. Van Nice of Richland, Kan., has one of the best herds of Polled Durham cattle in Kansas. They are from the best Scotch families of Shorthorns and are Double Standard Polled Durhams. Anyone interested in the breeding of good cattle and especially those interested in this breed would enjoy looking at this herd. The farm adjoins the town. Mr. Van Nice would be pleased at all times to show his cattle. Please look up ad in this issue and if you cannot call at the farm, write your wants and you will receive a prompt reply as Mr. Van Nice is a successful business man as well as a breeder of high class cattle. Kindly mention Kansas Farmer when you write.

Hammond & Buskirk at Newton, have a few bred sows and gilts for sale. All of these are bred for fall litters. Also a hundred spring pigs in pairs or trios not skin. Prices reasonable. Don't fail to read their ad and write them. Kindly mention Kansas Farmer.

THE KANSAS STATE FAIR

There is But
One State Fair
in Kansas

Hutchinson, Sept. 13-20, 1913
Under Management State Board of Agriculture
Created by Law and Located at Hutchinson

There is But
One State Fair
in Kansas

\$40,000 IN PRIZES—TO BE PAID TO EXHIBITORS

Thirteen Years of Unequalled Success. Located in the heart of Agricultural Kansas. The Natural meeting place of Breeder and Buyer. Unrivalled Railroad Facilities. Electricity for Light and Power. Electric Rapid Transit, two Tracks. Steam Railroad into the Grounds. City Water—Pure and Plenty. Good Buildings—Good Shade. Cement Walk to Grounds.

The Great Agricultural and Live Stock Show of Kansas. It is the Farmers' and Business Men's Fair. Educational—Inspirational—Recreational. It always has been and still is the People's Fair. Six Great Races daily on the Best Track in the West.

A New Feature is the Horse Show

Tuesday, Wednesday and Thursday nights under Electric Lights. The Highest Class Free Attractions Ever Brought to Kansas. Carnivals, Bands, Free Acts—Something Doing Day and Night. The Greatest Display of Tractor Engines in America.

There is But
One State Fair
in Kansas

It is just a nice auto ride from any point in Kansas. Special Trains, Special Equipment, Special Service on all Railroads. For Prize List or Information address
Geo. B. Ross, Pres. **A. L. Sponsler, Secy.**

There is But
One State Fair
in Kansas

POLAND CHINAS

POLAND CHINAS

Long King's Equal and A Wonder Jumbo

One hundred and seventy-five pigs sired by the above-named boars and out of A Wonder, Long King's Equal, and my famous Jumbo sows. We are headquarters for herd boars. Will also sell a few bred sows. Breeders will find the largest and best big-type Polands in this herd. Come and see them and you will be convinced. If unable to come, write me and I will do my best to please you. "Satisfied Customers" is my motto. All go at private sale. No fall sale.

JOHN B. LAWSON, Clarinda, Iowa.

BIG POLAND BOARS

TEN FALL BOARS, ready for service. Price, \$25 and \$30. Good ones, sired by Wedd's Long King's Equal and Big Logan Ex. Order quick. These bargains won't last.

GEO. WEDD & SON, Spring Hill, Kan.

SAVE FIFTEEN DOLLARS

I have some magnificent old original big-boned Spotted Poland China boar pigs, of March farrow, for sale at \$20.00. These are absolutely equal in every respect to what other breeders are asking \$35 for. I also have gilts of all ages, bred or open, and a few sows bred for early fall litters. Write your wants.

THE ENNIS FARM, Horine Station, Mo.
(30 Miles South of St. Louis.)

ERHART BIG TYPE POLAND CHINAS

50 head of strictly big type Poland China pigs for sale at reduced prices for 30 days. Herd headed 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.

CLINE'S POLAND CHINAS.

Herd headed by Tecumseh Hadley, sired by Major B. Hadley, the grand champion at American Royal, 1911, and Long King's Equal 2d by Long King, two herd boars with size and quality. My fall sale of boars and gilts October 3, 1913. Write for catalog.

J. R. CLINE, Iola, Kansas.

Hildwein's Big Type Polands

Herd headed by Gold Standard Junior and Wonder Ex. Herd sows representing best blood lines. Fall sale October 29.

WALTER HILDWEIN, Fairview, Kan.

POLAND CHINA BOARS

20 Extra Good Fall Boars, ready for service, sired by Big Logan Ex. and Missouri Metal, out of my best sows. Prices reasonable. Write me.

L. V. O'KEEFE, Stillwell, Kansas.

MELBOURNE HERD POLAND CHINAS.

Headed by Melbourne Jumbo, one of the large smooth sires of the breed, mated with the best of big-type sows, among them daughters of What's Ex, Big Prospect, Dorr's Expansion 1st, and Union Leader. Stock for sale.

R. B. DAVIS, Hiawatha, Kansas.

POLAND CHINA GILTS FOR SALE.

20 Yearling gilts, bred. Sired by a son of A Wonder and bred to a son of Big Orange. March pigs in pairs and trios not akin, priced to sell.

THURSTON & WOOD, Elmdale, Kan.

CLEMETSON POLAND CHINAS

Headed by Major Zim by Major B sows carrying the blood and mostly daughters of Gold Metal and Model Look by Grand Look. Choice spring pigs, express prepaid, \$20 each until further notice.

O. B. CLEMETSON, Holton, Kansas.

BUY EARLY AND SAVE EXPRESS.

Fifty big kind Poland China pigs, either sex, sired by Ott's Big Orange, Big Ben and other great boars. Booking orders now to ship when old enough to wean. Pairs not related.

J. F. FOLEY, Oronoque, Norton Co., Kansas.

SPRING PIGS, 100 DAYS OLD.

Forty big-type Poland pigs, sired by Big Four Wonder, grandson of A Wonder, and Orange Model 2d by Big Orange. Will sell them until they are 100 days old for \$25 each. Pairs, not related, \$40. First choice with every sale. Inspection invited.

L. L. CLARK, Meriden, Kansas.

Clinton's Herd of Big-Type Polands.

Bred sows, cholera immune, most popular big-type breeding. Bred to farrow August and September. Priced to sell. Write at once as I have only a few for sale.

F. M. ANDERSON, Lathrop, Mo.

POLAND CHINA HOGS—15 fall boars

and 10 fall gilts sired by the champion boar at American Royal, 1911, priced to sell reasonable. G. M. Carnutt, Monticello, Mo.

225 REGISTERED POLAND CHINAS FOR SALE.

Thirty-two sows, bred for summer and fall; 20 fall gilts, bred or open; six fall boars, tops from fall crop; 136 spring pigs. Both big and medium type. Sell at reasonable prices with big discounts on several head. J. D. WILLFOUNG, Zeandale, Kan.

Ten miles east of Manhattan.

POLAND CHINAS. Spring pigs, one yearling

boar Meddler breeding. All immune. Sable & White Stock Farm, Seward, Kan.

ENOS OFFERS 20 BIG, SMOOTH, BRED

GILTS. July and August gilts by A Wonder's Equal by A Wonder, dams by Nox All Hadley, bred for August and September farrow to the noted Orphan Chief. Blood lines and quality to spare. \$35 to \$40. Only good ones shipped.

A. R. ENOS, Romona, Kansas.

BIG-TYPE POLAND CHINA PIGS

Both sexes, February and March farrow. Fifty-five head, tops from 100 head, sired by Ross Hadley and Hadley C, out of extra big sows of Expansive, Price We Know, King Mastodon and Mogul breeding. Can furnish pairs not related. Well grown out on alfalfa pasture and of the best big-type breeding. JOHN COLEMAN, Denison, Jackson County, Kansas.

OUTSTANDING FALL BOAR FOR SALE.

Four under yearling boars, last sons of Mastery, the great Expansive and Mogul bred boar. One an outstanding prize winner for fall fairs at \$100. Also some spring boar pigs priced to go quick at only \$12.00 each.

F. A. TRIPP & SONS, Meriden, Kansas.

Gritter's Surprise Fall Boars For Sale.

Two good ones sired by Gritter's Surprise by Long Surprise. Dam of these boars is a Lady Wonder sow of the large Iowa type. They are immune from cholera and priced right. Also a few bred gilts for sale.

A. J. SWINGLE, Leonardville, Kan.

H. G. Nash's Big Bred Polands

Have a large bunch of spring pigs sired by the noted boars, Gold Metal and Hadley's Model, out of big rooky sows. Public sale October 3. Send for catalog.

H. G. NASH, Iola, Kansas.

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 Rademacher, Box 13, Mulberry Grove, Illinois.

44 Spring Pigs - 2 December Pigs

At cut prices. In pairs and trios. By Model Monday and other great boars, out of sows of the best blood lines.

O. R. STRAUSS, Route 1, Milford, Kansas.

GREAT SON OF GOLD METAL

Heads our herd, mated with Utility, dam of the noted \$580 litter; Colossus, O. K. Price and Gold Metal. Fine lot of pigs out of these sows, most of them sired by Melbourne Jumbo. Inspection invited.

AUSTIN SMITH, Dwight, Kan.

BARGAIN IN HERD BOAR.

First Quality, by Blue Valley's Quality. Dam, Blue Valley Ex., by Exception. Three years old and a splendid breeder. Can't use him any longer and will sell him at \$75. Fully guaranteed.

JAMES ARKELL, Junction City, Kan.

ALBRIGHT TYPE POLANDS FOR SALE.

Forty head of choice fall boars and fall gilts, bred or open, and 66 spring pigs, all sired by Cavett's Mastiff, one of the best boars now in service. Only the best of individuals offered. Inspection invited.

A. L. ALBRIGHT, Waterville, Kansas.

Merten's Big Smooth Poland Chinas

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

E. E. MERTEN, Clay Center, Kansas.

TEN BIG FALL POLAND BOARS.

Four by Mogul's Monarch. Two by Long King, son of Long King's Equal. Two by Gephart.

Extra good individuals at \$25 each.

J. H. HARTER, Westmoreland, Kansas.

STRYKER BROTHERS' POLAND CHINAS.

Choice boars and gilts from our show herd. Can sell all kinds of breeding stock at reasonable prices. Also Hereford cattle and standard-bred horses for sale.

STRYKER BROS., Fredonia, Kan.

Hartman Has Choice Big Fall Boars.

Eighteen summer and fall Poland China boars, by Blue Valley Jr. and Hartman's Hadley by Nox All Hadley. Length and breadth right. Prices reasonable for quick sale.

J. J. HARTMAN, Elmo, Kan.

WE WILL PAY EXPRESS ON PIGS.

Sixty choice Poland China spring pigs at \$20 each for choice, express prepaid for the next thirty days. Can furnish pairs.

HOWARD R. AMES, Maple Hill, Kan.

TWO HERD BOARS FOR SALE—One 3-

year-old, a grandson of Big Hadley; one fall yearling sired by Mastiff by King Mastiff. Priced to sell. Geo. Haas, Lyons, Kan.

THIRTY POLAND PIGS

Either sex. Good individuals. \$15 each. Pairs also. C. S. Carruthers, Salina, Kan.

POLAND CHINAS—Choice pigs, both

sexes, sired by Guy's Expansion 2d. Cheap for quick sale. L. H. Grote, Morganville, Ks.

WESTVIEW JERSEY FARM

HERD BULLS—Financial Countess Lad, grand champion Jersey bull, Dairy Cattle Congress, Waterloo, Iowa, 1912, the largest Jersey show ever held in the United States. Sold for \$2,500 when 90 days old, and again as a two-year-old for \$5,000. Dam, Financial Countess 155100, the 1908 national butter champion, 13,248 pounds milk, 935 pounds 10 ounces butter.

Ruby Financial Count 87211, a grandson of Financial King, dam a Register of Merit granddaughter of Financial King; milk record of 56 pounds per day.

Herd founded on Finance, Interest and Gamboge Knight families. Cows milk, as three-year-olds, 40 to 56 pounds per day. Every cow in herd on test. No dairyman ever considered a cow beautiful unless she is a heavy producer. Constitution first, production second, beauty third.

J. E. JONES, PROPRIETOR, NOWATA, OKLAHOMA.

Polands and Shorthorns

25 choice big type spring boars sired by A's Big Orange; same number of spring gilts. Also four red Scotch bulls ready for service. Few females.

S. B. AMCOATS, Clay Center, Kansas

JERSEY CATTLE.



The Jersey

The Jersey gives richer milk and more butter than any other known breed, at a lower keeping cost. She does it continuously and persistently. Her milk and butter bring better prices than the product of any other dairy breed. That's where quality does count. Jersey facts free. Write now. We have no cows for sale.

AMERICAN JERSEY CATTLE CLUB
224 W. 23d Street, New York

Register of Merit Jerseys

The only herd in Kansas making and keeping official records. Eighty head to select from. Cows in milk, bred heifers, heifer calves, and the finest lot of young bulls ever on the farm. All ages. Six or eight now ready for service out of cows with official tests up to 512 pounds of butter with first calf, sons of Imp. Oakland Sultan, Gambos Knight, and a son of Golden Fern's Lad. Tuberculin tested and fully guaranteed. R. J. LINSKOTT, Holton, Kansas.

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.

Jersey Bull Three weeks old; drinks

milk; registered and choice individual. Sired by Guinon's Eminent out of a Brown Bessie dam. Will make great bull. Must be sold right away. Low price.

Johnson & Nordstrom, Clay Center, Kan.

WINELAND FARM JERSEYS.

One of the strongest official record herds in the west. For sale, 10 choice young bulls, sired by Imp. "Snake's" Raleigh, and other good bulls. Out of cows now undergoing or having authenticated tests. Also, 25 females of different ages. H. C. YOUNG, Lincoln, Nebraska.

5 JERSEY BULL CALVES—TARIFF OFF.

Females of all ages. Solid colors and bred along fashionable lines. The cows pay their board twice every day. "Blue Boys Baron" 99918 heads herd. About 20 head of cows in milk.

S. S. SMITH, Clay Center, Kansas.

OHIO IMPROVED CHESTERS

FROST'S O. I. C.
20 Mar. and Apr. boar pigs for sale; also 8 show boars weighing from 300 to 500 lbs. Prices reasonable. Address, S. D. & B. H. Frost, Kingston, Mo.

O. I. C. Swine For Sale

THIRTY FIVE. March farrow, both sexes, well grown prolific breeders. Reasonable prices for thirty days.

ALVEY BROS., Meriden, Kansas.

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.

MAPLE LEAF CHESTERS

Large, smooth and prolific. Our stock and prices are right. Write us your wants. Satisfaction guaranteed.

R. W. GAGE, Garnett, Kansas.

O. I. C. PIGS. HARRY W. HAYNES,

Meriden, Kan.

MULE FOOT HOGS

350 big-type Mulefoot hogs of all ages for sale, from champion herd of America.

JOHN DUNLAP, Williamsport, Ohio.

HEREFORD CATTLE

HEREFORD BULLS FOR SALE.

Choice lot, 8 to 15 months old, registered and well grown. Sired by the ton bull, Clark 238402. Out of large cows, rich in Anxiety 4th blood. Prices reasonable. Also Duroc Spring Pigs.

HOWELL BROS., Herkimer, Kan.

C. C. CATRON'S HEREFORDS.

A strictly high-class herd, a number of extra good yearling bulls for sale. Will weigh 1,000 pounds. Extra quality, best blood lines of the breed. They are the breeder's kind.

C. C. CATRON, Bigelow, Mo.

SHORTHORN CATTLE

SHORTHORN

Cows and Heifers

THREE \$500 Bargain Lots

Three high class cows, due to calve soon, desirable every way, for \$500. Four good ones with calves at foot or to calve soon, for \$500. Five splendid 12 mos. old heifers and a bull to match, for \$500. Serviceable bulls, \$100 to \$200.

G. A. LAUDE AND SONS, Rose, Kan.

10 SHORTHORN 10 BULLS 10

Sired by DOUBLE CHAMPION AND WHITE MYSTERY, OUT OF MY BEST COWS, PRICED REASONABLE.

ED GREEN, HOWARD, KAN.

Scotch Bull For Sale

Collynie Goods 33265, dark red, calved April 8, 1909; weight 2,100; kind and gentle; sure and a good breeder. Price, \$250. or will trade for one of equal merit.

JEWELL BROS., Humboldt, Kan.

SHORTHORNS.

Five Choice Red Bulls, 15 and 16 months old, sired by a ton bull, out of richly-bred cows. Write for description. A. H. Cooper, Natoma, Osborne Co., Kansas.

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Be an Auctioneer

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 October 6, 1913.

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Largest in the World. W. E. Carpenter,
Pres., 1400-1404 Grand Ave.,
Kansas City, Mo.

Col. Jas. T. McCulloch Live Stock and General Auctioneer. Ten years of study and practice selling for some of the best breeders.

R. L. HARRIMAN LIVE STOCK AUCTIONEER

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LIVE STOCK AND REAL ESTATE AUCTIONEER

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FRANK J. ZAUN FINE STOCK

Independence, Mo., Bell Phone 675 Ind.

My references: America's Best Breeders.

For whom I have been selling for years.

GET ZAUN—HE KNOWS HOW.

Col. W. B. RYAN LEBANON.

Live stock and farm sales auctioneer.

The man that gets the high dollar and works for you like a brother.

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Pure-Bred Stock and Big Farm Sales.

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Use up-to-date methods. Pawnee City, Nebraska.

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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.

FAULKNER'S FAMOUS SPOTTED POLANDS

"LEADERS OF THEIR KIND"

One hundred and fifty May and June pigs now ready to ship. Special prices: Single pig, either sex, \$35; pair, not akin, \$65; trio, not akin, \$90. They will be sold in the next thirty days.

START RIGHT WITH OUR FOREFATHERS' KIND. Mail your check with first letter.

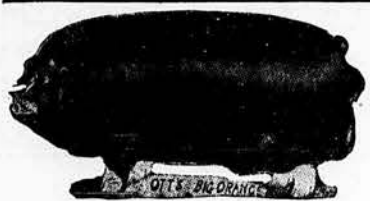
H. L. FAULKNER, Owner, Highview Breeding Farm, Jamesport, Mo.

OTT'S BIG ORANGE OFFERING

Ott's Big Orange at 12 months old, weight 550 pounds. Individuality you won't fault. The kind we breed, feed and sell.

The kind \$25 to \$50 will bring to you. February to April farrow. These pigs will range in weight from 90 to 200 pounds.

J. O. JAMES, BRADYVILLE, IOWA.



DUROC JERSEYS

Tatarax Herd Durocs

For Sale—12 head of tried sows and mature gilts, bred to Tatarax, G. M.'s Tat Col. and Tat's Top, for September litters. Prices reasonable.

Hammond & Buskirk, Newton, Kans.

DUROC SOWS AND GILTS

50 head of fall yearlings and tried sows. Every one sired by or bred to Drexel Pride or Queen's Wonder. The big kind—as good as grow. Must sell at \$35.00 to \$75.00. I guarantee satisfaction or money back. Write at once.

W. T. HUTCHISON, Cleveland, Mo.

DUROC March Boars \$12 and up, by Model and Tatarax Boy. **E. W. BALDWIN,** Conway, Kan.

CLARK CREEK DUROCS
Headed by Clear Creek Col., grandson of Dreamland Col. Forty choice alfalfa-raised pigs to select from. Thrifty and healthy and priced worth the money.

J. R. JACKSON, Kanopolis, Kan.

QUIVERA PLACE DUROCS.
Herd headed by Quivera 106611 assisted by M. & M's Col. 111095.

E. G. MUNSELL, Prop., Herington, Kansas.

CHOICE DUREC JERSEY FALL BOARS
Sired by Dreamland Col. Some herd boar prospects. Selected and priced to move them quick. Also few fall gilts bred or open.

LEON CARTER, Asherville, Kan.

THIRTY EXTRA GOOD REGISTERED DUREC SOWS AND GILTS.
Extra good ones. Popular strains. Sired by Kansas Kruger and College Lad. Bred for August and September farrow to Isen-beg's Choice. Can ship over four roads.

J. A. WIESHAR, Dillon, Dickinson Co., Kan.

MARSH CREEK DUROCS.
Choice fall gilts sired by Tats Chief bred to Buddy O. K.; also open fall gilts and also spring boars.

E. F. WELLS, Formoso, Kansas.

GRIFFITH DUROCS.
March and April pigs, \$15 each, pairs and trios not related. Large growthy, sired by Goldfinch Jr. 2d, dam by Goldie S. Write at once or come and see my herd.

H. T. GRIFFITH, Reading, Kan.

TEN DUREC JERSEY FALL BOARS
Good individuals and ready for hard service. Low price of \$25 each because I am short of room. First choice with first check. Descriptions guaranteed.

DANA D. SHUCK, Burr Oak, Kan.

BIG-TYPE DUROCS.
Monarch, Colonel Wonder and Buddy strains. Plenty of fall gilts, open or bred. Fall sale, October 17.

MOSER & FITZWATER, Goff, Kansas.

IMMUNE DUROCS—Fifty big-type sows and gilts, fall boars and spring pigs. Choice breeding and guaranteed immune from cholera. Inspection invited.

P. I. NELSON, Assaria, Saline Co., Kan.

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, graded, F. O. B. here, one, \$20; two, \$35; three, \$50.

W. J. GRIST, Ozarkie, Kan.

LINSKOTT BERKSHIRES

Choice tried sows and fall yearlings for sale, sired by Rival's Queen Premier 114255 and Imp. Baron Compton, bred for summer and fall farrow to Robhood and 19th 16595. Also 25 selected boars and gilts ready to ship. February farrow by Robhood and Commander's Majestic. Nothing but tops shipped.

R. J. LINSKOTT, Holton, Kansas.

OXFORD DOWN SHEEP

Largest flock west of Mississippi River. Fifty rams, 100 ewes for sale. All stock sired by imported rams. 140 ribbons at the Iowa State Fair in last eight years. Call on or address, John Graham & Son, Eldora, Ia.

OXFORD DOWN SHEEP.

Oxford Down Sheep—Large, hardy, prolific, well covered.

J. H. WALKER, Lathrop, Missouri.

HAMPSHIRE HOGS

HAMPSHIRE SWINE FOR SALE

We will offer for the next few weeks a few bred sows for fall farrow also some extra choice spring boars. If interested write **WM. INGE & COMPANY,** Independence, Kansas.

HIGH QUALITY HAMPSHIRE.
Spring boars and gilts now ready for sale. Four gilts and three boars from Mollie S 16264 and General Davis 13169.

S. E. SMITH, Lyons, Kansas.

FIELD NOTES

E. L. Dolan of Platte City, Mo., claims October 14 as the date of his annual fall sale of big type Polands. Mr. Dolan breeds the big, easy feeding kind and will have one of the best offerings in his fall sale that will be sold this year.

JEFF CONSTANT & SON'S DUROC SALE

DENVER, MO., FRIDAY, AUG. 29, 1913

10 Bred Sows.

10 Tried Sows, open.

10 July and Aug. Gilts.

10 Oct. and Nov. Gilts.

9 July and Aug. Boars.

4 Oct. and Nov. Boars.

Sows bred to I Am Bell's Chief, W. J. C's Prince of Cols and Constant's Crimson Wonder Again. This includes daughters of the most noted Duroc sires. Breeders will find the entire offering first class. Free entertainment and conveyance to sale will be furnished parties from a distance at Albany and Grant City, Mo. Bids sent to auctioneers or fieldmen in our care will receive fair treatment. Send for catalog at once.

W. J. CODY, Fieldman. JEFF CONSTANT & SON, Denver, Mo.

CRYSTAL HERD O. I. C.'s

Herd headed by Frost's Buster 29745 by Thea 30442. Extra lot of spring boars and gilts now ready to ship. Have some outstanding herd header prospects, also outstanding gilts. Size and high quality combined. Description of stock guaranteed.

DAN WILCOX, R. F. D. 2, Cameron, Mo.

HOLSTEIN CATTLE.

SIR JULIAN DE KOL FOR SALE

THE 1400 pound two year old Sir Julian De Kol 7th, No. 74146; Recorded yearling Parkside Sir Lyons for sale at bargain prices.

ARNOLD & BRADY, Manhattan, Kansas.

85 HIGH-GRADE HOLSTEIN HEIFERS
Ranging in age from 1 to 3 years, nicely marked, good size and a part of them bred to freshen this fall. Also registered males old enough for service, and a carload of young cows of good size showing plenty of breeding and milk form, bred to calve in August and September. All tuberculin tested. F. J. Howard, Bouckville, Madison County, New York.

SUNFLOWER HERD HOLSTEINS.
Highest A. R. O. backing. The entire herd, including heifers, average nearly 20 pounds each, 7 days. More cows above 20 pounds than all other Kansas herds combined. Best sires obtainable head herd.

Address F. J. SEARLE, Oskaloosa, Kan.

HOLSTEIN FRIESIAN COWS.
We have a number of fine cows and heifers (some fresh, some springers), for sale. Some new ones just received. All animals tested and guaranteed sound.

THE MERRITT DAIRY FARM.

W. G. MERRITT & Son, Great Bend, Kansas.

M. E. MOORE & CO.

Cameron, Missouri.

High-class Holstein breeding stock at reasonable prices. Tuberculin tested.

PURE-BRED SELECTED HOLSTEINS.

Seventy-five to select from. Cows in milk. Chocely bred heifer calves and young bulls, from the best stock in New York. Selected by us. Glad to show them.

EDMUNDS & YOUNG, Council Grove, Kan.

HOLSTEIN CATTLE



Pure-Bred Registered
HOLSTEIN CATTLE
The Greatest Dairy Breed.
Send for FREE Illustrated Booklets.

Holstein-Friesian Association,
Box 114, Brattleboro, Vt.

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.

BUTTER BREED HOLSTEINS.
For Sale—Some choice bull calves. Prices very reasonable. Write me your wants today, as these bargains will not last long.

J. P. MAST, Scranton, Kan.

COOKE'S HOLSTEINS.

Cows 3 years or older, \$225 to \$600. Nothing cheaper. No heifers or heifer calves for sale. Bulls 4 to 10 months, \$125 to \$175. Mostly sired by grandson of Pontiac Korn-dyke.

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

HOLSTEIN BRED COWS AND HEIFERS.

Eighty Head. Choice individuals. Personally selected. Wisconsin-bred, tuberculin tested, pure-bred, unrecorded and high grade females. Recorded bulls. Grade heifer calves.

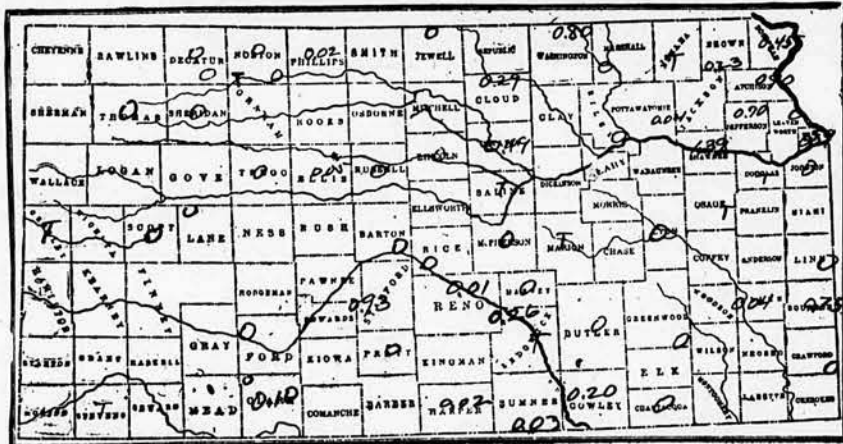
ARNOLD & BRADY, Manhattan, Kansas.

HOLSTEIN BULL CALVES always on hand, and worth the price.

H. B. COWLES, Topeka, Kansas.

FOR SALE—Well bred Holstein heifers and cows graded, all ages. Also several thoroughbred cows. Write to

GEO. F. DERBY, Lawrence, Kan.

KANSAS CROP REPORT
FOR WEEK ENDING AUGUST 16

Rain Chart prepared by T. B. Jennings from reports collected by the Weather Bureau.

UNITED STATES WEATHERS OBSERVER'S REPORT BY COUNTIES.

Allen—Water scarce; corn on upland badly damaged; filling silos.

Barton—Hot and dry; threshing about completed.

Butler—No rain; kafir prospects poor.

Chautauqua—Stock water very scarce.

Clark—Cooler last of week.

Cowley—Corn being cut.

Crawford—Hot and dry.

Decatur—Feed crops still green but making little growth. Lots of pit silos being dug.

Doniphan—Good local showers Saturday.

Douglas—Silos being filled; alfalfa seed crop good; fruit badly in need of rain.

Ford—One good shower; still hot.

Greene—Sorghums still look promising.

Greenwood—Corn badly damaged.

Harper—Still hot and dry; some scattering showers.

Jefferson—Too dry to plow; upland corn about gone; prospect for small yield on bottoms.

Jewell—Will soon start corn cutting unless rain comes.

Lane—Hot and dry; water supply abundant.

Leavenworth—Rain can help fall pasture only.

Lincoln—Pastures dry and most of cattle shipped out; kafir stationary.

Marion—Cutting corn; will be cut in another week.

Morton—If rain comes soon there are prospects yet for considerable crop. Astonishing how some stuff remains green and even grows.

Nehalem—Wheat threshing done; alfalfa seed being threshed.

Norton—Corn cutting begun; silos being filled; feed crops need rain.

Ottawa—Local showers cooled air; corn being cut; filling silos.

Phillips—Cutting up fodder; too dry to plow.

Pottawatomie—Local shower from one-half to one and one-half inches.

Reno—Cutting corn; many new silos going up.

Riley—Still hot and dry.

Scott—Dry and hot but an abundance of stock water.

Sheridan—Will have feed if it rains soon.

Abundance of water in wells.

Summer—Cutting corn; alfalfa seed crop light but quality good.

Thomas—Corn in roasting ears; some good corn in north part of county; feed crop on "blown district" doing fair; local showers.

Trego—Cooler with traces of rain.

Washington—Cutting early corn; unless good rains come soon very little wheat will be sown.

FIELD NOTES

Kansas State Fair at Hutchinson.

In this issue is an announcement of the Kansas State Fair September 13 to 20, 1913.

When the gates of the fair grounds open on September 13 the Board of Agriculture will assume control.

George B. Ross, the president, is one of our best farmers and stockmen from Rice County.

Mr. Ross has for years been one of the best breeders of Shorthorn cattle and Percheron horses.

Mr. Ross as president extends through Kansas Farmer a welcome to every person, both in and outside of our state who is a lover of good live stock.

Hutchinson is a meeting ground of the breeders and the buyers.

Acres of farm machinery, demonstrations of the great tractor engines, and the horse show Tuesday, Wednesday and Thursday evenings, a splendid orchestra with some of the highest class free attractions ever brought to Kansas.

Are among the features of interest. For further information write George B. Ross, president, or A. L. Sponser, secretary. Kindly mention Kansas Farmer.

J. N. George of Hopkins, Mo., owner of one of the greatest herds of Chester White hogs in the corn belt, reports spring pigs coming along fine.

Mr. George has one of the best lots that will be sold this year and breeders will find his offering to the fall trade strictly first class.

HORSES AND MULES

FISHER & WALKER



Of Evansville, Ind., Importers and breeders of Percheron horses, also standard-bred horses and Kentucky and Tennessee Jacks. All young and first-class in every detail. Prices right and your own terms on payments. Stock sold with a gilt-edge guarantee that every one is as represented. Reference, Bankers National Bank, Evansville, Ind. Branch barn at Ellsworth, Kan.

J. A. COWLES, Manager, Ellsworth, Kan.



JACKS AND JENNETS

Large mammoth black jacks for sale, ages from 2 to 5 yrs.; large, heavy-boned, broken to mares and prompt servers. Special prices for summer and fall trade.

PHIL WALKER,

Moline, Elk Co., Kansas.

EARLY BUYERS

SAVE MONEY

and get the best horses. Buy BIG PERCHERONS now from my big bunch of registered studs 2 and 3 years old. Yearlings and suckers at breeders' prices. Trains direct from Kansas City and St. Joe.

FRED CHANDLER, Route 7, Chariton, Iowa

Horse and Jack For Sale

One jack, large boned, 6 years old, weight 1200 lbs., 16 hands high, \$5 1/2-inch ear and a quick server. Also one imported black Percheron horse, weight one ton. Will sell cheap. Must sell at once.

C. K. SENTER, Clearwater, Kan.

EXCELSIOR SHETLAND PONIES.

Registered stock, spotted and solid colored ponies for sale. Reasonable prices.

W. M. FULCOMER, Belleville, Kan.

RED POLLED CATTLE

AULD BROTHERS
Red Polled Cattle

Bull calves for sale. Prices right. Herd headed by Prince, one of the best sons of Actor.

AULD BROS., Frankfort, Kansas.

Coburn Herd of Red Polled Cattle and Percheron Horses.

25 extra good young bulls and 7 first class young stallions for sale at bargain prices. Also young cows and heifers.

GEO. GROENMILLER & SON,

Pomona, Kansas.

RED POLLS FOR SALE.

In order to reduce the size of herd we offer choice registered cows of large frame and splendid milkers at very low prices considering quality.

RESER & WAGNER, Bigelow, Kan.

Phillips County Red Polls and Polands.

All bulls over six months old sold. Bred cows and heifers for sale, also choice lot of big-type Poland China fall boars. Inspection invited.

Chas. Morrison & Son, Phillipsburg, Kan.

SHROPSHIRE SHEEP

PARADISE DELL SHEEP RANCH

The home of registered Hampshire Sheep and Barred Plymouth Rock Chickens. Stock for sale at all times. Twenty choice spring rams for sale. Five miles southwest of Waldo and 14 miles from Russell. Visitors welcome.

E. S. TALIAFERRO, Russell, Kansas.

SHROPSHIRE SHEEP.

Twenty-five two-year-old registered Shropshire rams for sale. They are good ones.

E. A. BUNTON, Maysville, Mo.

REGISTERED SHROPSHIRE RAMS.

Imported C. H. Justice 010035R at head of flock. Our flock rams are and always will be the best. Prices low. **E. E. Laughlin,** Rich Hill, Mo., (Bates County.)

SHROPSHIRE RAMS

A choice lot of yearlings and two year olds for sale. Also one imported Dakin ram. All going at dry weather prices.

J. W. ELLIOTT, Polo, Missouri.

POLLED DURHAM CATTLE

ROAN HERO

THE INTERNATIONAL CHAMPION, AND

ARCACIA PRINCE X 8079-308159

the first prize winners, head my herd of Double Standard Polled Durhams. M. P. Ry. 17 miles S. E. of Topeka, Kan. Farms adjoins town. Inspection invited.

D. C. VAN NICE, Richland, Kan.

POLLED DURHAMS.

Several bull calves sired by Roan Choice (Junior champion of 1911), also a few young cows and heifers from the greatest show and prize winning herd in Kansas, priced reasonable. Come and see my herd.

C. J. WOODS, Chiles, Kansas.

JERSEY CATTLE

FOR SALE—2 Jersey bull calves, 1 year old, ready for service, out to Flying Fox, dams that are good sired by the Imported Bull Castors, Splendid A Grandson of Golden Castor. Look up my herd at the State Fair, Kansas Sunflower Herd.

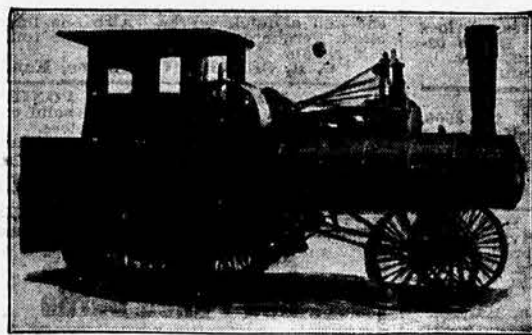
H. F. ERDLEY & SON, Holton, Kan.

9 OUT OF 10

Winnipeg GOLD MEDALS Won by

CASE With Its Steam, Gas and Oil and Tractor Gang Plows Tractors

This phenomenal demonstration of Case superiority only continues to prove that the standard set by Case Machinery is still the standard of the world. Do you want machinery that will do the most work in the shortest time at the least cost? The answer to your problem is found only in Case products. In the field, on the road, in the laboratory—the results of Winnipeg are always substantiated. Read what the only scientific, unbiased official tests of farm power in America tell you of Case Machinery. It is your gain to know the significance of these figures.



STEAM

The Case 110 H. P. Steam Engine not only won the Gold Medal in its class, but established a new world's record of 2.65 pounds of coal per brake horsepower hour, thereby breaking its own world's record by 11 per cent. This engine has been entered in Winnipeg four times, and four times it has won the Gold Medals and four times it has been awarded the Sweepstakes honors.

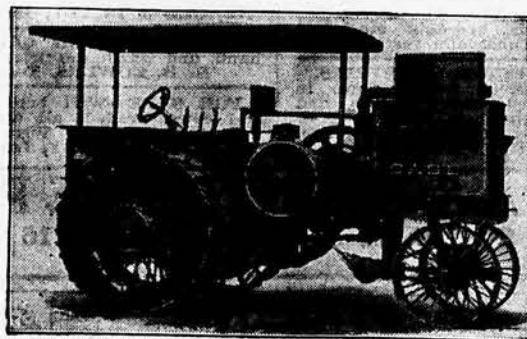
The Case 80 H. P. Steam—three times entered—three times Gold Medal winner. No other engine has ever approached the record of this one—except our own 110. By again winning the Gold Medal in its class this year, this engine substantiates our claims that when Case engines compete, it is only against their own previous records. This engine holds the record for the lowest coal consumption per draw bar horsepower hour, the lowest water consumption per draw bar horsepower hour, and the lowest water consumption per brake horsepower hour—excepting the Case 110.

The 40 H. P. Steam. In winning the Gold Medal in this year's Contest, its nearest competitor was an engine weighing 65 per cent or over 6½ tons more, and costing \$1040 more than this tractor. In 1910 and '11 this Case engine received diplomas of award, because no other manufacturer dared pit his engine against the Case "40." In fact, there never has been an engine entered against the Case 40 which properly belonged in this class—a class intended to include only engines under 60 brake horsepower.

These figures are eloquent testimony to our wisdom in continuing to improve our steam, as well as our internal combustion engines, while other manufacturers have forgotten their steam products in their frantic efforts to get upon the market a gas tractor that will equal Case.



The
Standard of
Mechanical
Excellence
the World
Over

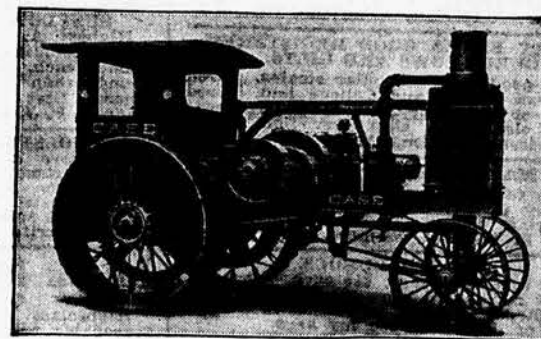


OIL

The Gold Medal winning score of the Case 60 H. P. Oil tractor illustrates the value of those sterling qualities that have won international fame for Case Machinery. In scoring 79.15 points on design and construction, out of a possible hundred, this tractor proves that simplicity, accessibility and rigidity, combined with economy, go to make the perfect tractor—the one that will earn real dollars for its owner. This tractor has always won a higher score for accessibility, protection of working parts, easy manipulation, than any other make in any internal combustion class entered at Winnipeg. Its Gold Medal is a just recognition of those features that have always characterized Case Machinery—Design and Construction.

PLOWS

Case won both Gold Medals and Sweepstakes Honors awarded to plows. Our tractor gang plows led their closest competitors in all the essentials of good plowing—those qualities which a practical plowman demands. Our 10-bottom, 14-inch tractor gang plow won the Gold Medal in the large class, and the 6-bottom, 14-inch automatic—lift tractor gang plow won the Gold Medal in the small class. This last named out-classed its nearest competitor, a much heralded "lift" plow, winner of last year's Gold Medal, when Case did not compete.



GAS

The score of the Case 40 Gas and Oil Tractor, burning gasoline and kerosene, won the Gold Medal in each class. When reduced to its simplest terms, its score showed that with gasoline it cost our closest competitor 42 per cent more to plow an acre than Case, and on kerosene 32 per cent more. Further, that on gasoline our average Draw Bar Pull was 20 per cent more than our competitor, and we produced 41 per cent more Draw Bar Horsepower, with the same amount of fuel. On kerosene our average Draw Bar Pull was 49 per cent more than that of our competitor, and our "40" produced 65 per cent more Draw Bar Horsepower with the same amount of fuel than our competitor.

The lower your operating costs, the higher your profits. This is the final standard of value, and on this score Case 40 is without a rival.

The Case 25 won the Gold Medal in its class, scoring 36 per cent more points than its competitor. We have often stated that we do not experimenting at the expense of our customers. This is again proved by the notable fact that this 25 H. P. Tractor was the very first of its type publicly to be exhibited. The fact that it won the Gold Medal, surprised no one, familiar with Case design and construction. The accessibility and protection of the working parts, its compactness, thoroughness and simplicity in construction were the envy of all manufacturers.

J. I. CASE THRESHING MACHINE CO., INC.
635 State Street, Racine, Wisconsin.

Please send Catalog of Steam, Gas and Oil Tractors and Tractor Gang Plows, also information regarding your proposition to dealers.

Name. _____

Address _____

The Catalog Tells The Details

The winning of Gold Medals by Case products in this Winnipeg Contest is positive proof to the purchaser of farm power that in this field Case has no rivals. The Winnipeg Motor Contest is international, under the supervision of the Canadian government and is the only scientific, un-

biased official test of Tractors and Traction Gang Plows in America. We shall be very glad to furnish further information regarding the details of construction of our tractors and tractor gang plows. Your request for a catalog or any other information will receive immediate acknowledgement.

J. I. Case Threshing Machine Company, Inc.
(176) 635 STATE STREET, RACINE, WISCONSIN