

KANSAS FARMER

For the improvement

the Farm and Home

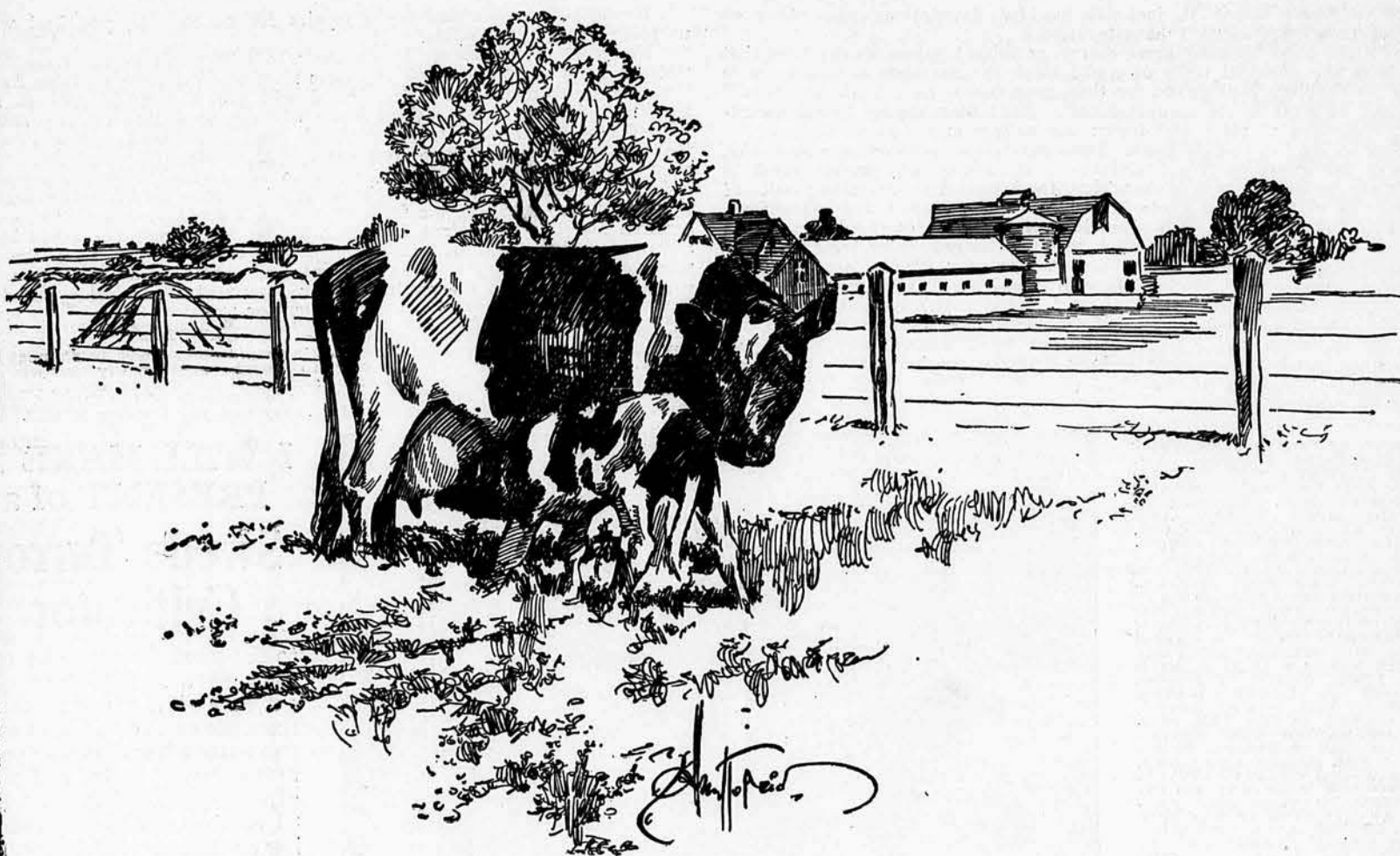
Volume 51, Number 7. TOPEKA, KANSAS, FEBRUARY 15, 1913. Established 1863. \$1 a Year

GOOD farming is the basis of bank accounts.
As every old tree suggests the wigwams and camp fires of a vanished race so every worn acre suggests the waning methods which made it poor.

From the farmsteads of Kansas have gone forth the big men who drive the engines of industry; direct the shuttles to weave life's fabric; handle the helm of statesmanship; lead the youth to higher attainments and fill the pulpits with resounding eloquence, and get a greater work is here.

The soil which fed the elder pioneers was rich and fresh from nature's hand; that of today has been leached and mined and robbed until its threat of depletion sets a large task for the present pioneers.

Conservation of the soil fertility is the most vital problem which confronts the American farmer but alfalfa, kaffir and live stock hold the solution in Kansas.—I. D. G.



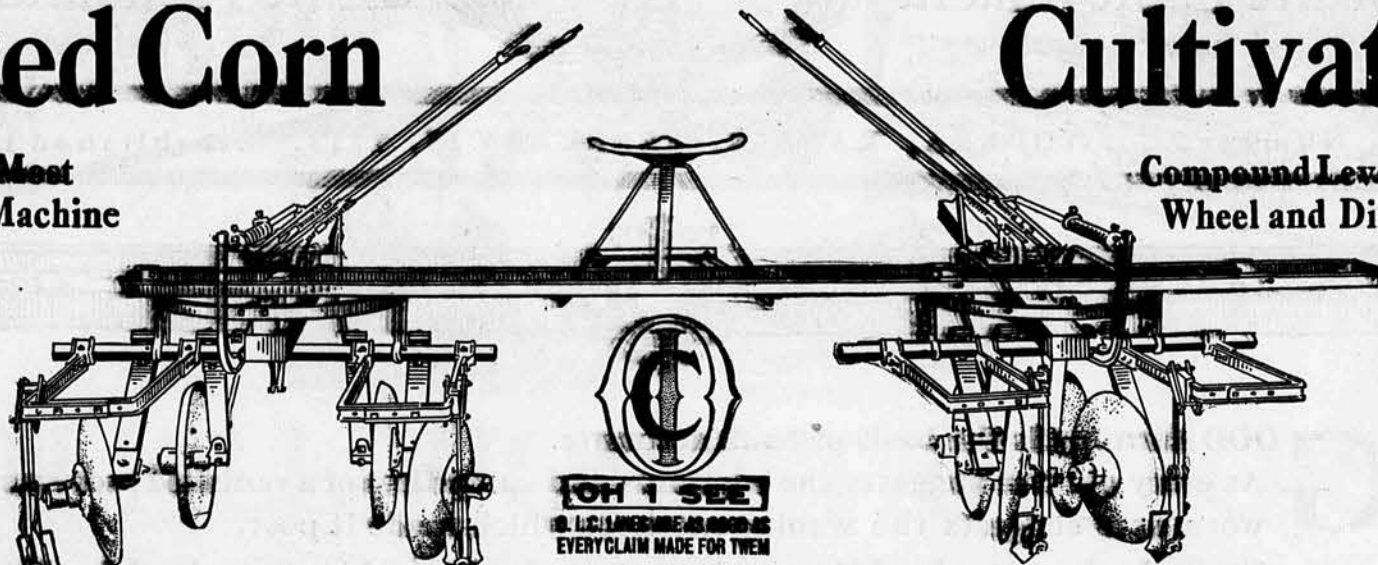
Aridity to Alfalfa; Corn to Kaffir and Sorghum to Silage Mark Kansas Progress.

The Flying Swede

Listed Corn Cultivator

Latest and Most Improved Machine

Compound Levers Steel Wheel and Disc Arms



THE ABOVE CUT SHOWS OUR NUMBER 3 CULTIVATOR—BUT WE WILL SELL YOU OUR NUMBER 1 TWO-ROW FLYING SWEDE LISTED CORN CULTIVATOR FOR ONLY \$30.00

The Flying Swede was the first successful Lister Cultivator sold in the States of Kansas, Oklahoma, Nebraska and adjoining states. I say it is the best on the market today. Thousands of the Flying Swede Lister Cultivators are giving the best of satisfaction to thousands of farmers—perhaps you are one of them, if not, you will have no trouble to find a neighbor who will testify to the superior merit of the Flying Swede Cultivators.

The trust manufacturers have brought about a condition on the kinds of implements upon which they control the principal portion of the trade which makes the farmer pay from 10 to 30 per cent more than he should were the prices based upon the cost of production. Now I cannot afford to pay for space in this publication to tell you the real reason why, but when I will sell you a Two-row Flying Swede Listed Corn Cultivator for \$30.00, I am selling it on a base such that if I manufactured a full line of farm implements and added the same percentage of profit to the shop cost that I have added to the Flying Swede Cultivator, I would be able to sell you—

A first class Corn Planter for
A 14-inch Gang Plow for

\$32.00
40.00

A 5-foot cut Mower for \$40.00
A high grade Lewis Hay Stacker for 36.00

If you don't believe it, just ask me for descriptions and prices on some of these implements I have mentioned.

Now the trust manufacturers charge exorbitant prices for the lines that they have the principal trade on and I think the Association dealers are to blame for handling their goods, for they perpetually say "stick to the old lines and be loyal to the manufacturer". (And they appear to act accordingly, regardless of price and ignore the welfare of the farmer).

Now let me tell you the facts. I own my factory and there are no stocks, bonds or mortgages on record against it. I have a large water wheel to supply the power to generate electricity to propel the machinery—all of which helps to build high grade Flying Swede Cultivators and other farm tools at a low first cost. But regardless of the cost of production just think of the exceptional opportunity you have to get one of these Two-row Flying Swede Cultivators for \$30.00; a One-row for \$22.00, free on board cars either Kansas City, Wichita, Council Bluffs or Topeka and you don't pay one cent to me for it until October 1, 1913. Order the Cultivator now, cultivate your corn, thresh your small grain, then pay me October 1st.

I guarantee the Flying Swede to do the work intended for it and you know, when you buy it on time so long that you can harvest a crop before paying for it, that my guarantee is as good as if I was worth ONE HUNDRED MILLION DOLLARS.

SHOWING CUT OF OUR FACTORY AT MARSEILLES, ILLINOIS. LOCATED BETWEEN THE ILLINOIS RIVER AND THE ILLINOIS AND MICHIGAN CANAL, AND ON THE CHICAGO, ROCK ISLAND AND PACIFIC RY. AND THE CHICAGO, OTTAWA AND PEORIA INTER-URBAN RY. THUS AFFORDING US EXTRA GOOD FACILITIES FOR SHIPPING. ANOTHER ADVANTAGE OF OUR LOCATION IS THAT THE POWER FOR OPERATING OUR FACTORY IS SECURED FROM THE ILLINOIS RIVER. A LARGE DAM IN THE RIVER TURNS PART OF THE STREAM INTO A MILL RACE, FROM WHICH IT PASSES THROUGH A LARGE WATER WHEEL IN THE POWER HOUSE. THIS WHEEL TURNS THE PULLEYS OPERATING THE GENERATOR WHICH SUPPLIES ELECTRICITY FOR POWER AND LIGHT. WE EXTEND A CORDIAL INVITATION TO ANY WHO MAY BE INTERESTED TO VISIT OUR FACTORY AT ANY TIME IT MAY SUIT THEIR CONVENIENCE. WE WILL TAKE GREAT PLEASURE IN SHOWING YOU JUST HOW AGRICULTURAL IMPLEMENTS ARE MADE.



I WILL MAKE A PRESENT of a Swede Terror Cultivator

to the first farmer who can show as a fact that he can get as high a grade machine from the same small first cost from any other manufacturer in the United States as I will give to you during the next 30 days, so write today ordering or stating what you want, and get our large catalog, No. 8

O'NEIL IMPLEMENT COMPANY
Flying Swede Factory at
Marseilles, Illinois

La Salle, Illinois

SUBSCRIPTION PRICE

\$1.00 per year; \$1.50 for two years; \$2.00 for three years. Special clubbing rates furnished on application.

ADVERTISING RATES

30 cents per agate line—14 lines to the inch. No medical nor questionably worded advertising accepted. Last forms are closed Monday noon. Changes in advertising copy and stop orders must be received by Thursday noon the week preceding date of publication.



KANSAS FARMER

With which is combined FARMER'S ADVOCATE, established 1877.

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GUARANTEED CIRCULATION OVER 60,000

OUR GUARANTEE

KANSAS FARMER aims to publish only the advertisements of reliable persons or firms, and we guarantee our subscribers against loss due to fraudulent misrepresentation in any advertisement appearing in this issue, provided, that mention was made of KANSAS FARMER when ordering. We do not, however, undertake to settle minor claims or disputes between a subscriber and advertiser, or be responsible in case of bankruptcy of advertiser after advertisement appears. Claims must be made within thirty days.



NEW BALLOT LAW.

It is reasonably certain that the next time you vote you will cast your ballot under what is known as the Massachusetts ballot law. The form of ballot is one which it is claimed overcomes the complications of the Australian ballot law, which is now in vogue in Kansas, makes voting much more easy and simple, and thereby enables the voter to express his wishes with absolute certainty. These are the claims made for the Massachusetts ballot, and so far as we are able to see the claims are substantiated in the working of the law.

The bill providing for the Massachusetts ballot, as passed by the Senate, stipulated that no person who could neither read nor write was eligible to vote. The Senate contended that one of the big advantages of the Massachusetts ballot is the assurance that a better class of voters may be registered. This, because under this law it is necessary for the voter to be able to read and separate from other names those names of candidates for whom he desires to vote. The House did not take kindly to the ideas of the Senate in regard to this one point and it will be necessary that the Senate and House confer in order that they may reach an agreement. The House inserted into the bill a provision under which any person unable to read the English language may have assistance in voting. This provision has the effect of excluding from the polls no citizen of the United States who is entitled to vote. The Senate bill would disfranchise any individual who could not read and so be unable to mark his own ballot.

Other provisions of the bill are that the party emblems are removed from the ballot and there is no such thing as placing a cross in a circle and thereby voting for all persons whose names are in the column below that emblem and circle. As it has been expressed, the collection of barnyard animals which have heretofore appeared on the election ballots will be removed. The candidates of all parties for each office are printed together, one below the other, and opposite the name is printed the word, Republican, Democrat, Socialist, etc. Opposite each name also is a square, and a mark placed in the square means a vote for the candidate whose name is opposite. Any kind of a mark in the square will be counted, too. The Massachusetts ballot will eliminate the question of intent of the voter and the doubt as to whether or not irregularly marked ballots should be counted.

The Massachusetts ballot law appears to KANSAS FARMER as a valuable piece of legislation.

STATE PRINTED TEXT BOOKS.

It is altogether probable that within two years the boys and girls of Kansas will be reading state printed school books. By a one-sided vote the Senate has passed a bill providing that the state shall print the text books for use in Kansas schools and establishing a commission with power to acquire land necessary on which to erect an addition to the state printing plant and to purchase necessary machinery for such plant, to procure copyrights for texts and to provide for the preparation, publication, purchase, sale and distribution of a state series of text books, and placing at the commission's disposal \$200,000. The bill is a slap at the so-called "school book trust" and is designed to remove from such institutions the patronage of Kansas school children.

It occurs to KANSAS FARMER that the real justification for printing of text books is that of obtaining for Kansas school children a set of school books which will come nearer meeting the ideas and needs of the day. If this view be taken, then by far the most important duty imposed upon the commission is that of securing the proper texts. To the individual who has given any consideration to the quality of the books used for years and years by Kansas, it is certain that he has long recognized the need of text books written from the viewpoint of the present. Kansas now has an opportunity to prepare for her

boys and girls a set of text books that will meet the exalted ideas which leading educators of the state have long held. For example, in teaching boys and girls to read, it is quite possible to impart through their reading lessons information of thoroughly practical value, and which information pertains to the time in which they live and the life they are to lead. We see no good reason why the youngster cannot learn to read by the study of an article which would have to do with the proper preparation of the seed bed for corn or alfalfa, fully as well as from Victor Hugo's description of the battle of Waterloo. Let the value of a reading lesson come not only from a correct pronunciation of the words and the paying of proper respect to punctuation marks, but also from the useful information contained therein which in the future may be really helpful.

There is no getting away from the fact that we are living in a time when the important consideration is that of bread and butter. The boy and girl should, so far as possible, at school get ideas which will aid in the making of a living later in life. It might be argued that the boy or girl who would read from the corn or alfalfa story intends to engage in law or school teaching as against farming, but the alfalfa or corn story will supply even the lawyer or school teacher with information of greater value even than will those stories now to be found in our readers.

If the present day school books have had any effect at all upon the future plans of the boys and girls who use them, that effect has been to promote a get-away-from-the-country feeling rather than a feeling that close to the soil is a good place to earn a livelihood. Our idea is that since Kansas is to make her own school books, let us have a set of books written from the standpoint that agriculture is one of the best businesses in the world and that there is comfort and prosperity in this occupation for Kansas born and educated children. If the boy insists upon becoming a doctor or lawyer, the possession of some general ideas of agricultural affairs will not come amiss. It seems to us, therefore, that we have a chance to establish a series of text books peculiarly adapted to the benefits we seek and an opportunity to shine in the front ranks with an up-to-date set of school books, rather than to rest on the glories of having poked the school book combine by printing our own books and without any regard to adaptability of material contained therein.

WESTERN KANSAS IRRIGATION.

A bill before the House provides for the establishing of an irrigation board and an appropriation of \$500,000 for irrigation experimental work in those counties in Kansas lying west of the ninety-eighth meridian. The bill enables the irrigation board to purchase land for irrigation purposes, for sinking wells, for ditching, building reservoirs, and in fact everything else necessary for the thorough testing of irrigation in a practical way on a farming scale.

We do not assume to know whether or not the appropriation called for is larger than necessary. A consideration of the bill will undoubtedly reveal the facts from this standpoint. It is certain, however, that Kansas can afford to make such expenditure as is necessary to arrive at the possibilities of irrigation within those counties which make up one-third of the state's area. Kansas must lean heavily upon the possibilities of these counties for her future agricultural development. In these counties is now the larger percentage of the state's unoccupied lands and upon these lands Kansas must depend for the greater part of her increased population, production, and all other things which develop and make a great state. The farmers of these counties are in need of and deserve such experimentation and investigation as promises a reasonably good outlook for placing their farming operations on a substantial and money-making basis.

Irrigation is not without results in western Kansas so far as the practice has already been extended. What can

be accomplished by pumping in the shallow water district is well known, but the shallow water sections compose a comparatively small area of the lands west of the ninety-eighth meridian. There is need for knowing the possibilities in those sections underlain with an apparently inexhaustible supply of water at a depth of 100 to 150 feet. Individual small plants used for irrigating garden patches are successfully operated in the latter areas, but the possibilities of a plant for irrigating 25 to 30-acre patches are not yet known.

The legislature can well afford to consider carefully—but not so conservatively from the standpoint of economy as to kill the bill without consideration—aid for western Kansas by experimental irrigation as it may apply to the farmer.

UNDER ONE BOARD.

With little opposition the Senate and House have each passed a bill creating a board of three members, appointed by the governor, to handle the affairs of these five schools: The State University, State Agricultural College, State Normal School, Kansas School for the Blind at Kansas City, and the Kansas School for the Deaf at Olathe. The members of the proposed board are to command a salary of \$3,500 a year, each, and the board's offices will be maintained in the capitol.

The Senate and House have as yet to agree upon some minor details. It is certain, though, that this bill will become a law. The bill provides that the appointment of the members shall be effective July 1, this year, and the bill also carries an appropriation of \$41,000 for the expense of the board for the next two years.

It is certain that the expenses of this board will be close to five or six times greater than the expenses of those boards which have controlled the management of these five institutions in years past. From this standpoint, therefore, the legislature has not conceived a method of management in itself so economical as the method displaced. However, the real test of the economies resulting from the one board management will come in the economical administration and efficient conduct of each of the several institutions. It is the contention of the supporters of the one board idea that three men giving their whole time to a study of the several institutions will result in an economical administration of affairs which it is impossible to approximate under the system which for years has prevailed.

In considering the conduct of an educational institution, the amount of money expended or saved does not measure value. The measure of usefulness of a school is the work it does for the student. The best education nearly always comes high. The best instruction and the most efficient school at the lowest possible cost is what Kansas should seek and should be the measure of success in her schools. We really see no reason why the one board control of educational institutions should not work out to advantage both in so far as taxation and quality of education is concerned. However, Kansas has maintained under a system long in vogue, a high standard in her educational institutions, and Kansas people generally are zealous that this same standard be maintained. It is to be hoped that the one board method will not in the test fall short.

Another \$400 scholarship has been awarded to a dairy student at the Kansas Agricultural College. Of six scholarships given at the National dairy show in the last two years to students from fifteen states, Kansas young men have taken two. O. L. Oshel, a senior student in the agricultural college, received notice this morning that he had been awarded the \$400 prize offered by the American Jersey Cattle club. This scholarship may be used to pay expenses for graduate work in dairying in any school except the one from which the student graduates.

WAS BUSY WEEK.

At the close of business last Saturday evening the legislature had made its history for 21 of the 50 days in which it has to work. To that hour Governor Hodges had signed seven bills, the number on which the Senate and the House have been able to agree and pass to the chief executive for his signature. In each house are approximately 600 bills, and more will be introduced. Many of these will, of course, not receive consideration because of the lack of time. It is just as well, too, that 50 days is the limit of the session.

The present legislature has demonstrated itself as a hard working body. This may be attributed to the fact that the larger part of the members are new—this is their first trip to the legislature and they have not yet learned how to kill time diplomatically. The members work hard at home and have a notion that they should work just as hard at the state's business. They have the right idea. In every quarter the impression prevails that the present body is desperately endeavoring to do the right thing—to save some money for taxpayers and place some needed good laws on the statute books. So far the legislature has busied itself with the redemption of platform pledges—its ante-election promises—which promises they have taken seriously. Here is what was accomplished in the redeeming of party pledges last week:

Both the House and the Senate passed the bill providing for a single board of administration to manage the affairs of the big state educational institutions; the bill providing for the state publication of school text books; the Massachusetts ballot law; the bill consolidating the labor departments under one head. The House passed the bill providing for the semi-monthly payment of corporation employees; the bill prohibiting the placing of fake advertising in newspapers, on bill boards and posters.

The senate last week killed the House initiative and referendum measure, but passed one of its own which differs materially in several respects from the House measure. The Senate passed three amendments to the state constitution, other than the I. and R., for a state income tax, state tax on corporations and a four-year term for state officers.

The Kansas Agricultural College and the University are, as occurs each two years, again at the mercy of the legislature. What will the present legislature do with the expense and improvement budgets submitted by each of the two institutions? That's the question. It cannot yet be answered. There is a committee—the joint ways and means committee—which probably knows the appropriation to be recommended. The committee has visited each of the two institutions. It is almost certain that its recommendations will be for liberal support. No body of 25 men such as make up the membership of the Kansas legislature can visit these schools without realizing the value of the work done, the need for extensions and improvements, and the possibilities for greater usefulness. We were hoping that the proposed mill tax for the support of Kansas educational institutions would at this session of the legislature be authorized, but that hope has passed, for this session at least.

Belgium has 164 head of cattle per square mile, Denmark 144, Netherlands 135, while the United States has but 23 head of cattle for the same area. The figures show the extent that the cattle business might be developed in this country were anywhere near the same number raised that are to be found in the countries named.

Some idea of the factor that the Argentine is coming to be in the world's beef trade is indicated in the figures, which show that the value of her exports of dressed beef for the year 1910 was \$25,480,000, while the exports of the United States totaled but \$12,196,000.

THE KANSAS HORSE PLAGUE

By A. T. KINSLEY, Before the Kansas Improved Livs Stock Breeders' Association

DURING August and September, 1912, the horse-raising industry of Kansas and adjoining states suffered an extensive loss from a disease that has apparently been identified as forage poisoning. This is not a new disease. It has appeared in various localities at different times. Some southern states are more or less continuously invaded with this disease. There was an extensive outbreak of this disease in Maryland in 1902, in North Carolina in 1906, and one county in New Jersey lost over 400 horses with a similar malady in the fall of 1912.

This epizootic was first reported from west central Kansas, the latter part of July, 1912. From here it extended in practically all directions, and by the 20th of September it was prevailing in the western two-thirds of Kansas and Nebraska, in the eastern portion of Colorado, in northwestern Oklahoma, in two different localities in Missouri, in some sections of Iowa, and in South Dakota and North Dakota. The disease was quite general throughout the western half of Kansas, although some farms and ranches were exempt. Equines alone were affected, although various press notices indicated that cattle, hogs, chickens, and even human beings were contracting the disease in some localities.

The exact cause of this widespread epizootic has not been positively identified. It was found that the disease was primarily confined to animals that were in pastures. It did not appear to make any difference as to the kind of soil, whether the pastures were highlands or lowlands, whether they had stagnant water in them, or whether the water was from deep wells. Those who investigated the disease occasionally found instances in which it appeared as though animals contracted the disease that had not had access to pasture lands, but upon closer investigation, in nearly every instance it was found that the animals had been allowed to graze, or that they had been fed fresh hay or even green grass cut from such pasture lands. The only common factor in the pastures in the various locations was the food stuff; that is, the grass, of which buffalo grass was the most common in the area where the disease was most prevalent, although in some pastures in which there was only bluestem grass, and in a few instances alfalfa, or timothy and clover were used for pasture, and it seems probable that the cause of this disturbance was derived from the forage. Many animals in the affected areas that were fed on old hay, or dry feed in general, were exempt from this disease. Upon reviewing the epizootic as it sequentially occurred, it is found that the first diagnosis was forage or mycotic poisoning.

Some investigators attributed the disturbance to intestinal parasites. There can be little doubt but that some of the diseased animals were depressed by the large number of parasites they harbored, but the fact that some horses contracted the disease and died, and none of the parasites were found on autopsy, seems to be sufficient proof that the disease was not caused primarily by the parasites. Some diagnosed the disease as influenza. This diagnosis was no doubt given because of the fact that a considerable percentage of the afflicted animals were also affected with medicamentous pneumonia, a condition resulting from medication of animals, and due to pharyngeal paralysis, a common symptom in afflicted animals. Still others claimed that the disease was infectious, some holding that a gram positive diplo-coccus, which could be isolated from many of the cases, was responsible for the trouble, while yet others held that they had found a gram negative diplo-coccus and had been able to obtain it in pure culture, and claimed to have produced the disease in healthy susceptible animals by inoculation.

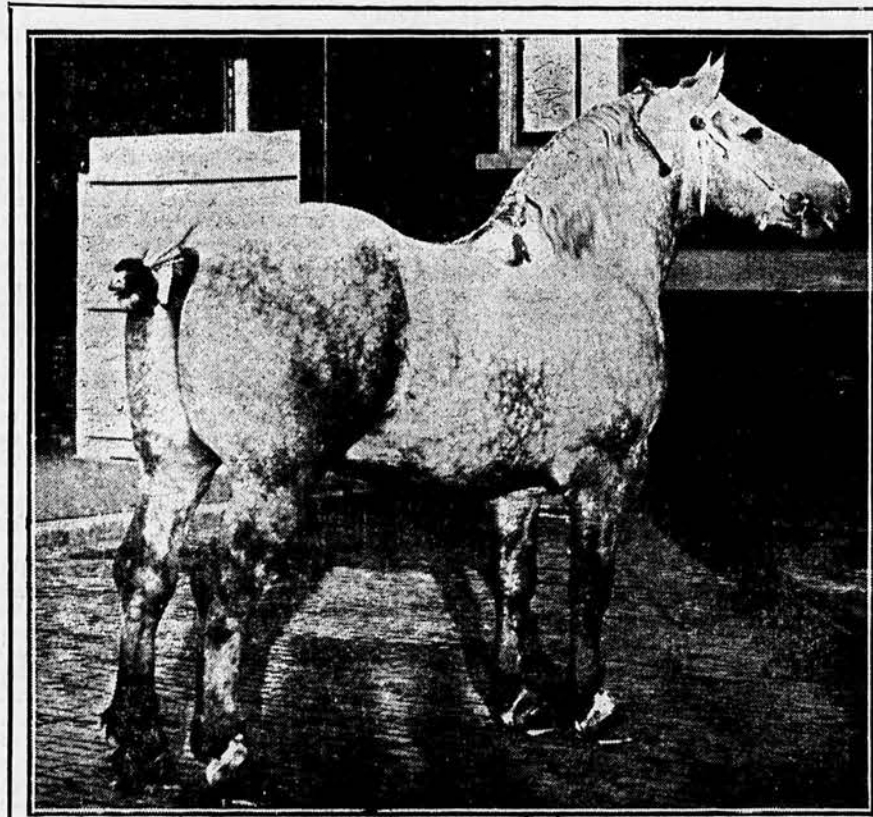
The parasitic theory and the influenza theory have apparently been abandoned. Some are still maintaining that the disease was due to infection. If it was an infectious disease, it certainly was materially different from any other infectious disease with which we are familiar. Scores of instances can be cited where diseased animals were taken into barns and yards where they were associated with healthy horses during the entire course of the disease, or until they died, and there was no evidence of transmission; and further, this association was in the continuous presence of myriads of flies, which were a veritable pest in the section of the country in which this disease abounded. In other in-

stances that died were kept in a barn within ten rods of the camp, but not a single horse of the 48 contracted the disease. None of the 156 horses on the regrade had the disease, except two that were used for hauling water and were allowed to graze, and a few cases later, which occurred in horses that were turned in a pasture at night.

Several blood inoculations, also some intra-cerebral inoculations, were made, but without producing the disease in a single instance, excepting as reported by the Colorado Experiment Station. According to the data at hand it appears that at the substitution established at stances diseased horses were watered out of the same tanks and fed out of the same feed boxes that were used in common by healthy horses without transmission of the disease. One instance was very striking: On the Missouri Pacific railroad right of way between McCracken and Utica, Kan., about 78 teams of horses were used in regrading the road bed. These horses were fed dry feed in a wagon on the right of way, and in one instance 24 teams were watered at a tank from which three horses drank that died of the disease, and these three

the animals never losing control of locomotion, maintaining their appetite, and regaining health in a period varying from three days to three weeks.

Lesions.—In autopsying animals dead of this disease, the striking thing was the general absence of any constant tissue change sufficiently marked to account for the intensity of the symptoms. There was an apparent venous congestion of the pia mater in some cases, which in some cases resulted in an edema of the meninges and a dropsical condition of the ventricles of the brain. Many animals were autopsied in which there were complications of pneumonia, gastroenteritis and nephritis, but upon obtaining the history of such cases, these lesions could invariably be traced to drugs that had been administered. In those cases that died within a few hours after the onset there was usually an engorgement of the liver. Upon close inspection of the cerebro-spinal fluid it was found to be clear, but upon microscopical examination it was frequently found to contain a large diplo-coccus with a tendency to form in chains, and a smaller diplo-coccus, the former being a gram positive and the latter being gram neg-



BREED TO A TYPE AND STAY IN ONE BREED.

Holly, Colo., the disease was successfully transmitted by pure cultures of a gram negative, the diplo-coccus above referred to. These experiments have not been verified by other investigators, and, therefore, cannot be accepted as final.

Symptomatically.—The affected animals behaved similarly to those affected with the so-called sleepy staggers. Inappetence and uncertain gait were usually the first symptoms evidenced. However, the initial symptom was a rise of temperature, and occurred in animals prior to the time any outward disturbance was observed. The temperature varied from 104° F. to 107° F. and continued high for only a short time, usually not longer than 24 hours, after which it ranged about 103° F. Exceptions to this general range of temperature were found in cases complicated with pneumonia or other inflammatory disturbances. Usually during the first or second day a considerable percentage of cases showed some difficulty in deglutition, in a few instances there being an apparent inability to swallow. The uncertain gait was due to lack of coordination, becoming more and more marked as the disease progressed, in many instances the animals supporting themselves by leaning against buildings, fences, etc., finally losing their balance and falling, after which they usually remained in the decubital position until death, which appeared in from 24 hours to as much as six or seven days after the onset. Later in the outbreak the disease assumed a milder form, many of

active; also some cells indicative of intoxication disturbance of the cerebral tissues. Likewise, examination of the brain tissue microscopically evidenced a small round cell infiltration into the peri-vascular lymph space in the anterior and posterior horns of the spinal cord in the medulla, cerebellum and cerebrum, and some of the motor cells were degenerated, which according to most authorities further substantiated intoxication disturbances.

Prognosis.—The outcome of the cases were usually fatal in the early part of the epizootic. In the latter part of the epizootic many animals recovered, though some that recovered will be permanently damaged because of destruction of brain tissue.

The extent of the loss from this disease was exaggerated by the press. In the territory where the disease was most prevalent, not more than 40 per cent of the horse population died. The percentage fatality varied from 40 per cent to practically none. According to J. H. Mercer, live stock commissioner of Kansas, about 27,000 horses died of this disease in Kansas, and of that number it is probable that about 5,000 horses died as a result of medication. The losses in Nebraska, according to Doctor Boestrom, state veterinarian, were about 12,000, of which he claims probably 2,000 were killed by medicine, the injection of blacklegoids being responsible for the death of about 1,700 head of horses and mules. Because of the variation in diagnosis and because of the startling news-

paper reports, the people, particularly in Kansas, became almost panic stricken, and were then easy prey for all kinds of fakers. Unfortunately the larger portion of the states of Kansas, Nebraska and Colorado, where the disease was most prevalent, has very few veterinarians. The horse owners in many instances depended largely upon information obtained from the newspapers for the method of procedure in case of sickness in their animals. There is no doubt that the majority of horses killed by drugs were entirely under the control of the horse owners, and were prescribed for by the owners or their neighbors. This attitude of the horse owners in those sections of the country cannot be censured, because it was almost, if not entirely, impossible for the majority of them to obtain efficient veterinarians to care for their sick and afflicted animals. In many places it was found that druggists unjustly took advantage of the situation and recommended the use of drugs that were of little or no value, but in many instances expensive, and in some cases the druggists advanced the price of drugs recommended by state authorities or recognized veterinarians and in this way dealt unfairly with the public.

A few veterinarians were guilty during this epizootic of unscrupulous dealings and caused a lack of confidence on the part of the stock owner in veterinarians in general. Several veterinarians from distant sections of the country went to the districts where the disease prevailed and proclaimed that they were familiar with the disease and could prevent its development in non-affected and affect a cure of the diseased animals. After the horse owners had met with failure from the use of the various drugs and means at their command for preventing or relieving this disease, they readily accepted the statements of these fakers, and such non-ethical men had no difficulty in obtaining all the clients and patronage they could possibly attend to. It was not uncommon for these grafters to collect from \$100 to \$500 per day, remaining in one location for only a few days, then moving from 20 to 50 miles to repeat the same process. In some instances these fakers even temporarily located in towns where recognized graduates were already established and proclaimed on the streets that the regular graduates were just local men and were unable to contend with so serious a problem, and because of the fact that treatment was of little value these sharks did not seem to have any difficulty in duping the regular ethical veterinarian's clients.

So far as medicinal treatment was concerned, a variety of agents were used, some that had no relations to the symptoms of the disease, and others because they were cheap. One man injected carmine water subcutaneously and charged \$1 per head; another man gave powders that were apparently composed of a little charcoal, salt and sulphur, for which he charged \$1 per pound. Others used eutropin, still others used biological products. One drug house in Dodge City is said to have sold as much as \$700 worth of antistrepto-coccic serum in one day. Several hundred head of horses in Ellis County, Kansas, were said to have been injected with bacterin prepared by a chemical laboratory in Kansas City, of which three doses were given, for which \$2.50 was charged and usually about as much more for injecting it.

Some instances of the practices of veterinarians were so flagrant that veterinary associations should investigate, and if the reports are true such veterinarians should be expelled from the rolls of all ethical societies. Further, the charges are so grave in some instances that the veterinary examining boards of the states in which the men registered should revoke their licenses and prevent their further practice in veterinary medicine. It is very unfortunate that such nefarious practices occurred in the various sections of the country where this disease abounded, for, regardless of the type of men that recommended the spurious medicinal treatment, the veterinary profession at large is now apparently held responsible, and the only method that the profession has of correcting this public impression is to penalize those who were unscrupulous, the gravity of the offense only determining the extent of the penalty.

In conclusion it is apparent that the live stock commissioner of Kansas should receive favorable commendation for his untiring effort to assist the horse men of Kansas during this entire time in which this disease prevailed.

HIGHWAY TRANSPORTATION

Cost of Country Road Hauling in Kansas and How to Reduce It



ONE-HALF MILE DIRT ROAD UNDER PROCESS OF CONSTRUCTION WITH AN AUSTIN-WESTERN TEN-TON GASOLINE ROLLER AND GIANT ROAD GRADER. VIEW TWO MILES EAST OF SILVER LAKE ON UPPER SILVER LAKE ROAD. A GOOD CROWN IS MADE ON THIS ROAD, GOOD SIDE DITCHES, THE FINISHED ROAD BEING TWENTY-FOUR FEET. IT COST ONE HUNDRED DOLLARS PER MILE TO GRADE THIS ROAD. SHAWNEE COUNTY PAYS SEVENTY-FIVE DOLLARS A MONTH TO THE MAN WHO RUNS THE GRADER AND FIFTY DOLLARS A MONTH TO THE ENGINEER, AND THESE MEN AND THE OUTFIT ARE WORKED THE ENTIRE GRADING SEASON.

WE HAVE heard a great deal of the extravagant use of public funds, about high taxes and the exorbitant expenditures during the past three years and have read all sorts of reasons why the cost of living is high and the writers and speakers generally give many causes. There is no doubting the fact, however, that highway transportation effects the cost of living and the taxes levied by the township and counties to construct and maintain the roads and bridges which amounted in 1912 to \$4,975,000 is an important factor in the tax rates, so that any information to be had on the cost of highway transportation in Kansas and how to reduce it should be of special interest at this time.

To reduce the cost of highway transportation, the size of loads hauled must be increased and moved faster at the time when motive power on the farm is cheapest and when prices of farm products are highest. Distance is measured in time, not miles. To haul larger loads faster and cheaper simply means that the road surface must be made smoother and harder for the entire year.

In 1906 the U. S. Department of Agriculture collected for information in every section of the United States and found that the average length of haul to market for farm products was 9.4 miles, and that the average cost of hauling these products to market was 23 cents per ton per mile. The Department estimated from the crop reports and railroad companies' statements that not less than 230,000,000 tons of farm products were marketed over the public highways, and the cost of hauling the same was about \$500,000,000. On a good gravel, macadam or brick road the cost does not exceed 11½ cents per ton per mile instead of 23 cents, which would result in a saving of \$250,000,000 to the tax payers of the United States.

I sent a letter in regard to the cost of hauling farm products to the local shipping points, to the secretaries of the 386 Farmers' Institutes, representing every county in the state, on November 15th, and to date have received 243 replies. These letters show that the average load hauled is 2,960 pounds; the average length of haul 5.5 miles; the average time required to make the round trip 4.5 hours, and the average cost of hiring a driver and a two-horse team and wagon for a ten-hour day is \$3.50, and this gives 21.5 cents per ton per mile as the average cost for hauling farm products in Kansas and even though our natural highways are the best in the world and most of the hauling is done when the roads are in first class condition, and a large part of the products are cereals which materially increase the average load hauled, the cost of hauling is only 1½ cents per ton lower than the average for the United States.

From 1902 to 1907 the Department of Agriculture at Washington, in co-operation with the University of Minnesota, kept accurate detail costs of producing different crops in Minnesota by selecting 24 average farms owned and superintended by about average farmers; eight in the wheat belt, eight in the cattle country, and eight in the dairy section. It was found that a hired man worked an average of 8.1 hours per day; that it cost an average of 42 cents per

By W. S. GEARHART, State Engineer, Manhattan, Kan.

day to board a man on the farm; that the average wages paid including board was 18.55 cents per hour. The cost of maintaining a horse per year, including interest on investment, depreciation, harness depreciation, shoeing, feed, labor and miscellaneous expenses, was from \$65.00 to \$90.00 per year and the average time worked per horse was 4.22 hours per day or the total time worked by each horse about one thousand hours per year, and the average cost of the work performed by a horse was 8.1 cents per hour.

The expense of maintaining a horse in Kansas would not be less and from help cannot be hired for less than \$25.00 to \$35.00 a month and board. Assuming \$25.00 a month, or \$1.00 per day and 42 cents for board, the 8.1 hours worked would be at the rate of 17.5 cents per hour. From these figures it is seen that a driver and a team of two horses cost 33.7 cents per hour and interest, depreciation, and repairs on a wagon would be not less than 1.3 cents per hour, which gives a total cost of 35 cents

per hour for hauling and with the same average load, distance and time to make a round trip as given above, the average cost of hauling is 19.4 cents per ton. Ten to fifteen per cent., or 35 to 50 cents per day profit for such work, certainly would not be unreasonable, and 11 per cent. profit added to the 19.4 cents gives 21.5 cents, or the same as reported by the secretaries of the Farmers' Institutes.

On many farms, from one to three unnecessary horses are kept, mainly that they be available during a few days when the crops are harvested or hauled to market. The \$80 or more required to keep a horse for a year is sufficient to hire a team for a number of days. Any farmer who studies his cost of production can soon tell whether a horse can be dispensed with, thus reducing the cost of horse labor by the cost of keeping one horse.

If the average load hauled was increased to 3,200 pounds and the number of hours worked per year by each horse to 1,250 the cost of hauling would be

reduced to 16.3 cents per ton per mile, which would make a saving of 17 cents on each ton marketed.

I find from the state and federal crop reports and railroad companies' statements that at least 8,000,000 tons of farm products are marketed each year with an average haul of 5.5 miles to the elevators, railroad stations or local markets at 19.4 per ton per mile, actually cost the farmers of Kansas \$1.067 per ton, or a total of about \$8,536,000. The \$1.067 required to haul one ton 5.5 miles would pay the freight to ship it by rail 135 miles.

We are now spending enough money on our highways, if it were properly applied, to construct and maintain good roads ten months in the year, and on which these products could be marketed at 15.3 cents instead of 19.4 cents per ton per mile and this would result in a saving of about \$1,364,000 to the farmers and consumers—just simply pure velvet, for it would cost nothing to make the saving, except to place upon the statute books an up-to-date system of highway management and then demand that the officials in charge carry it out.

Motor trucks have largely taken the place of the heavy, horse-drawn dray wagons in the cities, and there can be little doubt but that motor trucks will be used extensively for the delivering of farm products as soon as the roads are improved enough to make it practicable, in fact, it is being done now, and it is my belief that the motor truck, where it can be used, offers greater opportunities for the reduction of the hauling from the farm to market than any other invention. It is entirely possible to reduce the expense of hauling to from one-fourth to one-third of the present cost.

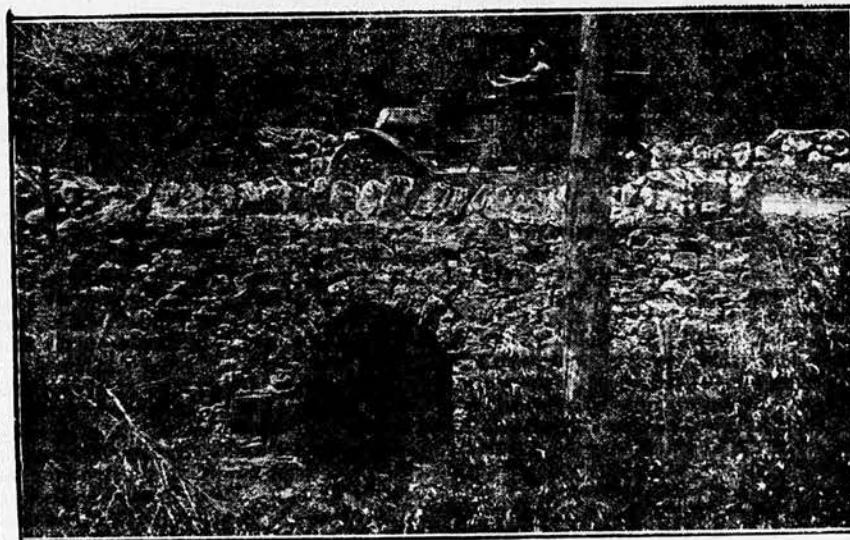
For years we have experienced a car shortage in September, October, November and December, and there is more or less agitation each year to compel the railroads to furnish prompt and better service. Railroad men best able to judge estimate that it would require seven times as much equipment as the railroads now have and would mean an expenditure of at least \$100,000,000 for new cars to handle the business in Kansas alone, if the bulk of the shipping is to be done promptly at threshing time. The extra cars would then be idle for the balance of the year and another heavy investment would have to be made to provide storage room for these cars while they are not in use. The companies would then have to make their freight rates high enough to pay good returns on this investment frequently, which would be idle most of the time.

At present the grain and farm products are stored in Kansas City, St. Louis, Chicago and Buffalo in elevators and refrigerators located on ground worth \$25 to \$50 per square foot, and when the grain is stored in large elevators it must be moved about every thirty days to keep it from heating. This grain should be stored in elevators on the farm where the land is cheap and other farm products stored in local co-operative refrigerator plants so that they could be delivered at periods throughout the year when prices are highest and then there would not be a car shortage and the farmers would get the benefit of the increase, while the ex-

(Continued on Page Eight.)



THE FIRST OPERATION IN MAKING A GOOD DIRT ROAD. —SCENE ON SILVER LAKE ROAD, SHAWNEE COUNTY.



STONE CULVERT ON BURLINGAME ROAD, SHAWNEE COUNTY.—HAS LASTED FORTY YEARS AND APPEARS GOOD FOR ALL TIME.

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

SUBSCRIBER F. H., Haven, Kan., writes: "I lease my farm. I am an equal partner with my tenant in growing hogs for pork. I furnish the breeding stock and supply the necessary hog houses, lots, etc. I am wondering if I would be justified in building a silo for my tenant."

We infer from the above that the tenant is renting on a division of crop basis and for a term of years. If such be so, the arrangement regarding hogs and providing the landlord is contributing his rental proportion of feed to offset the tenant's share of feed and labor, we regard as equitable. The original breeding stock or its equivalent we assume is to be replaced to the owner upon the expiration of the contract.

There are only two propositions under which the landlord would be justified in constructing a silo. The first is that he become interested with his tenant in dairying or cattle raising on the same basis as in the case of hogs. We have known of a number of instances in which the landlord furnished the dairy herd and built suitable barns for its care, dividing equally the cream check, the proceeds of sale of offspring with the tenant. However, in each instance the herd was maintained and graded up from the offspring. At the expiration of the contract the original number of animals was of course returned to the landlord. The same provisions should apply, we believe, in case a herd of stock cattle is maintained. Operating under a joint arrangement, the farm owner can afford to build a silo.

The other proposition is that if the landlord is not a partner in dairying or live stock growing, the tenant could hardly expect a silo to be built for him unless he paid something for the use thereof. The tenant could afford to pay a reasonable interest rate on the cost of the silo, the interest paid to also take care of the depreciation on the structure. A rate of 6 or 7 per cent. would be equitable.

The land owner is justified always in maintaining his farm on an efficient basis. A good farm, well equipped for stock growing rents to the best advantage, and this is a thing which should appeal to the landlord and cause him to maintain good improvements. A good sized dairy herd or herd of stock cattle or fattening cattle kept on any farm, is worth money to the landlord. It means that feed crops will be grown instead of grain crops. And feed crops are advantageous to the land as is also the manure, which the terms of lease should require returned to the land. The equipment necessary to make possible the keeping of such stock is decidedly to the advantage of the land owner and he can afford to promote such farm methods. We would determine if our tenant could make good use of a silo and if so, would not split hairs in our arrangement with him.

The fact is that a tenant who is to remain on a farm five years, if engaged in dairying or in the keeping of 25 to 30 head of cattle, can afford to erect his own silo and move it if necessary at the expiration of his lease.

A good tenant is worthy of cultivation. Such tenant must have a chance to make money for himself or he cannot be held. The landlord can afford to give a good tenant a chance to make money and in so doing make money for himself.

In the case of the silo, above mentioned, when it is once on the farm it becomes a part of the farm improvements and should result in the farm commanding a better rental than if it were not a part of the farm equipment. It is our judgment that farms with silos thereupon will be in demand by the best class of tenants and will have a tendency to promote better tenant farming. A farm with a silo will be occupied by tenants who have or will keep live stock, and it is certain that a live stock keeping tenant will be more prosperous and more permanent than a grain farming tenant.

The above inquiry—as is the case with a great many of the letters received—does not give the detail of the arrangement between landlord and tenant to such extent as to make the most beneficial answer possible.

Use of Surplus Wheat Straw.

Subscriber, B. S. M., Amarillo, Tex., writes that he has ten large stacks of wheat straw which he will not use for feed and bedding this winter and asks if it will pay to scatter this straw over his wheat. The wheat ground is full of moisture and the wheat is just coming up. The land was worked with a lister,

cultivated down and harrowed twice before seeding.

Our subscriber can well afford to use this straw by spreading over his wheat field. The straw should of course be spread thin. It will serve as a mulch to retain moisture and will prevent the shifting of the soil by blowing and will advantageously protect the roots of the growing wheat. After the straw has been spread, a sub-surface packer run over the field will have a good effect. It will firm the soil about the roots of the wheat and press the straw into the ground and which condition will have the further effect of protecting the wheat from severe winds.

The spreading of straw is not only advantageous, as above stated, but is considered as worth \$2.50 per ton for the potash, phosphorus and nitrogen contained therein and which when plowed under adds to the soil fertility. This figure does not include any value the straw has for supplying the soil with humus and maintaining the soil in a better physical condition. The spreading of straw is not only advantageous in the case of wheat, as stated above, but may be spread on land to be planted to corn or to other crops, which land is to

You are not justified in the use of sweet clover if alfalfa on your land will do even fairly well, unless it be that you are seeking pasture, in which instance sweet clover will make very good pasture in considerable quantity and can be pastured safely. For hay, a fair crop of alfalfa will, in our judgment, be much more satisfactory than sweet clover.

Melilotus officinalis is a large yellow variety of sweet clover, and like the variety first above named, is a biennial. Melilotus Indica is a small yellow variety of sweet clover and is an annual and not considered of much value. The sweet clover industry in this section has not reached such a degree of perfection as to definitely determine whether the large yellow or large white variety is the best.

The preference we give above is based wholly on the judgment of several KANSAS FARMER correspondents who are growing sweet clover. They state that it is impossible to know the different varieties by the appearance or size of the seed and that for this reason there is no sure way of knowing that you will get the variety you order. The seedsman will buy seed, assuming on the statement

and are softer. It is said to make more fodder than Kafir and yields more grain. A field planted in Kansas the middle of May last year had matured by the latter part of August.

Alfalfa One of Best Crops.

"I think that alfalfa hay is the most profitable crop that can be raised on our farms and one that is deserving of a larger acreage. It is my personal opinion that our farmers have been a trifle slow in recognizing the greatness of alfalfa as a money maker and a feed value. A good stand of alfalfa is not only an enormous feed producer but is now regarded as a very valuable asset to the farm both large and small.

"It has been my experience that we must sow alfalfa seed the same as any other seed in order to get a crop, and the sooner we do this the better it will be for the land and the farmer. Opinions differ as to the proper time and method of sowing alfalfa but it is my belief that the method of sowing and harrowing the seed on the young wheat in the spring is productive of better and surer results. The cultivation with the harrow is also highly beneficial to the wheat at this time of the year. The wheat acts as a nurse crop to the growing alfalfa plant during the hot summer months, and the dead fox tail and other growths serve to protect the tender plants during the first winter.

"Another good method of starting alfalfa is to drill about fifteen pounds of seed and a bushel of oats per acre both seeded in one operation of the grain drill. When handled this way in April, the oats can be cut for hay in July, and a cutting of alfalfa can be secured in September.

"I have splendid alfalfa which was seeded on wheat last spring and am partial to this method."—M. T. KEMPER, Carbondale, Kan.

Regarding Kansas Hedge Law.

Subscriber F. E. T., Haven, Kan., writes: "Can you tell me just what the Kansas law is in regard to trimming hedges? I own a farm—a quarter section. The public highway extends a half mile along the south side of my farm and for this entire distance I have a hedge fence. Seventy rods of this hedge fences a hog pasture, 70 rods a cattle pasture, and 20 rods fences the orchard. I desire to keep the hedge as it is, for windbreak and shade for stock. The hedge is ten feet on my land. Can I be compelled to trim this hedge?"

Section 3776 of the General Statutes of Kansas, provides: "Owners of real estate in any county in the State of Kansas shall keep all hedge fences along the public highway cut and trimmed down to not over 5 feet high, except trees not less than 16 feet apart and hedges necessary as a protection to orchards, vineyards and feed lots, said feed lot not to extend more than 40 rods. All brush cut from said hedges shall be cleaned up and removed."

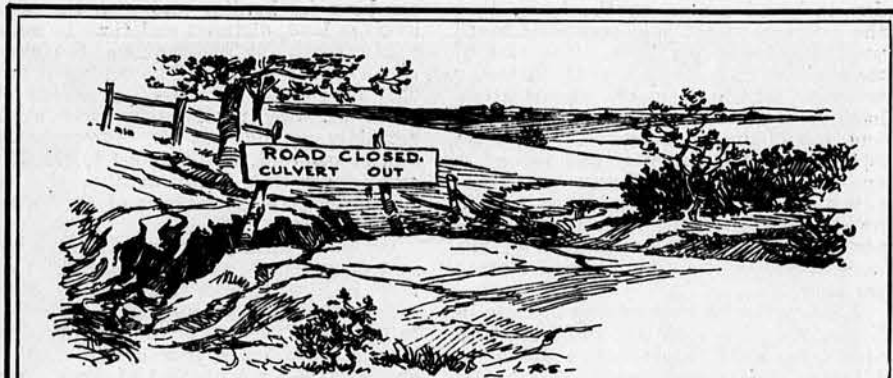
Section 3779 of the same statutes provides that the hedge law may be adopted by counties upon a petition being presented to the county commissioners of any county, signed by two-thirds of all the members of township boards in said county, and that the questions for the hedge law and against the hedge law can be submitted to the voters of each county.

Section 3780 of the same provides that nothing in this act shall be considered as to extend its provisions to any county until after the election provided for as above stated, shall be held.

Section 3778 of the same provides that in any county where the hedge law shall be adopted and any owners of real estate failing to comply with its provisions, it shall be the duty of the road overseer of the district to give notice to the owner of real estate or his or her duly authorized agent, to comply with the law, and the owner or agent failing, shall cut or cause the hedge to be cut as provided for by the law. The cost of cutting the hedge shall be reported to the county clerk and the same entered on the tax rolls against the real estate and collected as other taxes of the county are collected.

In the judgment of KANSAS FARMER even though the hedge should be 10 feet on the land of our subscriber, he would nevertheless be subject to the hedge law.

Be it understood that the editor of KANSAS FARMER is not a lawyer and assumes no responsibility in this or other legal questions. Before beginning litigation consult the best lawyer obtainable.



THERE is no work more important than to build public roads in such manner that they will be permanent and consequently economical in maintenance. Otherwise the money expended is largely wasted and the traveling public greatly inconvenienced. Here is a scene quite common, sketched by KANSAS FARMER artist. This picture sets forth a true condition not far from Topeka. This was not on what may be termed a main traveled road, but it was on a road over which the people of practically an entire township chose to travel in reaching a rock road leading to the principal trading point. This culvert was out for several weeks, and during that time three miles of extra travel was imposed upon each person who otherwise would have used the road.

The culvert had been planked, laid across posts, each end of which posts rested on a lone small stone laid on the dirt. It had given trouble for years—washing out and being broken by traction engines and heavy loads. The need for a better culvert had for years been felt, but a permanent culvert had not replaced the temporary one. It will now be replaced with a good culvert, but not until after great inconvenience on the part of the people of the township and traveling public. A resident remarked that money enough had been expended on that culvert to construct several substantial ones.

This is a common condition. It is poor business. Road conditions are improving, but not so rapidly as the situation warrants.

be worked and the straw thus gotten into the ground. If straw be spread on corn land and that land plowed, the straw must be spread thin and evenly so that bunches of straw do not hold the furrow slice from coming in contact with the furrow bottom. Land dressed with straw and plowed should be thoroughly packed before the crop is planted.

We are mailing our subscriber a marked copy of KANSAS FARMER issue of January 25 which has a special article dealing with the use of straw along the lines above mentioned.

Sweet Clover Variety for Kansas.

Subscriber I. W. S., Coffeyville, Kan., says he is intending to seed 15 or 20 acres of sweet clover and asks what variety of seed he should buy. He says he has tried alfalfa with only fair success.

Write seedsman whose advertisements appear in KANSAS FARMER, for sweet clover seed. Ask for Melilotus Alba, which is a white variety and which is recommended as the best variety for Kansas. Twenty pounds of seed per acre should be sown. Seeding should be done as early in the spring as possible; however, late enough to permit the young plants to escape frost.

Sweet clover requires a thoroughly compacted seed bed with just enough loose soil to enable the seed to be covered. The lack of a compacted seed bed is the chief reason why sweet clover so often fails when seeded upon cultivated fields.

of the seller that it is a certain variety, and of course will sell it for that variety, and is innocent of any wrong-doing in case the plant is not such as the seed was expected to produce.

Sweet clover unquestionably has a place in Kansas agriculture. Its place is on those fields on which alfalfa will not do fairly well.

Kansas Feterita Inquiry.

Our subscriber, R. E. C., Utopia, Kan., writes: "Please give me the value of Feterita. Is it as good or better than Kafir and milo?"

Very little is known in Kansas regarding Feterita. KANSAS FARMER's first inquiry regarding this crop came from Oklahoma. Investigation among farmers in that state showed that considerable Feterita is there grown. George L. Bishop, agent of the federal Bureau of Plant Industry, located at Cordell, Okla., says he has been watching this crop for three years and last year grew ten acres of it on his farm. He says it is earlier than milo and having an erect head makes it easier to head by hand. It is a chinch bug resistant and a drought resistant but it falls down about as quick after maturity as milo. It will shatter badly if left alone in the field after maturity. Its large grain and its early maturity make it a fine crop for early grain feed for hogs. Mr. Bishop says that it serves its best purpose when "hogged down."

The seeds are somewhat flattened and are larger than those of Kafir or milo

Studebaker

How Studebaker Automobiles Are Made

A Heart-to-Heart Story. No. 2

In our February 1 issue we sketched the story of Studebaker steels and how we treat them. We tried to convey some slight idea of 40 drop forges, each with a touch now delicate, now tremendous. We told our readers something of our 40 heat-treating ovens, where steel is baked until the metal is harder than steel armor and with a grain as fine as silk. Today we shall move on from the great opening channels of Studebaker automobile manufacture into the shops, with their thousands of automatic machines and myriads of workmen. We do this



Inspecting a finished piston with dial-faced gauge that measures to the thousandth part of an inch.

in order that you may clearly understand the wonderful thoroughness and care with which every Studebaker car is built and so that at the end of these brief talks you can honestly say: "I believe in Studebaker cars. They are built as I would wish my own car to be built." If only we can describe clearly a little of this wonderful manufacturing organization we shall be satisfied.

First, a further word about automobile manufacture in general. We spoke last time of the difference between an "assembler" of automobiles and a real manufacturer, and the advantage every genuine manufacturer offers to a buyer. Bear this in mind as we go on.

The quality of any automobile depends—first, on the engineer's designs; second, on the steels of which the parts are made, and, third, upon the workmanship which builds the car.

It is of this third point of which we shall now speak.

From the forge shop, the foundry, the heat-treating rooms, the steel mill, the rough parts enter the machine shops.

In machinery for building Studebaker cars we have invested millions of dollars. Why? Because that kind of manufacture is the best, and it is a prime Studebaker principle that the best is always the cheapest. No machine remains in our plants after a better one for its purpose can be secured. That is why Studebaker is always among the leaders. And because we build 50,000 cars per year it is cheaper for us to do this, although to a smaller manufacturer a similar investment is impossible.

There are 40 acres of floor space used in the manufacture of Studebaker cars, and fully half of this floor space is covered by the best machinery known to the art of steel manufacture. Some machines alone cost as much as \$10,000. We buy them because thereby we build better cars at lower cost.

The other morning the writer stood beside an automatic machine which was slowly drawing into its mechanism a



Inspecting a finished gear wheel by testing the shape of the gear to the thousandth part of an inch.

two-inch bar of the finest special cone steel. In four automatic operations this bar of steel was being converted into ball cups for the ball bearings of the Studebaker "25" front wheels. The cup was completely shaped by this machine in two minutes, and it was accurate to within two thousandths of an inch. After

being ground perfectly accurate in a special machine and heat treated for tool-steel hardness and toughness, it is ready to assemble in the front wheel of the sturdy Studebaker "25."

Farmers see every springtime the miracle of the growing seed; the unfolding and development of life. Here, perhaps, is a miracle of man's ingenuity almost as marvelous. The cold bar steel enters and the finished bearing comes out. No man can see the wonders of modern automobile manufacture without being struck with admiration.

In the room with this same machine there are 100 other machines, and each machine cost over \$2,000. The room is 300 feet long and 60 feet wide, and there are three automatic machine rooms of this size in the Studebaker plants. There are 296 automatic machines of similar type in the Studebaker automobile plants. Most of the small steel parts in Studebaker cars are made in these machines; always with the same marvelous accuracy and rapidity. It seems colossal, but remember that we are building 50,000 cars this year, and only in this way can they be built so good and so cheap.

One man can operate several of these machines and it is only by reducing labor cost in this way that we are able to pay excellent wages and at the same time produce, for example, the \$1,290 Studebaker "35," which has no superior under \$2,000.

There are, of course, various parts too large to be manufactured by an automatic machine, and these must be ground under the supervision of an expert mechanic.

Take the Studebaker cam shaft, which raises and lowers the valves. It goes through two drop forges and is aged for several weeks before it is ready for the 24 remaining operations in its manufacture.

In the first operation it is cut to length; it is then put on special lathes and rough ground. It must go through several of these lathes—one to machine the shaft proper, another to "shoulder" the cams and bearings, another to machine the cams, a fourth to machine the end bearings, a fifth to machine the center bearings.



Boring and reaming valve seats in four motors at a time. The motors are locked in cast steel arms which hold them absolutely true. Consider the economy and accuracy of such manufacture.

Then a heat treatment tempers the core of the steel and a case-hardening oven bakes carbon into its surface until all the bearing surfaces are glass hard. It finally comes back to the machine rooms, where a vitrified emery wheel, turning over 1,500 revolutions per minute, cuts it within one thousandth of an inch true.

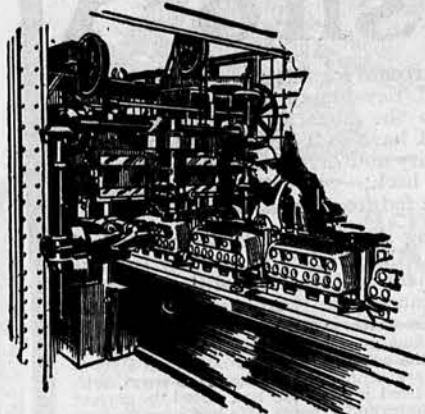
When the last grinding operation is finished the cam shaft is handed over to a final inspector, who puts it on an absolutely true cast steel base and turns it under a dial-faced gauge which tests it to the last shade of accuracy. This inspector is provided with an India oil stone as fine as a razor hone, and when he is done with the cam shaft it is absolutely perfect.

Notice here that every cam shaft we build is identical to the last fraction of fineness with every other similar cam shaft and any shaft could be changed from car to car and give perfect results. A rifle barrel which shoots to hit and kill at a mile range is not as true as a Studebaker cam shaft.

Consider a Studebaker piston for a moment. It is cast from clean, pure grey iron. Its head is mirror polished to make it too slippery for carbon to adhere to it. It is slowly ground around

its diameter of 3½ or 4½ inches until it is absolutely true and its upper surface a few thousandths smaller than its lower surface in order that the expansion under the greater heat at the top may be compensated for.

The boring for the wrist pin bearings which hold the piston to the connecting rods must be perfect, or the piston will



A very expensive milling machine which faces three sides of the cylinder at once, four cylinders at a time. Each cylinder is locked in a steel rig which holds it rigidly accurate to the grinding tools.

not run evenly in its motor. Grooves must be cut for the piston rings; another very delicate operation, and when the piston is done it must equal, within a small fraction of an ounce, the weight of every other similar piston.

This is done so carefully in order that every Studebaker owner may get from his car service equal to that of the highest-priced cars built. The Studebaker organization has been doing business for 60 years, and it looks to the future confident, not so much in its reputation for square dealing as in its knowledge that every piece of work which leaves the Studebaker factories is creditable to the finest ideals of business skill and responsibility. We are selling not only cars which look surpassingly good, but cars that down to the last hidden detail are built to deserve every man's confidence.

Turning to the crank shaft for further illustration of Studebaker manufacture, we could fill this entire page in describing the machinery and operations necessary to make it. It is one of the most difficult parts of an automobile to make. There are no less than 12 standard tests through which a Studebaker crank shaft must pass before it can be used in a motor. These tests limit in accuracy to one thousandth part of an inch and to the smallest fractional part of an ounce in weight. In other words, a Studebaker crank shaft must be perfectly sized and balanced.

Another very important matter in the operation and durability of a motor car is the way the gear wheels are cut. From our last story you know something of the fine materials which enter the construction of all parts of Studebaker cars. A Studebaker gear is first drop-forged, as we have described, in what is known as a "blank." That is the gear at first has no teeth. It is then milled for perfect roundness and perfect center on its axis. Then it is ground for perfect width.

After it is made into a perfect "blank," the teeth are roughed out and it is ready for the cutting machine—one of the most remarkable machines ever made and, incidentally, a machine developed by a woman. This grinder cuts the finished tooth and the job is a mighty particular one. The unique teeth on Studebaker gears represent perfect efficiency curves, which means that a tooth in a Studebaker gear is in perfect contact from the moment it engages with another tooth until it disengages from that tooth.

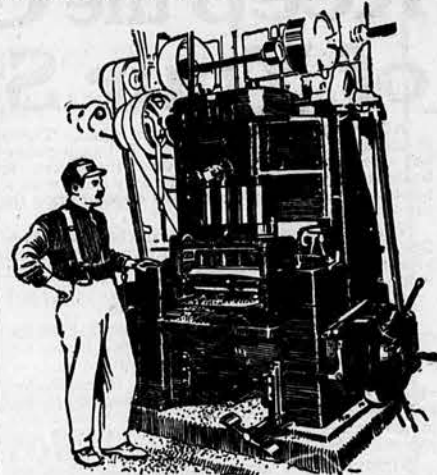
Finally when the gear has completed its long journey through the shop it arrives at the inspector's table. He has an expensive machine, which is equipped with a master gear. The new gear is clamped into this testing machine and is rotated with the master gear in both directions under various pressures and at various speeds. If it is not perfect it will be noisy, and if it is noisy it is discarded.

Thus we might go on describing part by part the manufacture of Studebaker cars. We shall close, however, with a final paragraph which we want you to consider deeply and carefully.

Quality in an automobile, as we have already said, depends upon the workmanship. The workman must depend to a certain extent upon his tools. If we were building a \$5,000 car we could not buy more expensive or better machinery. We could not employ more skillful labor than we do. We could not require higher standards for accuracy. In fact we do not know how we could improve any of the vital parts of our cars. If we did, we would do so. We have an immense factory which covers nearly forty acres. Our sixty years in the manufacturing business has given us—first, unquestioned manufacturing experience; second, financial resources sufficient to enable us to provide every mechanical facility known to the art of building quality motor cars.

It is for these sane and convincing reasons that Studebaker cars are such wonderful values. Believe in them, because from top to tires they are skillfully and honestly built. On these grounds we expect to interest you.

Naturally, we can understand why some cars cost more than others, for we ourselves manufacture one car at \$885 and another at \$1,550. But in the vital parts of each car we use exactly the same material, exactly the same expert workmanship. Studebaker standards of accuracy are just as high for the cheaper car as they are for the higher priced car. In fact, these two cars are almost identical in design. The difference is merely a question of size. Just as watches are made in different sizes, so Studebaker automobiles are made in different sizes. In each case you get a full jeweled car.



Boring a cylinder for the pistons, four at a time. One of the most particular operations in the manufacture of an automobile.

A further description of Studebaker automobiles will appear in the March 1 issue, taking up the advanced stages of Studebaker manufacture. We trust that you will be looking for the coming story.

We regret that we could not go more into detail of manufacture in this story, but we are glad to invite you to send for our "Proof Book," which describes more fully some of the processes of manufacture and which tells the story more clearly by copious illustrations. You are welcome to it and upon your request we shall be glad to send it to you, together with our catalogue. Tear off the coupon below.

THREE GREAT CARS

Studebaker "25" Touring Car, \$885
5 passenger—Gas starter
Studebaker "35" Touring Car, \$1290
6 passenger—Electric lights, electric self-starter
Studebaker "Six" Touring Car, \$1550
6 passenger—Electric lights, electric self-starter
All prices; completely equipped f.o.b. Detroit.

The Studebaker Corporation
Detroit, Mich.

TEAR OFF HERE
I am interested. Please send me Studebaker Proof Book.
Address _____
Name _____



We will double the profits of your dairy and feeding-pens

During the past ten years we have showed 25,000 farmers how to make big money out of their milch cows and how to double their profits by proper feeding of cattle for the butcher's block. We have increased their net earnings, cut down the cost of feeding and made their farms as profitable in winter as in summer. The

INDIANA SILO

holds the record for fattening prize winning cattle and developing top-notch milkers. Look into the histories of the cows and steers that have walked off with the prizes at the Dairy and Live Stock Shows for several years back;—you will find that most of them were fed from Indiana Silos.

Not long ago a Western Rancher wired our Kansas City Branch for twenty Indiana Silos. There was no competition for that order because the purchaser knew the Indiana Silo materials and construction. He had seen Indiana Silos before they were erected and had studied the scientific method by which all two-piece staves are united by air-tight, all-wood, self-draining mortised joints. He had noted the perfect milling of tongues and grooves. He had been present at the erection of Indiana Silos and had learned first hand how easily they go up. And he had seen Indiana Silos in use and had observed the wonderful results they invariably produced. Not a point had escaped his western eagle eye. He knew. Hence his order.

Investigate thoroughly, as this Westerner did, and your order will come to us, too. Will ship it when you want it.

THE INDIANA SILO COMPANY

Factories:
Anderson, Ind. Des Moines, Ia. Kansas City, Mo.
311 Union Bldg. 311 Indiana Bldg. 311 Silo Bldg.

WRITE today for our catalogue and a free copy of the book "Silo Profits", which is the story of the Indiana Silo as written by scores of owners of Indiana Silos. And ask us for the name of our representative in your locality.

"You buy an Indiana Silo—but it pays for itself."

Keep the Grain Out of Your Straw Pile

All threshing machines are not alike. There is one different from all others. It has a different way of taking the grain out of the straw. It beats it out just as you would do by hand with a pitchfork. All other machines depend upon its dropping out.

This one different machine is the Red River Special and you should insist upon having it do your threshing. It will save all your grain and waste none of your time.

It saves the Farmer's Thresh Bill.

It has the Big Cylinder, the "Man Behind the Gun," the patented Grate and Check Plate, the greatest separating devices ever built.

The Big Cylinder drives the intermingled straw, chaff and grain against the separating grate, beating the grain through where the check plate catches it and delivers it to the grain pan and mill.

Ninety-five per cent of the grain is taken out right there.

The straw goes over upon the shakers which hold it and beat it until all the grain is beaten out.

In all other kinds the straws hurried out of the machine and the grain is expected to drop out.

It doesn't. Thousands of green straw stacks every year loudly say it doesn't. The Red River Special saves all this. Insist upon its doing your work this year. It will save your thresh bill. Write for proof.

NICHOLS & SHEPARD COMPANY, Battle Creek, Michigan
Builders of Threshing Machinery, Engines and Oil-Gas Tractors

To Whom It May Concern:

I, J. Knudson, farmer, of McHenry County, North Dakota, do depose and say that during the summer of 1908 I bought of Nichols & Shepard Company a threshing outfit, consisting of one 20-horse power, double cylinder traction engine and one 32x52 Red River Special Separator with wind stacker, self-feeder and weigher attached.

That on or about August 23, 1908, I started this outfit near a stack of old straw that had been threshed in 1907 by a separator, and to stretch the belts on the new machine I caused a small load of old straw from the stack in question to be run through the new machine and was surprised to get over sixteen bushels of oats from this load of straw.

I afterward threshed out the balance of this stack and got 347 bushels of grain.

(Signed) JAMES KNUDSON.

Subscribed and sworn to before me, a Notary Public, in and for McHenry County, North Dakota, this 6th day of Feb., 1909.

J. EDGAR WAGAR,
Notary Public.

My commission expires March 27, 1914.

Highway Transportation

Continued From Page Five

pense to the consumer would be no higher and almost certainly less.

I have seen thousands of bushels of wheat piled on the ground along the railroads in the open and the Kansas farmer ships his grain in September, October, November and December, because he has no place to store it and the roads are good at that time, and he knows that during the winter, when prices are high, the roads will be so bad he cannot haul at any price.

A telegram from Clay Center to a dairy paper in March of this year, states that the farmers of Clay county had been holding their wheat since they threshed it for an advance in price and that wheat was then \$1.01 per bushel—the highest for the season up to that time, but that the roads were so bad the grain could not be hauled at any price. About the same time I saw another telegram in the same paper from Geary county, stating that the schools had been closed on account of the bad mud roads.

August, September and October are the months when the farmer should be ploughing and preparing his seed bed, and he needs all the motive power he can get to do it, but under the present conditions he is doing his hauling at that time and the teams are idle during the winter. It costs practically the same to keep a horse whether he works 500 or 1200 hours per year, so that to reduce the cost of motive power, the farm work should be handled in such a way as to keep the teams busy for as many hours during the year as possible.

Rather than compel the railroad companies to expend \$100,000,000 for cars to be used only four months in the year, and another big investment for terminal facilities to store them in, elevators should be built on each farm in which to store the grain and co-operative refrigerator plants constructed in the local market places where they are needed, and the roads improved so that cheap hauling can be done at any time in the year.

In Illinois the State Highway Commission compiled exhaustive traffic census a few years ago and found that the main roads running out into the country from the market places to the second or third cross road or about three to five miles, carried four to five times as much traffic as the roads beyond this distance. The U. S. Department of Agriculture estimates that 20 per cent. of the roads carry 90 per cent. of the traffic and it is my judgment that 10 per cent. of the highways in Kansas carry 75 per cent. of the traffic. The county surveyors' reports for 1909 showed that there were a total of 98,000 miles of public highways in the state. If we had an average of 100 miles of improved roads in every county in the state it would amount to 10,500 miles, or only 10.7 per cent of the total, and an intelligent expenditure of \$1,000,000 a year for four years on these 10,500 miles would put them in such condition that it would be possible to haul a full load for practically the whole year. A saving in hauling of only 3.1 cents per ton per mile as referred to above amounts to \$1,364,000 per year, and would practically cover the expense of improving these 10,500 miles.

To improve these 10,500 miles with oil, gravel and macadam as they no doubt will be in the near future, would require an expenditure of about \$5,000 per mile for macadam on 3,500 miles in eastern Kansas, and about \$2,000 per mile for oiled earth or gravel, on 7,000 miles in central or western Kansas, making a total cost of about \$31,500,000. This probably looks like an extravagant and impossible proposition, but last year the townships and counties in Kansas spent \$4,975,000 for roads and bridges and in the last fifteen years have spent at least \$35,000,000 on roads and bridges and have very little to show for it, even though most of the expenditures have been made on the main traveled roads or on about 10 per cent. of the total mileage.

A direct state levy of one mill, or a state bond issue of \$3,000,000 a year for thirteen years would pay the principal and interest of such an investment, and give Kansas a comprehensive system of modern highways, and one-half the annual interest on the \$100,000,000 required for the railroad equipment to handle the grain promptly would equal this bond issue, and the saving of from 7 to 10 cents per ton per mile, which could be made in the cost of hauling, would pay the entire yearly expense of

the improvements, and the increase in the value of the lands due to these improved roads would amount to from \$50,000,000 to \$100,000,000, to say nothing about the satisfaction of having good roads all the year round and removing the last and only objection to the consolidated county schools and the making of the social centers in the country a reality.

The state constitution should be amended so that the state could participate in highway improvement work, for no state or country has ever developed a comprehensive system of permanent highways without state or federal aid, and at least partial state and federal supervision. The county should be made the unit of road construction or the present system amended so as to require the county boards to classify a certain percentage of the roads as county roads, so that all of the main traveled highways would be under the direct supervision of the county board.

A state highway department should be established at the Kansas Agricultural College and given liberal financial support and general authority over road and bridge work.

The office of county engineer in Kansas is a failure, as it has been in every state where it has ever been tried, because there is no qualification required as to the fitness of the applicant for the position and the salary paid is not sufficient to hire a competent man, and since so large a number of the counties in Kansas have such a small population, it is not practicable to make the county the unit in employing engineers to supervise the road and bridge work. Only 26 counties have appointed a county engineer, and 10 of these are doing practically nothing.

In my judgment our county road law should provide for the appointment of district highway engineers hired by the year, to have charge of the work in one or more counties, and I believe thirty-five to forty men would cover the state and give every county and township in the state the services of a thoroughly competent engineer. In western Kansas one man could probably take care of from three to six counties, and in central Kansas, with a few exceptions, one could take care of two or three counties. These district highway engineers should be experienced, competent engineers. Such engineers should work under the general direction of the state highway department, and their salaries paid from the fees collected by the state registering all motor vehicles.

The boundaries of the highway districts should not be fixed by law but left to the county boards, and the state highway department, so that such changes, as from time to time become necessary, could be made.

One patrolman should be appointed in each township, to have charge of the mail routes and township roads, and hired by the month or by the year, wherever practicable, and paid a sufficient salary to employ an experienced, competent man, so that the position of superintending the construction and maintenance of our roads and bridges would be taken out of the category of the dog-catcher.

Wagon loads of from 3200 pounds to 6000 pounds will be hauled faster at all seasons of the year when the roads are made harder and smoother, and then when provision is made to store properly the farm products at home, so that they can be hauled in the winter, when prices are highest and motive power cheapest, the cost of highway transportation will be reduced from 21.5 cents per ton per mile, to not to exceed 12 cents, and the farmer will get the full benefit of his labor, and the burdens of the consumer will not be so heavy.

Panama-Pacific Exposition.

Live Stock Associations of all kinds and in practically all the states are passing resolutions asking that liberal appropriations be made for the Panama-Pacific Exposition at San Francisco. Kansas was the leader in this matter when the Kansas Improved Stock Breeders' Association passed a vigorous resolution to this effect in its January meeting. Practically all other Kansas associations have passed such resolutions and those which have to do with live stock are urging special appropriations of money to be used in state prizes on live stock shown at San Francisco. The Standard Poland China Record Association, with headquarters at Marysville, Missouri, passed a similar resolution at its annual meeting.



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That's my 1913 offer to you. Can you beat it? Never. Doesn't it prove to you that the Galloway must be all and more than I claim for it, or I could never make such an unheard-of offer? Of course it does, and I mean just that. Send for one today; give me a trial on your own farm, any way you please, and I know you will say "Galloway makes the best spreader on earth." 40,000 farmers have proved it.

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I will save you \$25 to \$50 by cutting out middlemen's profits on a spreader that will work better and outlast any spreader built. A low-down, easy-to-load, light-draft machine covered by eleven patents protecting our big new improvements and making it the only spreader of its kind in the world. Backed by a \$25,000 bond and \$5,000 challenge offer no other manufacturer dares to make. My big illustrated catalog tells all about the Galloway. Write for it today and I will send you my new startling 1913 special proposition, telling you how you can get your spreader wholly or partly free. No work or canvassing to do. And I will send you my big book

"A Streak of Gold" FREE

This book is worth many dollars to anyone; regular price, \$1.00. It is free for just writing me today. It tells how to care for the manure, how to spread it, how to treat your soil, and how to make the manure-pile pay for your spreader. Write me, without fail, today.

Wm. Galloway, Pres., WM. GALLOWAY CO., 389 Galloway Sta.
Waterloo, Iowa. We carry spreaders in warehouses at Chicago, Kansas City, Council Bluffs, Minneapolis and Winnipeg for immediate shipment.





80 Acres In the Gulf Coast—Louisiana

	Cr.	Dr.
Feed for stock.....	\$.....	\$ 000 00
Fuel for family.....	.....	000 00
Clothing for family.....	.....	100 00
2d crop—winter crop.....	500 00	.....
3d crop—spring crop.....	750 00	.....
Gross winter income.....	\$1,250 00	.....
Total winter expenses.....	.....	\$ 100 00
Net winter income.....	\$1,150 00	.....



80 Acres In the North

	Cr.	Dr.
Winter feed for stock.....	\$.....	\$ 583 00
Winter fuel for family.....	.....	50 00
Winter clothing for family.....	.....	250 00
Total of winter crops.....	000 00	.....
Net winter expense.....	.....	\$ 883 00
Net winter profit in South.....	.....	1,150 00
Total cost of winter in North.....	.....	\$2,033 00

What Does Winter Cost You?

For a third of the year your farm is *dead*. Your *expenses* go on, but your *income stops*. Every winter drains your profits—sets you back in cold, hard cash.

You Northern farmers are working under a tremendous handicap. You must make your success in spite of the climate—not because of it. Just because you have become used to that way of working doesn't mean that it's the best way—it isn't.

The farmers in the wonderful Gulf Coast Country of Louisiana know no such handicap. They don't work any harder than you do, but they make twice as much, because their farms produce all the year 'round.

The 12-months growing season of Louisiana will just double your profits

There's no guesswork about it—facts prove it. The experience of thousands of others leaves no chance for a doubt. Figure it out for yourself. There's not a single month of the year that you can't plant something. You get *two* crops instead of *one*. There's no magic about it—just common sense. The climate is an *asset* instead of an *expense*—that's all.

Any good Northern farmer can succeed in Louisiana

It's just the same kind of farming you have always known—but with greater possibilities. You've got to work, of course, but you get double returns for your efforts. If you can make a living in the North you can build up a fat bank account here.

You can stick to the staple crops you have always grown and make money. You plant in the same way, cultivate in the same way, harvest in the same way—but you do it twice or three times a year instead of once.

Then there are the southern crops—cane, cotton, rice, pecans, oranges, tobacco, alfalfa, lespedeza—scores of them, and enormous profits in every one.

And it's the kind of life that's worth living. You have heard of "sunny Southern skies"; you know that the people are more kindly, more hospitable than you will find anywhere else in the world. You and every member of your family will be healthier, feel better, than you ever did before. These things count big—they mean more than money—BUT YOU GET THE MONEY, TOO.

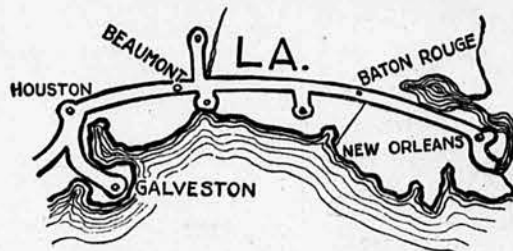
No Boom—No Inflated Prices

The Louisiana Gulf Coast movement is not a boom. It's a natural development. The new main line of the Frisco from Houston to New Orleans has given this country ideal transportation facilities—the only thing it needed to make it perfect. The opening of the great Panama Canal, now only a short time away, will directly benefit this section more than any other section of the United States.

You can suit your own purse—and buy on your own terms

Twenty million acres are waiting you. The range of choice is practically limitless. But, no matter what kind of land you select, you will find the prices less than one-fifth what you would pay for Northern land even approaching it in location and fertility. You can buy land as low as \$2.50 an acre and for \$25 an acre you can duplicate land that you could not buy anywhere around where you are for less than \$125.

You can arrange for the most liberal kind of terms if you want to. Sellers know that they are taking no chances when they ask you for a merely nominal payment—the balance to come out of your extra profits.



This land is located directly on the new Main Line of the Frisco system from Houston to New Orleans. Better transportation could not be asked. This new line is the one great factor which has opened up the resources of this wonderful country to the world.

What you can reasonably expect from staple crops

Corn in the Louisiana Gulf Coast runs from 50 to 90 bushels to the acre. Oats will run as high as 100 bushels to the acre. Barley, rye and other grains do amazingly well.

The yield of Alfalfa is almost unbelievable, and as for silage it is unexcelled. Four and five cuttings a year are the rule—not the exception.

Stock beets are planted after the corn is harvested and yield 10 to 30 tons an acre in mid-December. These are conservative statements based on actual results that have been and are now being obtained. You can do just as well.

See the country before you buy—go via The Frisco Lines

Go now before land prices jump. Property values have more than doubled in the last five years, and the real raise that's bound to come has hardly started. The cost of the trip is low. Round trip tickets are sold on the 1st and 3rd Tuesdays of each month, via Frisco Lines—from Chicago, \$37.50; St. Louis or Kansas City, \$32.30, or even less.

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Get posted right away. Write at once for full information—read our splendidly illustrated book—find out the real facts for yourself—then decide. The coupon or a postal or a letter brings you the book, maps and full information, all free.

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I want to know the real facts about the Louisiana Gulf Coast. Please send me your complete literature free.

Name.....

Address.....



Gang or Sulky

Rock Island "C.T.X." Universal Plow

Protect Your Crops

By Doing Away With Dangerous Air Spaces

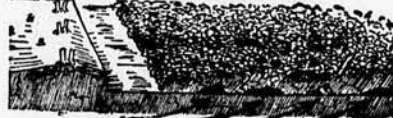
Many a fine crop has been shortened, yes ruined, because of air spaces left between topsoil and subsoil when plowing. That's why farmers everywhere are discarding ordinary plows and using the "C.T.X." You, too, will realize the economy and advantage of using the Rock Island "C.T.X." Universal as soon as you know all about it.

Why Air Spaces Prove Fatal

Ordinary plows leave air spaces between the topsoil and subsoil. This is because the slice, instead of being turned clear over flat and being thoroughly pulverized, is crimped up and the dirt falls back in the furrow. It isn't turned completely over.

Then, when a dry spell comes, the crop begins to burn and die, for the moisture from below is cut off completely.

If the topsoil lay flat on the subsoil and there were no air spaces, moisture would come right up from below, just as kerosene comes up the wick of your lamp. Thus, during a long siege of dry weather, when no rain falls for weeks and weeks, your crop suffers but very little, because it will draw on the moisture from below.



AIR SPACE—Ordinary



NO AIR SPACE—"C.T.X."

How the Rock Island "C.T.X." Universal Plow Ended Air Spaces

Now, the Rock Island "C.T.X." Universal has a very peculiar bottom—corkscrew-like in shape. A perfected, patented shape that is proving a boon to the user.

Instead of throwing the dirt backward and



This Plow Carries Dirt Back—Ordinary Plow Throws Dirt Forward

FREE CATALOG

without extra cost, and also saving labor. Give us your name and address on a card and we will tell you where you can see a Rock Island "C.T.X." Universal and you can judge for yourself, for your own knowledge and experience will show you why you can't afford to use any other. Write these words on a postal: "I am interested in plows." Then sign your name and address and mail to

ROCK ISLAND PLOW CO., 214 Second Ave., Rock Island, Ill.

upward, this bottom sends the dirt backward and DOWNWARD. (The arrows in the pictures below show how dirt travels over an ordinary bottom and over the Rock Island Universal bottom.)

Thus, no dirt is spilled into the furrow and each slice is so thoroughly pulverized and so completely overturned, that your topsoil lies right against the subsoil. No air spaces between. All this sounds very simple, yet it has taken years of experience and study to realize what it really means and how to avoid it. It's the last big step to perfect plowing.

A Truly Universal Plow

Nor is the solving of the air space problem all that this plow has done.

For here is a truly universal plow—the only universal plow in all the world.

You can work this plow in any field on your farm and do perfect work in same sod, in old stubble, in trashy cornfields, in meadows, just any place. Makes no difference whether it's gumbo, heavy clay, sandy loam or mixed soil. Every slice will be turned over flat; all trash will be completely buried. Every furrow will be clean; and the dirt will be pulverized more completely than you ever thought possible, saving you at least one harrowing.

Do you wonder that the Rock Island "C.T.X." Universal quickly became such a sensation?

Do you wonder that, to keep up with the multiplying demand, it has taxed our factory and workmen to the utmost? That we have had to increase our factory output over four times?

Do you wonder that men who see this plow perform are discarding their old plows and using "C.T.X." simply from an economical standpoint? It's a fact.

The Price Is Reasonable

Notwithstanding the unusual demand for this plow and the fact that we own and control all patents on a plow that really has no competitor in results, we have not raised the price.

It requires greater care and is more expensive in construction, but enormous production enables us to get lowest possible factory cost so that it costs you practically no more than an ordinary plow.

Its great value to you is in the results—the increased crops—the saving in work and the far greater satisfaction and longer life.

Proper plowing is the basis of all farming. You, as a user of plows, should learn what the Rock Island "C.T.X." has done toward improving the plowing, increasing the crops and saving labor. Write us your name and address on a card and we will tell you where you can see a Rock Island "C.T.X." Universal and you can judge for yourself, for your own knowledge and experience will show you why you can't afford to use any other. Write these words on a postal: "I am interested in plows." Then sign your name and address and mail to

Dehorning The Peach Orchard

An Old Orchard May be Renewed and Made Good For Twenty Years

By J. MONCRIEF, Winfield

IN OUR last article on "Pruning the Peach," we spoke of the necessity of annual pruning for the peach orchard from the time of planting, if a successful peach orchard was to be grown of the highest type of efficiency.

Many Kansas farmers will be more directly interested in knowing how to improve their present orchards, or perhaps wonder if it is necessary for them to grub them up and begin over again. Only a careful examination of the orchard and perhaps each tree in the orchard can determine the wisdom of the best course to pursue.

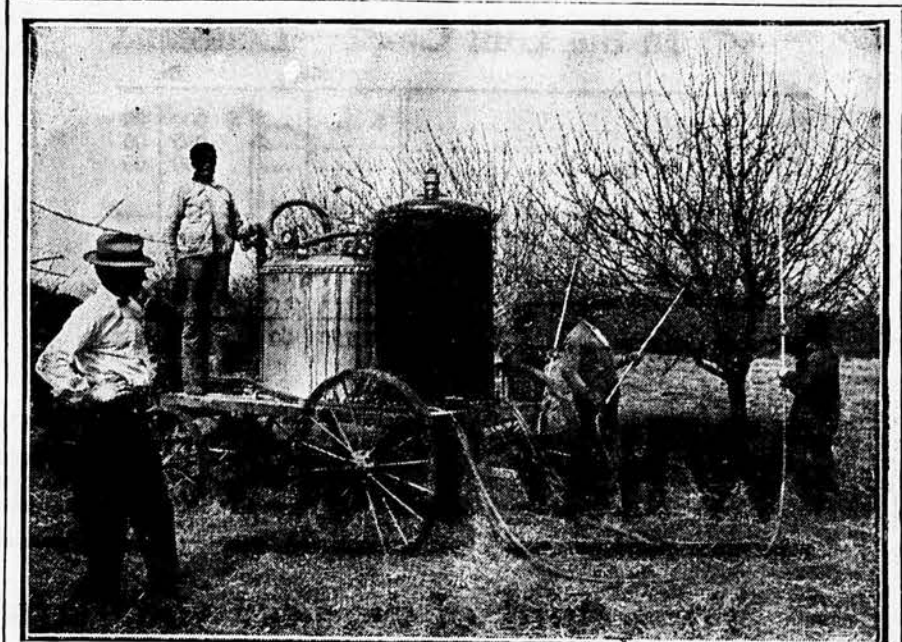
Orchards of twelve years old, or older that have never been pruned or had any care will perhaps show a serious decay, or serious ravages of the borers, and it is doubtful whether they can be renewed profitably, though doubtless some of them of this age can yet be renewed and

teet the dehorned limb until it gets new life and throws out new growth.

After the tree makes one year's growth, thin out the new growth just as you would if you were pruning a new peach orchard, as described in our article in the February 8 issue, and proceed to shape up the permanent top in the same manner, and use care to prune this renewed tree annually thereafter to prevent it growing out of shape.

By this means you will be surprised to see the trunk of the old tree, which was perhaps showing black bark and an unhealthy looking tree, begin to look slick and glossy and take on the appearance of a young peach tree. These renewed orchards if properly cared for will make a good orchard for twenty or thirty years, and you will get a greatly improved quality of fruit from same.

Where you have neglected pruning



COMPRESSED AIR SPRAYER WHICH DOES GOOD SERVICE ON MODERATE-SIZED JOB.

made into a good strong, thrifty productive orchard.

A tree under twelve years old should be carefully examined, and ascertain whether the trunk is solid. Next examine the large limbs with a view of ascertaining whether they are yet solid with a thrifty, healthy bark for a distance of from three to four feet from the trunk of the tree. You may find some of the large limbs decayed so they will have to be removed, and yet find from three to four other limbs, evenly distributed so that you can make a new head with the remaining solid limbs after removing any of the decayed ones. When you have found that the tree is solid as above described, dehorn or saw off these limbs for a distance of three to four feet from the base of the limb, using care of possible to leave a few young sprouts on the base of some of these limbs that they may throw out their foliage, and pro-

until trees are three or four years old, it is advisable to dehorn immediately at least half of the orchard, allowing the other half to go over a year to produce a crop of fruit, and the dehorned part will come on and you will only lose one year's fruit crop. In many sections of the state this year, the fruit buds are already killed, and this would be the ideal year to dehorn the orchard, and get it in shape for next year's crop.

As explained in previous articles, the great trouble with the peach is the fact that it throws out about three times as much wood as it can possibly support, and pruning away the surplus wood renews and reinvigorates the young wood and makes an old orchard into practically a new orchard.

After dehorning an old orchard, it is a wise precaution to give it a lime and sulphur spray to be sure of eradicating and destroying any disease or pests that might be present.

Farm Flowers

The Oleander is a splendid summer bloomer and, where they can be kept in a light frost-proof cellar they can be grown into fine large specimens. The flowers are very fragrant, double, and come in both pink and white.

No garden flower stands the hot summer sun better than the petunia, and they are a mass of color until frost kills them. The seed self-sows, usually, but new colors must be introduced or they will run out into a dingy lavender red.

Plant peonias just as soon as you can get them as they start growth very early, and will not bloom if disturbed late. The mixed sorts in colors are cheap and good and you can get the color you wish, though not the shade, probably. Don't neglect to get a festiva Maxima, though, for it is as fine a white Peonia as grows, and not very expensive either.

The new named varieties of peonias are beautiful and range through an endless variety in both form and color, but the old fashioned "piney" lover would hardly appreciate many of them. They have somewhat the appearance of freaks.

Plant a few clumps of speciosum lilies. The speciosum album is almost pure white, and the Rubricum has a dark wine-red stripe down the center of each petal. Both of these are very hardy and soon form fine clumps.

Don't buy the Auratum lily and look for success, for nine of them fail where one succeeds. It is a grand lily and I have seen eleven immense flowers on one stalk, but I have seen so many failures and have planted them over and over with but little success under the best of conditions; I would say let them alone. —L. H. COBB, Valley Falls, Kan.

Don't Waste Moisture By Poor Harrowing—Use the "ACME" HARROW, Clod Crusher and Leveler

On Plowed-Down Corn Stubble—Leaves All Trash, Etc., Buried

where it does the greatest amount of good as a fertilizer. The "ACME" Harrow is made entirely of steel and iron, and there is a size for your requirements. Send for our combined catalog—it illustrates and describes the "ACME" line.

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It prepares the finest seed bed for all grains and alfalfa because it compacts the soil and puts it in condition to conserve the moisture.

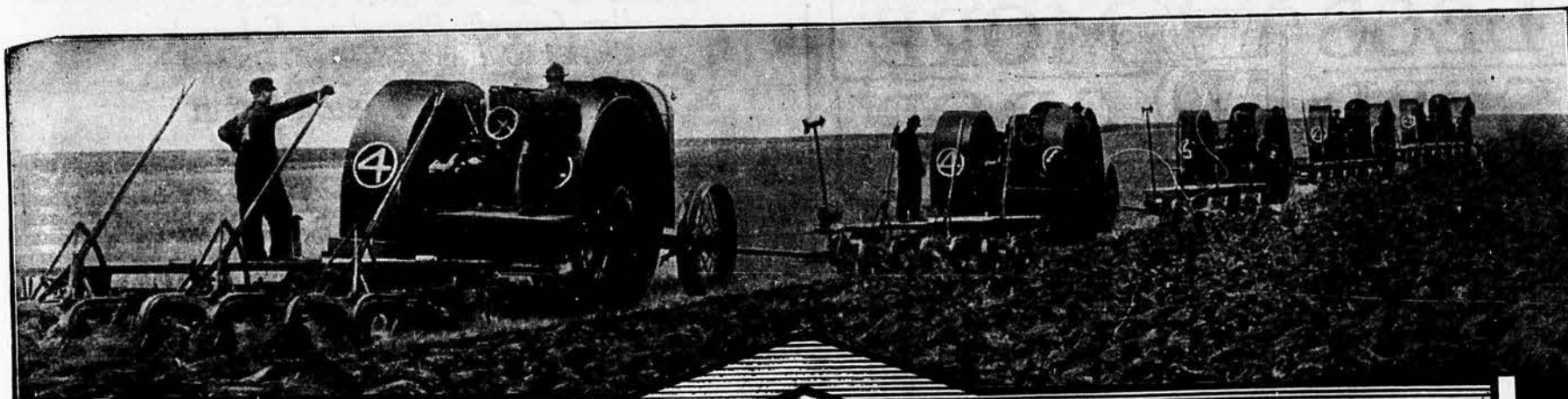


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Frank Woods, Bowbells, N. D., plowed an equivalent of 3335 acres of stubble plowing, and had a threshing run of 35½ days.
 Murie Perry, Frankfort, S. D., has broken 500 acres, plowed 1500, disced 3200 and harvested 1000 acres.

GOOD MATERIAL — CAREFUL STUDY — FINE WORKMANSHIP—Has Made Possible Our One Aim—To Build a Farm Tractor So Good That It Could Be SOLD ON APPROVAL

Lyman & Gould, Arnaud, Man., broke 2000 acres, plowed 300 and disced 2000. This with the light traction work that they have done amounted to an equivalent of 3450 acres of stubble plowing for their two engines.

Here are a few 1912 Records that we are proud of. They represent the most remarkable work ever performed by a farm tractor. Actual records like these sell BIG FOURS.

The selection of a farm tractor demands careful consideration. The investment involved suggests the wisdom of taking plenty of time for investigation and comparisons.

Investigate the BIG FOUR and you will find these prominent points of superiority—and many others.

Four Cylinders—Continuous, steady, enormous power. The BIG FOUR is the first four-cylinder tractor. Requires less fuel per developed horse power than one and two-cylinder engines.

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Large Drive Wheels

—96 inches in diameter. They hold up the BIG FOUR on soft ground where other engines are helpless. Power is applied to rim of drive wheels—less waste. Patented features make the BIG FOUR Drive Wheels different from and better than others.

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Perfect Cooling System—Absolutely necessary for perfect work on hot summer days.

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—Simple, strong, practical. The hardened cut steel bevel gears are guaranteed for five years.

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The BIG FOUR "30" self-steering device easily adds \$1000 to the engine's worth, yet does not cost you one cent extra. In breaking or plowing it automatically guides the engine in a course absolutely parallel with the last furrow turned, so that one man can operate both engine and plow.

time, grief and money in the end. Thousands of BIG FOUR owners will tell you the same thing.

But you do not have to take our word for it or theirs. The BIG FOUR is

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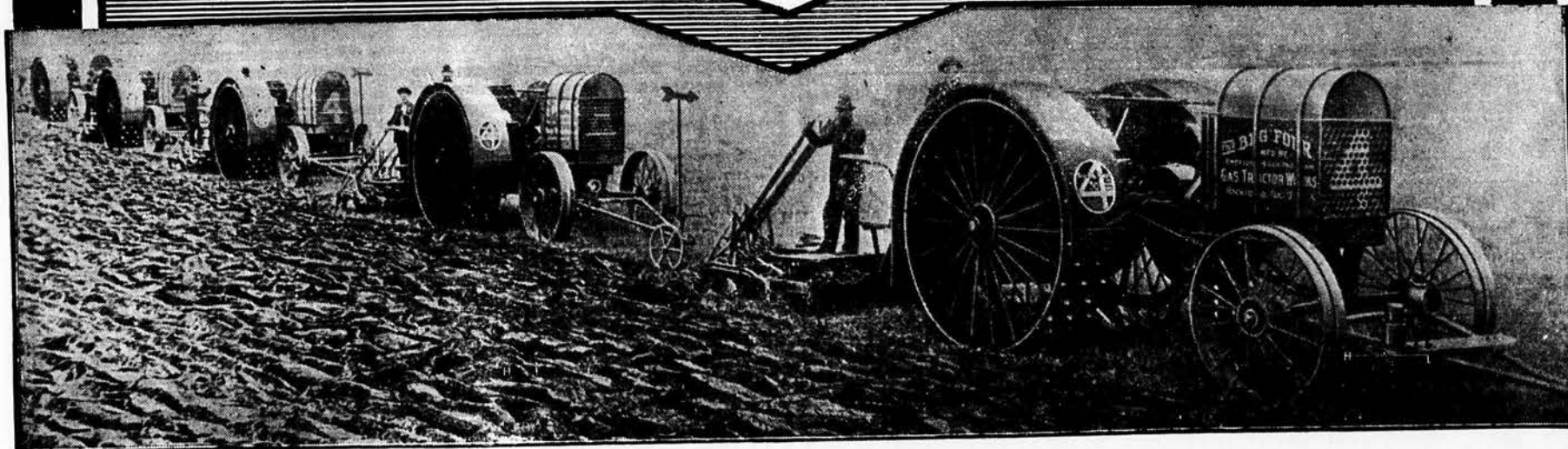
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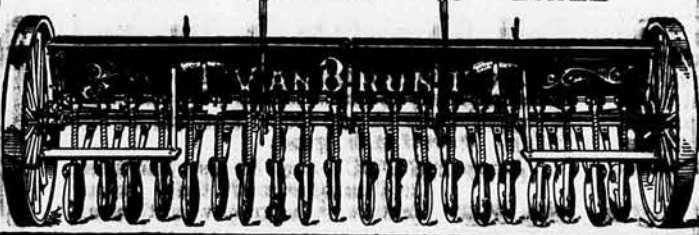
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CHINCH BUG WAR

How Carefully Planned and Effectively Carried Out in Cherokee County

By BARRY SCOBIE

A WAR with one great fire for a weapon was planned against the chinch bugs of Cherokee County on December 7 by the farmers of that county and who the past few years have lost heavily on account of the ravages of the pest. In spite of a light snow the day before the day set for the campaign more than one-third of the county's area has been burned over. The campaign begun—the enthusiasm created—fires have been going almost daily since and before the chinch bug moves out of his winter quarters the entire county will be burned over.

Among the men who worried and planned means of riddance was W. H. Shaffer, county clerk and a leading farmer in the Star Valley neighborhood, and president of the Anti-Horse Thief Association. By his powers as county president he called a meeting of the presidents of the local Anti-Horse Thief Association organizations and told them what he wanted. His plan was to destroy the chinch bugs by one big fire that was to be set Saturday, December 7, in every field, highway and byway of Cherokee County. He suggested that where possible, even pastures be sacrificed, and pointed out the hedge rows, uncultivated orchards, bunch grass, rank vegetation along the roadsides, all such places as harbors for the devastating insects, and declared that if they wished to make their work nearer complete still

farmers decided to assemble at a general convenient point and go from one section to another, the whole body burning everything as they went, but in most localities this was not followed because of the great number of miles necessary for all of them to travel.

One neighborhood made their plans by the farmers drawing lots to see what three or four would aid each other in doing the firing, regardless of the amount of land each owned, for this was a war against the chinch bugs for the good of all. If two out of four owned big farms and the other two small places, the latter worked on the big places willingly, not for the big farmer, but to bring death to their common enemy.

So by the Saturday set for the big fire the farmers were ready in most localities; but unfortunately, the day before a light snow had fallen, which was found to make the burning almost impossible. My, but there were a lot of disappointed men!

In fact, comparatively few tried burning that day at all, and many who did made a failure, for the snow, though light almost as a frost, had penetrated, and down where the bugs find their winter homes the growth and tangle was damp by the time the morning sun melted the light coating. Some higher grass in places sheltered by the trees burned fairly well, such as in ancient and untrimmed orchards and along hedges.

Get Busy Now—Burn Chinch Bugs

THE open winter has been extremely favorable to the chinch bug. The weather has not been cold enough to freeze even a small percentage of the bugs—even though they were not well protected. KANSAS FARMER fears the chinch bug will do great damage the coming spring and summer unless the season should be extremely wet and cool—two possibilities we cannot safely bet on in Kansas.

This article is printed to show a successful plan of organization for a campaign against chinch. In Cherokee County the A. H. T. A. already supplied an organization which was turned to good account, but in many other counties there are other organizations which could as easily and effectively take the lead. These are Granges, farmers' institutes, farmers' unions, etc. But, without such organization already established, it is easy to make an effective organization, and this article shows how it can be done. The officers of school districts or the township officers furnish the necessary starting point—then follow the Cherokee County plan.

In many scattered localities throughout Kansas burning campaigns have been successfully prosecuted, but the whole eastern half of the state at least should have been cleaned up. It is not yet too late—but you must get busy and burn before the bug begins to move. Burn just as soon as it is dry enough.

A. A. Rotman

they must not skip even the grass, or weeds, in their own back yards. Everything which could afford a wintering place for Mr. Chinch and his hungry family was to be burned. The presidents were to talk with their members and make their own plans for the details of starting and guarding the fires, according to the way they should decide would be most effective in their neighborhoods.

Mr. Shaffer took the lead in his own neighborhood, the Star Valley, and what the men there did was followed in many other localities, it being considered about as efficient a plan as could be arranged. It should be said here that the A. H. T. A. covers Cherokee county like a blanket, just as other lodges in other sections have the men of a whole county bound together.

The Star Valley warriors agreed to name one captain for each section of land, who was to see absolutely that everything was burned, to get his neighbor out to help him or do the whole thing himself, whichever he chose. Having it put up to one man to see his section seemed to be the right course. It served two ways—the appointed captain wouldn't depend on anyone else, and his neighbors knowing he had to do the work, would hustle out too, for the sake of being neighborly.

Those who were appointed overseers put their heads together before they left the meeting and discussed ways to proceed. It was agreed in some places that all the men aiding in one section should gang together and burn only small strips or pastures at one time, this to keep fires from getting beyond control and destroying houses, fences and out-buildings.

In other districts of the county the

But the fight was not ended this day, not by far, for the farmers, turned into Minute Men, rested on their guns while the weather "fiddled" on and waited for the first day that would lend itself to their plans. During the following week there was a great deal of firing, but nothing like the concerted effort which would have occurred with fair weather on the day set. Nevertheless, the campaign did untold good, for some entire neighborhoods were burned off and in other places the rankest growths of hedge rows and old orchards, of little bunch grass valleys and cornfield corners received the scourge of fire.

And what of the result? No estimate in figures or bushels or tons can be made, but the gain, the saving, has been or will be enormous, if no more than one-third of the county has been burned off. That is the estimate of the area covered, made by rural carriers and others who have driven some. Some say a little more.

It may be that the credit for such efficient organizing as was done will be given to the A. H. T. A.; it may be declared that there was no organizing, as that was already done, with nothing to do but instruct, seeing how completely the Antis cover the county; but whatever one may conclude there, the fact remains that similar work can be done in almost any township or county, for always there are lodges of some name or other ready to take up such work. Or if there are no lodges whose officials can be utilized, the man who, like Mr. Shaffer, wants to see the matter through, can call in two or three influential farmers from each township and instruct them as the local presidents were instructed.

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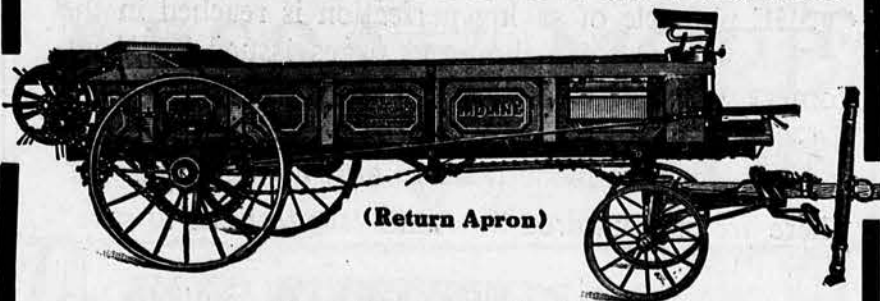
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THE FARM



Big Thing Next Door to Kansas.

A small town has undertaken a big job. The town is Tulsa, Oklahoma, and the job is the accommodation of the Eighth International Dry Farming Congress. The city is planning an auditorium to seat 8,000 people, exhibit buildings with 150,000 feet of floor space, and is arranging for the entertainment of 100,000 people during the ten days of the Congress. Kansas should begin laying plans to attend this meeting.

Valuable Five Bushels Wheat.

The largest price ever paid for five bushels of wheat, or the largest prize ever drawn on five bushels of wheat, so far as we know, was that of \$5,000 offered by the Emerson-Brantingham Implement Company, and which wheat was exhibited at the recent Minneapolis Land Show. This prize-winning wheat was grown under dry farming methods in Montana. The land on which this wheat was grown was summer fallowed in 1911. The variety was Turkey Red.

Silo Should Have Roof.

B. A. T., Mulvane, Kan., asks if it is necessary to roof a silo.

A silo should be provided with a good roof for the same reason that you would roof any other farm building. The roof stiffens the silo and makes the structure more durable. It makes the silo warmer, conserving the heat of the silage, and preventing freezing to a great extent. For this same reason the silo doors should be kept closed. A roof keeps out the snow and rain. It also makes work in the silo more pleasant. Roofing of silo is not expensive and the silo is not complete unless roofed.

Silage and Alfalfa.

In speaking of feeds and feeding before a Wisconsin audience, D. H. Otis, formerly of Kansas, said that "alfalfa and silage made the most economical feed because with it the grain ration could be greatly reduced. In figuring a ration for cows let them eat what alfalfa and silage they clear up and by taking these amounts compute the grain ration. Don't pasture alfalfa, it kills both crop and stock." In Kansas it is not a question of killing alfalfa by pasture. Moderate pasturing will permit the fields to grow as long as the alfalfa should last. Pasturing of alfalfa is necessarily followed by farmers here and there in Kansas and is a farm practice which should be tried out, caution of course being used.

Sorghum Day in Farmers' Institute.

More sorghum crops should be grown in Western Kansas, the Agricultural College believes. If cane, kafir and milo were planted more generally in place of some crops that are less drought-resistant, farmers in the western counties could better depend on their crops. For this reason the superintendent of farmers' institute of the Kansas Agricultural College, has asked every one of the 400 farmers' institutes in Kansas to observe "Sorghum Day," February 15. He has suggested these topics for discussion on that day: What are sorghums, and why are they especially valuable crops in Kansas?

What types and varieties are best suited to this locality? Why?

What are the soil requirements of sorghum and when and how should the seed bed be prepared?

Give a complete discussion of and reasons for your methods of planting and cultivating the sorghum crop.

How should sorghum seed be selected, tested and handled?

Compare sorghums and corn for feed and for silage.

Crop Rotation Results.

The North Dakota Experiment Station reports that a crop planted continuously to wheat for 20 years averaged a little over 13 bushels, while the average yield of wheat on all the plots in the rotation experiments was 19 bushels. Wheat after corn yielded 7½ bushels more the first year than wheat after wheat—the second year 7½ bushels more and the third year 2½ bushels more. These results were for corn in hills. Wheat following drilled corn (rows six inches apart) gave a less yield than wheat after

wheat the first year. The second and third years the increase was about the same as after corn in hills.

Manure applied to corn in a four-year rotation with wheat gave an increase in yield. The value of this increase amounted to \$1.40 per load of manure. When applied to millet in a similar rotation the increased value of crops amounted to \$1.65 per load.

The rotation of crops proved disastrous to weeds. Wild oats, for instance, in continuous wheat growing made up one-half of the crop. When a crop of millet, timothy or fallow was introduced every fourth year the wild oats were a negligible quantity.

Convenient Feeding in Bad Weather.

I have never fed anything but corn silage, and from the results I have obtained am more than pleased with my experience with the silo and silage. I am feeding 23 head of cattle—milk cows and stock cattle. With the silage I feed a poor quality of millet straw. I am feeding no grain except that put in the silo with the corn. I would have better results, no doubt, if my dry roughage was of better quality.

I believe one acre of silage is worth two acres of corn in shock. I think the silage from the corn stalks, not counting the value of the corn, is worth \$4 per ton to me this winter. Last winter it was worth \$7 or \$8.

It cost me \$21 for the use of an engine and cutter to fill my 12x30 silo. To get the corn to the cutter I exchanged work with my neighbors and it took 10½ hours to complete filling the silo. My figures on filling are as follows: Engine and cutter, 10½ hours, \$21; five teams at \$3 per day, \$15; corn binder, \$15; one man in silo, \$1.50; one man at cutter, \$1.50; one extra man in the field, \$1.50; total, \$55.50.

The corn placed in the silo had been severely injured by hail and dry weather. It made about 5 tons per acre and was planted as I ordinarily plant corn for husking.

Feeding of silage appeals to me most in that these cold mornings we have our feed where we can feed it whether snowing or raining, and with very little work.

I think the silo is the most paying proposition that I ever put on the farm and would hate to go back to the dry fodder route.—R. W. MARCY, Axtell, Kan.

Not Alarming Condition of Heifer.

J. L. N., Scranton, Kan., writes: "I have a half-blood Holstein heifer that will not freshen for two and a half to three months. She has milk in her udder and looks as though she should be milked. Is there danger of the udder spoiling in case she is not milked? Will milking at this time develop her as a dairy animal?"

During our twenty years experience in breeding and handling high class dairy animals, we found such condition in heifers not unusual. In the case of dairy bred heifers we know it is not unusual for them to show indications of giving milk two or three months in advance of becoming fresh. Never in our experience did we undertake to milk such heifers, either regularly or periodically. However, in every instance the udder was watched for the purpose of discovering whether or not there was any inflammation which indicated a serious condition. In no instance did we find it necessary to milk such heifers except possibly a week or ten days before calving. If the inflammation at such time became great we milked the heifer and employed the usual methods in overcoming or reducing the inflammation. In the case of your heifer we would not advise milking unless serious inflammation and consequently caked udder was indicated. While making the examinations do not handle the heifer's udder more than necessary. In fact the examination can be made without milking at all. This suggestion is given for the purpose of allaying any tendency or encouragement to activity on the part of the milk secreting glands.

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Rolling Winter Wheat

By M. ANDERSON, Hastings, Neb.

FEW farmers have tried the rolling of winter wheat in the spring. Not more than one of every twenty-five wheat farmers knows anything about it. They forget that the physical condition of the land is not as it was thirty or forty years ago. When their wheat fields were first broken up the soil was full of decayed vegetable matter, it absorbed moisture readily and retained that moisture. The humus—which is none other than decayed vegetable matter—took up the moisture and did not allow the ground to pack and become hard. The use of the land, with no particular attention to plowing vegetable matter back into the soil, has caused the humus supply to become depleted, the ground is more difficult to till, it does not hold moisture, and the result is that we are harvesting poorer crops.

Most of us will recall the conditions of last spring. We had an abundance of moisture during the winter and had this been conserved it would have produced a 40-bushel wheat crop. In many sections the wheat fields in the spring were flooded with water but after the frost went out of the ground the water settled and left a crust on top and the fields soon began to dry and crack. After a few days of windy weather many of our finest wheat fields had the appearance of a newly laid brick floor before the cracks are filled with sand, and the condition was almost the same. Those cracks are not alone on top where you can see them, but below where the winter freezing has heaved the top soil. This condition exists especially where the ground has not been well disked in the fall before plowing and stubble and weeds plowed down have prevented the furrow slice from coming in close contact with the furrow bottom. Also the ground will crack and divide in a manner not observable from the surface and any roots which have gone through into the subsoil will be cut off and the wheat left to grow on those lumps. A few days of dry and windy weather will kill it out in the spring. If sufficient moisture does come to keep the wheat alive

and growing at this time, the field is liable to dry out later on and the grain cannot stand the drought.

Under such conditions in a field the moisture will evaporate from the soil almost as soon as it falls, especially so if the weather is windy and hot.

It is this condition that must be stopped if we are to have better wheat yields. The condition can be stopped if the right kind of roller is properly used. Whether the ground is crusted or cracked, loose or sandy and liable to roll, rolling will be of equal benefit. On a hard crust, as above described, enough weight should be put on the roller so that the rings will cut into the crust and break the lumps and close the cracks and settle the surface soil on to the subsoil and restore the capillary attraction with the subsoil. Rolling will also—if mulcher wheels are attached to the roller—produce a granular mulch on the surface, which is of greatest importance in maintaining moisture. The granular surface is essential to prevent blowing and for this reason a smooth roller should not be used in Kansas or Nebraska, or for that matter anywhere that there is a tendency for the soil to shift on account of spring winds. A field treated in this manner will grow a crop with one-half the rainfall required under other conditions.

If the soil is loose and lumpy, as it often is when the ground has been plowed and seeded late in the fall, and has not received much rain, then it is equally important to roll and pack this soil. Loose and lumpy ground cannot be expected to produce a full crop. There is no condition where rolling will be more beneficial than on fields in this condition.

Many farmers have been afraid to roll sandy land thinking that it would make the top soil too fine and so be conducive to blowing. With the use of the smooth roller there is danger of this. With those rollers which are built especially for correcting these conditions you need have no fear in using them on sandy soil. It is your best friend under such conditions and will save your crop.

More or less sandy soils usually come out of the winter with a loose, dry, fine, sandy layer of dust on the surface. When the spring winds appear the fine surface begins to blow. One day it will blow from the south, the next day from the north. The use of the roller at the right time will put a stop to this condition. Rolling should be done as soon as the frost is out of the ground and before the sand gets dry or immediately after a light rain. Rolling will rattle the soil and form it into a granular condition which will not blow unless the ground is again packed by a heavy rain. If this latter condition comes about, roll the field again before it gets dry. With this treatment a crop of wheat or other grain can be raised on quite sandy land.

The only objection the farmer can have to rolling is that of the work involved. The amount of labor necessary is small compared with the results accomplished. Usually this rolling can and should be done before other spring work begins.

About Stock Yards Manure.

Thinking farmers admit that the conservation of soil fertility is one of the greatest problems of the day but say that the ordinary farm cannot produce enough manure for its proper care.

On the other hand, the big stock yards at the packing centers are burdened with an over supply of it and find difficulty in disposing of it. The Chicago stock yards dispose of large quantities to the farmers and truck gardeners within a radius of 75 or 100 miles. St. Louis has made an attempt at this by offering the manure at \$5 per car. Omaha tried to induce the farmers to use it but failed and have built a \$25,000 furnace to burn it up.

Kansas City is going at it in a better way. They only charge \$2 per car for loading and offer manure from the "native cattle" pens only. They will not sell horse manure and the government prohibits them from shipping manure from the quarantine cattle pens or from the hog pens.

The railroads are making special rates on stock yards manure shipments and these rates will perhaps average about \$5 or \$6 per car within shipping distance. This would make the cost, say \$7 per car of 30 tons minimum or a very reasonable cost for good cattle manure, free from disease germs.

The Value of Association.

Dr. Geo. C. Mosher, Chief of the Medical Milk Commission of Kansas City, Mo., who read such a valuable paper on "The City Milk Supply," at the last meeting of the Kansas Improved Stock Breeders' Association, writes: "Just to show the value of acquaintance through organization, I learned today that one man who attended the meeting of the Kansas Improved Stock Breeders' Association, sold to another member \$4000 worth of cattle on that day. Of course this may be exceptional but, at the same time, it is a good object lesson of the value of such an organization and the acquaintance that comes through it."

The amount of money involved in this transaction may be exceptional but the transaction is not. Many members of the Kansas Improved Stock Breeders Association say that they value the acquaintance and friendships formed through their membership, even more highly than any other feature.

Hoist Takes Place of Extra Men.

We have not yet seen a real utility labor saving device for the farm that the farmer did not find some way to buy it. There cannot be a handier thing about the farm than a good hoist and that's the reason so many hoists are being bought. A hoist costs from \$2 upwards, depending upon the capacity.

With a good hoist, a man can do the heavy lifting about the farm without calling his neighbor or stopping the hired man at his work. With it the wagon boxes and hay racks can be changed without calling out the wife or calling in the neighbors to help. Many farmers have a hoist hung up in the wagon shed and pull the hay rack or wagon box up out of the way when not in use; when they want it, they simply back the wagon under the rack and let it down in place.

When it comes to butchering, you will find a hoist a mighty handy tool. It enables you to swing up a three hundred pound hog, where it would otherwise take two or three men on a dead lift. It also comes in handy in case your best horse should take sick or become injured, and you wanted to get him on his feet, you know when a horse is down, he falls rapidly. A hoist has saved many a valuable animal.

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

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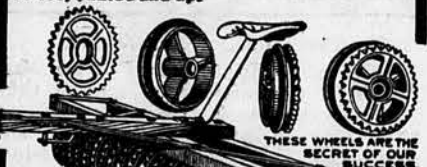
"I recently used Kendall's Spavin Cure on a colt that has been kicked. Before I had used half the bottle the swelling was all gone and he was completely cured. I also find it good for bruises, sores, burns and colds on the chest."

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LIVE STOCK



In the twelve-year period, 1902 to 1913, the cattle population of the country decreased from 61,424,599 to 56,527,000, and sheep from 62,964,870 to 51,482,000, while hogs have increased in number from 48,698,890 in 1902 to 61,178,000 in 1913.

According to government figures the number of cattle in the United States is the smallest since 1900, while hogs, barring the previous year, stand the largest number since 1901. The number of sheep is now the smallest since 1906. The figures given are for January 1 of each year.

During the twelve years ending on January 1, 1913, government figures show that prices for milk cows have increased from \$29.23 per head to \$45.02 on the average for the whole country. Other cattle increased from \$18.76 to \$26.36. Hogs of all ages increased from \$7.03 to \$9.86; sheep, \$2.65 to \$3.94, and horses from \$58.61 to \$110.77.

Government figures show a decrease of 1,432,000 cattle, 4,232,000 hogs and 880,000 sheep on January 1, 1913, as compared with January 1, 1912, while the value of milk cattle increased \$4.63 per head; other cattle, \$5.16; hogs, \$1.86; sheep, 54 cents per head in the year. Horses advanced \$4.83 in average value in the same time.

The general adoption of the silo by the cattlemen of Texas and other range countries will probably have a big influence on the cattle business in the corn belt states. When Texas and Arizona are sufficiently equipped with silos so that they can carry their cattle through the winters and through the dry, hot summers and put them on the market in good condition, it will no longer be necessary or even desirable for them to ship their cattle to the wheat fields and pasture lands of Kansas or even to the feed lot of this or other corn belt states. This will mean that the corn belt states will have to raise their own cattle and in competition with the baby beef from the plains.

Those who have attended the big stock shows, especially the American Royal and the International, have been struck with the vast improvement which has been made in the range and ranch cattle in late years. Formerly they were deemed fit for nothing but feeders and stockers while now they come on the market finished and in competition with corn belt cattle and, in many cases, exceed them in quality and weight. This is due to the use of pure blood in breeding up these range herds. Now, if the silo should be added to the influence of good blood, the corn belt states will have to look to their laurels in the matter of baby beef production.

It is not always easy to harmonize the interests of the dairymen and the beef cattle men. The dairy people have been vigorous in their efforts to secure the passage of a law placing a high tax on oleomargarine or other forms of "bull butter," while the beef cattle men are demanding that the present prohibitive tax on oleo shall be so modified as to protect the consumer against fraud but at the same time to allow the profitable development of the oleo industry. Oleo oil comes from beef tallow and its sale as oleomargarine at a reasonable price cannot be objected to by any class of people. It is only when it is colored to imitate butter and sold as butter at better prices that injury is done. It is well within the power of Congress to protect both interests and the American National Live Stock Association, which is the largest cattle association in the world, demands that this be done.

It would seem that the Herefords are coming into their own again. At the Iowa State Fair there was made one of the most magnificent displays of Hereford cattle that has ever appeared on this continent, and the big Denver show, which has just closed, was fully equal to it in the exhibit of breeding animals and far exceeded it in some other respects. The Herefords captured the Denver show with every championship awarded to that breed and every price-record on the bull, cow, steer, or carload

of steers, carried away by the White faces. In the sale at public auction of breeding Herefords the average on 48 head was \$399.37, which is equivalent to saying a \$400.00 average in round numbers. Hereford feeding cattle sold at the Denver show for \$12.25 per hundred and fat carlot Herefords reached the \$10.00 mark. Evidently the mountain states are soon to make the corn belt states realize that there is something doing in beef production.

The cattle and hog men in their various associations have taken a rap at the manufacturers and dealers in commercial serums and anti-toxins. There can be no doubt that fraud exists in the practice of veterinary medicine and there can be no doubt that it should be prevented wherever possible, but there is a very grave doubt as to whether it would be either practicable or desirable to have all the serums, vaccines and anti-toxins prepared by the Department of Agriculture through the experiment stations when reliable firms are putting out these agents in just as efficient and considerably more convenient form. There are large manufacturing firms in the United States, with millions of dollars of capital invested, that do manufacture these healing agents with their guarantee behind them. These people should not be injured in their legitimate business as their product is just as good and efficacious as any that can be offered by the Department of Agriculture and the price is the same. It is the fraud that should be captured and not legitimate business injured.

Silos in Texas.

The great King ranch in southern Texas, which is the largest ranch in the world and which is owned and managed by a woman, has just placed an order for 45 silos. Mrs. Henrietta King, the owner, has found it necessary to use about 100,000 acres in the maintenance of 5,000 head of cattle. This is one animal for each 20 acres. She now expects to maintain the 5,000 head of cattle from the use of only 500 acres in crops. Here will be quite a saving which will result in better cattle.

The Standard Poland China Meeting.

One of the most important acts of the Standard Poland China Association at its recent meeting was the changing of the meeting place from South St. Joseph, where it has been held for a number of years, back to Marysville, Missouri. Efforts were made to have the meeting held in Kansas City during the American Royal on account of the attendance. The list of vice presidents remains the same, there being 19 of them representing 19 different states, though why Kansas should not be represented is not plain as this state undoubtedly raises as many good Poland Chinas as any other.

Government Buys Stallions.

Under the authority of a recent act of congress authorizing the Department of Agriculture to experiment in breeding horses for military purposes, the officials in charge have purchased stallions of the different breeds as here named:

Thoroughbreds—Gold Heels, by The Bard; dam, Heel and Toe. Charcot, by Common; dam, Spanish Match.

Saddle Horses—Young Bill, by Golden King; dam, by Bourbon Chief. Fair Acre King, by Bourbon King; dam, Aletha Chief. Richmond Choice, by Rex Peavine; dam, by King Richard.

Standard-breds—McNunne, by McDougall; dam, The Nunne. Sigler, by Red Medium; dam, Maud Sigler. Begue, by Wiggins; dam, Lady Crescent. Twilight M., by Delmont, Jr.; dam, May Fry. Lord Rion, by Arion; dam, Madge Fullerton.

Morgans—Daniel Webster Lambert, by Joe Allen. Madison Lambert, by Lambert B. Prince M., by Ethan Allen 3d; dam, Topsy M.

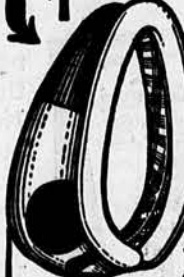
Hundreds of locomotives have been in continued use for twenty years by railroads. They have good care, however. A grain binder on a farm should last at least fifteen years, but through neglect it rarely lasts half that time.—FARM, STOCK AND HOME.

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DAIRY



On February 4 the editor of KANSAS FARMER attended the meeting of the Eastern Oklahoma Agricultural Congress held at Muskogee, and talked about dairying as applied to the needs of the eastern portion of the new state. Be it remembered that the considerations in behalf of agricultural and industrial conditions at this congress were made from the viewpoint of the needs of that part of Oklahoma most recently opened for settlement and which has for years been known as old Indian Territory. In many respects this conference was the most remarkable meeting we have ever attended. In our judgment it was one of the most remarkable meetings ever held in this or any other country. We will at another time discuss this phase. The following are some ideas presented by us to the conference.

Dairying is a live topic in all new as well as all old countries. New countries take up and consider dairying from the standpoint of necessity for a quick cash return. The farmers of all new countries require a considerable line of farm credit. In supplying this credit the banks accomplish a great deal. The banker and the railroads, next to the settler himself, are the agencies which count for more than all others in the improvement and development of new sections. The credit furnished by the bank must of necessity be limited. As a rule, the limit of the bank's credit is soon reached in the new country's development. When that limit is reached then the farmer must either finance himself or not be financed. The dairy cow, followed naturally by the growing of hogs and calves for market, is the greatest financier of the early settler the world knows. She furnishes a daily cash income through the conversion of roughage into a condensed spot cash product which is always salable and in demand. In the older countries dairying becomes a necessity because of the ability of the industry to maintain and restore soil fertility and because as an economical and profitable producer the highly developed dairy cow has no equal. Thus in the new country dairying is considered because of the immediate need for money, and in the old because of the necessity for a larger profit from high-priced land.

The advantages of dairying are so well understood that it seems unnecessary to enumerate at length. The milking of a few cows supplies daily cash income, converts roughage which otherwise has no cash value into a condensed spot cash product. Dairying does not interfere with the growing of grain crops. Feeds for the milk cow grow when grain crops fail. Dairying converts comparatively idle time between the crop growing seasons into cash. This latter point is especially important. A year-around business from which cash returns are obtained is the thing most needed by the farmer; particularly so while he is home-building. The man who depends upon grain crops is a gambler with the weather, insect pests and markets to the fullest extent. The milking of a few cows resulting in a monthly income of \$35 to \$40 removes the gambling element to a very great extent and failure of crops does not cripple as when crop farming is the main dependence. When dairying supplies the income necessary to take care of the farm expenses from month to month, the grocery and dry goods bills and other necessary expenditures do not accumulate and absorb the income to be realized from the growing crop. Then the sale of wheat or corn, hogs or surplus cattle, can be applied in a lump sum or will build a house or barn.

Dairying is necessarily inseparably associated with live stock farming. Dairying is in fact live stock farming. However, there may be live stock farming without dairying. The growing of live stock gives from 18 to 50 per cent larger income per acre of land than grain farming, the larger percentage existing in localities where cows are milked. In a new country so situated as is Oklahoma, the per acre income from stock farming as compared with grain farming will be much in excess of 50 per cent. The above named figures are for the

United States as a whole. A basic principle which applies to all successful general farming is this: A farm is not a farm without cattle. The cow producing only a calf per year is not yielding her owner the greatest profit and can be profitable only when pasture is cheap—a condition which necessarily requires cheap land. It is possible to milk \$35 to \$40 worth of butter fat per year per cow and sell at the end of twelve months a calf which will bring as much money as if the cow had spent her whole time rearing it. This statement holds good with the farmer and without reference to the specialized dairyman. Dairying, as used in these remarks, does not apply to the milking of cows from the standpoint of the dairy specialist. It applies to the milking of farm cows under farm conditions. We would not convert every farm either in Oklahoma or Kansas—or for that matter any other corn belt state—into a specialized dairy farm, even though it were within our power so to do. We would not milk every cow in the locality, either. To do these two things would result in failure. We would, however, on every farm, have milked eight or ten of the best cows obtainable from among the class of cattle within our reach. Such herd would yield a daily cash income totaling from \$350 to \$500 per year without specialized feeding or handling. Such income on every quarter section farm, leaving the crops, the calves and the hogs to take care of the mortgage, improvements, etc., would make every such farmer independent of any necessity for outside financing within five years, and in ten years would place him in such position as would enable him to do anything he might choose.

There is a wide range in the value of individual cows for milk production. In every herd, however, there are cows much above the average in production, and it is not unusual to find in the so-called "scrub" herds cows which are superior producing animals and highly profitable. This application refers specifically to our common red and white farm cattle which are twelve or fifteen years removed from the range. The best of such cows are those upon which to begin building our dairy operations. This is positively so when considering dairying from the standpoint of the average farmer. The farmer who is inclined toward dairying as a specialty is justified, if he can afford it, in importing stock of dairy breeding—either pure-breds or grades. The grading up of the best of the common cows with the use of dairy-bred bulls is thoroughly practical, certain in its results, and highly profitable. By the grading up process the herd improves as the man improves. The owner learns the finer points in breeding, feeding, and handling, which are essential in safely and profitably handling high-class dairy animals. Another point in favor of beginning with common cows and those which are free to a considerable measure from breed characteristics, is that the breeding up from such cows is more surely and more profitably done than from cows in which the breed characteristics are more definitely fixed. For instance, quicker and better results will be obtained from the use of a pure-bred dairy bull on cows of common farm breeding than would be obtained upon a herd of cows which had become highly developed along beef lines. This is a point illustrating what seems to be a principle not heretofore given a great deal of consideration in the grading up of a profitable milking herd. The explanation is that the common cow is so lacking in prepotency that she improves easily and the blood of the sire surely and certainly predominates. This principle applied to our common herds is one reason that the grading up process is responsive to such good results.

If the farmer is a stockman—as a man in this section is so regarded when he owns 50 or 75 cows of nondescript breeding—he should not undertake to milk the entire herd. The 50 to 75-cow dairy is not a success except in skilled hands. Use the best judgment in selecting the best milkers. Establish a milking herd upon these. Improve the milking herd as well as the stock cattle herd by the use of bulls from milking strains of Shorthorn or Red Polls. From the stand-



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point of the specialized dairyman this doctrine is not orthodox. However, it is a doctrine which is sound and safe from the standpoint of the man who owns a considerable number of cows and does not care to follow dairying further than to relieve a temporary necessity for an income from the dairy. There are numerous men in the so-called stock section who are obtaining satisfactory and highly gratifying results by following this plan. Grading up a herd either for beef or dairy purposes cannot be done successfully by using bulls from the same kind of cattle. They must be from better cows. This advice followed for an eight to ten-year period would call for another line of advice at the end of that time.

On many farms there are now not more than one or two cows, while the conditions are such as would easily permit the farmer to maintain ten or twelve cows, meaning, therefore, that he must purchase cows in order to begin the building up of a dairy herd. Whether he buys common cows or cows of dairy breeding will depend upon his circumstances financially or the arrangement he may be able to make for buying. On all farms on which this condition prevails it is our idea that a dairy bred sire should be used. Were we situated as above we would, if possible, induce three or four of our neighbors to enter upon the same undertaking and would arrange for the company ownership of a sire, one such animal being all that is needed for four or five such herds. It is the height of extravagance to keep one bull in a herd of eight or ten cows unless it is necessary through inability to obtain elsewhere the services of a satisfactory animal. The small farmer is justified in a higher dairy development for his herd than the large farmer. The small farmer can produce a pound of butter fat at much greater profit than he can produce beef on a small scale. That is why milking cows is a small farmer's business. The small farmer is the man to follow the grading plan by the use of dairy-bred sires. The stockman, under the conditions existing in a large portion of Oklahoma, is justified in the use of Shorthorn or Red Polled sires because he is more interested in improvement along beef lines than along dairy lines.

Good dairy sires will make marked improvement in first cross on our common cows. At least 80 per cent of the heifers properly reared and handled from calfhood to freshening time should yield at maturity from 50 to 100 per cent more milk than the mothers. The improvement will continue with each crop of calves if proper care and judgment has been employed in the selection of the sire. The extent of the improvement depends upon the breeding and prepotency of the sire. The grading up process is neither long nor tedious. Eight to ten years of intelligent breeding, feeding and handling will result in grading up an efficient dairy herd which will yield an annual income from the sale of butter fat alone not far from \$100. Do not forget that every day of this grading up process the herd is profitable and is supplying a daily cash income which takes care of farm expenses. Do not forget, too, that there is no end to the possibilities for improvement. Each succeeding year the herd can be made to yield more milk and consequently a greater profit.

A few minutes ago we were asked by one of your farmers what it would cost to feed one of these common cows from which \$35 to \$40 worth of butter fat would be obtained per year. It is really remarkable that when one begins to talk dairying it is suddenly realized by the man who keeps the cow that such cow must be fed and that it costs something to feed that cow. The basis of calculation for the farm dairyman is this. He now keeps cows, and does so for the value of the calf and the value of the cow when sold. Whatever feed is required for the production of milk over and above what she would be fed to maintain the cow and calf in good stock condition is chargeable against the dairy operations. Unless engaged in dairying as the main issue, unless cows are kept alone for their value as milk or cream producers, the farmer of Oklahoma is justified only in charging against the cow the extra feed he gives her to make her give milk. Animal growth, beef and milk can come only from feed. There is no other known way of producing either. Many a man who thinks he is in the beef business—which he is when he keeps a cow, raises calves and either fattens the same for sale or sells them as stock cattle—is realizing possibly less than half what he could obtain by better feed-

ing and producing a larger and heavier animal. The maximum of profit from stock cattle comes from maintaining those animals in a condition so thrifty that they are becoming more valuable every day. The feed required to maintain animals in such condition is the feed chargeable to the beef operations. The feed over and above this is chargeable to the dairy operations if the cows are milked.

The composition of all animal products is fixed and requires certain elements of feed in certain proportions. The cow produces the most milk in summer when she has plenty of grass and conditions of weather are such as make her comfortable. To produce milk in winter these conditions must be duplicated as nearly as possible. The most money is received for the dairy products in winter and cows should be fresh in the fall of the year. The farmer who owns or produces a commodity when other people do not have it or can not produce it, gets the biggest price. Oklahoma is ideally adapted to winter dairying on account of the temperate climate. Farm grown feeds will give the cheapest efficient ration. Kafir or corn silage, with Kafir or milo meal and cottonseed meal, will make a perfect ration. Kafir or corn silage with alfalfa hay and Kafir or corn meal, will make a good ration. Without the silo, alfalfa hay, peanut hay, or cowpea hay, with Kafir or corn meal and cow pea meal, will make a good milk producing ration. Not only will these rations make milk, but they will make animal growth and fat on the calves. Likewise the same feeds will produce pork economically. The proper combination from the above feeds—every one of which is adapted to this section—will produce animal products more economically than any other feeds possible to grow or buy. This section is adapted to the growing of any of the above, and further than the grains and hays mentioned, no worry need attend the feed question.

In Oklahoma good cheap stabling can be provided. The dairy herd properly maintained will eventually build in stabling what suits the fancy of the owner. The stabling must be such as to protect the cows milked from cold rains, snows, and cold winds. The stabling must be dry. There are no low temperatures here which prove detrimental to the production of milk to the capacity of the cow provided the cow is kept dry, has a dry bed, and is protected from driving storms.

Feeding for Dairy Performance.

When a man knows what he is trying to breed, he has made a good start toward making good as a breeder; he has got the ideal fixed in his mind. It is an old saying that like produces like; but the progressive breeder needs to take the saying with a grain of salt. When buying a bull, take a look, if possible, at sire and dam, grandsires and granddams. Heredity and environment decide what an animal is to be. Environment includes feed and care of the dam of the animal before birth, as well as of the animal itself after birth.

To get the best results an animal must be well born and then well fed; and the feeding must be kept up till full growth is reached. The skeleton or bony structure determines the type or form of the animal as well as its size. Lack of proper or sufficient feed will not only stunt the bony structure, but cause parts of it to become misshapen. If milking qualities are hereditary you need not fear the inducing of a tendency to flesh by keeping the calves and yearlings in good condition. When the heifers freshen with first calves, they will give a good account of any extra flesh they may be carrying.

That a dairy animal is fat is no indication that it has been well fed. To the breeder well fed means properly fed, or fed in such a way as to show the highest development of bone and muscle. Attain this and the other parts of the body will develop proportionately. No animal that has not been properly and fully developed physically can be depended upon to pass on the good qualities that it has, or is supposed to have through heredity. In the sire we call this ability prepotency; and I have often declared that I would prefer a bull without a pedigree to a pedigree without a bull. If there was any reason for using bulls lacking in individuality years ago because of the fine records of the ancestry, that time has passed; for we now have so many tested cows that a man is not limited in his choice.—Malcolm H. Gardner.

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EXCELS ALL OTHERS not only in thoroughness of separation, sanitary cleanliness, ease of running and durability, but as well in its great simplicity.

THERE IS NOTHING ABOUT THE OPERATION, CLEANING, adjustment or repair of a modern De Laval Cream Separator which requires expert knowledge or special tools.

NOR ARE THERE ANY PARTS WHICH REQUIRE FREQUENT adjustment in order to maintain good running or to conform to varying conditions in the every-day use of a cream separator.



Combination Wrench, furnished with each De Laval machine, which is the only tool required in setting up, taking down or using the De Laval, the simplest cream separator ever built.

THERE IS NOTHING ABOUT THE MACHINE THAT CANNOT be taken apart, removed or replaced by any one who can use a wrench or screw driver. In fact, the only tool which is needed in the use or the operation of a De Laval Cream Separator is the combination wrench and screw driver illustrated above, which is furnished free with every machine. Visit the local De Laval agent and see for yourself its simplicity of construction.

The new 72-page De Laval Dairy Hand Book, in which important dairy questions are ably discussed by the best authorities, is a book that every cow owner should have. Mailed free upon request if you mention this paper. New 1913 De Laval catalog also mailed upon request. Write to nearest office.

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It quickly removes cream clots and milk stains from shelves, benches and floors.

Old Dutch Cleanser does equally as well anywhere on the farm where cleaning is done.

Old Dutch Cleanser

Many Uses and Full Directions on Large Sifter Can—10c.



Pull Out The Stumps

With The Hercules All Steel, Triple Power Stump Puller

Biggest stump pulled in five minutes or less. Clears an acre of land a day. Makes your stump land money land. 30 days' free trial—3 year guarantee. Get our new book and special low price offer now. Hercules Mfg. Co. 1903 21st St., Centerville, Ia.



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			Feed Mill
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			Steam Tractor
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			Electric Light Outfit
			Pump Jacks
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The GRANGE

DIRECTORY OF THE KANSAS STATE GRANGE OFFICERS.

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Overseer.....J. L. Heberling, Wakarusa
Lecturer.....L. S. Fry, Manhattan
Secretary.....A. E. Wedd, Lenexa
Treasurer.....W. J. Rhoades, Olathe
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W. T. Dickson, Carbondale
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W. H. Coultis, Richland
Chairman of Committee on Education.....
E. B. Cowgill, Lawrence
Chairman of Insurance Committee.....
I. D. Hibner, Olathe
Chairman of Women's Work Committee.....
Adella B. Hester, Lone Elm
NATIONAL GRANGE OFFICERS.
Master.....Oliver Wilson, Peoria, Ill.
Lecturer.....N. P. Hull, Diamonddale, Mich.
Secretary.....C. M. Freeman, Tippecanoe City, O.
Sec'y.....C. M. Freeman, Tippecanoe City, O.

The Amendment.

Hurrah for the men of Kansas,
Who always stand squarely for right,
And smite the hand of oppression
With all their strength and might!

A nation was watching you, Kansas,
And now you have won your claim
To the brightest star on the bluest field,
And a seat in the Hall of Fame.

Then here's to the men of Kansas!
By half you have strengthened your
hand
Since women stand equal beside you,
For right in our own free land.

Good women all with one accord,
Rise up and thank your stars;
That you live in sunny Kansas,
Where the men have dropped the bars!
Rah! Rah! Rah! KANSAS.
—ADELIA B. HESTER, Lone Elm, Kan.

Word comes from Colorado Hill Grange No. 1497 at Burlington, Kan., that their Grange is in fine shape, with a membership of 57 and eight new members to initiate January 17.

C. S. Perkins, secretary of Oswego Grange No. 1520, of Labette County, sends the very encouraging report of 25 new members for the year 1912.

I wish to thank the secretaries of the subordinate Granges for their prompt reports, as it enables me to prepare my lists for publication and make my report to the national secretary.—A. E. WEDD, Secretary of Kansas State Grange.

Shawnee Grange No. 168 held its regular meeting, February 1. This Grange serves refreshments in the shape of a good substantial dinner at every meeting. It meets in a school house, but owns its own tables, chairs, gas cook stove and a complete dinner service for 60 people. After dinner, which is the social hour, comes the business meeting, followed by a literary program. The program for February 1 was:

Song.

Roll call, answered by current events. Under "Needed Legislation" was read first an article on "Politics in the Grange," by National Master Wilson, followed by a general discussion on "Legislation Concerning the Farmer." This was both profitable and interesting.

Reminiscences, E. Porter. This Granger is of the opinion that "a little nonsense now and then is relished by the wisest men," and his experiences on an imaginary trip to Denver kept the audience in an uproar from the time he left Kansas City until his return.

Roll Call and Current Events was another interesting time.

The Master of this Grange is E. E. Voights. Secretary, Miss Grace Watson.

Death of Oliver Kelley.

On January 20, Mr. Oliver Kelley, founder of the National Grange, died of pneumonia at his home in Washington, D. C. Mr. Kelley was known as "Father Kelley" to the farmers all over the United States, and it was at his home in 1873 that the foundations for the Grange were laid. For several years he had been connected with the Department of Agriculture. He was born in Boston, February 7, 1826.—A. E. W.

What Some of the Workers Are Doing.

State Master A. P. Reardon is in Brown and Atchison counties on business connected with the Grange.

O. F. Whitney is in Jackson County to organize a Pomona Grange.

William Peterman is reorganizing a Grange in Anderson County that received its first charter on August 31, 1873. New interest in the Grange is being taken in Anderson County.

The slogan from the National Grange Monthly is, "Six hundred Granges this year—1913."

From the National Grange Monthly is taken the following: "The National Grange has at last specifically voted to issue an official cypher key to the secret work of the Grange, and that the same will be available for use at an early date."

Programs Suggested.

Following are program outlines taken from the National Grange Monthly for the lecture hour:

FIRST MEETING.

Song.

Current events, reported by Flora.

Instrumental music.

Legislation likely to arise this winter in which the Grange should actively interest itself.

Discussion.

Solo.

Question box, devoted to household affairs.

Refreshments.

SECOND MEETING.

Roll call, responded to by each member naming a favorite hymn or song and telling the memory it recalls.

Singing.

Address or paper, "By what means does the Grange tend to develop a higher manhood and womanhood?"

Singing of a "favorite song."

Recitations.—A. E. W.

Wakarusa Grange.

Wakarusa Grange No. 1495 was organized at Wakarusa, Kan., in January, 1911. It meets regularly and the interest manifested and the attendance of the membership is very satisfactory.

During the year just past the programs (prepared in advance for the year) have proved to be instructive and entertaining. They have consisted of written papers on seasonable topics, readings and music. The music has been an especially enjoyable feature, as our grange is fortunate in possessing considerable talent along that line. We have had music by an orchestra composed of violin, cornet and piano, also a male quartet, and duets and solos, both vocal and instrumental.

We have a large percentage of young people in our membership and contemplate presenting a play in the near future.

Our programs for 1913 are prepared, the last meeting in January being a Kansas Day number.

Also elected our delegates to Pomona Grange for this year. Hope every subordinate Grange in the county will be represented at the next meeting which will be in Topeka, February 20, at which time will occur election of officers for a term of two years.—MRS. J. L. HEBERLING, Wakarusa, Kan.

Grange Woman's Work Committee.

Dear Sisters:—Greeting! At the State Grange I was made chairman of the State Grange Woman's Committee and as such I send you all good wishes for a useful and successful year in your homes and in your grange homes. May 1913 be a year long to be remembered by its results for good! To make it so, we must "work, not shirk."

I wish to urge that every grange woman be appointed to membership on the Grange Woman's Work Committee and that we become a state-wide committee for the good of the order and for a general advancement and uplift in rural life. Since the men of Kansas by their vote saw fit to place women shoulder to shoulder with themselves, let us prove by our preparedness for and wise use of citizenship that they made no mistake. To this end I have outlined a series of suggestive programs which will appear from time to time in these columns:

Roll call, quotations—something pertaining to women.

Paper: What Equal Suffrage Means to Us, by Mrs.

Paper: Are Women Generally Ready for the Franchise? By Mrs.

Paper: How May We Prepare for Efficient and Effective Citizenship? By Mrs. Suggestions by others.

What states won the franchise for women this year? What two tried and failed? What nine states now have equal suffrage laws? Answered by Mrs. with comments.

Plans for a girl's contest in cooking and sewing. Presented by Mrs.

Send to Miss Francis Brown at Manhattan for booklet on this subject.—ADELIA B. HESTER, Chairman, Lone Elm, Kansas.

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TREES

YOU Can Plant an Acre to Fruit This Spring For \$5 and Include

Apple, Cherry, Peach, Pear, Grapes

If you are not buying your trees direct from the grower you are paying twice what you ought to. Are you getting an absolute guarantee with every tree you buy? You ought to have this also. For guaranteed high-grade stock at LIVE and LET LIVE prices, see my last CATALOG and GUIDE. It is sent free on request.

D. HANSEN, THE NURSERYMAN,
FAIRBURY, NEBRASKA.

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DIAMOND JOE'S BIG WHITE—A strictly new variety. None like it. It is the Earliest and Best Big White Corn in the World—because it was bred for most Big Bushels, not fancy show points; because grown from pure inherited stock; every stalk bearing one or more good ears, because scientifically handled, thoroughly dried and properly cured and had the most rigid inspection. Also all other leading standard varieties at **FARMER PRICES. OUR BIG ILLUSTRATED FARM AND GARDEN SEED CATALOG** mailed FREE. A postal card will bring it to you. Write for it today. Address, **RATEKIN'S SEED HOUSE, Shenandoah, Iowa. Box 7**

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Biggest money maker on the farm and best fertilizer known. Pure seed, Kansas grown, on non-irrigated land, insuring perfect germination. "SUNFLOWER BRAND" Alfalfa seed is tested by experts trained in United States Government Laboratories, is free of weed seeds and will grow anywhere.

Big Sample Free. Write for FREE sample and free Book of the latest information about Alfalfa.

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are supplied every year direct to more American planters than are the seeds of any other growers. Do your seeds come direct from Philadelphia? If not, we direct from Philadelphia? If not, we should like to make your acquaintance. Simply send us your address (a postal card will do) and you will receive Burpee's Annual for 1913, a bright book of 180 pages, which has long been recognized as "The Leading American Seed Catalog." Kindly write to-day! Address

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WHITE WONDER SEED CORN

The greatest variety of big white corn grown. Resists the drought and outyields all others in all seasons. Get the genuine stuff direct from us.

2½-Bushel Bags—\$2.00 PER BUSHEL—2½-Bushel Bags

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Power FREE!



I'll Give You the Use of a Genuine Galloway Gasoline Engine on Your Own Farm for Three Months ABSOLUTELY FREE! Read My Great Offer NOW!

Listen! Read this carefully! There isn't one farmer in the country—no, not a single one—who can afford to miss this offer. I positively know this to be the most liberal engine offer that has ever been made. I'll let you take a genuine Galloway Engine—let you pick any size or style you want from 1½ H. P. to 15 H. P.—let you take it right to your own farm for 30, 60 or 90 days' trial absolutely free. Yes, I mean it, absolutely free; you don't take a cent's worth of risk. Don't take anybody's word about a gasoline engine—find out the truth for yourself. Get my engine and put it right to work. Use it just as though it were your own. Test it any way you want to. Make it prove its SUPERIORITY to engine costing two or three times as much! Take your time. I won't hurry you—don't you let anybody else hurry you. If you aren't ready at the end of a month, tell me and I'll let you keep it two or three months longer—all free. Then you'll know! Then you'll either tell me, "Galloway, I know I can't beat your engine at any price"—or you'll send it right back to me and I'll pay the freight both ways, so that you won't be a cent out of pocket!

**1½ H. P.
to 15
H. P.
\$29.75
Up**

The Only Way Is the Galloway Selling Direct from Factory to Farm

I'm going to turn the engine world upside down with this offer. It's a wonderful offer—the most liberal engine offer anybody ever thought of. But that's the way I do business. I won't take a man's money until he is thoroughly, absolutely and permanently satisfied. That's why 125,000 farmers say: "The only way is the Galloway."

Here Is the Strongest Proof of All

E. L. Davis, South Gibson, Pa. I wish to say that the 5 H. P. gasoline engine I bought of you has given perfect satisfaction. I have used it on a three-acre trucking cleaner this fall, and have recommended your engine to everyone, both in price and quality. I've parties, especially who own an engine, admitted to me that my Galloway Engine was much simpler than theirs and run just as nice. I will do what I can for your business in my neighborhood.

Joe A. Oliver, Seneca, Neb. Received your 5 H. P. engine about six months ago and it has never given me a minute's trouble since. Had as much as I could run, but the Galloway has been working two days on another make to get it to run, but it isn't built to run.

Sam Probst, Kennedale, Texas. I received the engine all O. K. and it is the simplest and smoothest running engine I ever saw. I have been running engines over 25 years and I would not give the 5 H. P. Galloway for any one I ever saw. Everyone that sees my engine says it's a dandy. I am running a ten-cow dairy and I run a cream separator, and churn and pump, sausage mill and grain mill and am to get me a wood saw and an empty wheel and grinding stone attached to engine. Anyone can run it. I can start it and go about my work, and I want to say it has the best governor that I ever saw.

Then I'll Save You from \$50 to \$300

If you do keep the Galloway, you won't have to pay for anything but pure engine value. I'll sell it to you at actual cost to make with just one small factory profit added. I'll save you all the middleman's profits—get \$50 to \$300 in your pocket right at the start.

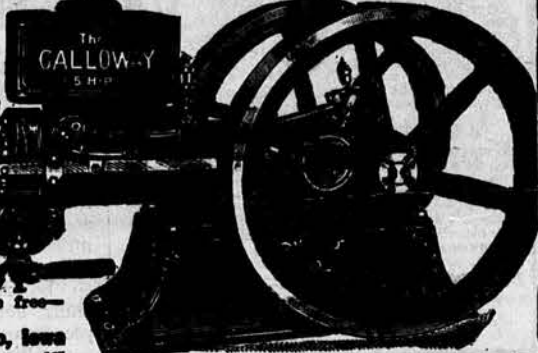
Special! Get My Great 1913 Proposition

It's the biggest, finest thing I ever did. I can't explain it here—I'll have to write you a personal letter. But here's the gist of it. I'll show you how to get a Galloway engine partly or entirely without a cent of cost to you, no canvassing or soliciting either. Get this offer now.

Big Engine Book FREE 1913 Engine Book and full explanation of my Special 1913 Proposition absolutely free. Get this catalog—pick out the engine you want to use free—that's all. Now don't wait. Let me hear from you RIGHT AWAY.

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

We carry Engines in stock at Chicago, Kansas City, Council Bluffs, Minneapolis and Winnipeg.



Farmers' Real Needs.

"Barns bursting with produce, well stocked pastures and swine pens and four-figured bank deposits in the possession of farmers do not constitute real rural wealth. Work so far done to make country life more attractive is on wrong lines. Symptoms have been treated rather than the disease. A new and constructive program is needed—one that suggests human development along all lines.

"The development of a well-poised, self-reliant and happy personality in the average farm dweller is the problem," he said.

"The idea of the dignity of labor must be fostered, but the material wealth of the individual is not the aim. I am opposed to the giving of individual prizes for instance, for corn-raising and such things. I believe in 'team work,' in pitting community against community, rather than serving out the prizes to a few fortunate individuals."—PROF. W. A. McKEEVER.

The Grange.

Kansas was for a long time in a sort of relapse as far as the Grange was concerned. There was a time, many years ago, when it seemed like there was a Grange in almost every school house. As they were then conducted the subordinate Granges seemed to lack some element which did not give them a lasting hold upon the community. In spite of the fact that all of these several communities received direct benefits from the existence of the Grange and knew that they were receiving this benefit, the Grange in many neighborhoods gradually ceased to exist until the total membership became very small as compared with what it formerly was. Recently there has been a revival in Grange interest, and the men who are now making a success of the Grange are just as much pioneers as were the men who started it.

In this revival of the Grange interest which is now taking place there lies a great opportunity. Never in the history of the Patrons of Husbandry has such an opportunity been presented to them. The Grange is going forward and increasing in numbers in a most substantial way, and this growth gives assurance of stability, permanence and usefulness. In this connection it may be well to consider not only those things which will make for the advancement of Grange principles as well as the growth of the Grange, but to also consider some of the mistakes which have been made in the past and which resulted in the deterioration of the Grange as a body. It is too easy to fall into ruts, and this is the one great fault, and perhaps the only fault, that the Grange ever possessed. When a question came up for action it was an easy matter to pass a resolution and let it go at that. This spirit of "pointing with pride" at what has been accomplished and "viewing with alarm" the anticipated action of our public officers or law-making bodies, and then doing nothing else, is what caused the decadence of the Grange more than anything else.

Learning from the past, the Grange should be active in work as well as in words. There are things that need our

attention right now and must have our attention if we, as a body, would be instrumental in correcting evils which now exist or in securing benefits to which we are entitled. Such work can be accomplished only through co-operation, and I believe that co-operation among farmers is the most vitally important economic problem in America today. When a farmer finds that he has hog cholera in his herd he should have the co-operation of all his neighbors in quarantining his farm, eradicating the disease, cleaning up his premises, and burning the dead hogs, and if everyone did this there would be no spread of cholera.

One of the greatest pests with which the farmer has to contend, and the one thing more than all else that increases his work, is the pest of weeds. This is a matter which cannot be controlled without co-operation. If the roadsides are allowed to become nurseries for all the noxious weeds that will grow in them, there can never be any hope of the complete eradication of weeds from the cultivated farms adjacent. With the advent of automobiles, the enforcement of the law requiring hedges to be trimmed at cross roads should be accomplished, and this is best done by co-operation. When our road laws were first enacted we did not need them except in a few of the more densely populated localities. Over a greater portion of the state one could drive across the prairies, but the conditions have so changed that all of our traffic, which is not carried on over the railroads or by airships, must be along narrow strips of land between two fences, and our laws do not cover the conditions which

now exist. Co-operation will secure a proper change in the road laws and proper care of the roads themselves and it can not be done without this co-operation.

All these things are only mentioned in the way of hints and suggestions. The local community should be the center of effort. Work done for the general good of the community is work done for the individual good of every man, woman and child in that community. It is also true in a larger way that work done for the good of the state and the nation will result in the general good of the individual. Any community, any state or any nation is made up of individuals, and that which benefits the individual must also benefit the community, while that which harms the individual will also harm the community. The Grange is and should be the place where matters of general interest to the community should be thoroughly discussed and plans laid for the betterment of conditions. When this is done the work must be begun. Nothing comes without work. The building of a great railroad, the creation of a great fortune or the establishment of a great reputation is always the result of work that has been done by some one. The one who does the work should be the one who receives the first benefit, and we can so work that we shall receive the benefit of improved conditions, mentally, morally, and physically, in our own community and in the state and nation, or we can go along and do nothing and receive no benefits except possibly those which we may inherit from others who have done the work.

Errands on Motorcycles.

A motorcycle is a good investment for a farmer, says the Industrialist, the Kansas Agricultural College paper which is quite conservative on the motorcycle and automobile question. In the busy season he hasn't time to drive to town, as a usual thing. He can go to town and be back in a few minutes with a motorcycle, and his horses need not be taken from the work in the field.

In the gas engine institute held at the Kansas Agricultural College last week, farmers heard lectures about the various types of motorcycles and saw them demonstrated.

Motorcycles are not expensive; in fact, they cost no more than a good horse, and the upkeep is not nearly so great as that of the horse. When not in use they cost nothing. The average cost a mile of running a motorcycle is about half a cent for gasoline and not quite so much for general "wear and tear." The motorcycle can be driven at a greater speed and for less money than any other means of conveyance.

The family shopping can easily be done by means of a motorcycle. Over 150 pounds of groceries or other materials can be hauled by means of a carrier attached behind the seat.

The time was when motorcycles were regarded as a source of amusement for reckless daredevils. Their practical use is now rapidly becoming apparent, and if properly handled they are a valuable asset to the farm equipment.

Inquiries still come for Toggenburg goats. Do any of our readers have them or know where they may be had?



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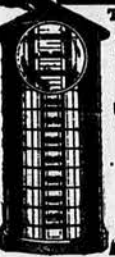
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Motorcycle Fills Utility Need.

The editor of KANSAS FARMER gets around over the country a good deal. The number of motorcycles in use has increased wonderfully the past 12 months. It is impossible in the eastern half of Kansas to make a drive into the country over the principal roads without meeting at least one motorcycle for each mile traveled. These machines appear to be ridden largely by farmers and their sons—and the are not out for pleasure—they are going somewhere for something. The motorcycle strikes us as a utility vehicle, the real value of which has not yet been realized. We are told that in Indiana, one out of every eight farmers owns a motorcycle as part of his farm equipment and considers the machine indispensable.

Universal luggage carriers, designed to conform with the general construction of the motorcycle, make the machine useful in a thousand and one ways. The luggage carrier fills a crying need on the farm. With it, goods of any reasonable size and weight can be carried satisfactorily and yet placed low enough so as not to endanger the equilibrium of the rider.

The More Cars the Better.

California ranks next to New York in the number of automobiles owned, the ratio roughly being as eighty to one hundred; but the ratio of population is as one to four. California has one automobile for each twenty-eight inhabitants; New York, one for each eighty-nine. Even this ratio will not stand long, for this year the registration of new cars in California exceeded that in New York by more than forty per cent. Pennsylvania has three and a half times the population of Iowa, but only about one-quarter more automobiles, and the registration of new cars in Iowa this year has exceeded that in Pennsylvania.

Is there more reckless extravagance in California and Iowa than in New York and Pennsylvania? There is not; but relatively to population there are many more people in comfortable circumstances, who can afford reasonable recreation.

Cease sighing over the automobile as a sign of destructive extravagance and reflect that America has justified herself just about in proportion to the distribution of motor cars for each person. In regions where this distribution is high the United States is worth while. In regions where the ratio is very low it is not.—Saturday Evening Post.

Little Risk In Gasoline Engines.

Gas, gasoline and oil engines are safer than any other form of engine, including steam, as all the fire is inside the gas engine cylinder and there is no bare flame, sparks, danger of boiler explosion, or fire risk of any nature, writes the engineering department of Kansas Agricultural College.

The fuel tank should be built underground and be equipped with suitable pump; but this is only necessary with large engines where a considerable quantity of the gasoline or other fuel is stored at a time.

Of course everyone has heard of the fool who looked for the leak in the gasoline barrel with a match, and his sad end should be remembered by those who hunt for leaks with a lantern, in the gasoline piping, around an engine at night.

On engines having battery ignition there is the possibility that a loose connection outside the engine will produce a spark and ignite any loose gasoline that may be around, but with engines having the more modern slow-speed engine-timed built-in magneto, even this condition is practically impossible.

With the batteries it is possible, by tapping the wire on the engine frame, at any point, to produce a spark, whether the engine is running or not, and this has resulted in fires. With the magneto the spark can only be produced while the engine is in motion, and only between

the igniter points, inside the cylinder, as the snapping of the igniter must coincide with the position of the magneto armature. This makes it impossible for anyone to take the igniter out, and by snapping it in front of the hole in the cylinder, causing explosions. In other words, the magneto-equipped engine is "fool-proof" so far as the fire risk is concerned.

Testing Tire Valves.

During cold weather more or less trouble is experienced because of leakage in tire valves. This condition is due to the shrinkage of the metal parts of the valve. Lack of knowledge to this effect often leads to much inconvenience and trouble on the part of autoists because of the difficulty in locating the leak and often causing the removal of the casing and an examination of the tube, and even



under the most favorable conditions such work is by no means a snap. In discovering a slow leak it is always wise to make an examination of the valve. This can be done by placing the valve in a glass of water as shown in the illustration. Bubbles caused by the escaping air will be easily detected. The cleaner and clearer the glass the more easily the leak is detected.

Cold Weather Starting.

Many engine operators experience difficulty in starting their engines these cold mornings. The trouble comes from the slow evaporation of gasoline at low temperature and the weak ignition current supplied by cold batteries. In the cold, "chemical" action in a battery is very sluggish and the current generated small. The above troubles combined with a "stiff" engine because of cold lubricating oil are at times very trying. The slow evaporation of gasoline may be gotten around in a number of ways. Perhaps the simplest and most effective is to allow more time for evaporation by flooding the cylinders and inlet passages with gasoline or heavily priming the cylinder and letting the engine stand some time before attempting to start it. The time can be put in oiling the engine and machinery. If the engine has a priming cup or other means of dosing the cylinder with gasoline, it will pay to keep on hand for priming a bottle of light gasoline of 86 degrees used in gas machines. This gasoline vaporizes so easily that there will be no difficulty in securing an explosive mixture for starting.

Other methods that are in use for overcoming this difficulty are filling the cylinder jackets with hot water and applying heat or hot irons to the inlet pipe. The first remedy is very satisfactory when there is little danger of actual freezing if engine fails to start quickly.

The weak spark may be entirely remedied by storing the battery in a heated room some hours before use. The battery should not, however, be heated by baking or the like, the heated room being ample.

Give the gasoline time to evaporate and if necessary warm the battery and much of the annoyance often experienced in starting gas engines in cold weather will be eliminated.

To find the amount of your road tax, add to the tax receipt the number of extra trips to town required, and charge up the lost time spent in making these trips.—EXCHANGE.

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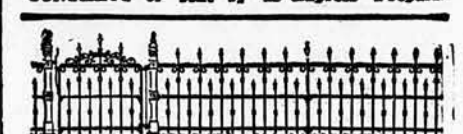
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Raising Hogs Without Cholera

I feel free to discuss hog cholera since the article was published in KANSAS FARMER issue of January 25. What I have to say is to the farmer who is in trouble, exposed to the infection and wanting to know what can be done. Hog cholera is a contagious infection, a disease but not a plague, for it is entirely under control of skill. We had good hog raisers in Illinois and Iowa when I was a boy, and men as old as I am, and older, made Chicago the largest live stock market in this country. Some 30 years ago we had hog cholera in Effingham County, Illinois, that did as much damage as it has this fall in Miami wash, sulphur and fire, kept things clean, but still it was a plague and got in its work. We did not lose all our hogs, though. Some would live through it, some seemed never to take it. Father used to have me build a good fire and roast the dead hogs till they were nice and tender and let the hogs eat them. That seemed to be about as successful then, as I remember it, as the guess methods used now.

We have good hog raisers now in the West and Northwest, and we have made Kansas City and Omaha large live stock markets, and it is to these men I give the following statements. Hog cholera is a contagious infection entirely under the control of skill. You need not lose a hog if the immune treatment is given before you have the infection. Of somewhere over 900 head treated in this locality in the last 100 days in herds under varied stages of infection, not the loss of a hog has been mentioned. In Lot F were 40 head, from little pigs to old brood sows, and in looking over the herd we saw there a few shoats sick and we tested them for fever. Five had fever, some up to 106 and 107. These were put over the fence without treatment and let run with the bunch. The rest were given the simultaneous treatment. They never lost a meal, never had a sore and not one hog or pig was lost. In lot 2 there were 16 shoats, 18 pigs and 3 brood sows. Two brood sows were already immune. The simultaneous treatment was given the 18 pigs and 3 shoats to be kept for brood sows. Six pigs sucked the sow not immune and the next morning the little fellows came out for feed carrying one foot but greedy as ever. No infection was given this sow nor the remaining 13 shoats. May be some call that sanitary, but I call it skill and do not have to catch them and give them serum at regular intervals. Ten days later 9 pigs were bought, given the double treatment and put in the pen with the 13 shoats. They never lost a meal, no infection. In lot 3 a nest of pigs 8 days old were given the double treatment with the rest of the herd of some 60 head without the loss of one. I can go with you from pen to pen and show you just as skilled work. Serum, highly immunized, has changed hog cholera from a plague to an infectious disease under control.

Serum probably does its work in three days. The hog given the simultaneous treatment, where the serum is immunized, never takes the fever. If the above was generally known those that have lost their hogs can buy immune sows and go right ahead. When the pigs come keep them clean of infection for about 20 days and then get the right man to do the work for you. It takes 20 cc's for a little pig. It costs just as much for a pig 20 days old as for a shoat of 60 to 80 pounds. I think our present legislature ought to pass a law "all breeders of pedigreed hogs to ship or sell for breeding stock, only hogs given the simultaneous treatment for cholera." This will work no hardship on the breeder. Farmer after farmer in Miami County have no brood sows. They have the infection on their farms and instead of waiting, like the good hog raisers of Illinois and Iowa did when I was a boy, till the lots could be plowed up and pens whitewashed, go right ahead and use the skilled treatment mentioned above. If you do not know where to get help, drop me a postal card with your address and I will mail it back to you with the address of the party that did the above work.—WILLIAM C. YOUNG, Fontana, Kan.

About Selling Calves

"I see the proposition to prohibit the killing of heifer calves under three years of age is being advocated. Now I want to say that would be unjust to a poor farmer. This would not be the free country it is supposed to be if the poor farmer is to be handicapped in this way. We raise our cattle by our efforts and then somebody, who wants cheap beef at our expense, comes along and tries to compel us farmers to go to additional expense to keep our calves to maturity.

A farmer can only keep a certain number of acres and, if we are raising cattle for a living, we will be compelled to sell so many each year. Or, if we are in the dairy business this would mean that we would have to sell our good dairy cows to feed the calves. There could not be a more detrimental law to the farmers. "The very idea of prohibiting a farmer from selling the products of his farm! I have talked with nearly all of my neighbors and they all say that the idea is unjust and unconstitutional and would deprive us farmers of the freedom and rights to which we are entitled as American citizens."—G. W. BAILEY, Hiattville, Kan.

Some time ago KANSAS FARMER published a statement that a certain association had passed a resolution to restrict the slaughter of young female cattle but that association evidently did not have a grasp of the conditions. Such a law would be unconstitutional and could not be enforced. It would not remedy the trouble as the cause of the shortage of cattle is more deeply seated in the conditions which have made cattle-raising unprofitable in this country.

Saving the heifer calves from slaughter or removing the tariff on cattle and cattle products are merely bandages on the sore spot. They might stop the hurt for a little but they will not cure.

Why a Cattle Shortage?

"Congress is now trying through the removal of the import duty to cheapen the cost of live stock and meat in this country. This may give some temporary relief, and of that I am quite doubtful, but I am certain it will not cure the evil. The trouble is deeper seated than the tariff, and is chargeable to the indifference of Congress to the needs of the West, and to its failure to pass adequate laws protecting and conserving western ranges."

"The United States has today less live stock per capita than ever in its history, and it is evident that the shortage of live stock in the west is in a great degree traceable to the present range conditions. I hope our Congress will awaken to a just conception of a situation which we have sought for many years to make plain. The legislature we ask for concerns the east as much as the west; the consumer as well as the producer."

"This is not a new question. It has been agitated for many years. As early as 1900, at the annual convention of this association in Fort Worth, Texas, a resolution urging Congress to classify and lease the semi-arid public grazing lands of the west, but no action has been taken."—H. A. JASTRO.

American Royal Elects.

At a recent meeting of the Board of Directors of the American Royal, the following officers were elected: President, Judge C. Ewing, Youngstown, O.; secretary, T. J. Wornall, Liberty, Mo.; treasurer, Robt. H. Hazlett, Eldorado, Kan. G. R. Collett, general manager of the stock yards and W. H. Weeks, assistant general manager, were placed on the Board as the stock yards representatives. Mr. Collett is the successor of the late Eugene Rust. Allan M. Thompson, who has been secretary since 1908, and who has served the American Royal for 11 years in various important positions, refused a re-election and will retire to his 700-acre farm and his herd of Galloways, near Nashau, Mo.

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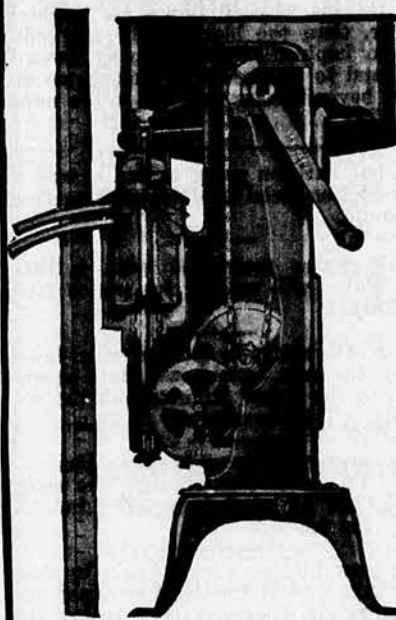
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THE NATIONAL NURSERIES
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Extra Early

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BUY AT WHOLESALE Forty Fruit Trees \$5.00
100 Strawberry plants 75 cents. Charges prepaid. Send for further information and Catalog. Address, **HOLSINGER BROS.,** Box 83, Rosedale, Kans.

HOME CIRCLE



BRAD'S BIT O' VERSE.

Count Your Blessings.

When the keen-edged autumn breezes come with hint of snows and freezes, when the landscape in the morning wears a coat of frost and rime, then we mortals, how we shiver. How our very inwards quiver, how we long, with sighs regretful, for the good old summer time. Yet three moons have scarce passed by us since we needed precepts pious to make smooth the rocky pathway for our worn and weary feet. We were panting and perspiring, we were languishing and tiring, we were grumbling at the weather man, and swearing at the heat. Oh, the autumn tints the wildwood with the feary scenes of childhood, and the glory of the hilltops ought to rest our weary bones; but the crisp and frosty twilight casts a gloom across our skylight, and we fill the glowing atmosphere with agonizing groans. Thus we flounder through the seasons, always giving sundry reasons why all things are brighter, better, than the blessings by our side; we go hoping, longing, fearing, toward the land to which we're steering, we are blest beyond deserving—but we're never satisfied.

A hot bath on going to bed is said to be very beneficial to one suffering from insomnia.

Salt water moistened with a little cold water will remove tea stains from crockery.

If a cake sticks to the pan when taken out of the oven, wrap a wet cloth around the pan for a few minutes and the difficulty will be overcome.

An easy way to open a sardine can is to slip an ice-pick through the opening in the key and turn it by holding on to the ice-pick.

As your kitchen towels begin to wear thin, take two of the same size, put one on top of the other and stitch around the edges on the machine; also diagonally through the middle. The double towel will last quite a while longer.

It is better when watering begonias to pour the water in the saucer and allow the plant to draw the water through the hole in the bottom of the pot. In this way you are less likely to have blighted leaves as frequently occurs with surface watering.

A good way to clean painted wood-work and make it look like new is to rub it well with a rag dipped in whiting. After the whiting dries it should be thoroughly removed with a soft cloth. The paint is not injured as it usually is by the application of soap and water and the process is easy.

Mrs. Hetty Green, who in her seventy-eight years of life has seen much of the world, and has studied its practical aspects, gives the following "don'ts" for girls:

"Don't be envious."
"Don't over dress."
"Don't fail to go to church."
"Don't forget to be charitable."
"Don't cheat in business dealings."
"Don't fail to take lots of exercise."
"Don't forget to obey the laws of God."
"Don't eat anything but good, wholesome food."

Aside from the value of eggs for cooking purposes there are several other ways in which eggs may be used to good advantage. A mustard plaster made with the white of eggs will not blister the tenderest skin. The delicate white skin that lines the shell of an egg is a fine thing to apply to a boil. The white of an egg beaten with loaf sugar and lemon juice relieves a cough and hoarseness, a teaspoonful every hour being the dose. If a fish bone lodges in the throat beyond the reach of the fingers, a raw egg swallowed, without being beaten will in most cases carry the bone along. A little white of egg spread over a scald or burn will keep the air from getting to it and will hasten the healing.

A Bit of Heaven.
When your apples all is gathered, and the ones a feller keeps
Is poured around the cellar floor in red and yellor heaps,
And your cider-makin's over, and your wimmin folks is through
With their mince and apple-butter, and their sauce and sausage, too;
I don't know how to tell it—but if sitch a thing could be
As the angels wantin' boardin', and they'd call around on me—
I'd want to 'commodeate 'em—all the whole endurin' flock.
When the frost is on the punkin and the fodder's in the shock!
—JAMES WHITCOMB RILEY.

Uphill.
Does the road wind uphill all the way?
Yes, to the very end.
Will the day's journey take the whole long day?
From morn to night, my friend.

But is there for the night a resting-place?
A roof for when the slow dark hours begin.
May not the darkness hide it from my face?
You cannot miss that inn.

Shall I meet other wayfarers at night?
Those who have gone before.
Then must I knock, or call when just in sight?
They will not keep you standing at that door.

Shall I find comfort, travel-sore and weak?
Of labour you shall find the sum.
Will there be beds for me and all who seek?
Yea, beds for all who come.
—CHRISTINA GEORGINA ROSSETTI.

A pinch of soda added to the water when soaking beans will improve their flavor.



No. 6027—Ladies' Dress.—This charming model is quite handsome developed in tan chambruse with ecru net for the chemise. The dress is easy to make despite its elaborate appearance. It closes at the front and has collar reaching to the belt at the back and one-piece skirt with pannier. The pannier may be of the same or of contrasting goods. The pattern, No. 6027, is cut in sizes 34 to 42 inches bust measure. Medium size will require 7½ yards of 36-inch material and ¾ of a yard of 22-inch net for chemise. The pattern can be obtained by sending 10 cents to the office of this paper.

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"Did I Ever!"

If the great hoopskirt our grandma wore, And the "hobble" of today Were to meet some place right face to face,

Now what do you s'pose they'd say?

Weight Table for the Housewife.

A woman's city club sends out the following table for housewives, and asks them to cut out and paste the table where it can be had when wanted. It also urges them to buy by weight, rather than measure, says the Commoner.

One peck of spinach weighs three pounds; one peck of apples weighs 12½ pounds; one peck of carrots, turnips, parsnips or sweet potatoes weighs 13½ pounds; one peck of onions weighs 14½ pounds; one peck of potatoes or beets weighs 15 pounds; one quart of string beans weighs three-fourths pound; one quart of cranberries weighs one pound and half ounce; one quart of dried apples weighs three-fourths pound; one quart of dried peaches, one pound one-half ounce; one quart dried peas weighs 1½ pound.



No. 6025—Ladies' Chemise. This garment is quite dainty and is an excellent design for the woman handy with the embroidery needle, as the front can be charmingly embellished. The chemise is made to be slipped on over the head and may have round or square neck, and be made with or without gathers at the waist. Cambric, nainsook, lawn or batiste may be used. The pattern, No. 6025, is cut in sizes 34 to 42 inches bust measure. Medium size will require 2½ yards of 36-inch material, 3 yards of edging for ruffle, 2½ yards of narrow edging, 1½ yards of beading, 2½ yards of ribbon, and 2 yards of insertion. Price of pattern, 10 cents.



6033—Ladies' Overblouse.—This attractive overblouse is one of the most stylish garments of the season. It closes at the back. The design is beautiful carried out in silk and net with fancy braid trimming. Green and gold changeable taffeta with ecru lace gumples is stunning. The pattern, No. 6033, is cut in sizes 34 to 42 inches bust measure. Medium size requires 1½ yards of 36-inch plain goods, 1½ yards of 36-inch net, and 3½ yards of braid. Price of pattern, 10 cents.

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The guarantee on Diamond Tires becomes null and void when used in connection with any substitute for air, fitted to rims not bearing one of these inspection stamps or having had its serial number removed in whole or part.

To Clean Carpets on the Floor.

One gallon of rain water, one bar of Ivory soap, one-half pound of borax, and three ounces of sal soda. Boil until all the ingredients are dissolved, then add two gallons of cold water and one pint of alcohol. Keep in tightly corked jugs. Will keep for years.

Paste for Paper Hanging.

When preparing paste to hang paper on whitewashed walls, to every gallon of paste add one pint of vinegar, and there will be no trouble about the paper coming off. It will also save the labor of washing the walls with vinegar.

Turpentine.

Turpentine is excellent and soothing when applied to scalds and cuts. It will take ink stains out of muslin when added to soap and also helps to whiten clothes if added to the water in which they are boiled.

Moths will not come near clothes sprinkled with turpentine; they seem to hate its odor.

A few drops of turpentine will exterminate cockroaches and drive red and black ants away.

Tan leather boots can be nicely cleaned with turpentine. Pour on a woolen cloth and rub.

Turpentine is a simple and safe remedy for chilblains, while it is good for corns on the feet and an immense boon for blisters on the hands.

Use turpentine in the bath water for rheumatism.

To remove stains from marble, take a wineglassful of turpentine and ox-gall, and mix into a paste with pipe-clay. Put the paste on the stain and let it remain two or three days.

Carpets can be cleaned and freshened by going over them once a week with a broom dipped in hot water containing turpentine.

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POULTRY



See that the hens have a dust box well filled while they are confined. They will keep themselves clean and free from lice.

If the fowls are overcrowded, it is apt to be productive of infertile eggs, as well as endangering the health of the whole flock.

Should a pane of glass in the poultry house be accidentally broken, cover the opening with muslin or canvas till a new glass can be obtained. It is a draft that is the precursor of colds and roup.

Fowls often acquire the habit of feather-eating while confined in small coops at poultry shows. Should your fowls be addicted to the habit, feed them some lean meat for several days and put some salt in their mash food. It seems to be the blood that is in the quills of the feathers that causes the hens to eat them. There is both a meaty and a salty flavor to them.

That a liberal supply of meat will make hens lay quicker than any egg food is now no longer a theory, but a known fact. The effect of a meat ration was tested at the West Virginia Experiment Station, where one pen of fowls received a ration largely of corn and other starchy grains, while another pen was fed partly on meat and fresh ground bones. The meat fed fowls laid 7,555 eggs, while the grain-fed hens laid 3,431, or less than one-half as many as those receiving the nutritious ration. The eggs from the meat-fed fowls were larger, much firmer, rather better, and produced far more vigorous chicks than those of the others. If you want plenty of eggs feed them some meat and plenty of sprouted oats.

Cabinets for sprouting oats are now advertised at from five to ten dollars, and if you have plenty of money it will pay you to buy one, for they are a handy and convenient thing to have around. But if you have not overmuch ready cash, you can contrive to have sprouted oats for your chickens with some home-made contrivances. Put oats into an ordinary pail, pour warm water over them and let them soak thoroughly for a couple of days. Then take them out and place on trays, keeping them in a warm place and keeping them saturated with water till they sprout. You can let them grow till they are three or four inches high, then cut off the green blades and feed to the hens; or you may take part of the oats, roots, sprouts and all—feed that way. The chickens will get away with them no matter in what form you feed them. The trays can be made any size desired; some three inches high and the bottoms covered with wire screening. If you have a furnace keep them near that, if not, place near or under the kitchen stove or any other warm place that is convenient. It will pay you, for the added labor it may give you, in the way of better health for your flock—more eggs in the egg basket.

Save the Broken Eggs.

The freezing and drying of eggs to preserve them for commercial use is an industry that is rapidly developing, says W. A. Lippincott, professor of poultry husbandry at the Kansas Agricultural College. This business probably is better developed in Kansas than in any other state in the Union. This is because Kansas produces a great many eggs. The house of any industry must be close to the material which is used in the manufacture of its products.

Eggs that are cracked or dirty, but still wholesome, can be frozen or dried and will make perfect cooking material for bakers. The principal centers of this business in Kansas are Topeka, Atchison and Wichita. The eggs are sometimes frozen at a temperature of 10 degrees below zero. The yolks and whites are removed from the shells, placed in ten, fifty or one hundred pound cans and frozen in them. They can then be shipped east in refrigerator cars without thawing out and be placed in temporary storage until ready for use. The eggs can be frozen in proportions, as for example, a whole egg with one-third yolk added. There is a demand for them in such form by some lines of trade. The whites and yolks are some-

times frozen separately and a certain per cent. of sugar added. The eggs are handled under the most sanitary precautions and the cold storage flavor is eliminated.

When eggs are dried their contents are removed and spread out over long belts which pass through hot filtered air. The final product is in the form of flakes or granules. This is packed in barrels lined with paper and shipped to the market. In drying and freezing the weight of water and shell is eliminated. This reduces freight charges. Nine pounds of powdered flakes can be obtained from thirty dozen eggs, which would weigh if of fair size forty-five pounds. The market for frozen and dried eggs is largely in the East. The United States army and navy and the Alaska trade consumes a large part of these products. They can be transported very easily where it would be impossible to take fresh whole eggs. The prices of the products are sufficient to encourage the industry, but the saving in freight rates is a paying proposition even if the prices were not higher than are paid for ordinary eggs.

Breed Profitable Poultry.

It is a noticeable fact that in all the experiments made, in this or any other country, the big egg records have been made by purebred fowls. The ordinary mongrel stock of the country does not make large egg records, and the laying of a few eggs in the early spring and summer, when eggs are down in price, will not pay for their feed and are therefore an expense to their owner.

The noted laying breeds, such as the Leghorns, Hamburgs, Minorcas and Andalusians, are somewhat sensitive to cold, and no amount of good care can induce them to produce eggs in any quantity when the thermometer is low and eggs are high.

In choosing your breed you should bear in mind that "The breed that weighs and lays, is the breed that pays," and to my way of thinking the S. C. White Orpingtons will meet these requirements better than any fowls on the map to-day.

There is perhaps no one feature about the Orpingtons that is more attractive than the large size they attain within a given time. They are the very first birds to mature and the earliest to start laying, and among the longest to keep it up. As layers of large brown eggs they are excelled by none.

They are a most excellent table fowl, having a very fine, juicy meat and lots of it—the flesh and skin are white, of a very fine texture, and a most delicious flavor, so when their usefulness as layers are over their large, plump carcasses are always in demand and in some markets are preferable to the turkeys.

Although they are of comparative recent origin (first exhibited in America about twenty-one or two years ago), they have gained a strong foothold in America, and today are among the most popular of all varieties of standard bred fowls, and at the present time the classes are large at the leading winter exhibitions and from present indications their future is safe—there must be a reason.

It is the general belief that the White Orpingtons were originated by Mr. William Cook, of Orpington, England, by crossing White Leghorn males with black Hamburg pullets. The pullets from this cross that came white were mated to white Dorking males.

There are, however, English authorities on poultry who dispute Mr. Cook's claim. But, be that as it may, we must take off our hats to the originator, whoever he may be, and give him due credit for producing one of the best breeds in existence.

And let me say in conclusion, that my Single Comb White Orpingtons combine size, shape, beauty and utility qualities that are second to none; and the amateur who is looking for a breed to start in the poultry business, either for fancy or utility, select the White Orpingtons and you will never regret it. And to the farmer who has become disgusted with the results of his success with his present flock, get started with the White Orpingtons and you will become an enthusiast.

Yours for better and more Orpingtons.
—P. H. ANDERSON, Lindsborg, Kan.

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SEND your name for my World's Championship Hatching Facts. I will tell you about the Six World's Championships won by my famous Belle City Incubator.

—will tell you about the folks who won the prizes, how they did it and how you can get championship hatches right from the start. My

Six-Time World's Champion Belle City

has defeated all other incubators, many costing two to five times more than my price. Used by U. S. Government after a careful investigation. I want to tell you about the features I have embodied in the Belle City which made them the Championship Hatching Facts of the World. I want to tell you about my famous Double-Watered Hot Water Top-Hat Brooders guaranteed to raise the chicks. I'll tell you all about my manufacturing, selling and shipping plan that makes my remarkably low price possible.

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Just say, "Send World's Championship Hatching Facts." I'll quote you my lowest price, freight prepaid—tell you how you can have 1, 2, or 3 months home test at my risk—how I protect you by my personal 10 year guarantee. I'll send you my portfolio of all these hatching facts—free, if you write me a postal. Address Jim Rohan, Pres.

Belle City Incubator Co., Box 18 Racine, Wis.

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We Pay Highest Cash Prices

We are the oldest established Fur House in Kansas City—have been paying highest cash prices and always giving our customers a square deal on every shipment since 1870. Ship us all your

FURS

We need all you can send, right now. We pay the prices we quote; give liberal assortment, do not undergrade, and remit cash in full same day shipment is received. We charge no commission. Send today for our free price bulletin quoting highest cash prices which we actually pay, free tags and full particulars.

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I Guarantee to Do the Finest Custom Coat and Robe Work in the West.

One thing, I hold my trade, and I could not do so if I did not do their work on the square. My trade is increasing by recommendations of pleased customers. Write for my price list—it will suit you. We do not split the hide, but dress entirely by hand.

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C. W. Peckham, Haven, Kansas.
High Quality.

BARRED PLYMOUTH ROCKS PROLIFIC LAYING STRAIN

Eggs—1st pen, \$3.15, 15; \$5. 30; 2nd and 3rd pens, \$2. 15; \$3. 30. Utility flock, \$4. 100.

White Plymouth Rocks

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

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FARMS IN
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A gold mine of information

We have just published a wonderful new book entitled "Clover, the Great Cash Money Crop." It tells you how to get a sure "catch" first planting; how to keep clover in the rotation; about clover as a soil enricher; how to handle the crop for hay and seed production; how to grow clover that makes richer feed—that produces more beef and milk. It explains the cause of clover failures; how to avoid winter killing; how to prevent ground heaving; how to guard against the loss from heat and drought; all about the causes of "clover sickness" and how to deal with it. Hundreds of other questions, covering sixteen clover varieties, are fully answered. Ordinarily this book sells for 35c, but for a short time we will mail a copy free, or until a certain number have been distributed. Write at once.

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Sonderegger TREES AND SEEDS THAT GROW AT IT OVER 28 YEARS

For twenty-seven years I've been selling "Seeds and Plants that grow." I've been selling them direct—at rock bottom prices—no agents' commissions attached. My catalog has always been my only salesman. My **Free 1913 Nursery and Seed Book** is now ready. Send for it. It's the result of 27 years' experience. Lists all kinds of trees and plants, farm, garden and flower seeds. Quotes lowest prices, no agents' commissions to pay. Here are a few of the many bargains. Apples 8c each; Cherry 14c each; Plum 15c each; Catalpa Speciosa seedlings 8-12 inch \$1.75 per 1000. Remember my seeds are all Nebraska Standard. I pay freight on \$10.00 tree orders. Send for catalog, see my prices. A postal brings it.

German Nurseries & Seed House, Box 147, Beatrice, Neb.

DOUBLE QUICK Seed Corn Tester

Makes complete tests in three to five days. Adapted to the Saturation, the Saw-dust or Sand, and the Earth or Soil test. Six Sizes: 2 1/2 to 66 bushels. This machine is also the

DOUBLE QUICK Grain Sprouter or POULTRY SILO

For sprouting oats for laying hens. Also starts GARDEN PLANTS Quickly. A useful machine for every farm. Send for free information. CLOSE-TO-NATURE CO., Colfax, Iowa.

BILL BROOK FARM SEED CORN

Boone County White and Reid's Yellow Dent. Well matured and well selected. Shelled and graded, \$2.25; in ear, crated, \$2.75.

H. O. TUDOR, HOLTON, KAN.

Hopper & Son, Manhattan, Kansas Builders of

Concrete Silos

Write for list of silos we have built. Ask our customers about them.

Bees for the Farm

Need little attention and pay big profits. If you are interested in them send for a sample copy of *Gleanings in Bee Culture*. Also a bee supply catalog.

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FANCY SEED CORN

Boone County White, Reid's Yellow Dent and Hiawatha Yellow Dent. Catalog free. J. F. HAYNES, Farmer Seed Corn Grower, Grantville, Kan.

Eggs, 63c a dozen! You get premium prices in any market if you'll read "Poultryology" and learn how Yesterlaid Egg Farms produce and market their eggs. 144 pages—70 pictures. Get one now! Edition limited. Yesterlaid Egg Farms, Dept. 43, Pacific, Mo.

Mammoth Bronze Turkeys.

You asked me to tell you about my favorite birds and why I raise them. I do so for both pleasure and profit.

I think the Mammoth Bronze turkeys are the best and most gentle kind. They stay close at home and lay in the hen-house and near by, where I can find the nests very easily. If one goes to sitting where I don't want her, I pick her up and carry her to the house and put her on a nest, giving her from 18 to 28 eggs, and some even 30. If the hens are old they stay on and hatch out their eggs fine. I do not feed the little turkeys anything until after the last one hatched is 36 hours old. Up to this time they are given nothing but a little sharp sand and water. When the last one hatched is about 36 hours old I give them corn bread crumbs, clabber cheese, hard boiled eggs, onions ground fine in a food chopper, with a little sand. I feed the old hen all the corn or Kafir she will eat. When they are three days old I turn them out of the pen when grass is dry, letting the mother and the little turkeys pick. They are brought in early in the evening, put in a pen for the night, given a little cooked oatmeal for supper—if I can get it—if not, dry corn bread crumbs; that is, not moistened any more than the bread usually is.

The turkeys, even if sold the usual way—by weight—bring \$3, \$4 and \$5 when fattened. They are all around fine birds.

They are so tame the baby can catch the gobblers to take a ride.

The Barred Plymouth Rocks are my choice of chickens. I have tried Buff Cochins, Partridge Cochins, Black Langshans, White Brahmas, Leghorns, and all kinds mixed, but the Barred Plymouth Rocks are the best for me, and they are the best general purpose bird—good mothers, good sitters, good to weigh, good to lay; they are also good for the table, and when you dress one it will make a good sized family a meal. They weigh well when marketed, bringing as high as 80 cents to \$1 apiece.

I also like to raise geese, and to eat them as well. The dry land geese I like best, as they do not wander away every time it rains, hunting a stream of water. They like to bathe, but will come back to the yard or barn and sit around or eat grass. I feed my goslings as I do my turkeys.

I do not feed my little chicks until they are 36 hours old. At that time I give them corn bread. Before this time I keep sand moistened a little before them. They will pick at the moist sand, scratch in hay and be content. Then when old enough to feed, I feed just a little at a time, five times a day, until they are a week old, then three times a day, feeding a little more but being careful not to feed too much. I also give them plenty of fresh water. I punch nail holes one-half inch from the top of a can, fill can with water, put a saucer over it and turn upside down. They can't get wet this way, and it is fine.

Here is my statement for poultry and eggs from April to February:

I started with 55 chickens—Barred Plymouth Rocks—three turkey hens and one tom. I kept two 100-egg incubators going, and sold, besides hatching eggs, \$8 worth up to September, over and above what we used for cooking purposes. We also used 42 young chickens for table, and sold chickens, turkeys and eggs for hatching and breeding purposes, which amounted to \$155.35. Had 80 choice young ones left to use and breed from. I did all this by myself, besides having a little baby to care for. My girl cooked supper and breakfast alone while I fed and attended to them.—MARY E. GIBSON, Eureka, Kan.

Eggs for hatching purposes are now desired by all poultry fanciers. If your hens are not laying try a change of diet, especially some green food, such as sprouted oats. If this will not make them lay, try some meat, or beef scraps or cut green bone.

Ford County Social Centers.

The social center plan needs little development in Ford county. Eulalia Nevine, county superintendent, says that seventeen of the sixty-five rural school buildings are used as social and religious centers for the community. As there are only four towns in the county, Dodge, Spearville, Bucklin and Ford, being in the south and east part, it leaves much territory where the farmers must utilize the school buildings or go without services.

The literary societies, which furnish the social life for the young people on the farms, flourish in each of the districts. Recitations, songs and debates comprise the programs. Each of the communities maintain a Sunday school and have preaching, either every Sunday or on alternate Sundays.



LIGHT DRAFT PLOWS

THE draft of a plow depends nearly altogether upon the construction of the bottom, the shape of the share, the curve of the mold, and the position of the side plate. These necessary details must be worked out on a scientific basis, the secrets of which can only be discovered by actual experiments in the field. As the soil differs, so also must the shape of the plow. The greater the variety of soils the greater the number of plows necessary to meet the conditions.



P&O Gang Plow.

WE make no tools in which we take a greater pride than in the P. & O. Engine Gang Plows, made in several styles, both Mold and Disc, and in sizes from four to twelve furrows.

The P&O Mogul

Is made with an individual lever for controlling each bottom. The levers all point to the center of the platform. This and five other patented features are exclusive and cannot be found on any other make. The Mogul is made from five to twelve bottoms.

The P. & O. Junior Engine Gang Plow is made for three furrows with a fourth bottom as an attachment. All bottoms are controlled with one lever. One man can operate both engine and plow. The P. & O. Disc Engine Gang is made with four or six discs, and with a platform for the operator.

P&O Engine Gang Plows



P&O Junior Engine Gang.

P&O Stalk Cutters, Cultivators Disc Harrows, Corn Planters and Potato Diggers



We make a complete line of tillage implements, suitable for all soils and conditions. Remember that P. & O. Implements have been used by three generations of American farmers, and that everything we make is

Backed by an Unqualified Guarantee.

ASK YOUR LOCAL DEALER for P&O Implements and then insist on getting them. When you are ready to invest in farm implements, buy the best—the P&O line. We will gladly send P&O catalogs and other literature to any address. Write us your wants.

Parlin & Orendorff Co., Canton, Illinois

BIG MONEY IN OATS AND HOW TO GROW THEM



LOOK HERE! Three kernels in a pod, from an actual photograph as grown on our big Canadian Seed Oats farm.

You can raise 75 to 140 bushels to the acre with our seed. Imported direct from Canada. Extra fine. Send for free sample. It speaks for itself. Our customers who bought from us last year raised from 75 to 140 bushels to the acre against one-eighth to one-half as much from their old seed, which proves our statement that farmers need a change of seed in this country.

We specialize on extra fine Seed Oats on our big Canadian Farm—new, clean land—and grow the Genuine Regenerated Swedish Select Oats which has broken all records. Specially bred to suit climatic and soil conditions in the U.S. Matures from 12 to 15 days earlier than other kinds. Extra large white berry. Thin husk. Stiff straw. Tremendous yield. Rich in protein, and just the oat you have been looking for.

Why not start a seed patch on your farm this year? It has paid others big. It will pay you. Write us early. The demand for our seed is tremendous. Last year we had to return orders we could not fill. Write early. Demand tremendous. Supply limited.

GALLOWAY BROS.-BOWMAN CO., Seed Oats Specialists

THAT IS THE TITLE OF FREE BOOK OUR NEW

which we send you for the asking, together with a free sample of our pure Canadian Grown Regenerated Swedish Select Oats.

This book was written by William Galloway, Professor Bowman, and other seed experts. It contains priceless information—worth real money—about how to make big money in oats; how to make a seed bed; how to start a seed patch, how to make oats stand on rich ground and how to grow a bumper crop of oats. It is profusely illustrated by photos from actual life, and contains besides facts, figures and opinions as given by farmers all over the country.

Now remember, this book is free for the asking, and we will send it to you together with a free sample of the oats, or better still, enclose ten cents to cover cost of packing and postage, and we will send you a Big sample packet, or a Triple Size for 25c, and for 50c, a packet three times the size of the 25c packet, and what is more, the empty packets will be accepted the same as cash in part payment on any future orders you send in.

Feed Your Oats to the Horses or Hogs, or Sell It

You can afford to do it when you stop to figure up the net results between our seed and ordinary seed. Which is cheaper—Genuine Imported Regenerated Swedish Select Oats that germinate nearly 100 per cent—every oat sprouting—Fresh, Hardy, Full of Life and Vitality—or oats that are half hulls full of weaklings, that plainly prove they are inferior and run out? Our thoroughbred imported Canadian oats cost a little more than common seed at the start, but if you paid twice the price and received common seed for nothing, our oats would be cheaper and bring you the most profits. It's not results that count.

J. E. Andrews, Dassel, Minn., writes: "Yielded 100 bu. to acre." Oscar Kling, Alamosa, Colo., writes: "Yielded 141 bu. to acre." H. Hendrick, Roanoke, Ill., writes: "Got 95 bu. from one acre." A. J. Barber, Clinton, N. Y., writes: "Galloway, you are right. Last spring I bought some seed oats of you. Just threshed. Yielded 80 bu. per acre."

Box 382 WATERLOO, IOWA

\$8.20 For This Great, Low Priced, Fully Guaranteed Plow—30 Days' Free Trial



Greatest walking plow value ever offered. Lowest price ever. A plow to fill every requirement. Double shin and solid steel shin welded on top of moldboard. Bottoms perfectly shaped—always scour. Strongly braced. Shin welded to landside, carefully bolted to share. Handles and beams proper length—made of white oak.

More than 2,000,000 farmers are customers of mine. I'll save them money. I'll save YOU money.

M. W. Savage, Pres. M. W. Savage Factories Co., Inc. Dept. 63, Minneapolis, Minn. at once.

MONEY BACK IF YOU'RE NOT SATISFIED

Great Majestic Malleable and Charcoal Iron Range

Don't Buy Any Range Sight Unseen

If you were buying a horse, you wouldn't want any printed description—you would want to look him over mighty carefully so as to know you were getting your money's worth. So, before deciding upon any range the wise woman will go to the local dealer and examine the *Great Majestic Range* closely—it will stand the test of comparison point for point, with any range ever made. When you have made this comparison—your choice will be the range with a reputation.

The Majestic Outwears Three Ordinary Ranges

It is the only range made of malleable iron and charcoal iron. Charcoal iron won't rust like steel—malleable iron can't break. Outwears 3 ordinary ranges.

Perfect Baker—Saves Half Your Fuel

The *Majestic* is put together with rivets—joints and seams remain air tight forever. Body lined with pure asbestos board—you can see it. Takes but half the fuel—assures perfect baking.

All Copper Reservoir—Against Fire Box

The reservoir is all copper and heats through copper pocket, pressed from one piece, setting against fire box. Holds 15 gallons of water. Just turn lever and reservoir and frame are instantly moved away from the fire.

Greatest Improvement Ever Put In a Range

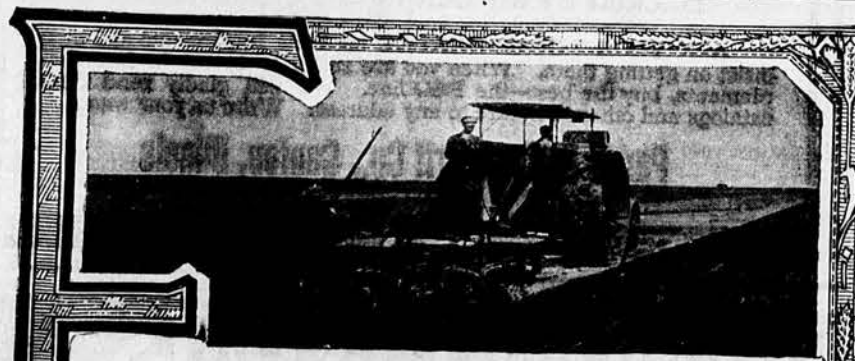
Increasing strength and wear of a *Great Majestic* more than 800 per cent at a point where other ranges are weakest—many other exclusive features. Ask to see it.

For sale by dealers in nearly every county in 40 states. Any *Majestic* dealer can furnish any size or style *Majestic Range* with or without legs. Write for our booklet, "Range Comparison."

Majestic Manufacturing Co.
Dept. 140 St. Louis, Mo.



The Range With a Reputation It Should Be In Your Kitchen



YOU CAN DEPEND ON THE "FLOUR CITY" FOR SATISFACTORY RESULTS

We are well pleased with our 30 H. P. "Flour City" tractor. We threshed 7,000 bushels of wheat, plowed 300 acres, disked and harrowed same time, at a cost of 18 1/2 cents per acre for gasoline and oil—one man doing the work.

In plowing we pulled eight 14-inch bottoms, averaging 22 acres per day, at a cost of 88 cents per acre for gasoline and oil. We are well satisfied with our outfit. Yours truly,

SHOWALTER BROS., DARLOW, KAN.
The 1913 "Flour City" has many new features which add to its efficiency. If interested, send for Catalog No. 19.

Kinnard-Haines Co., 846 44th Ave. No., Minneapolis, Minn.

LOUR CITY TRACTORS

APPLETON

RETURN APRON ENDLESS APRON AND LOW DOWN

Solid oak, trussed frame; worm and worm gear apron drive, enclosed, runs in oil; wood or steel wheels.



So simple a boy can run them. Apron works over chilled rollers. Wide seat, comfortable foot rest.

Appleton Manure Spreaders always give long service; spread even, pull easy; because they are perfectly designed and honestly constructed. An Appleton Manure Spreader is a profitable machine for you to buy. Its use keeps your land healthy and in highest productive condition—that means paying crops. Write today for Free Catalog illustrating and describing our 10 styles.

A complete line of machines in stock in your territory.

APPLETON MANUFACTURING CO., 219 Fargo St., Batavia, Ill.

Spraying and Spray Mixtures

By GEORGE O. GREENE, Horticulturist, K. S. A. C.

A KANSAS farmer who had come from the East and who had, before coming West, successfully grown an orchard without much trouble or care, made the remark to a man who was doing some demonstration spraying for the Agricultural College, "Spraying is all humbug; it is only since we began to spray that we have had all of these leaf spots, cankers and bugs." The successful orchardist won't believe that it is all humbug, though it is true that it is only since we had so many diseases and insects that we have had to spray. The ocean and the high mountains no longer act as barriers to keep out the insects and diseases, as they did before we were in so close touch with our distant neighbors by rail and steamship. Each year we acquire a new plant disease or insect in exchange for each one we kindly introduce into the old world countries. France has us to thank for the mildews and black rot of the grape. The world has France to thank for the discovery of Bordeaux mixture. We now have nearly the whole list of insects and fungus diseases in our Kansas orchards. The man who does not have the time to spray is about ready for the horticultural scrap heap.

For the most part, these insects and fungus pests are easily kept in check by the proper use of the various spray materials. In the past few years there has been much advance in the way of spray mixtures, machinery, and methods of application. To the successful orchardist it is not so much a problem of whether he will have a crop of defective or sound fruit as it is a question of how to prevent overproduction resulting, necessarily, in small fruit and depleted vitality of his trees.

Many growers, during their first attempts at insect and fungus control, wait too long to begin their work. They consider that spraying is a cure. Spraying never cured anything; the use of properly applied spray materials is a preventive only.

The blotches, scabs, leaf spots, cankers and other fungus troubles are but low order plants growing on the fruit trees, leaves or fruit. These low plants likewise produce reproductive bodies—though in a somewhat different manner—which we call spores instead of seeds. These spores are released, ready to begin the growth of a new plant, about the time the plant on which they are parasitical begins to leaf out in the spring. So the orchardist who has been successful tells us to spray about the time the fruit tree drops its blooms, in order that we may have a chemical, such as Bordeaux mixture or lime sulphur wash, handy to kill these spores when they begin to sprout. He then tells us to spray three weeks later that we may have some more of that same fungicidal chemical on the new growth as well as to replenish the former supply that may have been washed off by rains or blown away by winds. For the same reason he tells us to spray seven weeks after this second spraying has been applied.

Our successful orchardist has also studied the habits and the life history of the various insects that stand between us and a crop. He has learned from experience that it is easier to kill the few canker worms that hatch out just as the clusters of apple buds appear from the parent fruit bud, than it is to kill the many that appear after the leaves have fully set on the trees. So he tells us that then is the best time to spray with lead arsenate and that at the same time we will kill the curculio that loves so well to sting out plums, peaches and apples. He also finds that just as the petals are falling the calyx cup of the apple is still open and that, if we want to kill the first brood of codling moth worms, we must have some lead arsenate in the calyx cup. He tells us to begin spraying about the time the blossoms are two-thirds fallen.

Our successful orchardist has learned that he must know what he is spraying for, the actions of the different chemicals he is using on the different insects and fungi, and in what stage of development they are in their weakest condition.

The following formulas are some of those that have given the best results for the man who has made a success of spraying:

Bordeaux Mixture—
3 pounds copper sulphate
4 pounds lime
50 gallons water.

To make one 50-gallon barrel: Dissolve the copper sulphate by suspending

it in a cloth or sack in a wooden vessel containing 25 gallons of water. It must be suspended in such manner that it will not touch the bottom of the vessel. Slack the lime in just enough water to keep it from burning and not enough to "drown" it. Dilute it to 25 gallons. Pour the two together simultaneously and strain through a 20-mesh copper wire sieve. The mixture can be tested for acidity by the use of litmus paper.

As an insecticide, to this mixture may be added lead arsenate at the rate of 2 pounds to 50 gallons of water.

Lime Sulphur Wash—Home Boiled—
40 pounds lime (best commercial lump)
80 pounds sulphur (sulphur flour)
50 gallons of water.

Heat 10 gallons of water in the cooking vessel. Slack the lime in this water. Pour in the lime a little at a time to prevent slopping over. When the lime begins to slack, pour in the sulphur after it has been screened through a 20-mesh sieve. When the lime is completely slacked add full amount of water. Boil vigorously for not more than one hour. Forty-five to 50 minutes seems to give the best results. The mixture is now ready for use and may be used immediately or it may be stored for future use. For winter or dormant spraying, use 1 gallon of the mixture to 9 gallons of water. For summer spraying, use 1 1/2 gallons of the mixture to 50 gallons of water.

These amounts are given for a mixture giving a Beaume test of 32 degrees. If the test is below 32 degrees by the Beaume hydrometer test, use slightly more of the mixture. These hydrometers may be obtained from any firm advertising lime sulphur or other spraying materials.

Lead arsenate may also be added to this mixture as an insecticide at the rate of 2 pounds to 50 gallons of water.

For small orchards where the amount of lime sulphur demanded is no considerable amount, the commercial boiled mixture will give better satisfaction. This commercial boiled mixture is now being used to some extent by orchardists with considerable acreage of trees. It takes some practice to become expert in the making of the lime-sulphur wash and it is not advisable for the grower to make his first attempts at spraying with the mixture that he has prepared for himself. It has also been found that there is very little value to ready prepared Bordeaux mixture.

Old Trees Yield Fine Fruit.

Mrs. Frank Kotsch, of Troy, manager of the Frank Kotsch fruit farm, cleared \$7,504.80 this year from 25 acres of apples and 18 acres of berries. The gross receipts for the products of the 43 acres were more than \$12,000, but \$1,753 was paid for help in picking and marketing the berry crop, and \$2,596.75 went to the men she hired to pick, pack and market the 3,995 barrels of apples. Also, \$212.83 was spent for spraying the orchard four times—for Mrs. Kotsch believes in spraying—now. And thereby is suspended a tale.

Frank Kotsch is treasurer of Doniphan county, and, therefore, hasn't much time to give to the science of fruit growing. So Mrs. Kotsch, for the last two or three years, has been in charge of the fruit farm. She is the general manager; he the advisory board. Two years ago the general manager looked at her crop of wormy, scrawny and scabby apples and decided to cut out the entire orchard. Insects and apple diseases were so strongly entrenched that the orchard looked hopeless. It had never been sprayed. "Chop them out," said the general manager. "We'll plant this ground to small fruits."

But the death sentence on those 1,000 trees was never carried out. An entomologist from the Kansas Agricultural College, hearing of the "Shoot-at-sunrise" order hastened to the Kotsch farm and pleaded for the lives of the trees. The orchard was ill, he said. All it needed was spray, and lots of it. With her permission he would spray the orchard himself and prove his statement. She agreed. But frost killed most of the buds the next year—1911—so the yield was small, though at that the profits that year were more than the year previous which had been a good year for fruit.

In 1912 the college man again took charge of the spraying in the Kotsch orchard. This orchard was one of 18 in which the college conducted spraying tests. The 1,000 trees were sprayed four

times with arsenate of lead and lime-sulphur.

The result was a crop of big red apples such as never before had been seen on the Kotsch farm. The gross receipts were \$8,070.50, as against \$1,969 in 1910 which was a good year for fruit. There were 20 cars of "ones"—the fancy grade—this year. In 1910 only two cars of "ones" were harvested. The Kotschs accepted the proof with thanks. Science, they agree, is quite wonderful.

Learned to Expect Much From Kafir.

My first experience with kafir was in sowing it with oats—2 bushels and one-half bushel kafir per acre. At harvest time one can hardly notice that there is any kafir sown on the ground but in one or two instances we have had the kafir come on after harvest and equal if not beat the oats crop in value while the other times with but one or two exceptions, it made a paying crop of forage.

Another way I have handled kafir that I have found profitable is to plow the ground deep and drill from one bushel to 1½ bushels per acre for hay. In the spring of 1900 I plowed 35 acres 8 inches deep, harrowed and drilled one bushel kafir per acre and we had a very dry summer and the chinch bugs were so thick in it that I thought they surely would take it. But thanks to the deep plowing I cut it twice and had 55 tons of fine hay.

In the spring of 1910 I had rented out all of an 80-acre farm for an Illinois man but 15 acres, and not knowing what else to do with it I plowed it six inches deep, turning under a good crop of weeds of the year's before growth and drilled one bushel kafir per acre. Owing to one of the driest summers on record I cut it but once but had 31 loads of good forage.

In the spring of 1911 I plowed 40 acres

In the spring of 1911 I plowed 40 acres. Then there came a rain that crusted the fill. I double disced it, harrowed again and planted it to corn with furrow openers. Just as the corn was getting through the ground there came a 5½-inch rain and covered the corn considerably. I harrowed it twice to break the crust, but seeing that the stand would be poor and as it was getting late I double disced it again, harrowed it and planted to kafir with kafir attachment on corn planter. I harrowed the kafir twice and plowed it once. This field filled two 16x36 silos and I still had eight acres of shocked kafir in the field. With a hedge fence on four sides besides a road inside of the hedge on one side, there would not be over 27½ acres.

No crop will respond more readily to good farming than kafir, and while corn is superior to it in the feeding value of the grain, kafir will make a fair crop of grain in years when it hustles corn to make a fair crop of fodder. Another advantage of kafir is that except in cases of extreme drought it gives one until freezing weather to care for it.

I am still ignorant as to the value of kafir for silage so far as personal experience goes, but if it comes up to my expectations I think I will have a satisfactory answer to the question "What's the matter with Kansas?"—not enough kafir silos and alfalfa, and of course it would be understood between the lines that Kansas should have enough live stock to consume her feed.

I am going to begin next week trying silage as a feed for baby beef, milk-cows and a small amount for horses. I hope my experience with kafir may be of some value to some one else. I am watching for what I am sure to find in the experience of others that will be valuable to me.—WM. L. MEUSER, Anson, Kan.

Does Not Like Kafir For Hogs.

I think that Kafir can be depended upon as a much surer crop than corn for the western two-thirds of Kansas. I think it would be well for every farm to have a considerable acreage of Kafir. I have raised 40 bushels of Kafir per acre when corn alongside only made 10 bushels. I think it is harder on land than corn and it isn't as good feed, especially for hogs. I made a number of tests feeding Kafir to hogs and it was never satisfactory. I like it for horses when cracked and fed with bran, making the feed one-third in bulk of bran. I have a neighbor who put kafir in his silo and he claims his cows gave considerable more milk when fed on it than when he fed corn silage. An average crop of Kafir will make nearly double the amount of silage that an average corn crop will make.—C. M. GARVER, Abilene, Kan.

Rules for Measuring Corn.

There are many rules for measuring corn. Inquiries conducted by the Missouri State Board of Agriculture show

the following in common use: The number of cubic feet multiplied by the decimal .4 gives bushels. Multiply together the length, width and height of the bin or crib, in inches, and divide by 4,200 for old corn, or 4,300 for new corn, to get bushels. Where it can be done corn should be weighed, rather than measured.

FIELD NOTES

Hereford Cows.

Seventy-five Hereford cows of the best blood lines will be sold at auction by Hopper & Bowman, New City, Kan., on February 18 and 19, 1913. Read the advertisement in this issue and send for catalog.

Martman's Sale Off.

The John J. Hartman Poland China sale announced for February 24 at Elmo, Kan., has been postponed indefinitely. Mr. Hartman has written us to this effect, but did not give particulars. The sale may be held later or the bred sows and gilts offered at private treaty.

Brilliant Light from Coal Oil.

The Home Supply Company, 31 Home Bldg., Kansas City, Mo., are offering one person in each locality, to whom they can refer new customers, one of their Beacon burners, free. It gives a much better light than gas or electricity. Drop them a post card today, mentioning Kansas Farmer, and secure the free burner for your district.

Harter Sells February 18.

Don't forget the big-type Poland China sale to be made by J. H. Harter on Tuesday, February 18. The sale is composed almost entirely of mature sows that have made great breeding records for Mr. Harter. Free hotel accommodations and transportation from either Blain or Postoria to and from the farm. Sealed bids may be sent to auctioneers or fieldmen in Mr. Harter's care at Westmoreland, or may be wired in sale day.

Rinehart Duroc Sale.

One of the biggest Duroc Jersey events of the season will be the A. M. Rinehart & Son Duroc Jersey bred sow sale at Smith Center, Kan., Thursday, February 20. The Rineharts will put through the ring one of the best bunches of tried sows and gilts that have even went through a sale ring in the corn belt. Every breeder should be interested. If unable to attend, send bids to Jesse Johnson in care of Rinehart & Son at Smith Center, Kan.

Pekham Palace Outstanding.

R. J. Pekham, the well known big-type Poland China breeder of Pawnee City, Neb., will sell on Thursday, February 20, one of the greatest bunches of big, smooth gilts that was ever offered by any Nebraska breeder. They were all sired by Mr. Pekham's big boar, Blue Valley Gold Dust, and out of a line of great sows. The offering includes the sow Tecumseh Gold Dust, top sow at John Blain's dispersion. Remember this sale and if unable to attend send bids to Jesse Johnson in Mr. Pekham's care at Pawnee City, Neb.

Shorthorns at Summerfield, Kan.

Farmers and breeders of Kansas and Nebraska should bear in mind the combination Shorthorn sale to be held at Summerfield, Kan., on Monday, February 24. This sale is composed of a select draft from the good herds of G. F. Hart and A. B. Garrison, both of Summerfield. Fifty head will be sold, 19 of which are bulls, nearly all of serviceable age. Half at least of the offering are fine roans, and everything in the sale has been selected with care. Mention Kansas Farmer when ordering catalog.

Charters' Poland China Sale Averages \$51.40.

The W. H. Charters Poland China sale, held on February 6, at Butler, Mo., was a great success. The results obtained are an index of the rapidly increasing popularity of the Charters kind of big-type Poles. Being well advertised, the sale was well attended both by farmers and breeders, and the general average of \$51.40 speaks volumes for the Charter Oak herd. W. B. Wallace of Bunceton, Mo., topped the sale on No. 2 at \$125. J. R. Cline of Iola, Kan., bought the next highest, No. 7, at \$101. Colonels Sparks, Harriman and Robbins did the selling. Following is the report in full:

1—Fred A. McAllister, Houston, Mo. \$51.00
2—W. B. Wallace, Bunceton, Mo. 125.00
3—J. C. Hall, Hallsdale, Mo. 81.00
4—Fred A. McAllister 51.00
5—Ed Frazier, Drexel, Mo. 50.00
6—J. C. Hall 81.00
7—J. R. Cline, Iola, Kan. 101.00
8—C. S. Douglas, Butler, Mo. 51.00
9—J. H. Baker 68.00
10—B. Myers, Palmyra, Mo. 37.50
11—E. Dedman, Carthage, Mo. 57.00
12—Charles Z. Baker, Hamburg, Ark. 57.00
13—Charles Z. Baker 37.50
14—A. G. Blair, Brownington, Mo. 52.50
15—William Frazier, Adrian, Mo. 35.00
16—D. V. Stahl, Lone Elm, Kan. 53.00
17—Charles Z. Baker 40.00
18—J. C. Hall 50.00
19—T. J. Vonmeter, Judson, Iowa. 62.50
20—L. V. O'Keefe, Stillwell, Kan. 43.00
21—Charles Z. Baker 53.00
22—Charles Z. Baker 35.00
23—G. S. Pollard, Cowgill, Mo. 67.00
24—J. C. Hall 41.00
25—D. V. Stahl 40.00
26—Ed Frazier, Drexel, Mo. 48.00
27—W. F. Shatt, Shatt, Mo. 50.00
28—J. C. Hall 55.00
29—J. C. Hall 51.00
30—John Gavine, Bigheart, Okla. 50.00
31—John Gavine 55.00
32—Doctor Rhoades, Austin, Mo. 44.00
33—Ed Frazier 40.00
34—Tom Sheedy, Hume, Mo. 46.00
35—George Hertz, Butler, Mo. 43.00
36—Charles Z. Baker 41.00
37—J. A. Burliffe, Butler, Mo. 40.00
38—Fred S. Reddick, Pleasanton, Kan. 42.00
39—Lee Whitman, Kankakee, Ill. 42.00
40—A. G. Blair, Butler, Mo. 45.00
41—W. Z. Baker, Rich Hill, Mo. 42.00
42—Tom Sheedy, Hume, Mo. 40.00
43—D. B. Dublin, Carthage, Mo. 40.00
44—Bert Harriman, Pilot Grove, Mo. 42.00
45—E. Deadman 60.00
46—C. S. Douglas 32.00
47—Fred A. McAllister 42.00

The 48 head sold for \$2,467.00, an average of \$51.40 per head.

A Wonder Again.

J. L. Griffiths of Riley, Kan., with his characteristic desire to own the best, has gone into Iowa and bought what is conceded to be one of the greatest herd boars ever bred and used in that state. His name is A Wonder Again, and he weighs a thousand pounds when in full flesh. He was bought when heading the herd of E. Gritter of Hull, Iowa. Mr. Gritter is the man that bred A Wonder, perhaps the most noted boar now

Use Caution—Don't be Defrauded!

The great popularity and the heavy demand for the famous Martha Washington Comfort Shoes made only by the J. Mayer Boot & Shoe Co. of Milwaukee, have caused dishonest dealers to sell cheap and inferior imitations to their customers when the genuine Martha Washington was wanted and asked for.

Mayer Martha Washington Comfort Shoes

You can slip them on and off at will—without the sides having perfect freedom of action of the foot. You get rest, relief and soft comfort. Durable, neat and durable. If your dealer cannot supply you, write to us.

The Mayer trade mark and the name "Martha Washington" are stamped on the sole. If you do not find these marks, you are being defrauded.

FREE—For the name of a dealer who does not handle Mayer Martha Washington Comfort Shoes, we will send you a beautiful \$5.00 picture of Martha Washington.

J. Mayer Boot & Shoe Co. Milwaukee.

There Are Melons and Melons—

but the rich, sweet, juicy ones are those that had plenty of available

POTASH

to insure normal ripening with rapid sugar formation.

The right kind of fertilizer is a good investment. The vines will continue to bear melons of first quality instead of yielding only one or two pickings and then a lot of unmarketable culls.

Supplement the compost with 1000 to 1500 pounds of 55% goods, the ammonia to be derived mainly from organic substances like blood, tankage, fish or cottonseed meal.

This is equally good for cucumbers, pumpkins and squashes.

Write us for Potash prices and free books with complete instructions.

Potash Pays

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DO NOT BUY HARNESS of any kind until you have seen our catalog. We are selling strictly custom-made harnesses. The Kansas Harness Brand, direct from our factory to the farmer. WE SAVE 25% to 35% per cent. OUR CATALOGUE illustrated 300 bargains in harness, and also buggies and wagons. It should be in every farmer's hand and a Buyer's Guide. Free upon request. SEND FOR IT TODAY.

ANISER HARNESS MFG. CO., Dept. T320, St. Joseph, Mo.

MAKE YOUR HARNESS LAST LONGER

By keeping it soft, pliable and ABSOLUTELY WATERPROOF with SHEDWATER LEATHER FILLER

Greatest thing ever invented for preserving, waterproofing and lengthening the life of all leather goods—boots, shoes, harness, etc. Quickly and easily applied. Two sizes, 25 and 50 cents. Enclose 25 cents in coin or stamps at our risk for trial can.

SHEDWATER CO., 644 Sixth Ave. North, MINNEAPOLIS, MINN.

living. Mr. Griffiths changes his card this week and offers 25 choice fall boars and gilts and offers to pay the express on them.

Reliable Nursery Stock.

You will again observe the advertisement of the old reliable Wichita Nursery in our columns. They are the first firm in the state to offer trees to the planter at wholesale prices, cutting out the middlemen and saving the planter about 40 per cent rather than buy them of agents, and thus have saved the fruit growers thousands of dollars by their system, and we believe it is appreciated by the fact that they have built up one of the best trades in the west, and it is growing larger each year. One of the main efforts at this nursery is to promote the interests of the buyers, and perhaps they have the best service department of information and advice to the planter of any other person in Kansas, and it is free. Their stock is especially selected to please the customer and is graded by experts with a view of having each tree fully up to size and of a size larger than the regular nursery caliber tree. This is more expensive, but it not only pays the planter best, but the Wichita Nursery as well, as it brings a larger number of orders. Their trees are grown in Cowsley County, being entirely free from scale insects and in a district isolated entirely from disease, and stock is fully inspected and each order bears certificate of inspection and is guaranteed to be in prime condition. The fruit book which they put out is full of information "how to plant and handle your stock," and is well worth the price of your order—send for it, it is free and bring full of facts. Knowing these people for several years, we have no hesitancy in recommending them to you, and in writing please mention Kansas Farmer.



SICK HOGS

Cured and disease prevented with Snoddy's Powder. Clears hogs of worms. Makes hogs thrifty. Will send man and treat sick hogs on insurance. Treatment is simple. Any one can use it. \$5 cases cure 40 hogs. Book and test reports free. Agents wanted. DR. B. C. SNODDY CO.

NO MORE NAILS DRIVEN IN HORSES' FEET.

Use the celebrated Shaffer Nailless Horse-shoe. Horses will do more work and require less feed to keep them in good condition. Easily attached. Costs less a year than nail-on shoes. Thousands of horse owners use and recommend them. Agents wanted. Manufactured and sold by NATIONAL NAILLESS HORSESHOE CO., Twentieth and Commerce Sts., Dept. 42, Philadelphia, Pa.

Bill Brook Farm Seed Corn.

The advertisement of H. O. Tudor, of the famous Bill Brook Farm, Helton, Kan., of seed corn for sale, appears elsewhere in this paper. The community about Helton is said to have produced the best corn in Kansas in 1912. Certainly the best corn there was extra good, not only in quantity, but in quality as well. Mr. Tudor says all his seed was selected early, when fully matured, and is in fine condition. He guarantees the germination and will be glad to send everyone interested full information and price quotations by return mail. He has 2,000 bushels of Boone County White ready for shipment either in the ear, crated, or shelled and sacked.

RELIABLE POULTRY BREEDERS

The "Big Three" Poultry Farms

MYERS & STOVER, FREDONIA, KAN.
R. C. R. I. RED CHICKENS—Cholera birds of correct color, shape and markings. Twenty-two blue ribbons, color and shape specials, and silver specials in this season's shows. Five pens headed by Kansas State Show and other show winners. Eggs, \$1 to \$5 per 15; free range, \$4.50 per 100.
INDIAN RUNNER DUCKS—American standard light fawn and white; also pure white. Never defeated in show room. Fine shape and heavy laying strains. Eggs—Fawn, white, \$1.50 per 15, \$8 per 100; white, \$3 per 15, \$10 per 50.
BOURBON RED TURKEYS—Big, hardy, domestic as chickens. Extra fine color, two-year-old breeders. Eggs, \$3 per 11. Free catalog.

ORPINGTONS.

BUFF ROCK COCKERELS \$2.00 TO \$5.00. Ferris & Ferris, Effingham, Kan.

BUFF ORPINGTONS, COCKERELS, PULLETS, 80c up. M. Spooner, Wakefield, Kan.

PURE WHITE ORPINGTON EGGS, \$1.50 per setting; \$7.00 per hundred. Large, white stock. Mrs. Helen Lill, Mt. Hope, Kan.

S. C. BUFF ORPINGTON COCKERELS. \$1.00 and \$1.50. Mrs. J. A. Young, Wakefield, Kan.

BUFF ORPINGTON COCKERELS, I. R. Drakes. Orders for eggs booked now. Mrs. T. N. Becky, Linwood, Kan.

AMERICAN FAWN AND WHITE INDIAN RUNNER DUCKS, Buff Rocks. Stock eggs. W. A. Hlands, Culver, Kan.

ORPINGTONS—WHITE, BUFF; PEKIN DUCKS. Eggs, \$1 to \$4. Write for mating list. J. H. Eby, Newton, Kan.

BIDE-A-WEE FARM BUFF ORPINGTONS won at Nebraska State Show, 1 pullet, 5 cockerels. Winners at Agra and Smith Center Shows. Roy J. Lucas, Agra, Kan.

WHITE ORPINGTONS EXCLUSIVELY—"Kellerstrass strain." Choice cockerels, \$3 and \$5. Eggs in season. Satisfaction guaranteed. H. B. Humble, Sawyer, Kan.

KELLERSTRASS AND IMPORTED White Orpingtons. Blue ribbon winners, Cedar Rapids, Iowa, Des Moines. Write for catalog. Gabel Mfg. Co., Hawkeye, Iowa.

WHITE ORPINGTON EGGS, \$2.00 PER 15—\$10.00 per 100. Special price on larger amounts. Ed. McClure, Central City, Iowa.

GUARANTEED THOROUGHbred S. C. White and Buff Orpingtons; cockerels, \$3; pullets, \$2; eggs, \$1.50 per 15. J. A. Blunn, Station A, Wichita, Kan.

S. C. BUFF ORPINGTONS—PULLETS \$1 to \$3. Good Buff eggs, \$1.50 to \$3 per 15. Pawnee Poultry Ranch, Route 2, Box 12, Larned, Kan.

CRYSTAL WHITE ORPINGTONS, KELLERSTRASS strain. Stock, eggs and baby chicks for sale. C. B. Owen, Lawrence, Kan.

S. C. BUFF ORPINGTON EGGS, JANUARY, February. National egg laying contest winners, 1912. Mating list free. S. C. Fellows, 530 St. Louis St., Springfield, Mo.

KELLERSTRASS CRYSTAL WHITE Orpingtons, S. C. White Leghorns. Stock eggs, baby chicks. Satisfaction or money back. Theo. Flick, Goodland, Kan.

S. C. BUFF AND BLACK ORPINGTONS—Eggs, \$1.50 for 15, and cockerels, \$1.50 to \$3 each. Good stock. Ella Sherbonaw, Fredonia, Kan.

WHITE ORPINGTON STOCK AND EGGS for sale, from Kellerstrass \$30 mating pens. Big winter layers. Address Martin Stephens, Lebanon, Neb.

SINGLE COMB BUFF ORPINGTONS. Hens in pen score 93 to 94%. \$3.00 for 15 eggs. Farm range, scored, \$1.50 for 15 eggs; 100, \$6.00. Mrs. Ida Clements, Hennessey, Okla.

J. C. KULLMAN, BREEDER OF BUFF, White and Black Orpingtons, the kind that win. Stock for sale. Eggs, \$3 for 15 eggs. Life member A. F. A. Towanda, Kan.

EGGS FOR HATCHING FROM HEAVY laying strain, prize winning. Single Comb White Orpingtons. Large size, good color. Correct type. Prices right. Catalog free. P. H. Anderson, Box F-53, Lindsborg, Kan.

IMPORTED ENGLISH BLUE AND BUFF Orpington Ducks for sale. Booking orders for eggs now. Big layers and big payers. One duck laid 91 eggs in 105 days. Write for prices. Emma Holtz, Wilber, Neb.

BLUE RIBBON STRAIN WHITE ORPINGTONS. Some fine young cockerels from my prize winning birds at from \$2.50 to \$5. Let me know your wants. C. O. Crebbs, Stafford, Kan.

KELLERSTRASS STRAIN WHITE ORPINGTONS exclusively. A few cockerels left at \$1.50 each. Eggs, \$1 and \$2 per 15; \$6 and \$8 per 100. Satisfaction guaranteed. L. A. McKinnell, Maize, Kan.

EGGS—S. C. BUFF ORPINGTONS, Bronze Turkeys of quality, by post, paid, unbroken; six or more Orpingtons, 20 cents each; turkeys, 30 cents each. J. A. Harrigan, Patricksburg, Ind.

KELLERSTRASS WHITE ORPINGTONS—Eggs for hatching from Illinois State Fair and Missouri Interstate Show winners at \$2.50 and \$5.00 per 15. Express paid on eggs. H. J. Strathmann, Palmyra, Mo.

BUFF ORPINGTON COCKERELS AND pullets from my winners at Des Moines, Kansas City, Topeka, and St. Joseph, offered at moderate prices. My birds are a good laying strain, having fine color combined with great size. H. F. Farrar, Axtell, Kan.

S. C. WHITE ORPINGTONS—KELLERSTRASS and Owen Farm strain; some extra fine cockerels for sale, \$2 to \$5. These birds are from Madison Square Garden winners. Eggs from prize winners, \$2, \$3 and \$5 per 15. Ed Granerhotz, Esbon, Kan.

SINGLE COMB BUFF ORPINGTONS—Eleven years for eggs and quality. Eggs from fancy matings, \$3 per 15; high-class utility, \$7 per 100. Ask for free mating list. Also strawberry plants cheap. J. F. Cox, Route 8, Topeka, Kan.

ORPINGTONS.

ORPINGTONS, WHITE AND BUFF. Also Rhode Island Reds. Males and females, eggs for hatching, and baby chicks for sale. Extra good stock, priced right for ready sale. C. W. Landrum, Carthage, Mo.

BUFF ORPINGTON EGGS—GOOD UTILITY flock, fine color and size, 60c per 15; \$3 per 100. Baby chicks hatched to order for March delivery, \$1.50 per dozen; April delivery, \$1.20 per dozen. L. H. Cobb, Dunavant, Kan.

SINGLE COMB BUFF ORPINGTONS—High class stock and winners at Newton, 1911, and State Show, 1912 and 1913. Cockerels and pullets for sale. Eggs, \$5 and \$3 per 15. Write for mating list. Wichita Buff Orpington Yards, Wichita, Kan.

PLYMOUTH ROCKS.

BARRED PLYMOUTH ROCKS—MRS. E. E. Hazen, Hiawatha, Kan.

BARRED ROCK EGGS 15, \$1.00; 100 \$5.00. Mrs. Dradle Dunbar, Columbia, Kan.

WHITE ROCK COCKERELS, \$2 PER. Good ones. F. G. King, Olivet, Kan.

BUFF PLYMOUTH ROCKS—STANDARD bred eggs, \$2 per 15. Orders booked now. Mrs. Coral E. Pfarr, Wetmore, Kan.

WHITE ROCKS—SOME GOOD STOCK for sale. Write your wants. J. A. Kaufman, Abilene, Kan.

WHITE PLYMOUTH ROCKS—EGGS from "Best in the World" strain, \$1.00 and \$2.00 setting. E. H. Steiner, Sabetha, Kan.

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

WHITE ROCKS, FISHEL STRAIN, EGGS, \$1.25; 100, \$5. Mrs. Frank Powell, Buffalo, Kan.

EGGS FOR HATCHING FROM TRAP- nested 200-egg strain of White Rocks, \$2.50 for 15. E. L. Lafferty, Ellsworth, Kan.

CHOICE QUALITY LARGE WHITE Rock cockerels. F. A. Stever, Effingham, Kan.

BARRED ROCKS—LARGE, EARLY, high-scoring birds. Henry Molyneux, Palmer, Kan.

BARRED ROCK EGGS, \$5.00 PER HUN- dred. Write for catalogue. Harry E. Duncan, Humboldt, Kansas.

BARRED ROCK EGGS FROM THREE fine matings. Write for list. Also hens and pullets. Mrs. E. C. Wagner, Holton, Kan.

PARTRIDGE ROCKS, BIRD BROTHERS strain. Cockerels for sale. Gregor Fisher, Elkhorn, Wis.

LARGE WHITE ROCK COCKERELS. Also a few Buff Cochins bantams for sale. J. C. Bostwick, Hoyt, Kan.

BUFF ROCK EGGS \$2.00 PER 15. PRE- paid. Circulars free. Ferris & Ferris, Effingham, Kan.

BARRED PLYMOUTH ROCK COCKER- els, \$1.50 each, four for \$5, or \$12.50 per dozen. Mrs. Henry Bachelder, Fredonia, Kan.

PURE-BRED BARRED ROCK EGGS AT farmers' prices. Decide now! Get my illustrated egg circular. L. R. Connor, Route D 1, Lexington, Mo.

BARRED ROCKS EXCLUSIVELY. EGGS for hatching, \$2.75 for 30; \$3.50 for 50; \$6.50 for 100. Satisfaction guaranteed. Kinney Caven, LeRoy, Kan.

BUFF ROCKS OF SHAPE, SIZE AND color. Winners of blue. Score, 90 to 93%. Price of eggs right. Glen Swartz, Route 1, Dixon, Ill.

BARRED ROCKS—DENVER WINNERS, first cockerel, 5 entries, 4 ribbons. Special matings hold 56 premiums; utility flock, 12. Eggs, 15, \$3; 30, \$5; 15, \$1.25; 60, \$4; 100, \$6. Mrs. D. M. Gillespie, Clay Center, Kan.

WHITE PLYMOUTH ROCKS—WINNERS at Missouri State, Little Rock, Ark.; Western Missouri, Jefferson City and Warrensburg shows. Cocks, hens, cockerels and pullets at reasonable prices. A. E. Glass, Harrisonville, Mo.

BARRED ROCKS BRED FOR WINTER laying for 28 years. Show quality. Eggs, \$1 for 15; \$2.50 for 50; \$4.50 for 100. O. E. Skinner, Columbus, Kan.

CHAMPION BARRED ROCKS; 97 PRE- miums. Topeka, Lawrence, Manhattan, Blue Springs, Ottawa. Cockerels, \$2.50 up; eggs, 15 \$2.00. Mrs. Chris Bearman, Ottawa, Kan.

WHITE PLYMOUTH ROCKS—MY BIRDS win at the state shows. Stock and eggs for sale. Satisfaction guaranteed. Flowercrest, Holt, Mo. Mrs. J. W. Porter.

BUFF PLYMOUTH ROCKS—COCKER- els at \$3 and \$5 each; pullets at \$2 each. If you want better birds, I have them. Write for list of recent winnings. T. H. Lucas, Pattonville, Mo.

BARRED PLYMOUTH ROCKS, THOMP- son Ringlet strain, cockerels \$2 each. Eggs for hatching, \$3 for 50; \$5 for 100. A. F. Siefker, Defiance, Mo.

WHITE PLYMOUTH ROCKS—WINNERS at Grinnell and Cedar Rapids, scoring 94 to 96. Eggs from special mating, \$2 per 15. Eggs from free range stock, 15 for \$1; 30 for \$2; 50 for \$3. Chas. L. Berry, Iowa City, Iowa, Route 6.

E. B. THOMPSON STRAIN BARRED P. Rocks and Moore & Moore's strain S. C. R. I. Reds. Prize winners at State Poultry Show, 1913. Eggs from utility stock, \$1.50 per setting. Satisfaction guaranteed. R. A. Ogden, 1205 South Wichita St., Wichita, Kan.

BIG SNAP IN WHITE PLYMOUTH Rocks—Two of the finest pens in the state must be sold quick—and the price is low. 1912 hatched, fully developed and over Standard weight. Pullets laying. Good enough to show and win. Buy now and have them for this year's breeding. This is unquestionably the White Rock bargain of the year. J. E. Spalding, Care Kansas Farmer, Topeka, Kan.

PLYMOUTH ROCKS.

WHITE ROCKS EXCLUSIVELY. SOME good cockerels for sale, \$2 each; a few cocks, \$1.50. Frank Lott, Danville, Kan.

"IVORY STRAIN" WHITE ROCKS. Large white, extra fine. Graca Dolson, Neal, Kan.

FOR SALE—FARM-RAISED BARRED Plymouth Rocks. Cockerels, \$1.50 each. Eggs for hatching in season. J. L. Yordy, Tescott, Kan.

BUFF ROCK EGGS BY PARCELS POST, from quality stock, at reasonable prices. Write today. William A. Hess, Humboldt, Kan.

BARRED PLYMOUTH ROCKS—CHOICE farm flock carefully mated. Eggs, \$4 per 100. A few cockerels, \$1 each. Mrs. W. C. Becker, Solomon, Kan.

WADDELL'S GOLDEN ROD BUFF PLY- mouth Rocks, best in the west. Winning everywhere. Eggs for hatching and 15 good cockerels for sale. A. J. Waddell, Wichita, Kan.

BARRED ROCKS A SPECIALTY—BRAD- ley and Thompson strains. High quality cockerels, \$2 and \$3 each. Eggs in season. Price mating, \$1.50 to \$3 per setting. Orders booked now. Mrs. Ada McCandless, Sterling, Kan.

WYANDOTTES.

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

SILVER WYANDOTTES—EGGS, \$1.50 per setting. Wm. Royer, Coffeyville, Kan.

FOR SALE—WHITE WYANDOTTE cockerels, \$2.00. Alex. Thomason, Havana, Kan.

GOLDEN WYANDOTTES—COCKERELS from prize winning stock. M. M. Dongis, Belleville, Kan.

PURE-BRED SILVER WYANDOTTE cockerels, \$1 and up. J. B. Fagan, Minneapolis, Kan.

GOLDEN WYANDOTTES, STOCK AND eggs for sale at all times. J. K. Hammond, Wakefield, Kan.

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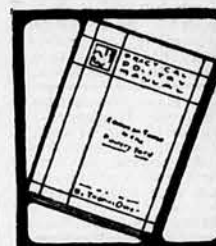
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Three blocks from car line and paved streets of Atchison, Kan. About nine acres in fruit and garden. Beautiful 11-room house, city electric lights, steam heat, sewer, bath, hot and cold water, private waterworks with electric pump. About 8 blocks from school. Atchison's educational facilities unexcelled. An ideal home with all the city advantages and none of its taxes. Take advantage of this before somebody gets ahead of you. Address **HENRY JACOBS, 913 MAIN ST., ATCHISON, KANSAS**

Write New Home Land Co., Springfield, Mo., for lists of farm lands:

A HOME BARGAIN.

80 acres, well improved, 2 1/2 miles from town and graded school; good alfalfa land. Price \$6000. Write for list. **V. E. Niquette, Salina, Kan.**

KINGMAN COUNTY 1,120 a. solid body. 350 cult., 500 bot., fair blds., near market. Price \$32.50, half cash, bal. at 5 per cent. **JOHN P. MOORE LAND CO., Kingman, Kansas.**

BARGAINS.

160 acres.....\$25 per acre
160 acres.....\$30 per acre
80 acres.....\$30 per acre

J. D. RENEAU, La Cygne, Kansas.

FINE 160 A. FARM, lime stone soil, good house, barn, etc. Nicely located. Will produce wheat, corn, clover, alfalfa. Part cultivated, balance pasture, meadow. Close to Fredonia, Kan., in oil gas belt. Will take \$40 a. and is worth \$75. Address **Owner, Lock Box 807, Fredonia, Kan.**

SOUTHERN LANDS—Farm and timbered lands in Arkansas, Louisiana and Mississippi. Delta lands, the richest yet the cheapest lands in the United States. For prices and particulars write **D. H. BALFOUR & CO., 1501-1517 Central Bank Bldg., Memphis, Tenn.**

TWO DICKINSON COUNTY BARGAINS. 160 Acres, well improved, 4 miles from Abilene; fine farm, good location. Also half section, 4 miles from good town; well improved. Both for sale at a bargain. Write for particulars and list. **Briney, Pautz & Danford, Abilene, Kan.**

Irrigated Farms Old established water right, no bonded debts. Farms that pay owner net from \$15 to \$25 per acre. Prices from \$75 to \$150 per acre. We have a few exchanges. **Longmont Realty Co., Longmont, Colo.**

\$1.75 PER MONTH For ten months buys level, well located lot in Plains, Kan. A gilt-edge proposition for those who act promptly. Only a few to be sold at this price. Send \$1.75 first payment, or write for complete list. **ACT QUICK, JOHN W. BAUGHMAN, Drawer B, Plains, Kan.**

140 ACRES ALFALFA LAND. 100 in cultivation, all fenced, 25 acres in alfalfa, cuts four crops a year, all in cultivation. Will be in alfalfa this fall. One mile from Chetopa, Kan. 65 acres in wheat; no buildings. \$50 per acre. Easy payments. **J. B. COOK, Owner, Chetopa, Kansas.**

The Best Live Stock Region in the World, right here in Greenwood County. Pasture lands or improved farms at paying investment prices. Two sections of pasture at \$22.50, good terms. Watch this space each week and write me. **A. F. DOVE, Hamilton, Kansas.**

WILL SELL

My equity, five farms, eastern Kansas, worth \$30,000.00, for \$7,000.00. Carry that one year at 6 per cent. Great chance for dealers. **N. O. TATE, LYNDON, KAN.**

ALFALFA — WHEAT — CORN

Nice little 640-acre ranch; 500 acres in wheat, 35 acres alfalfa, balance sandy creek bottom pasture, 10-room house with closets, bath room and pantry; cement cave, water storage tank, granary, stable for 18 head horses, cattle sheds. This is a dandy all-purpose farm. Price, \$36,000. Terms on part. No trades considered. This is close to good town. **Paul Kesing, Protection, Kan.**

Eastern Kansas Farm Bargain

Eighty acres, 4 miles from Osage City, Kan.; 45 acres in cultivation, family orchard, native grass pasture and meadow; 4-room house, good condition; good cellar, stable for five horses, corn crib, hen house, buggy house, good water, close to school, R. F. D. Price for quick sale, \$3,200. **J. C. RAPP & CO., Osage City, Kansas.**

For Sale on Crop Payments

I have some smooth farming land in Gray and Finney Counties, Kansas, for sale on a cash payment of 25 per cent of the purchase price and balance on crop payments, in lots of 160 acres or more, at 6 per cent interest. Nearly 800 acres broken out ready for spring crops. Located from four to ten miles from railroad. **J. B. C. COOK, Stafford, Kan.**

160 ACRES, improved, 3 miles from Quenemo, Kan. Price, \$25 per acre. 166 Acres, 4 miles from Quenemo, highly improved grain and stock farm. Price, \$9,000. Liberal terms. 320-Acre Stock Farm, 4 miles from Quenemo; good improvements, never-failing water; 150 acres alfalfa land, 15 acres alfalfa. Price, \$40 per acre. Terms, 80 Acres, improved, 3 miles from town. Price, \$2,500. Terms. **THE EASTERN KANSAS LAND CO., Quenemo, Kansas.**

FOR SALE

Nine head mammoth jacks, all but one Kansas raised, from weanlings to 16 1/2 hands, seven years old. Best stock. Fine, proved, and good getters. Write or come see them. Reference, Protection State Bank. Now is the time and here the place to buy. **MARK BROTHERS, Protection, Kansas.**

FIFTY JACKSON CO. FARMS—The never failing part of Kansas. Well improved, \$75 per a. and pu. **Wm. Harrison, Whiting, Kan.**

BARGAINS in Ness County land, large and small tracts. Write now for lists and literature. **C. H. Brassfield, Ness City, Kan.**

CORN, WHEAT AND ALFALFA LANDS and stock ranches, \$10 to \$15. Also city property. **Winona Land Co., Winona, Kan.**

EIGHTY ACRES

Four miles of Ottawa, Kan. Price, \$50.00 per acre. **MANSFIELD LAND CO., Ottawa, Kan.**

GOOD QUARTER LEVEL WHEAT LAND Improved, fine water, for gasoline tractor plow outfit. Act quick. **WEAVER & JEVONS, Wakefield, Kan.**

OUR RED LETTER SPECIAL. Will trade your property. Get into touch with live wires. Guaranteed deal. List today. Write for particulars. **MID-WEST REALTY EXCHANGE, Riverton, Nebr.**

CHOICE BARGAINS

Now in irrigated, alfalfa, shallow water, wheat and ranch lands. Extra fine ranch, 5,397 acres, \$10 per acre, good terms. Write for particulars. **J. W. WAMPLER & CO., Garden City, Kan.**

WRITE TODAY.

I have two good half sections in Western Kansas for sale on ten years' time at 6 per cent interest. Send for particulars. **Jas. H. Little, The Rush County Land Man., La-Crosse, Kan.**

FOR SALE—560 acres, 10-room modern house, good outbuildings; 110 acres alfalfa; no waste land; 7 miles woven wire fence; close to market. **NEAL A. PICKETT, Arkansas City, Kan.**

EASTERN KANSAS BARGAINS. Improved stock and grain farms, \$30 to \$65 per acre. Write for list free. **J. E. CALVERT, Garnett, Kan.**

BIG INCOME TRACT—4,000 acres. Good improvements. In famous bluestem belt. Well watered; in rain belt. Bargain. Also well watered grass tract, cheap. **J. W. KENNER, Eureka, Kansas.**

FOR SALE—24-section ranch in rain belt of the Panhandle of Texas. Well watered and fenced, close to high school and railroad. Plenty of farming land. **J. W. KNORPP, Groom, Texas.**

320 ACRES of good farm land in Gray County, Texas, improved, rented this year on shares. Three miles of station. Other land for sale. Write. **J. W. KNORPP, Groom, Texas.**

FOR SALE—80 Acres of Land, 1/4 mile from this town. For quick sale I will take \$25 per acre. It will make some one a fine dairy farm. Ten acres in bluegrass; good spring on it. **D. L. Max, Niangua, Mo.**

ALFALFA and wheat land for sale or trade. Good smooth quarter, \$2,000; \$500 cash, balance time. Half section shallow water land, 3 miles from Scott City. \$40.00 per acre. Write us. **R. H. CRABTREE, Scott City, Kansas.**

TWO BARGAINS.

100 acres near Olathe, well improved, fine, \$110.00 per acre. Fifty-seven acres, improved, best of Kaw bottom land, greatest bargain in the county. **AT KANSAS CITY'S DOOR.** Write for lists. **T. H. MILLER, Olathe, Kansas.**

150 THOUSAND ACRES

Black and chocolate loam farm land in Texas. Price, \$7.00 to \$10.00 per acre. Full description and testimonials furnished free. Write me today. **E. M. GIFFEE, Blossom House, Kansas City, Mo.**

CHANCE FOR YOU, MR. RENTER. 320 acres unimproved, 1 1/2 miles town; all good land; 140 cultivated. Price, \$25.00 acre; only \$400.00 down, balance crop payments. Have improved farm close can rent you. **Buxton Land Co., Utica, Ness Co., Kan.**

BEST TOWN TO LIVE IN.

If you would like to live in the most beautiful city in the West, with unsurpassed educational, business and religious advantages, in a city clean, progressive, where real estate values are low but steadily advancing, where living expenses are reasonable, a city with natural gas at lowest price, address the **SECRETARY of the COMMERCIAL CLUB, Topeka, Kansas.**

FOR EXCHANGE

WE TRADE OR SELL ANYTHING ANYWHERE. The Realty Exchange Co., 18-22 Randall Bldg., Newton, Kan.

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

GOOD TRADE—Eighty acres improved, 4 miles of Cuba; 35 acres in cultivation, balance timber; good farm and pasture land. Price, \$2,000. Want small farm or town property. **A. LUNG, Cuba, Mo.**

EXCHANGE—Will trade my equity in 80 acres, Saline County; 6-room house, barn, well and mill, cistern, chicken house, some fenced hog-tight, 50 acres cultivated, 1 1/2 miles to school, 3 1/2 miles to two towns; mortgage, \$5,500, at 6 per cent. For live stock, hardware, or clear rental. **ED. A. DAVIS, Minneapolis, Kansas.**

EXCHANGES EVERYWHERE. Get our fair plan of making trades all over the United States. **Graham Bros., El Dorado, Ka.**

QUEEN ANNE COTTAGE in Kansas City, Mo., well located, strictly modern, to trade for small farm. Write **TRIPLETT LAND CO., Garnett, Kansas.**

We Can Save You Time and Money if you buy, sell and exchange property with us. All kinds of properties for sale. **Donwell, 3621 Wyandotte, Kansas City, Mo.**

Live Trades Would you trade if suited? Write for our list of snappy exchanges and listing blank. Describe property first letter. **Eberhard & Mellor, Whitewater, Kan.**

THE STRAY LIST

H. N. KINKEAD, COUNTY CLERK, Ford County, Taken Up—By Fred Brington, Dodge City, Kan., on the 28th day of December, 1912, one black mare, 2 or 3 years old; no brands; wire cut on right front foot. Value, \$30.00.

C. C. STOTLER, COUNTY CLERK, Wabunsee County, Taken Up—One red white-faced steer, age about 1 1/2 years. Underbit in right ear and slit in left ear. Brand is dim, supposed to be "I." Appraised value, \$30. Taken up by Daniel C. Paxton, Alma, Kan.

C. C. STOTLER, COUNTY CLERK, Wabunsee County—Taken up—by W. R. Banks, Wamego, Kan., on January 27, 1 red, white faced steer, about 3 years old, 5 feet, 3 inches high. Dulpia cut down, branded "Z" on left side. Appraised value \$50.

FIELD NOTES

FIELD MEN.

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

PURE BRED STOCK SALES.

Percherons and Other Draft Breeds. March 6—Mitchell County, Kan., Percheron Breeders. Sale at Beloit, Kan. March 5—J. C. Robison, Towanda, Kan. Sale at Kansas City, Mo. Mar. 6—S. J. Miller, Kirksville, Mo.

Percherons and Jacks. Feb. 27—The Pure-Bred Live Stock Association of Northwest Missouri, T. E. Deem, Manager. Sale at Cameron, Mo. March 12—L. H. Luckhardt, Tarkio, Mo.

Jacks and Jennets. Feb. 25—D. J. Hutchins, Sterling, Kan. Feb. 27—W. T. Trotter, Mt. Airy, Iowa. March 4—L. M. Monsees & Sons, Smithton, Mo. March 6—S. J. Miller, Kirksville, Mo. March 10—G. C. Roan, La Plata, Mo. March 12—J. E. Clary & Sons, Sheridan, Mo.

Shorthorns. Feb. 24—G. F. Hart, A. B. Garrison, Sumnerfield, Kan. March 14—C. G. Cochran & Son, Plainville, Kan. Sale in Lamer's pavilion, Salina, Kan. Feb. 26—E. P. Flanagan, Chapman, Kan. March 19—J. F. Richards & Son, Bevier, Mo.

Holstein Friesians. Oct. 21-22, 1913—Woodlawn Farm, Sterling, Ill.

Poland Chinas. Feb. 20—George Wedd & Son, Spring Hill, Kan. Feb. 18—J. H. Harter, Westmoreland, Kan. Feb. 22—J. H. Peckham, Pawnee, Neb. April 3—Roy Johnston, South Mound, Kan. Feb. 21—W. Z. Baker, Rich Hill, Mo. Feb. 22—A. J. Erhart, Adrian, Mo. Feb. 25—The Deming Ranch, Oswego, Kan. March 19—J. F. Richards, Bevier, Mo.

Duroc Jerseys. Feb. 20—Charles Stith, Eureka, Kan. Feb. 20—Rinehart & Son, Smith Center, Kan. Feb. 25—E. P. Flanagan, Chapman, Kan. March 1—R. R. Miller, Clay Center, Kan. March 13—John Mcullen, Formoso, Kan., and J. G. Sturtevant, Formoso, Kan.

Hampshire Hogs. Feb. 18—W. F. Davis, South St. Joseph, Mo. March 12—H. D. DeKalb, DeKalb, Iowa. Sale at Council Bluffs, Iowa.

Strauss Made His First Sale. O. R. Strauss at first public sale of registered Poland Chinas held at Milford, Kan., February 3, demonstrated his ability to put up an offering well fitted, but made what was perhaps a mistake by vaccinating after the sows were bred. Whether this was a mistake or not, the buyers present considered it such, and low prices resulted. Sales ranged around \$30, with a \$50 top, and with many choice gilts selling as low as \$20. However, Mr. Strauss has the nerve and has no fault to find. Among the principal buyers were: J. L. Griffiths, Riley; D. M. Forney, Morganville; Jacob Her, Milford; D. E. Willson, Milford; James Arkell, Junction City, and James Iams, Clay Center.

Bad Weather Interfered. Extremely cold weather, lack of fitting and near-by cholera caused Mr. J. W. Anderson's Poland China sows to sell far below their value at his February 4 sale at Leonardville, Kan. The sows, especially those bred by Clay Jumbo, were valuable, but did not show up well. They had been bred young and never grew out well. The entire offering lacked conditioning and most of them were bred for late farrow, with several not safe or not bred at all. Prices on the bred stuff ranged from \$25 to \$33, with the bulk of sales around \$30. Among the best buyers were: Walt Haubleuxter, Green; John Roth, Green; S. A. Lawson, Leonardville, Hill & King, Dover; L. Locknour, Elmont; Charles Johnson, Leonardville; Frank Rahe, Leonardville; Victor Lund, Leonardville; John Johnson, Leonardville; Fred Parman, Green; James Iams, Clay Center.

College Sale a Good One. The public sale of registered Berkshire and Duroc Jersey swine held at the Kansas Agricultural College last Friday was one of the best sales ever held in the state. Every Duroc sold in Kansas and only one Berkshire went outside the state. The sale was held in the new stock judging pavilion, which was crowded to its utmost capacity throughout the sale. Colonel Brady made a very interesting opening talk, saying, among other things, that this was the first public sale of pure-bred stock ever made by any agricultural college in America. He was followed by Professor Cotchel, who made a

very interesting and instructive talk in which he invited all those in attendance to stay over and visit the different departments of the college.

BERKSHIRES. Owing to the fact that such a large per cent of the sows and gilts were bred late and a big per cent not safe, prices ranged low for the kind of individuals offered. The entire lot sold averaged \$35.45. Following is a list of representative sales:

2—James Lacey, Abilene.....	\$31.00
3—Andrew Schuler, Chapman.....	35.00
5—A. E. Wingate, Manhattan.....	36.00
6—A. E. Wingate.....	39.00
7—H. T. Higgs, Abilene.....	33.00
13—A. Docking, Manhattan.....	36.00
15—E. H. Withother, Plevna.....	30.00
17—James Conroy, Manhattan.....	40.00
20—W. H. Brewer & Son.....	40.00
21—G. D. Williams, McPherson.....	46.00
23—A. W. Wright, Valley Center.....	50.00
25—H. H. Reed, Abilene.....	50.00
26—H. H. Reed.....	45.00
27—W. F. Buchanan, Kansas City, Kan.....	32.00
30—A. L. Brandhurst, Milford, Neb.....	40.00
31—Isaac Hehn, Marion.....	39.00
32—A. W. Wright.....	50.00
35—Isaac Hehn.....	49.00

DUROCS. The Durocs were very uniform and the spring gilts were extra growthy. The blood lines are as good as can be found, and the demand was strong from start to finish. The entire lot averaged a little over \$53. H. J. Quinn & Son, Humboldt, took the top, No. 21, at \$71. Following is a list of leading sales:

1—J. B. Duncan, Flush.....	\$52.50
2—G. L. Boyle, Thayer.....	52.00
3—Frank Adams, Maple Hill.....	60.00
5—John Amelch, Formoso.....	54.00
6—C. F. Laury, Halstead.....	56.00
8—W. H. Gould & Son, Willow.....	46.00
9—Isaac Hehn, Marion.....	66.00
10—C. S. Newkirk, Geneseo.....	56.00
12—J. H. Reinsner, Atchison.....	48.00
15—C. D. Ellis, Manhattan.....	38.00
17—E. L. Hisher, Halstead.....	53.00
18—A. Vanleper, Arlington.....	50.00
21—H. J. Gould & Son, Humboldt.....	71.00
22—William Herrington, Blain.....	50.00
24—E. T. Stewart, Humboldt.....	59.00
25—A. L. Tambaugh, Keats.....	52.00
26—H. A. Doyle, Leonardville.....	64.00
27—Ed Schorer, Manhattan.....	61.00
28—Ed Regler, Whitewater.....	54.00
30—H. W. McFadden, Wamego.....	54.00
32—W. E. Monnesmith, Formoso.....	56.00

J. L. Griffiths Makes Good Sale.

J. L. Griffiths' second annual bred sow sale held at the farm near Riley, Kan., on February 5, was one of the very successful Poland China events of the year. The day was ideal and a big crowd in attendance. The arrangements were complete and Col. James T. McCulloch was never in better form. The entire lot sold, including five fall boars, averaged \$40, lacking a few cents. James Iams of Clay Center topped the sale at \$60, buying No. 1, a tried sow by Big Bone Pete bred for early farrow. Following is a partial list of sales:

1—James Iams, Clay Center.....	\$60.00
2—Julius Rahe, Winkler.....	41.00
3—L. Locknour, Elmont.....	42.00
4—Erwin Kaiser, Riley.....	37.00
5—S. B. Amcoats, Clay Center.....	50.00
6—W. D. Williams, Bala.....	52.00
7—L. E. Klein, Zeandale.....	47.00
8—James Anderson, Leonardville.....	38.00
9—Clint Martin, Broughton.....	40.00
10—F. C. Swierchinsky, Belleville.....	38.00
11—Charles Lass, Riley.....	40.00
13—Clint Martin.....	40.00
14—W. A. Christenson, Courtland.....	40.00
15—J. H. Harter, Westmoreland.....	46.00
16—L. E. Klein.....	55.00
18—S. B. Amcoats.....	54.00
19—M. B. Caldwell, Broughton.....	40.00
20—C. A. Ladd, Riley.....	37.50
21—G. F. Wagner, Manhattan.....	40.00
23—Gus Belin, Green.....	40.00
26—J. E. Pfeffer, Leonardville.....	40.00
31—J. A. Lewis, Bala.....	40.00
32—D. M. Forney, Morganville.....	31.00
36—Boar—Charles Tillquist, Osborne.....	33.00
37—Boar—E. E. Merten, Clay Center.....	51.00

Arkell Made Fair Sale.

The James Arkell bred sow sale held at Junction City on February 6 was quite well attended, but prices ranged rather low considering the quality of the offering. A number of the best sows were bred late, which accounted to some extent for their selling below their value. However, every animal sold will make plenty of money for its new owner, and Mr. Arkell is well pleased with the prices received. The prices were very even, the entire offering averaging \$30, with only a \$40 top. Following is a list of principal sales:

1—Charles Schwitzer, Milford.....	\$38.00
2—Arthur Thomas, Riley.....	31.00
3—Joseph Babb, Wakefield.....	32.00
4—J. L. Griffiths, Riley.....	41.00
5—J. L. Griffiths.....	37.50
6—W. D. Williams, Bala.....	36.00
7—Joe Babb.....	36.00
8—M. J. Tulley, Junction City.....	37.00
10—M. J. Tulley.....	30.00
14—Charles Wuetrick, Chapman.....	29.00
23—Arthur Thomas.....	40.00
24 1/2—John Bushnell, Green.....	31.00
31—William Steffen, Chapman.....	29.00

Report of Limerick & Bradford's Sale.

The dispersion sale of jacks and jennets held by Limerick & Bradford at Columbia, Mo., February 6, was well attended, and the better class of jacks sold well. Twenty-two head of jacks were sold, including a number of youngsters. Ten head of the tops sold for \$10.185. The average for the entire lot was \$66 per head. The top went to W. P. Gibson of Isabelle, Kan., at \$1,650. The sale on jennets was slow and prices ranged low. Cois. C. J. and Kemp Hieronymus sold the offering. The following is a list of buyers and prices paid for the jacks:

1—W. P. Gibson, Isabelle, Kan.....	\$1,650.00
2—F. D. Miller, Corn Gap, Texas.....	1,125.00
15—Bradley Bros., Warrensburg, Mo.....	810.00
16—Wm. Finley, Higginsville, Mo.....	600.00
4—Henry Huff, Hatton, Mo.....	850.00
6—L. R. Pettigo, Clarksburg, Mo.....	1,030.00
20—J. A. Meyers, Loretta, Neb.....	385.00
19—R. L. Hunt, Columbia, Mo.....	330.00
7—S. C. Tyler, Montgomery City, Mo.....	725.00
8—R. L. Crump, Dumas, Texas.....	505.00
17—W. E. Parsons, Corso, Mo.....	250.00
18—W. E. Parsons.....	200.00
12—J. F. Edwards, Centralia, Mo.....	60.00
10—G. M. Mullins, Benton, Kan.....	595.00
21—Wm. Finley, Higginsville, Mo.....	100.00
24—J. E. Blakemore, Harrisburg, Mo.....	510.00
9—R. L. Hunt, Columbia, Mo.....	1,000.00
11—Bradley Bros., Warrensburg, Mo.....	590.00
22—R. L. Crump, Dumas, Texas.....	735.00
23—Bradley Bros., Warrensburg, Mo.....	120.00
13—J. F. Edwards, Centralia, Mo.....	250.00
14—L. R. Pettigo, Clarksburg, Mo.....	280.00

Flanagan Sells February 25.

One of the best places to buy registered Shorthorns and Duroc Jersey bred sows and gilts will be at the E. P. Flanagan sale to be held on the farm near Chapman, Kan., on Tuesday, February 25. Trains will be met at Albia on the Junction City and Bettaville branch of the Union Pacific.

POLAND CHINAS

GREEN LAWN STOCK FARM.

Some good September and October pigs at \$30 a pair. Strictly big type breeding. Don't forget February 22 bred sow sale. Write for catalogue.

A. J. EHRHART & SONS, Adrian, Mo.

A's Big Orange For Sale

Sired by the noted B'r Orange, one of the best Big Type Poland Boars living. Will sell at a discount. Immune and fully guaranteed. Also 25 fall pigs and choice young Shorthorn bulls and a few bred heifers.

S. B. Amcoats, Clay Center, Kansas.

STRAUS SPOLAND CHINAS

Model Bill 54634 heads our herd, assisted by Model Wonder, one of the largest yearling boars of the breed. Fifteen spring boars for sale, priced to move them.

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

12 BIG POLAND BOARS 12

I still have a dozen extra choice spring boars, including two out of the great sow, Tecumseh Goldust, and sired by Blue Valley Goldust. Special prices for one week.

R. J. PECKHAM, Pawnee City, Nebraska.

When writing advertisers, please mention Kansas Farmer.

POLAND CHINA HERD BOARS.

For Sale—One or both of my herd boars, Big Bone Pete and Chief Price Best by Chief Price Again. Both young, good individuals, and will be priced reasonable.

J. L. GRIFFITHS, Riley, Kansas.

HERD BOAR FOR SALE.

Because I cannot use him longer I will sell my herd boar, Colossus Pan, a son of Colossus and out of the noted Expansion sow, Queen Over Pan. Also fall pigs, either sex.

Hubert J. Griffiths, Clay Center, Kan.

FALL BOARS FOR SALE—Sired by First Quality and First Prize, a Mouw bred boar, out of such sows as Lady Goldust by Goldust. Hadley bred sow sale February 6.

James Arkell, Route 4, Junction City, Kan.

SPRING AND FALL BOARS.

Twenty-five good ones, sired by "Blue Valley, Jr." and "Hartman's Hadley." Will not hold fall sale. Special prices for twenty days.

J. J. HARTMAN, Elmo, Kan.

Herd Boars For Sale

Five outstanding good ones. Three for sale, including Mogul's Monarch and Prince Hadley.

J. H. HARTER, Westmoreland, Kan.

SATISFACTION OR MONEY BACK.

For sale, 12 young boars, will make herd headers; 30 choice gilts; 100 spring pigs. Prices reasonable.

W. A. BAKER & SON, Butler, Mo.

RYDAL POLAND CHINAS.

Headed by Rydal Chief by Choice Goods. Sows of best strains. SPRING pigs for sale.

E. S. FARLEE, Rydal (Republic Co.), Kan.

DUROC JERSEYS

DUROC APRIL BOARS—Well built, good length, heavy bone. Gilts bred for May farrow. Summer and fall pigs, both sexes. Write me what you want to buy. Have some choice stuff I will guarantee satisfaction on. Herd material and farmer's kind.

J. E. WELLS, Fauett, Mo.

GEORGE KERRS DUROCS

BRED SOW SALE FEBRUARY 4, 1913. GEORGE KERR, Sabetha, Kan. R. F. D. No. 1.

DUROC BRED SOWS AND GILTS. 25 choice Duroc Jersey tried sows and gilts, bred to a son of White Hall King. Good individuals and richly bred.

HOWELL BROS., Herkimer, Kan.

PERFECTION STOCK FARM DUROC JERSEY HOGS.

For Sale—20 Spring Duroc Jersey gilts and spring boars, pairs and trios, not related. We sell at farmers' prices. CLASSEN BROS., Union, Okla.

GOLDEN RULE DUROC JERSEYS

Young boars all sold. Sows all reserved for big bred sow sale January 30. Can spare one good herd boar December 15.

LEON CARTER, Asherville, Kan.

Crow's Durocs

Twenty-one good Duroc boars from 125 to 280 pounds. All vaccinated. Price reasonable.

W. R. CROW, Hutchinson, Kansas.

MARSH CREEK DUROCS.

Bred gilts all sold. Choice fall boars and gilts at current prices. Choice breeding and individuality.

R. P. WELLS, Formoso, Kan.

DUROC BRED SOWS FOR SALE.

Choice individuals, sired by Tattarrax Chief, White House King and Carl Critic. Reasonable prices.

ALVIN VILANDER, Manhattan, Kan.

OHIO IMPROVED CHESTERS

MAPLE LEAF O. I. Cs.

Service boars all sold, but am breeding a splendid lot of gilts. Choice yearling sows and a few tried sows for sale. Special prices on fall pigs.

R. W. GAGE, Route 5, Garnett, Kan.

O. I. C.—125 Head Hogs

Pigs in pairs. Bred sows, and 40 boars ready for service. Fifty fall gilts.

W. H. LYNCH, Reading, Kan.

O. I. C. PIGS.—H. W. Haynes, Meriden, Kan.

FIELD NOTES

Saddle and Harness Horses.

On February 19 at Garnett, Kan., A. J. King and Col. C. E. Bean will sell at public auction some very high class saddle and harness horses. If you want a high class driver or combination saddle and driver, this is the place to find it. The writer has personally known several of these horses for several years and can recommend them to anyone. Come to the sale and be your own judge.

Forty Jacks and Jennets.

At Sterling, Kan., on February 25, H. T. Hineman and D. J. Hutchins will sell 40 head of jacks and Jennets. The jacks are mostly young—two's, coming three years old—nicely broke and sold guaranteed. They come from two good herds and are backed up by two good men. The catalog is ready to mail out. Please send for one and arrange to attend the sale. Kindly mention Kansas Farmer when you write.

Mules for Sale.

C. W. Higginbotham & Son of Rossville, Shawnee County, Kansas, have 37 coming 3-year-old mules for sale which they are advertising in this number of Kansas Farmer. These mules are from 14.2 to 16 hands, big-boned, and a few of them are broken to harness. Here is a good chance to get some of these hardy, disease-resisting farm motors. Write your wants or go and pick out the ones you need, and please mention Kansas Farmer.

Shorthorn Bulls for Sale.

John Regier of Whitewater, Kan., is offering a few Shorthorn bulls for sale. They were sired by Good News by New Goods by Choice Goods. You can feel assured when you buy a bull from John Regier that you will get your money's worth. Mr. Regier knows how to feed and grow them right, and his prices are very low for first class stock. If you need a Shorthorn bull, write to Mr. Regier. He has them, and good ones.

Wedd's Long King.

In the Poland China bred sow sale on February 20 of George Wedd & Son at Spring Hill, Kan., we wish to call special attention to the fact that a number of the sows in this sale will be bred to Wedd's Long King by Long King's Equal. This young hog is a very promising yearling and will be heard from later. If he don't grow to a 1,000-pound hog it will be a surprise to many who have seen him. There will be a number of very high class sows bred to this young boar that should attract breeders and farmers who want better and bigger Poland Chinas. The catalogs are ready to mail out and they contain much valuable information about the herd. Please send for one, and arrange to attend the sale.

Durocs at Clay Center.

On Saturday, March 1, under cover at Clay Center, Kan., Mr. R. R. Miller will sell a draft of bred sows and gilts, together with a few boars from his good Duroc Jersey herd. Mr. Miller belongs to the new crowd of progressive hog breeders and is fast climbing toward the top. Starting with good breeding and by making good matings he has made good progress. This sale will comprise his surplus females for this year and include three tried sows, twelve spring gilts, five fall open gilts, and five choice fall boars. The sows and spring gilts are bred for spring farrow to Mr. Miller's herd boar, Miller's Advancer, by Royal Advancer. His dam was T. P.'s Wonder. A few are bred to Diamond King from one of the good Nebraska herds. Quite a lot of the offering has descended from the choice big sow, Maud, herself a near descendant of McClellan, of Tip Top Notcher breeding. Write Mr. Miller for catalog of this sale and mention Kansas Farmer.

Steel Wheels for Economical Farm Use.

Users of steel wheels say their economy cannot be denied, as they make a much lighter draft, are therefore easier on the team, and, moreover, soon pay for themselves in the elimination of tire troubles so common to wood wheels. Their practical value is further vouched for in the experiences of those who find that wide-tired steel wheels do not cut up the pastures, do not become "mired" in soft fields or muddy roads, and do not cause the heavy pulls that "rutty" roads have always meant for narrow tires. The Agricultural College and Experiment Station of the University of Wyoming has proved the value of steel wheels to its complete satisfaction, and in a recent bulletin one of the experts of that institution said: "Low, wide-tired steel wheels will give better equipment for his work. Under all conditions of the field and nearly all conditions of the road, it is estimated that broad-tired steel wheels pull from 30 to 100 per cent lighter than the narrow tires."

Trent's Seed Corn.

Up in Brown County, Kansas, at Hiawatha, S. G. Trent has proved now for the sixth consecutive year that he can raise prize winning corn on his farm. His 1912 showing won him first and sweepstakes prizes on his famous Reid's Yellow Dent, at the Kansas State Corn Show in Manhattan. Trent sells only the corn he raises. When he is out of that he quits selling, so he knows what he ships and what he guarantees. He found he could raise more bushels per acre with pure-bred seed, using the same cultivation, same work and same time. He has proved it one year after another, and at the same time he has developed strains of seed corn that are hardy to the Kansas climate. All his corn is carefully selected for seed, early in the fall. It is then fire-dried, carefully sorted and stored until shipped. His 560 acres of corn in 1912, while producing a heavy crop of first quality corn, yielded only 2,000 bushels of seed, so careful and close was the seed selection made. Trent's corn book tells about how he raises and selects his seed corn. Write him, addressing as above, and get one of his books free and read his whole story. It's worth while.

Safe Instead of Sorry.

The motto, "It is better to be safe than sorry," can be applied with excellent judgment in selecting the Queen incubator, built in Lincoln, Neb. The Queen is manufactured by a man whose cardinal principle is to build honestly. Other manufacturers may make and sell more incubators than P. M. Wickstrum does. But this can be depended upon: Every Queen that goes out of the Wickstrum factory is built according to the Wickstrum idea. Buyers of the Queen incubators are not disappointed. Queen incubators are honestly built throughout. What is more, they have the "hatching spirit" or, as Mr. Wickstrum puts it, they have "hatchability." The Queen everywhere has a record that is not surpassed by any other machine for making high per cent hatches.

POLAND CHINAS

50 HEAD POLAND CHINA SOWS FOR SALE 50

WE WILL not make a public sale and we are offering 50 of the best big-type sows ever listed at private treaty. Among these are prize-winning sows, yearlings, spring gilts and matured sows. These are bred to our 1,024-pound boar, Chief Price Again 2d, and W's Wonder. Bred Jan. 22, February, March, April and May farrow. Write us at once.

WIGSTONE BROS. STANTON, IOWA

C. S. NEVIUS, GLENWOOD HERDS

The Designer kind of large type Poland

Chinas and Searchlight Short-horns

Having decided not to hold our February sow sale, we will offer at private sale 10 tried sows, 10 fall yearlings and 10 spring gilts. Blood lines Designer, Major Look, or Gold Metal. Safe in pig for March and April farrow. Price, \$25 to \$50.

C. S. NEVIUS, Chillicothe, Kan.

Dean's Mastodon Polands. The big-boned type, will weigh when mature 800 to 1,000 pounds. Boars, Bred Sows and Gilts for sale. ALL IMMUNIZED BY DOUBLE TREATMENT AND ARE IMMUNE. Phone, Dearborn; Station, New Market, and Postoffice, Weston, Mo. Address CLARENCE DEAN, WESTON, MO.

WRAY & SON'S BIG TYPE POLAND CHINAS

Herd headed by Sterling Prince, one of the largest and best 2-year-old boars of the breed. Assisted by Chief Price's Wonder, one of the best sons of the great breeding boar, Chief Price Again. Young stock for sale. Better than your grandpa ever raised.

B. T. WRAY & SONS, Hopkins, Mo.

Hillwood Herd of Hampshires

Twenty head of choice gilts sired by the great boars, Earlinger, Pirate and Edward's True Belt, the prize winning boars, bred to Sure Shot and Taft for March and April farrow. Priced right for quick sale. Have no room for them.

J. Q. EDWARDS SMITHVILLE, MO.

BRED SHROPSHIRE EWES

Both imported and American bred, and all mated to the best imported rams obtainable. These rams have won many important English prizes, as well as the most coveted American blue ribbons, and now head the flocks at Henley Ranch.

Our flocks are large and we can offer you the best values on all classes of Shropshires. We absolutely guarantee all stock shipped. Place your order with us early, while the ewes can be safely handled.

HENLEY RANCH, GREENCASTLE, MO.

Members American Shropshire Registry Association. Henley & Vrooman, Managers.

GUERNSEY CATTLE

GUERNSEYS FOR THE DAIRY.

Dairying will be the salvation of the grain farmer and the stock raiser, and Guernseys are the most profitable dairy cows, grades as well as pure-breds. For building up a dairy herd from common stock there is none to compare with the Guernsey pure-bred sire. Send for our special list of young bulls, 8 months to 2 years old, from celebrated strains, for \$75 and up, to make room. A rare opportunity.

HELENDALE FARMS, Office 704 Cedar St., Milwaukee, Wis.

of strong, livable chicks. In connection with the Queen several facts might be mentioned. These are significant: First—Queen sales are larger each succeeding year. It has made its way to all parts of the country. Second—The Queen is neither a "cheap" nor a high-priced machine. It's a common saying that "the Queen price is a fair price." Third—The Queen in many successful poultry plants is at work side by side with the highest priced incubators made, and has never taken a back seat for any of them. To the reader who is about to purchase an incubator, let us say again you can buy the excellent Queen at a fair price and make sure of being safe instead of sorry. Address Mr. Wickstrum at Lincoln, Neb., and he will be glad to send you catalog with 28 reasons for the Queen's superiority.

O'Keefe Sale Good.

The Poland China sale advertised by L. V. O'Keefe of Stillwell, Kan., for February 4, was one of the best sales we have attended this winter. The offering was good and the bidding was quick and snappy. At no time did the sale lack for interest or become draggy. The top was \$116, paid by W. B. Wallace of Bunceton, Mo., for No. 1. Roy Johnston of South Mound, Kan., bought a close second in No. 2 for \$111. The average on head sold was \$54.72, which was very satisfactory to Mr. O'Keefe. Col. R. L. Harriman of Bunceton, Mo., did the selling, and had good support in the ring by Colonel Justice and Colonel Callahan. Following is report in full:

1—W. B. Wallace, Bunceton, Mo.	\$116.00
2—Roy Johnston, South Mound, Kan.	111.00
3—B. K. Hackley, Stanley, Kan.	60.00
4—B. K. Hackley, Stanley, Kan.	58.00
5—Bert Whitaker, Stanley, Kan.	70.00
6—B. C. Holmes, Stanley, Kan.	66.00
7—Bert Whitaker, Stanley, Kan.	51.00
8—J. A. Rhodes, Topeka, Kan.	62.00
9—E. C. Holmes, Stanley, Kan.	70.00
10—R. F. Hockaday, Peculiar, Mo.	61.00
11—C. A. Kincaid, Cleveland, Mo.	46.00
12—John Lawson, Stanley Kan.	45.00
13—John Lawson, Stanley Kan.	41.00
14—John Lawson, Stanley Kan.	41.00
15—B. K. Hackley, Stanley Kan.	70.00
16—John Lawson, Stanley Kan.	53.00
17—J. M. Rhodes, Stanley, Kan.	62.00
18—A. E. Dougherty, Stillwell, Kan.	61.00
19—E. B. Wales, Belton, Mo.	40.00
20—R. L. Tracy, Bucyrus, Kan.	40.00
21—Martin Hanson, Stanley, Kan.	46.00
22—W. B. Wallace, Bunceton, Mo.	66.00
23—A. J. Jackson, Stillwell, Kan.	36.00
24—John Keenan, Louisville, Kan.	56.00
25—W. H. Charters, Butler, Mo.	71.00
26—J. T. Lewis, Stillwell, Kan.	49.00
27—Ed Dougherty, Stanley, Kan.	51.00
28—John Lawson, Stanley, Kan.	60.00
29—E. G. Wales, Belton, Mo.	45.00
30—J. M. Justice, Stillwell, Kan.	43.00
31—Harry Wales, Peculiar, Mo.	43.00
32—John Lawson, Stanley, Kan.	52.00
33—B. K. Hackley, Stanley, Kan.	50.00
34—Bert Whitaker, Stanley, Kan.	45.00
35—John Lawson, Stanley, Kan.	46.00
36—Bert Whitaker, Stanley, Kan.	47.00
37—E. Beck, Olathe, Kan.	41.00
38—Robert Chaney, Bucyrus, Kan.	66.00
39—John Rowle, Stillwell, Kan.	40.00
40—J. Elkins, Bucyrus, Kan.	43.00
41—E. G. Wales, Belton, Mo.	41.00
42—John Rowle, Stillwell, Kan.	36.00
43—R. F. Hockaday, Peculiar, Mo.	40.00

POLAND CHINAS

GALLOWAY CATTLE

SMOKY HILL GALLOWAYS

A carload of yearling and 2-year-old bulls for sale.

E. J. GILBERT, Wallace, Kan.

HOLSTEIN CATTLE

M. E. MOORE & CO.

A special bargain in registered young bulls, sired by our herd bull, and tuberculin tested. Could spare a few very high-class cows.

MISSOURI HOLSTEINS.

Largest herd of Holsteins in the state. Nothing but registered stock for sale. Eighty head to choose from. Twenty-five bulls, all ages. Will sell one to a carload. Write us just what you want and we will describe and price some to pick from.

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

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

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

CHENANGO VALLEY GRADE HOLSTEINS Fifty extra fine, well bred, nicely marked young cows to freshen in two months. Also high grade, well bred heifers coming two and three years old and bred to registered bulls.

F. J. HOWARD, Bouckville, N. Y.

HOLSTEINS FOR SALE.

Fifty head of registered heifers and bulls; also 75 head bred heifers and young cows, \$58.50 up. Come and see them.

M. P. KNUDSEN, Concordia, Kan.

CORYDALE FARM HERD.

Holsteins. Three registered bull calves. Also offer one high-grade Shire Stallion and two span young Draft Mares for sale.

L. F. CORY, Belleville, Kansas.

HOLSTEIN BULL CALVES always on hand and worth the price.

H. B. COWLES, Topeka, Kansas.

MULE FOOT HOGS

THOMPSON'S growthy Mule Foot Hogs have won more first prizes than any herd in America. Stock of all ages for sale, sired by or bred to my 6 State Fair first prize winning males. Prices low, quality high. Write for prices and information. CHAS. K. THOMPSON, Letts, Ind.

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.

HAMPSHIRE HOGS

ECLIPSE FARM HAMPSHIRE. Tried sows and gilts for sale, bred for spring farrow. A few fall pigs left.

A. M. BEAR, Medora, Kan.

HORSES AND MULES



First and Grand Champion Belgian Stallions at American Royal, 1912, owned and exhibited by J. M. Nolan at Paola, Kan. Our barns are filled with Percheron, Belgian, French Draft and Coach Stallions, imported and home-bred, priced to sell. Come and see me. We can deal.

J. M. NOLAN

Paola

Kansas

PERCHERONS
BELGIANS
SHIRES

ONE OF THE
OLDEST AND
LARGEST
IMPORTERS
IN
AMERICA



Our horses are big, smooth flat-boned fellows, with great quality style and conformation. Will please the most critical. Prices reasonable. Satisfaction guaranteed. Letters from hundreds of satisfied customers and big illustrated catalog mailed free.

Watson, Woods Bros. & Kelly Co.
BOX 28 LINCOLN, NEB.



DIAMONDS IN THE ROUGH

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

C. T. RICKETTS, Paola, Kansas.

PERCHERONS

FOR SALE—Our imported Percheron stallion, Lama 85204, weight 2,000; a fine breeder; one coming two-year-old Percheron with imported sire and dam; one extra good eight-year-old jack; a lot of extra good grade Percheron mares and geldings, and a lot of extra good mules from two to six years of age. Can match teams of horses, mares or mules.

GRIGSBY & BARBER, Skidmore, Mo.

Imported and Home Bred Stallions and Mares
PERCHERONS—BELGIANS—SHIRES



Percherons—Belgians—Shires
The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perch this year. See what we have before buying elsewhere.

Address, HART BROS., Osceola, Iowa.

HOME-BRED STALLIONS \$275 to \$650. Imported stallions \$700 to \$1,000, two higher. All draft breeds. Reference: Any banker in Creston.
FRANK L. STREAM,
Creston, Iowa.

When writing advertisers, please mention Kansas Farmer.



AL. E. SMITH STOCK FARM.

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

AL. E. SMITH, Lawrence, Kan.

EXCELSIOR SHETLAND PONIES.
Registered stock. Ponies for sale, reasonable prices. Spotted and solid colors. W. Fulcomer, Belleville, Kan.

GOOD YOUNG JACKS Ready for Service, \$300 to \$500. One imp. 6-year-old Belgian.
BRUCE SAUNDERS, Holton, Kansas.

HORSES AND MULES

REGISTERED JACKS



For Sale—Big, heavy-boned, smooth, well marked fellows. Some of them sired by the noted \$2,000 Missouri King that I formerly owned. Also have limited number of Jennets for sale. We claim to own and have on our farm one of the best Jennets in America. If we fail to convince you that ours are as good as can be found anywhere, railroad fare will be refunded. Fullst guarantee with every sale.

T. E. COLLINS, Belleville, Kansas.

PRIVATE DISPERSION
FOR SALE PRIVATELY

One extra heavy-boned black herd jack, 15½ hands high; one yearling jack; two large, fine Jennets, and three registered Percheron mares. This stock is first class and will be priced for quick sale.

O. A. SCOTT, Athol, Kansas.

Mammoth Jacks and Percheron Stallions

33 head of mammoth Jacks and Percheron stallions—23 Jacks from 2 to 6 years old, from 15 to 16 hands high. Percherons from 2 to 5 years old weighing from 1,800 to 2,000 pounds. Farm and sale barn on 21st, one mile east of union stock yards.

J. C. KERR, Wichita, Kan.

Mammoth Kentucky Jacks



Nine black, mealy-nosed, heavy-boned fellows, 6 months to 7 years, weighing up to 1,000 pounds, and 15 hands high. Also 15 Jennets, all ages. Inspection invited.

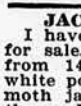
A. ALTMAN, Alma, Norton County, Kansas.



JACKS AND JENNETS

17 head large mammoth black Jacks for sale, ages from 2 to 5 years; large, heavy-boned, broken to mares and prompt servers. Prices reasonable. Come and see me.

PHIL WALKER, Moline, Elk Co., Kansas.



JACKS JACKS JACKS
I have an exceptionally good lot of Jacks for sale. They are from 2 to 6 years old from 14½ to 16 hands high, black with white points. They are all big boned mammoth Jacks, priced to sell. Come and see them. Lawson is 38 miles from Kansas City.

MOSS B. PARSONS, LAWSON, MO.

SHORTHORN CATTLE

PEARL SHORTHORN HERD.

One of the oldest and strongest herds in the west. Scotch and Scotch-topped. Reds and roans. Good individuals and tracing to noted ancestors. Choice young bulls for sale. Sold out on females. Can ship over Rock Island, Santa Fe or Missouri Pacific. Inspection invited.

C. W. TAYLOR, Abilene, Kan.

High Class Shorthorn Bulls

Lord Mayor 3d 249943, 8 years this spring, weight 2,200, on pasture alone. Three years in show ring, won 22 championships. His calves never defeated. Price \$200. Lords Duplicate, May Calif. Good all over, Show prospects. Price \$150.

LAUDE & SON, ROSE, KANSAS.
125 Miles Southeast of Kansas City.

TENNEHOLM SHORTHORNS.
Have on hand for sale two 11-months-old bull calves, good, big, useful ones, out of good Bates cows and sired by Scotch bulls. Am pricing them to move them soon.

E. S. MYERS, Chanute, Kansas.

SCOTCH SHORTHORN BULLS
Reds and roans, mainly Captain (205741) Archer blood, from 8 months up. Two good roan herd bulls. Reasonable prices. Write for prices, breeding and photos.

MRS. WYATT STANLEY, Anthony, Kan.

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.
One yearling bull and 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.

C. J. WOODS, CHILES, KANSAS.

RED POLLED CATTLE

PHILIPS COUNTY RED POLLS.

For Sale—Cows and heifers, sired by the great Launfal and bred to Cremona 22d. Five excellent bulls from 8 to 16 months, some out of 60-pound, 5 per cent cows.

Chas. Morrison & Son, Phillipsburg, Kan.

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.

SHROPSHIRE SHEEP

Yearling and Two-Year-Old Shropshire Rams, sired by imported sire and out of registered ewes, priced right for quick sale.

ED GREEN, Howard, Kan.

ROCKFORD BELL SHROPSHIRE

Thirty extra quality registered Shropshire ewes for sale. Sired by imported Buttar and Dakin rams. All safe with lamb to imported rams. Write.

J. W. ELLIOTT, Polo, Missouri.

FIELD NOTES

Another Duroc Sale.

John McMullen and J. G. Sturtevant, both of Formoso, Kan., have joined forces and will hold a public sale at Formoso on Thursday, March 13. The offering will be a good one from every standpoint. More will appear later about this sale, but anyone desiring to do so might just as well file application now for catalog by writing to either party making the sale.

Last Call for Trotter's Jack Sale.

This will be the last call for W. Y. Trotter's second annual Jack and Jennet sale to be held at Mt. Airy, Iowa, February 27. Mr. Trotter has for many years had the reputation of raising the best type of mammoth Jacks. Last year his offering was said to have been one of the best sold. That his offering this year is the best he has ever had is conceded by the best judges. There will be 14 big, high-class Jacks, well broke and ready for service, all of them good performers. This number will include his two great herd Jacks, Keno and Jumbo, the great 3-year-old Jumbo Lad, and some of the best 2 and 3-year-old Jacks that will be sold this year. Every Jack will be guaranteed just as represented, and when a Jack is purchased in W. Y. Trotter's sale the buyer is taking no risk whatever. If you want a mammoth Jack or Jennet that is right, attend this sale February 27.

T. A. Wiles' Jersey Herd.

Attention is called to the card of T. A. Wiles of Maryville, Mo., in this issue of Kansas Farmer. Mr. Wiles is the owner of one of the good Jersey herds in the West. His foundation stock, purchased a number of years ago, came from the islands and the best herds in the United States, and for years Mr. Wiles has spared no expense in adding breeding stock to his herd, with the result that he has one of the great Jersey herds in this country. His herd of cows is made up of representatives of the best families of the breed, and a finer lot of individuals will be hard to find. At present Mr. Wiles is offering 60 head of choice registered cows and heifers. Some of them will soon be fresh and all of them are bred to the great island-bred bull, Vestal Financial King 77626, one of the good Jersey sires now in service. Mr. Wiles is offering these cows and heifers well worth the money, as he desires to reduce his herd. The cows and heifers for sale are a very high class lot of Jerseys, and are the kind that will interest breeders wanting strictly high class stock. It will pay anyone wanting Jerseys to go and see this great herd. Look up his card and write him, mentioning Kansas Farmer.

Luckhardt's Percheron and Jack Sale.

On March 12, 1913, at Tarkio, Mo., Mr. L. H. Luckhardt will sell 33 head of registered Percheron stallions and mares, and a number of mammoth Jacks. This offering will be a very carefully selected lot and will be the outstanding good ones from the herds of the following breeders: L. H. Luckhardt, H. P. Hurst, H. E. Mills, D. O. Murphy, W. F. Baker and J. W. Hannah. There will be 14 extra good mares sold in this sale, 10 of them weighing from 1,800 to 2,000 pounds each. They are the ideal type of Percheron mares and are right in every way. There will be several ton stallions that are proved breeders, and the entire offering of stallions is high class. The Jacks are a good, clean lot of big-boned, high class, mammoth bred Jacks, and will weigh from 1,000 to 1,200 pounds, and the offering throughout is one that should attract breeders wanting good ones. Every animal will be guaranteed just as represented and purchasers will take no chances whatever in buying stock in this sale. The sale will be held under cover, and regardless of weather conditions. Write at once for catalog. They are now ready. Please mention Kansas Farmer when writing.

The Northwest Missouri Breeders' Sale.

The attention of breeders is called to the sale advertisement of the Northwest Missouri Pure-Bred Stock Breeders' Association in this issue of Kansas Farmer. Col. T. E. Deem of Cameron, Mo., the sale manager of the Association, is offering a lot of registered Percheron, Shire, Belgian, German Coach and road stallions and mares that have been selected from the herds of Missouri's best breeders, and breeders will have an exceptional opportunity to buy registered stallions that are not only bred right, but as individuals are everything that could be desired. Every animal that will go in this sale has been carefully selected, and it has been the purpose of Mr. Deem, the sale manager, and the members, to make this a strictly first-class offering. The offering will also include a number of mammoth bred Jacks and the big, smooth kind that has Missouri famous for the best Jacks in the world. This sale will be held at Cameron, Mo., Thursday, February 27. The train service to Cameron makes it easy to reach this sale. The offering is one that should attract buyers wanting the best. The catalogs will be ready to mail February 15. Get your name on the list at once and arrange to attend the sale February 27.

Deierling & Otto's Jacks.

Attention is called to the card of Deierling & Otto of Queen City, Mo., in this issue of Kansas Farmer. The Deierling & Otto herds of Jacks and Jennets have been classed as among Missouri's best herds for years, and no two herds have contributed more to the fame of Missouri for good Jacks than theirs, and no two herds anywhere have produced more prize winners. The present herd is composed of the best Jennets of the two great herds headed by Jacks second to none in service at the present time. At the Missouri State Fair, 1912, they won the following prizes: First on Jack 4 years old and over; fourth on Jack 3 years old and under 4; first on Jack 2 years old and under 3; first on Jack 1 year old and under 2; first on weanling Jack colt; second on aged Jennet; second on Jennet

JERSEY CATTLE

THE ENNIS FARM

Horine Station, Mo.
(Thirty Miles South of St. Louis.)
JERSEY CATTLE—BIG-BONED SPOTTED POLANDS.
Send for quarterly bulletin listing stock for sale. Best breeding and individuals. Prices reasonable.

ALBERT S. ENNIS, Horine Station, Mo.

T. A. Wiles' Jersey Herd

Sixty Head of Registered Jersey Cows and Heifers. Some will be fresh soon, all by early spring. All bred to the splendid island-bred bull, Vestal Financial King 77626. Best blood lines and good individuals, priced right. Come and see them, or write, mentioning Kansas Farmer.

T. A. WILES, Maryville, Mo.

FOR SALE—One of the greatest young Jersey bulls ever bred. Sired by Eminent Cornet, by Eminent 2d, which sold for \$10,000. Dam of the calf is Sultana's Golden Tipsey, on official test will make a Register of Merit cow. Her dam gave 10,500 pounds milk, from which 740 pounds of butter was made in one year. Nice fawn color and elegant type.

R. J. LINSOTT, Holton, Kan.

BANKS' 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.

GOLDEN RULE JERSEYS.

Richly bred heifers and bull calves for sale. The blood of Golden Lad and other noted sires. Farm one mile north of town. Inspection invited.

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. "Duke'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.

50 HEAD Solid fawn colored, registered Jersey cows and heifers.

ers; a nice lot of springers; Forfarshire, Imp. Stockwell, Fox and Guenon Lad breeding. Three light fawn bull calves, St. Lambert blood.

S. S. SMITH, Clay Center, Kan.

REGISTERED JERSEY BULL.

BLUE BELL'S BOY No. 75800, half-brother to Noble of Oaklands; 5 years old; gentle. Price reasonable.

J. S. TAYLOR, Iola, Kan.

JERSEY BULLS.

For Sale—An extra good tired sire of Tormentor breeding. Cannot use any longer. Also, a 2-months-old calf of St. Lambert breeding. O. E. NICHOLS, Abilene, Kan.

AUCTIONEERS.

Missouri Auction School.

(Largest in the World.)
The school that gives you practice in actual sales in their own auction rooms. Special four weeks' actual practice term opens February 3. Address
W. B. CARPENTER,
14th and Grand Ave., Kansas City, Mo.

LAFE BURGER

LIVE STOCK AND REAL ESTATE
Auctioneer
Wellington - - - Kansas

J. E. BUMPAS

The Missouri Big Type Hog Auctioneer.
Write for date and terms.
WINDSOR, MO.

Col. W. B. RYAN LEBANON, KANSAS.

Live stock and farm sales auctioneer. The man that gets the high dollar and works for you like a brother.

Col. L. R. Brady Live stock auctioneer.

Manhattan, Kansas.
Ask about my work.

Col. L.H.Grote Live Stock and General Auctioneer.

Morganville, Kan.

James T. McCulloch Live Stock Auctioneer.

Clay Center, Kansas.
Write Early
For Choice of Dates.

W. B. CARPENTER

Live Stock and Real Estate Auctioneer
14th and Grand Ave., Kansas City, Mo.

Col. C. A. Hawk; Live Stock and General Auctioneer.

Effingham, Kan.

Col. Will Myers Live Stock, Real Estate and General Auctioneer.

Beloit, Kansas

Col. N. B. Price Live Stock and General Auctioneer.

Mankato, Kansas. Registered Durocs.

JOHN D. SNYDER,

Kansas Live Stock Auctioneer.
Write or wire for date. Hutchinson, Kan.

under 1 year old. At the Illinois State Fair, 1913, they won every first prize but one on Jacks, had champion Jack, won second on aged Jennet, and second on aged herd. These prize winners are included in their offering this year and the entire lot of big-boned, high-class are the kind that will interest buyers wanting the best. In addition buyers are assured that they will find Deierling & Otto absolutely reliable, and every Jack in their barns is guaranteed to be just as represented, and their guarantee is as good as cash. If you want good Jacks you will find them in their barns at Queen City, Mo. Write to them, mentioning Kansas Farmer.

FRANK IAM'S' SHOW STALLIONS

Ikey Buyer:—
Get Into "Iams' Money-Saving Game." See Iams and his "Peaches and Cream" Imported Stallions, "Prize Winners," that he sells at \$1,000 and \$1,400 (few higher). Imported Mares—"Topnotchers"—at \$700 and \$1,000.
"Ikey," Be a "Wise Guy"—Buy "Show Horses" of Iams—who has crossed the Ocean 50 times for horses and sold 4,444 Registered Horses. "Iams' 30 years of success" makes him a safe man to buy from at Special Low Democratic prices. "Everybody Is Doing It."



are "up to the minute" and 10 years in advance. They are the "drafty, big-boned type"—"nifty, big black boys"—the real "medal winners"—sensational "show and business horses" of note, "ripe peaches" from the select "400." Big, classy "peaches and cream" "black boys." The "Iams brand" of drafty "top notchers." Iams' 1912 importation of Percheron and Belgian stallions and mares are in the "pink of condition" and ready for a "good selling." "Ikey boy," smile sweetly, and hundreds of Iams' satisfied customers "will sit up and take notice" that Iams, the "king pin" horse importer, is still "doing business" at the "old stand." Iams is "pushing" his horses to the front. The big "peaches and cream" "boys and girls" are attractions that can't be overlooked. Iams mesmerizes buyers with "real drafters" at "bargain prices" and having the "horses as advertised." Iams' "competitors" and "hammer knockers" are "boosting Iams" by their "knocks," until now he is known as the "millionaire horseman," and on "Easy Street," and growing fast. Ikey, "come on along" and sing Iams' song. He is selling these "aristocratic," fancy "black boys" cheaper than ever—or better horses for less money—\$1,000 and \$1,400 (few little higher.) Iams has

100 — PERCHERON AND BELGIAN STALLIONS AND MARES — 100

They are "models"—"humdingers." They are 2 to 5 years old, weigh 1,700 to 2,500 pounds, 80 per cent blacks, 50 per cent ton horses. All branded, "registered," approved and inspected by Governments of France and U. S. and certificates "stamped O. K." All "sound," "bell-ringers" ("Iams' kind"—need no "State Law" to make "them sound.") Many "prize winners" and "gold medal horses." Big, drafty "top notchers," with big bone, quality, style, finish and action to burn. They are "eye openers"—larger and better horses than seen elsewhere. Big "business propositions" that make "the wheels work fast" under a "buyer's hat." "Georgie, dear," Iams made a "big killing" by buying his horses in Europe in October, 1912. "War scare," "dry weather," "bad crops," "close money" and "Iams' cash" caused the "prize winners" and "tops" to be thrown on the market for a "good selling." Iams "cut the melon" and bought the "rippers" at "knockout prices." Iams will give his customers the benefit of his "good buy." "Ikey boy," "come on down town"—see Iams—"Everybody Is Doing It."

Get Into Iams' "Get Rich Wagon" and Save \$1,000 on a "Top Stallion"

(and you wear the diamonds). Iams is a "big fly in the jelly" in the horse world. "He keeps the gang guessing." Iams sells "imported horses only"—(they win 90 per cent of prizes at big horse shows). No American-bred full bloods—no "auction stuff" or "peddlers' horses"—only "choice drafters" of big size, bone, quality and finish. Iams has the "crack stallions and mares" you "read about." Buy horses of Iams and you won't "get stung" in horse or price. "Dolly D," waltz me around once again, "Ikey," land me at Iams' box office and importing barns. Full to "the roof" with "black boys" (and all must be sold). Reduced prices. All the world knows Iams and his "peaches and cream" horses. 1913 promises to be a bumper year to Iams and his customers. He saved \$300,000 to stallion buyers in 1912. Watch "Iams' smoke." Iams' 30 years of successful business make him a safe man to do business with. Iams sells horses "on honor." A boy or a lady can buy as cheap as a man. Iams' 1913 horse

Catalog Is An "Eye Opener." It Has a "Laugh" and a \$1,000

bargain in every line. A "bunch of gold" to stallion and mare buyers. It is full of the real "peaches and cream" stallions. It is the finest, most elaborate and original up-to-date horse book in the world. Iams, the "square deal" horseman, makes every statement in ad or catalog good—or you get the \$500 he hangs up. Iams guarantees to sell you a better

IMPORTED STALLION AT \$1,000 AND \$1,400

(few higher) than are sold to stock companies for \$4,000. Imported mares, \$700 and \$1,000. Iams gives 60 per cent breeding guarantee; pays freight on horse and fare of one buyer. He can furnish \$1,500 insurance. Iams buys and sells every stallion himself. Saves buyers \$1,000 in middlemen's profits. He buys stallions by "train load." He speaks languages—(saving 20 per cent). He is not in the "stallion trust." No partners to share profits. He "pays cash" for his horses—and sells "top notchers" by "hot advertising" and having "the goods." "Big Ikey," leave your "happy" home and buy a "top" stallion or pair of imported mares (of Iams) that bring colts that sell at \$500 each. "Papa," don't let those "auction men" "hand you a lemon" in one of those "so-called" "American full bloods" of questionable breeding. Buy an imported horse of Iams, the "reliable horseman." (Then we will "all wear diamonds.") Iams' "selling clothes" fit all buyers. Write for Iams' million-dollar horse catalog. Iams won't let you go without a peaches and cream stallion or mare. "He sells the tails off them." Iams' guarantees are backed by "half million dollars." References—1st Nat'l and Omaha Nat'l Banks, Omaha; Packers Nat'l Bank, So. Omaha; Citizens State, 1st State and St. Paul State Banks, St. Paul, Neb. Iams buys big ad space because it is cheaper than flannel-mouthed horse salesmen.

ST. PAUL, NEBRASKA

SHORTHORNS AND DUROC JERSEYS AT AUCTION

At Farm Six Miles Due West of Alida and Eleven Miles Southwest of Wakefield, Kansas,

TUESDAY, FEBRUARY 25, 1913

30 Head of Pure Bred Shorthorn Cattle

Twenty-five of which are registered or can be, comprising 20 choice cows with calves at foot or in calf to Wayside Baron or Lord Rose by Lord Barmpton, a pair of outstanding good breeding bulls. Wayside Baron weighed 2,100 and Lord Rose will be fully as large when matured. The remainder consist of very choice heifers and young bulls out of the bulls and cows already mentioned. The cows have lots of scale and milking qualities and are for the most part descended from the Young Mary and Rose Mary families. Among them are daughters of Archer 205640 and Orange Champion, grandson of Gifford's noted Red Knight.

DUROCS

Thirty head of nice registered Duroc Jersey gilts and a few tried sows, mostly bred for spring farrow. These are richly bred and carry a big per cent of the noted Colonel breeding.

I will also sell about 15 head of horses and nice young mules. Sale begins at 10 a. m., dinner at noon. Write early for catalog, and if you can't come, send bids to the representative of this paper.

Jas. T. McCulloch, Auctioneer.
Jesse R. Johnson, Fieldman.

E. P. Flanagan, Chapman, Kansas

Peckham's Blue Valley Gold Dust Poland China Sow Sale

At Farm Near Pawnee City, Nebraska

Thursday, February 20, 1913

40 HEAD

37 Spring Gilts

40 HEAD

The gilts were every one sired by Blue Valley Gold Dust, the greatest breeding boar I ever owned, a son of Blue Valley Expansion. This offering of gilts, for size, smoothness, good backs and feet, cannot be excelled in this or any adjoining state. Besides, they are uniform and have for dams some of the greatest big-type dams ever known to this breed. They will all be bred for spring farrow to Looks Choice by Look Grand.

Among the attractions will be the great tried sow, Tecumseh Gold Dust,

Leonard Bros., Auctioneers.
Jesse R. Johnson, Fieldman.

R. J. PECKHAM, PAWNEE CITY, NEBRASKA

the sow that topped John Blain's dispersion sale. She is the dam of A. R. Enos' great Nox All Hadley and Leeper's noted 800-pound show sow. She is just in her prime, straight and all right in every way. I am saving two of her daughters by Big Hadley and put her in for an attraction. In the pedigrees of this offering appears the names of Big Hadley, Blain's Tecumseh, Johnson's Chief, Major Blain, and Expansion. If you fail to attend this sale we both lose. Catalog upon request. Free entertainment at Pawnee City. Come or send bids to fieldmen in my care.

Combination Shorthorn Cattle Sale

At the G. F. Hart farm, 3 miles West of Summerfield, 10 miles North of Beattie, Kan., and 10 miles South of Liberty, Nebr.

MONDAY, FEBRUARY 24, 1913

50-- Head of Scotch and Scotch-Topped Cows, **--50**
 Heifers and Choice Young Bulls

NINETEEN BULLS—In age from 10 to 25 months.
TWENTY-TWO COWS AND HEIFERS of breeding age with calves at foot or bred to My Choice.
ELEVEN CHOICE YEARLING HEIFERS—Sired by My Choice and Gold Coin.



SECRET PRINCE No. 206547

Half or more of the offering are nice roans. The cows and heifers were sired by Secret Prince, first prize bull at Nebraska State Fair, 1906; Gold Coin, winner of first in class same year; Imp. Hampton Prince and other great bulls. The young heifers and bulls are by My Choice, grandson of Choice Goods and Gold Coin. Included are three choice two-year-old bulls sired by Secret Prince, all roans and one of them a pure Scotch bull out of Buddy Gloster 4th by Secret Prince. Two cows were sired by Orange Duke 2d and out of Casey bred dams. For catalog write G. F. Hart, Summerfield. Sale under cover and no postponement on any account.

G. F. Hart, Summerfield, Kansas

A. B. Garrison, Summerfield, Kansas

Auctioneers: George Bellows, F. E. Kinney. Fieldman, Jesse Johnson.

R. & S. FARM

Sale of Registered Duroc Jerseys

At Smith Center, Kansas

Thursday, Feb. 20, 1913

Ten of Our Best Tried Sows.

53 Choice Spring Gilts Bred and Fed for Best Results.



Hats Off to a Good Herd of Duroc Jerseys.
 Rinehart & Son, Smith Center, Kan.

Sired by such boars as King of Kant-Be-Beat, W. L. A.'s Choice Goods, Pearl's Golden Rule and Golden Ruler. Gilts sired by Rambler's Wonder and Model Hero by Gold Metal 2d. The tried sows are bred to the last named boars and the gilts mostly to our young boar, R. & S. Crimson Wonder by Crimson Wonder Again.

Many who have seen our brood sow herd say we have as great a bunch as they ever saw. We have been several years and spent lots of money in assembling them and they look good to us. The tried sows go in as attractions and more especially for the money they should bring. We went through the cholera last year and learn from good authority that our herd is now immune. We feel that we are entitled to a good sale, having been to considerable expense for feed the past year to keep these antee every representation and invite you seed hogs in the country. We guar to send for catalog and be with us sale day or send bids to fieldmen in our care.

A. M. Rinehart & Son, Smith Center, Kan.

Auctioneer, John Brennan. Fieldman, Jesse Johnson.

40 Head Duroc Jersey **40**
Bred Sows

GOOD AS GROW

FROM BLACKSHERE FARM

ELMDALE, KANSAS

Saturday Feb. 22, 1913

**Twelve Spring Yearlings, Seventeen Fall Yearlings, and
 Twenty-One Spring Gilts.**

Most of the offering is sired by J. R.'s Chief, best breeding Ohio Chief boar in the West, out of Lincoln Model, greatest producer of show stuff of any Duroc sow living.

The offering is bred to Young Chief and Big Chief (litter brothers) and Model Bob (by J. R.'s Chief and out of Model A, first prize sow 1910), all first prize boars this year, and Model Bob is an outstanding candidate for championship honors this fall.

Special Attractions: Daughters and granddaughters of Top Notcher Rose, grand champion sow, 1909; half sisters to Rose Tatarax, grand champion sow, 1910; sisters and half sisters to Wonder Lass, grand champion sow, 1911; daughters of Top Notcher Girl, one of the few Top Notcher sows living, also a few daughters of King's Surprise, one of the best brood sows ever on my farm.

There will be as much, or more, champion blood in this sale than can be found in any sale offering in the West. Every animal is in fine breeding condition, having run to the alfalfa stacks all winter with a liberal grain ration. All sows will show safe in pig.

I invite my brother breeders and farmer friends to be my guests February 22. I believe in my hogs. Please write for catalog.

J. R. BLACKSHERE
ELMDALE KANSAS

Auctioneers: Cols. Lafe Burger and Crouch & Woods.
 Fieldman, O. W. Devine.

Geo. Wedd & Son

POLAND CHINA SALE

At SPRING HILL, KANSAS

Feb. 20, 1913

50 Head of Bred Sows **50**
and Bred Gilts

10 TRIED SOWS—Bred for early litters.

18 FALL YEARLINGS—Bred and safe for early litters.

25 SPRING GILTS—Bred for March and April litters.

Fifteen head are bred to Wedd's Expansion 53485. Twenty-five head are bred to Wedd's Long King 62411 by Long King's Equal. Ten head bred to Back Prince 63423 by Prince Ito.

Most of the offering is sired by Wedd's Expansion, Kansas Wonder by Blain's Wonder, and other good boars. The entire lot is an even bunch and immunized. We invite all breeders and farmers wanting good hogs to attend this sale. Our catalogs are ready to mail out and we would be pleased to send you one. We have only a small mailing list. We kindly ask all to write us at once for a catalog. If for any reason you can not attend, bids sent to fieldmen or auctioneer will be carefully handled. O. W. Devine, fieldman representing Kansas Farmer. Come and spend a day with us.

Geo. Wedd & Son.,
Spring Hill, Kansas

Auctioneer, Col. R. L. Harriman.

L. M. MONSEES & SONS'

35th Auction Sale at Limestone Valley Farm

TUESDAY, MARCH 4, 1913

65 HEAD OF HIGH CLASS REGISTERED JACKS AND JENNETS

TERMS CASH

We guarantee this the best offering of the year from any firm, breeder or company.

Nothing priced or sold before the sale. Every animal guaranteed as represented. Sale under cover with comfortable seats and fire. Special train from Sedalia to Smithton and return on day of sale. Free conveyance from Smithton to sale.

If interested, please write for fine illustrated catalog, as we can send catalogs only to those who write for them.

Limestone Valley Farm is located 189 miles west of St. Louis and 99 miles east of Kansas City, main line Missouri Pacific and M., K. & T. Railroads; six miles east of Sedalia and two miles north of Smithton, Pettis County, Missouri.

Write for catalog and come to this great sale.

O. W. Devine, Fieldman.



ON OUR WAY TO SUCCESS
NOW, ALL TOGETHER

L. M. Monsees & Sons, Smithton, Mo.



GIANT WONDER 5935

A. J. Erhart & Sons Bred Sow Sale

At Adrian, Missouri, February 22, 1913

100 Bred Sows and Bred Gilts

The Big Kind With Quality

40 head that will average over 500 lbs., a large per cent sired by or bred to Major B. Hadley, The Grand Champion at The American Royal, [1911] a 1025 pound hog at two years old.

Write for Catalogue and Come to Sale

A. J. Erhart & Sons

ADRIAN, MISSOURI

Send Bids to O. W. Devine, Representing Kansas Farmer

Stith's Model Duroc Bred Sow Sale

Eureka, Kansas

Thursday, Feb. 20, 1913

40 Head Choicely Bred Sows and Gilts 40

2 Extra Choice July Boars by Model Duroc 2

Fourteen Sows and Ten Gilts bred to Model Duroc, one of the great boars of the breed. Exceptional size, extreme finish, with an ideal head, ear and color, and reproduces size, finish and color.

Fifteen Gilts and One Sow bred to Stith's B. & C., a fine yearling son of the great show and breeding boar, B. & C.'s Col.

The sows are daughters and granddaughters of such sires as Tatarax, G. M.'s Carl Col., Ohio Chief, Kant-Be-Beat, and Commodore.

The gilts are sired by Stith's Dewdrop Commodore and Hattie's Model by Model Duroc, Stith Commodore by Top Commodore, dam Dewdrop Maid by Ohio Chief, both sire and dam grand champions.

Send at once for catalog describing the offering. Sale will be held in heated pavilion. You are cordially invited to be present. If you cannot conveniently attend, mail your bids to auctioneers or fieldmen.

Chas. Stith

EUREKA

KANSAS

Cols. Lon Smithers, John D. Snyder and George Drybread, Auctioneers.
O. W. Devine, Fieldman Representing Kansas Farmer.

Duroc Jersey Bred Sow Auction

At Clay Center, Kansas, Sat., March 1, 1913
25 Richly Bred Durocs and Good Individuals

THREE TRIED SOWS
TWELVE SPRING GILTS

FIVE FALL GILTS
FIVE FALL BOARS

The Sows and Spring Gilts are Bred for Spring Farrow to the Herd Boars, Miller's Advancer and Diamond King, a Nebraska-Bred Boar.

The offering includes granddaughters of G. C.'s Colonel, many of them sired by Blue Rapids Colonel. On dam's side many of them trace to McParker, a noted boar of Tip Top breeding. They will be sold in nice breeding form and not fat. Write for catalog.

R. R. MILLER, Clay Center, Kansas

Auctioneer, Jas. T. McCulloch.

Fieldman, Jesse R. Johnson.



SUNFLOWER HERD HOLSTEIN-FRIESIANS

Never before have we had as choice a lot of young cows and heifers to pick from, in lots of one to a carload. Some twenty head to calve within next 90 days by sires of the best A. R. O. backing. A clean, straight, sound lot, all tuberculin tested. The calves from these cows should be worth half the purchase price. Come see the herd, or write for breeding and prices. Herd numbers nearly 50 head, all registered.

F. J. SEARLE, Prop. Oskaloosa, Kans.

PUBLIC SALE

Seventy-five cows, representing the best Hereford blood, will be offered at the Hopper and Bowman Combination Sale, held at Ness City, Feb. 18 and 19. Send for catalogue.



ROBISON'S PERCHERONS

One hundred fifty percheron stallions, mares and colts. Fifty imported. All for sale.

J. C. Robison, Towanda, Ks.

The West's Largest Importing and Breeding Establishment.

IMPORTERS AND BREEDERS OF

Percheron Belgians and Shire Stallions and Mares.
120 Head to Select From.

Our stallions and mares are strong and massive, with great quality, style and conformation, with splendid color and dispositions. They are selected with an eye single to the wants of the most critical American buyers, and we can sell them for less money than any one in the business, quality considered. The stallions will go into any community and command the best mares, command the men who are the best pay and who take the best care of their stock. Let us know your wants. We can suit you in both price and quality.

L. R. WILEY,

EMPORIA, KANSAS



IMPORTED PERCHERON STALLIONS, JACKS AND JENNETS.

FOR SALE—5 imported black Percheron stallions, 4 to 6 years old; all tried and regular breeders; can show colts; weigh 1,800 to 2,200 pounds. One Morgan stallion, 7 years old. 10 large black jacks, 2 to 7 years old, all broke; good performers; can show colts and mares in foal. 10 head big black jennets, all bred to our imported jack. Prices reasonable. Write or come to farm 4 miles from Raymond or Chase. Our horses and jacks were shown at the Kansas State Fair at Hutchinson, September, 1912, in six different classes, and won in every class. Come and see us. **J. P. and M. H. MALONE, CHASE, KAN.**



Imported Stallions: Percheron, Shire, Belgian

Each year we show our new importation the same month they land. Each year they win more than all other exhibitors combined. At the American Royal this year they won second on 4-year-old Percheron; first, third and fourth on 3-year-old; first and third on 2-year-old, and first and champion group of five stallions. Our horses are handsome and the best to buy; our guarantee and insurance the very best.

PERCHERON IMPORTING CO., Chas. R. Kirk, South St. Joseph, Missouri.

50—PERCHERON STALLIONS—50

Bishop Brothers have 50 big boned stallions that weigh 1,700 to 2,100 pounds that they can and will sell for less money than any firm in the business, quality considered. Write us what you want.

BISHOP BROS., TOWANDA, KAN.

S. J. Miller's Percheron and Jack Sale at Kirksville, Mo., March 6, 1913

Twenty-Four Head of Imported and Home-Bred

Percheron Stallions and Mares

Including such imported stallions as Incident and Introuvable and others equally as good. The mares are a lot of prize winners and are bred to the best Percheron stallions now in service. Fifteen mammoth bred jacks and an equal number of mammoth bred jennets. Will also sell saddle stallions and mares at private sale, Kentucky bred and registered. Catalogs now ready. Write for one at once.

S. J. MILLER, KIRKSVILLE, MISSOURI

Colonel Bellows, Auctioneer.

LaFAYETTE JACK FARM

HIGGINSVILLE, MISSOURI

MAMMOTH JACKS AND PERCHERON STALLIONS



TWENTY JACKS—Three to six years old; 14½ to 16 hands high. All black; all broke and guaranteed.

TEN PERCHERON STALLIONS—Two to eight years. Mostly imported. All guaranteed breeders.

Will Exchange Stallions for Good Jacks. One German Coach Stallion eleven years old. One Belgian stallion five years old. Both sound.

Twenty jennets in foal to my champion jack, Dr. McCord.

ALL FOR SALE PRIVATELY—NO PUBLIC SALE THIS SPRING.

Visit or Write.

W. J. FINLEY

HIGGINSVILLE, MO.

Fifty-five Miles East of Kansas City on C. & A. R. R.

STALLIONS AND JACKS



FOR SALE—Two extra fine jacks, black with white points, 15:2 to 16 hands. Good bone, large heads and ears; sure foal getters and good breeders.

ONE IMPORTED PERCHERON STALLION, eight years old, weight 1,800 pounds; good breeder; fine disposition.

ONE SADDLE STALLION, Three years old, 16 hands, weight 1,100 pounds; dark bay, goes all gaits, good breeder, colts and books to show.

Stock offered because of poor health. Priced to sell quick. Reasonable terms.

F. C. KROLL, LEXINGTON, MO.

Farm at Winston Station and Only Six Miles from Higginsville, Mo. Lafayette Co., 45 Miles E. of Kansas City, on Lexington, Mo. Pac. Ry.

W. T. Trotter's Second Annual Jack Sale Mt. Ayr, Iowa

Thursday, February 27th, 1913



35 HEAD OF MAMMOTH JACKS AND JENNETS—35 14 big, high class jacks ready for service, well broken and good performers. My great herd jacks, Keno and Jumbo, will be sold in this sale, also the great 3-year-old Jumbo Lac. Some of the best 2 and 3-year olds that will be sold this year. A number of these jacks are from 15 to 16 1-2 hands high. The jennets are a select lot. Will also sell several imported draft stallions and a few roadsters.

COL. HARRIMAN, Auctioneer.

W. T. TROTTER

MT. AYR, IOWA

IMPORTED DRAFT HORSES



I have now for sale a lot of personally selected coming 2 and 4-year-olds as good as France and Belgium can produce. Good heavy bone. Straight draft type with quality and the best of breeding. I give a gilt-edge guarantee, good for two years, with each horse sold. All in just good breeding condition and will be a good investment to the purchaser. I can save you some money on a stallion. Barns four blocks from the A. T. & S. F. depot.

W. H. RICHARDS, - - EMPORIA, KANSAS

LAMER'S PERCHERON STALLIONS and MARES

75 Head of Imported and Home-Grown Percheron Stallions and Mares, at "Let Live" Prices

Two-Year-Olds That Weigh a Ton

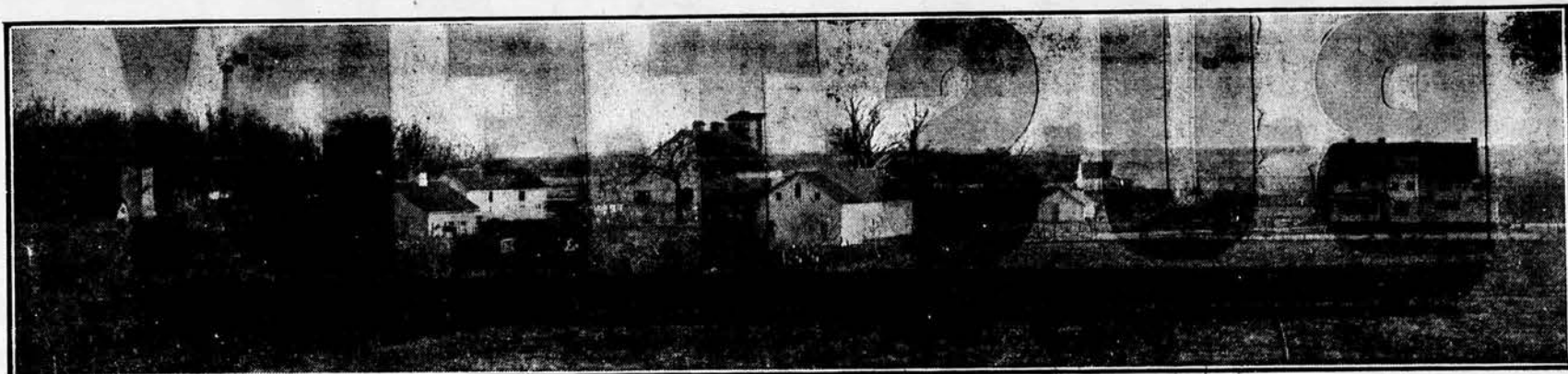
C. W. LAMER & CO.

Salina, Kansas

PARK & FIRKINS' PERCHERONS AND JACKS.

Imported and American-bred stallions. All blacks and grays, all registered in P. S. of America. Some ton 3-year-olds. Also Kentucky and Missouri Mammoth Jacks from 15 to 15½ hands high, heavy bone and good performers, registered. Everything sold with safe breeding guarantee. Barns in town, 50 miles north of Kansas City, on Rock Island Railroad, 35 miles east of St. Joseph on Burlington Railroad.

J. E. PARK AND A. A. FIRKINS, CAMERON, MO.



DEMING RANCH POLAND CHINA SALE, FEBRUARY 25, 1913

From our herd of 700 head of pure-bred hogs we offer you 50 head of bred sows and gilts, representing the blood lines of almost every prominent family of big-type Polands, bred to such boars as Receiver by Big Wonder, the 1,000-pound Iowa State Fair winner; Bud Hadley and All Hadley by Big Hadley's Likeness; Top Notch by Logan Ex; Deming Chief by Bell Chief, and others. Write for catalog. We have no mailing list.

COLS. ZAUN AND SPARKS, AUCTIONEERS.

DEMING RANCH, OSWEGO, KAN.

O. W. DEVINE, FIELDMAN, KANSAS FARMER.

Breeders' Sale of Percheron, Shire, Belgian, German Coach and Road Stallions and Mares, also Four Jacks, will be held in sale barn in Cameron, Mo., on

THURSDAY, FEBRUARY 27th

The following breeders are consignors to this sale: P. G. McCulley, Princeton, Mo.; Miller & Everett, Mill Grove, Mo.; Messrs. Lemley and Crawford, Trenton, Mo.; J. E. Roberts & Sons, Maysville, Mo.; Fred Ossman, Turney, Mo.; A. A. Firkins, Cameron, Mo.; Henry Cole, Altamont, Mo.; A. Schwalm, Clarksdale, Mo.; S. S. Langford, Craig, Neb.; J. R. Crutcher, Lisle, Mo.; E. B. Youtsey, Pattonsburg, Mo.; W. L. Cook & Son, Pattonsburg, Mo.; J. H. Weidmore, Clarksdale, Mo.; M. B. Parsons, Lawson, Mo.

An exceptional opportunity to buy the best that Missouri affords in draft horses and jacks. Write for catalog. It tells the story complete. Address, mentioning this paper,

THOMAS E. DEEM, Sale Manager, Cameron, Mo.

Auctioneers: COLS. SNYDER, NELSON and PARSONS



W. J. CODY, Fieldman

Harter Offers His Big Prolific Sows At Auction

AT FARM NEAR

Fostoria and Blaine, Kansas

Tues. Feb. 18th, 1913



Fifty Head, the Best From Every Standpoint I Have Ever Sold at Auction. Thirty Tried Sows, Ten Spring Gilts, Five Choice Summer Boars, Five Selected Summer Gilts.

The tried sows comprise six daughters of Mogul's Monarch; six daughters of Captain Hutch; two by Toulon Prince and one by Prince Hadley. All of them just in their prime of usefulness and never before priced for sale. All of them extra good mothers. I can almost tell just the number each one will farrow and raise. Every one of them immune from cholera. The others are sows of equal merit, and about the same can be truthfully said of them. The gilts were sired by Mogul's Monarch, Prince Hadley and Gephart, and will be bred to Long King, a son of Long King's Equal. The sows are bred to these boars, being mated according to past results. The summer boars and gilts are of the same breeding and are all choice individuals. Catalog upon request. Stop at any hotel at any near-by town as my guest. Free transportation to and from farm.

J. H. HARTER, WESTMORELAND, KANSAS.

Auctioneers—Jas. T. McCulloch, W. C. Curphy, Henry Tresper, J. A. Howell, Jesse Johnson, Fieldman. Send him bids in Mr. Harter's care at Westmoreland, Kansas.

L. H. LUCKHARDT'S PERCHERON AND JACK SALE

At TARKIO, MO., MARCH 12, 1913

33 Head of Registered Percheron Stallions and Mares and Mammoth Jacks 33

Thirteen extra good mares, ten weighing 1,800 to 2,000 pounds. Several tried ten stallions. This entire Percheron offering has been carefully selected and is high class. The jacks to go in this sale are good ones, weighing from 1,000 to 1,200 pounds. Sale regardless of weather conditions. Send at once for catalog.

L. H. LUCKHARDT - - - TARKIO, MO.

COLONELS BELLWS AND MANIFORD, Auctioneers.

DEIERLING & OTTO'S PRIZE WINNING JACKS

50 — Mammoth Jacks and Jennets — 50

From 2 to 5 years old, big-boned, big black kind with white points; 15 to 16 hands high. We are offering our prize winners at Missouri, Iowa and Illinois State Fairs, 1912. Every jack and jennet guaranteed just as represented.

DEIERLING & OTTO, QUEEN CITY, MO.

CEDARSIDE STOCK FARM, WAVERLY, IOWA

wants to sell you some nice OXFORD ewes; also, 15 rams; all from imported rams, and part from imported ewes. The ewes will be bred to a 400-pound ram. Some nice HOLSTEIN bull calves, with several 30-pound records backing. Get busy and write me.

C. A. NELSON.

FIELD NOTES

Platte County Jack Sale a Success.

The jack sale held by the Platte County Jack Sales Company at Platte City, Mo., February 4, under the management of Mr. J. B. Dillingham, was a great success in every way, although this was the first sale held by the company. The attendance was very large and the big sale tent was scarcely more than half large enough to accommodate the crowd. The arrangement for the sale was first class, and although the weather was cold, the sale pavilion was kept comfortable. Buyers were present from a number of states, Texas, Oklahoma and Kansas furnishing a large per cent of the outside purchasers. Missouri, of course, furnished its share of buyers. Seventy head of jacks and jennets were sold between the hours of 10 a. m. and 5 p. m. Prices ranged from \$200 per head for yearling jacks to \$375 for aged jacks, and although there were no sensational prices, the average for the offering was good. The success of this great combination sale was due in a great measure to the able management of Mr. J. B. Dillingham, and the breeders consigning stock to the offering were unanimous in expressing their satisfaction over the result of his effort as manager of the first sale held by the Platte County Jack Sales Company, which was easily the sale event of the season.

Holsteins For Sale

High grade cows and heifers, about 40 head, heavy springers, from two to five years old. Fifteen head coming two-years to freshen this spring and summer; all bred to registered bulls. Also bulls, high grade and registered, from 4 to 12 months old. These are all highly bred dairy cattle and fine young stuff.

IEA ROMIG, Station B, Topeka, Kansas.

HOLSTEINS FOR SALE—Sons of Deutschland Cornucopia Sr Betty, who has a 32-pound sister and a long line of A. R. O. relatives. Dams sired by Prince Ormsby Mercedes, DeKui and other good bulls.

J. P. MAST, Scranton, Kan.

Wedd & Son Poland Sale February 20. All farmers and breeders are invited to attend the Poland China bred sow sale of George Wedd & Son at Spring Hill, Kan., on Thursday, February 20. Arrangements have been made for the Frisco, No. 101, due to leave Kansas City, Mo., at 10:30 a. m., to stop at Spring Hill. This train will enable parties both from the east and west to make connections and arrive at the sale in plenty of time. Remember the date is February 20, 1913, and everybody is invited to attend. Catalogs are free and can be had for the asking.

B-U-S-T-E-D!

ROOFING LUMBER

Our Great 1913 Announcement

You can order a complete carload of material including everything you need to construct a building and we will ship it forward to you without you paying us a cent down.

PRICES No Money Down

WIRE and FENCING BUILDING MATERIAL

Write Us for Our Liberal Terms

You are safe when you deal with us. Our capital stock is \$2,000,000.00 and 20 years of honest dealing have earned a place for us in the public confidence that is unquestioned.

Lumber Prices S-m-a-s-h-e-d

Yes, we mean smashed. Absolutely busted to pieces. That's our policy. We quote prices on lumber that will positively save you big money. If you will send your lumber bill we will send you a freight paid estimate that will mean a saving to you of from 30% to 50%. Every stick is absolutely first class, brand new and fully up-to-grade such as you would buy from any reputable house in the United States.

We have determined that the year of 1913 is going to be the Banner Year in our great lumber department. We have on hand 20,000,000 feet of high-grade lumber suitable for the construction of buildings, no matter for what purpose intended. Come to our great yards in Chicago and let us show you this stuff actually in stock. No other concern in the world has a more complete stock of everything needed to build, whether Lumber, Shingles, Structural Iron, Plumbing, Heating, Doors or anything else that you may need. Do you know that lumber is getting scarcer and scarcer every year? Yet our prices are lowest and will continue so until our stock is gone. **WHITE TODAY.**

Shingles at Big Saving

We have a special lot of 1,000,000 to 2 Common Clear Shingles coming in, on which we are making an exceptionally low price of \$2.41. Other grades at lowest prices.

This Door at 98c

Lot MS-39. Four panel painted door, size 3 ft. 6 in. x 8 ft. 6 in. 1200 in stock. A high quality door for the price. This is only one of our many special bargains. Our grand Building Material Catalog and Bargain Sheets will show a full line of inside Mill-work of all kinds.

Free Building Book

A 200-page Book of Bargains in Mill-work Building Material of all kinds, including Paints, Plumbing, Heating, Structural Iron, Metal and Composition Roofing, Hardware, Carpenter's and Blacksmith's Tools, Wire Fencing. No prospective builder should be without it. It is Free.

You can buy a carload of Building Material from us without paying us one cent in advance. All we want to know is that the money will be paid us as soon as the material is received, unloaded and checked up. Our terms are more liberal than anyone else offers.

EXPLANATION

Why We Are Called the "Price Wreckers"

CONSIDER what becomes of the stock of goods when a manufacturer, jobber or big retail merchant goes bankrupt, or "busted" as the saying goes. In the year 1911 ten thousand merchants met with financial distress—that's why the Chicago House Wrecking Co. exists. If the stocks offered are sufficiently large, if the goods are new, clean and desirable, they find their way naturally to our 40 acre plant for distribution, at a small added profit to our hundreds of thousands of customers, who, in this way get wonderful bargains.

In many cases our prices do not represent the original cost of production. There is not another concern on earth that can meet our prices, simply because no other concern has the buying and economical distributing facilities which we enjoy. It is only natural therefore, that we have become known as "Price Wreckers".

Where Your Dollar Does Double Duty

Every time you buy from us, your dollar takes on an increased purchasing power. We are the safety valve between the public and high prices. We recognize no Trusts or Associations—our methods are along original and unique lines. We are not plodders—we are merchants in the fullest meaning of the word, and the wise public have not been slow in realizing our position in the world. Our great plant at 35th and Iron Sts. is a Mecca for the people of Chicago and surrounding country. Thousands of visitors from every part of the country make a yearly pilgrimage to our institution, and buy their yearly supplies. Are you getting all the benefit that you should from this excellent opportunity? We urge you to learn more about the wonders of our plant, and the opportunities that we afford when you deal with us. You get full value for your money. There is nothing fanciful about our methods—we are just straight, clean business men.

WE SELL PRACTICALLY EVERYTHING

Our stock includes practically "everything under the sun". It's in truth, from a needle to a locomotive. No matter what your vocation, or what position in life you occupy, or what your business, or how great a merchant you are, you have use for us, and we have the goods that you can buy from us to a decided advantage. The quicker you learn to recognize this fact, the sooner you will be "putting money in your pocket".

Our stock includes Building Material, Lumber, Roofing, Sash, Doors, Millwork, Wire and Fencing, Hardware, Plumbing Material, Heating Apparatus and Supplies, Furniture, Household Goods, Rugs, Stoves and everything needed to furnish or equip your home, your club or hotel. It includes Groceries, Clothing, Dry Goods, Boots and Shoes, Furnishing Goods, and every single article to clothe a man, woman or child. It includes Sporting Goods, Fishing Tackle, Hunting Outfits, Tents, Guns, Harness and Vehicles, Jewelry, Sewing Machines, Oilcloths, also structural iron needed in the construction of buildings, bridges, etc. Machinery, gasoline, gas and electric power outfits. In fact you cannot think of a single manufactured article that we cannot supply you at a saving in price. Let us convince you—it means but little effort on your part to prove the truth of all we say. Write us today for our Catalogue and literature. Fill in the coupon shown below.

SPECIAL SALE

Freight Paid Prices

Send Us Today Your Complete List of Lumber and Building Materials for Our FREIGHT PAID PRICES.

\$8.50 for a High-Grade, Sanitary, Complete Closet
Siphon acting, vitreous bowl, hardwood seat and cover. Low down, latest style, copper lined tank. Outfit is Lot 5-AD-105.

1 1/2 H.P. Gasoline \$24.75
The lightest, strongest and most compact Gasoline Engine ever produced. Thirty days' free trial. It is 4-cycle, self-contained, horizontal, hopper cooled; on heavy wood skids, with battery box, shipped complete, wt. 250 lbs. Has automatic governor. Easy to start. See for Special Gasoline Engine Catalog.

\$13 Buys Complete BATHTUB
This is a white enameled, cast iron, one-piece, heavy roll rim bathtub fitted with the latest style nickel-plated trimmings, including full double drain, for hot and cold water, and nickel-plated connected waste and overflow, and nickel-plated supply pipes. It is 5 ft. long and is good enough to answer the needs of any man. Lot 6AD-101.

Hot Water Heating Plants
We are headquarters for steam, hot water and warm air heating plants. They are suitable either for new or old homes. It is easy to install one of these plants in your old building. For this great fall bargain we are offering a warm air heating plant large enough for the ordinary 3 room house, with all necessary plans and complete instructions for installing, for \$45.00.

Iron Pipe and Fittings
Good iron pipe in random lengths complete with couplings, suitable for gas, oil, water and conveyance of all fluids; size 3-8 to 18 inches; our price on 1-in. per foot is: 1-1/4 inch at 4c per foot. Complete stock of valves and fittings. Send us your specifications.

Rugs at 75c
We bought at New York Auction an enormous stock of the highest grade, brand new rugs of all sizes and colors. We buy the Arminster Rugs of Extra-grade. This is a sample of our money-saving bargains. Write for our complete Free Rug Catalog, showing actual colors and designs.

FURNITURE
We are the World's Barren Headquarters for the outfitting of your home, club, lodge or hotel, from the very latest to the finest. An assortment of household goods and everything such as will be found in any other institution in the land. Write for free copy of our Furniture and Household Goods Catalog.

\$725 Buys the Material to Build This House

This is Our House No. 6A. A beautiful up-to-date full 2 story, 7 rooms and bath, home. Has been sold over 400 times. Copied and imitated all over the U. S., but our price and quality cannot be equaled. The price is easily 25% to 50% below local dealer's prices. Immediate shipment right from our Chicago stock, when you can come and see is loaded. **NO MONEY DOWN.** \$2.00 buys perfect Blue Print Plans, complete specifications and detailed descriptive material list, with a refund of \$1.50 if you do not like them.

ORIGINAL METHODS

We are the originators of a system of selling practically complete Houses direct to the consumer, at a great saving.

We eliminate all in-between profits. We sell and ship direct to you from our own stocks.

Great care and study has been given all our Plans. Economy is the watch-word both in materials and construction.

No Worry No Loss No Waste

Our Binding Guarantees both as to quality and quantity goes with every sale.

Write us for letters from people in your vicinity who have bought from us. We have thousands of unsolicited testimonials.

Smash Go ROOFING PRICES

Galvanized Steel Roofing is Fire, Water and Lightning Proof

We bought 20,000 squares of this Corrugated Iron Roofing which we offer at this remarkably low price. It is new, perfect, and first-class, but light weight. The sheets are 22 x 24 in. x 1/4 in. corrugated. Our price of \$1.25 per sq. ft. f.o.b. cars Chicago.

When ordering this item, specify Lot No. AD-700. This is not galvanized, but black steel roofing.

Write us today for our special **FREIGHT PREPAID PRICES** on new, galvanized roofing. We are offering prices lower than ever before offered in the roofing business. Galvanized roofing at \$2.50 per square and up. Ask for free samples.

We can furnish anything needed in Roofing, Siding or Ceiling.

62 CENTS PER 108 SQUARE FEET BUYS BEST RUBBER SURFACED "AJAX" ROOFING

Here again we show the lowest price ever known for roofing of quality. This smooth surfaced roofing we are offering is our one-ply "Ajax" brand, and the price includes necessary cement and caps to lay it; this price is f.o.b. Chicago; at 150 per square, we pay the freight in full to any point East of Kansas and Nebraska and North of the Ohio River. Prices to other points on application.

Roofing is guaranteed to wear as long and give as good service as any Ready Rubber Surfaced Roofing on the market. It is put up in rolls of 108 square feet, and contains 3 to 4 pieces to the roll.

We have other grades of Ready Roofing, which we offer at prices easily 30 per cent below regular quotations. Write to-day for free samples and Roofing Catalog. Fill in the coupon.



Our House No. 6A.

Special Information

If you intend building, you will lose money if you don't write us at once. Tell us what you want. We will answer you promptly and give you valuable information regarding building. Send rough pencil sketch showing the kind of house you want. We will make you a freight paid price that will save you big money on material necessary to build same. Every stick of lumber, every nail, every shingle, every piece of hardware, every plumbing fixture, every electric fixture, every thing you need, we will help you to save money on your purchase.

Our FREE Book of Plans

Our Book of Plans contains 100 Designs of different kinds of buildings. Everything from a 2 room Portable House for \$100.00 to the finest kind of a 10 room residence. Houses are completely illustrated showing the floor plans, prices lumber, millwork, plumbing, heating, paint, etc. And it's free.



Smash Go WIRE and FENCE Prices

BARB WIRE Less Than 2c Per Rod

New galvanized, heavy weight barb wire, put on on reels about 100 lbs. to the reel. Lot 2-AD-25 per 100 lbs. \$1.05. Galvanized barb wire, light weight, first grade, best made, put up exactly 30 rods to reel, 3-point barbs. Lot 2-AD-23, per reel, \$1.40.

Wire Nails, Per Keg, \$1.50

30,000 kegs, put up 100 lbs. to the keg mixed, all kinds to other regular nails, such as made by nail factories. Lot 2-AD-33, price per keg, \$1.50. 1,000 kegs of 30 penny-weight regular new wire nails, 100 lbs. to the keg, while they last, per keg, \$1.55. Write for our Free Wire and Fence Catalog. Give valuable information to any land owner. Fill in the coupon below.

Smooth Galvanized Wire Per 100 Lbs. \$1.25

It is suitable for fences, stay wires, grape vines or for any ordinary purpose where wire is used. This galvanized wire is irregular in length—it ranges anywhere from 50 to 250 ft. \$1.25 is our price for No. 6 gauge. Other sizes in proportion.

15c Per Rod Buys Best Hog Fencing

Here is another one of our remarkable bargains. A high grade, strictly perfect fence, made of No. 9, 11 and 12 wires, perfectly adapted for hogs and general farm purposes, 28 in. high, square mesh, put up in suitable size rolls. Lot 2-AD-31, price per rod 15c. Other heights in proportion. Staples, 100 lbs. \$1.75.

BEST QUALITY READY MIXED PAINT

Our paint department is under the personal supervision of Mr. V. Michaelson, for 30 years the foremost paint man in America. His picture has appeared on over 8,000,000 cans, and his name is known from ocean to ocean. Paint of quality is his specialty. Every gallon has our strongest guarantee. Our Ready Mixed Paint at 97c a gallon will outlast any similar paint produced. If you want quality paint, write us; or write to Mr. Michaelson in your nearest, most valuable paint book ever published sent FREE. Send coupon.

Fill in This Coupon

CHICAGO HOUSE WRECKING CO., Dept. AG 49, Chicago. Send me free of cost the following catalogs. (Place an X mark in square opposite the catalogs you desire)

<input type="checkbox"/> Catalog of 50,000 Bargains	<input type="checkbox"/> Building Material
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My Name is.....

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Greatest of all bargain books is our Great Wonderful "Price Wrecker". It is a book of 1000 pages, with wonderful illustrations, and with clear, frank statements explaining exactly the nature of the goods we have for sale, and quotes them at the lowest possible prices. It is a book of real merchandise truths—tells you the facts so plainly that you cannot misunderstand us.

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IRON PIPE AND FITTINGS
Good iron pipe in random lengths complete with couplings, suitable for gas, oil, water and conveyance of all fluids; size 3-8 to 18 inches; our price on 1-in. per foot is: 1-1/4 inch at 4c per foot. Complete stock of valves and fittings. Send us your specifications.

RUGS AT 75c
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We are the World's Barren Headquarters for the outfitting of your home, club, lodge or hotel, from the very latest to the finest. An assortment of household goods and everything such as will be found in any other institution in the land. Write for free copy of our Furniture and Household Goods Catalog.

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