

KANSAS FARMER

For the improvement of the Farm and Home

Volume 51, Number 19.

TOPEKA, KANSAS

MAY 10, 1913.

Established 1863. \$1 a Year

ALL work and no play makes Jack an invaluable employee. All school and no work may make him a good clerk, but in neither case does he develop to the full measure of a man. For centuries boys have gone to school to learn about the Greek roots when they knew nothing about corn roots. Now they want to study only those branches which bear golden fruit.

Too often boys do not go to school—they are sent; and their unbalanced work there robs the farm to crowd the city; makes poor lawyers of good blacksmiths or mediocre ministers of fair farmers. College does not make fools; it only develops them. College does not make wise men, it only develops them, but both had their beginnings in the home and the primary school.

To balance things we need the farm adviser, but the demonstration work which helps the boy most is what he does himself. —I. D. G.



Be a Farm Adviser to Your Boy. He is Your Most Important Crop



The Biggest Thing in the Clock Business

BIG BEN is the biggest thing today in the alarm clock business.

He is only two years and a half old, but he's already getting more work from the States than any clock alive.

In two years and a half time, 18,000 jewelers—70% of the total number of United States watchmakers—have already adopted him. Two million and a half families leave it to him to tell them up in the morning. Two million and a half families use him all day long to tell the right time by.

He is really two good clocks in one—a crackerjack of a timekeeper and a crackerjack of an alarm.

BIG BEN stands seven inches tall. He is triple nickel-plated and wears an inner vest of steel that insures him for life. His big, bold figures and hands are easy to read in the dim morning light. His large, comfortable keys almost wind themselves. He rings five minutes steadily or ten intermittently. If he is oiled every other year, there is no telling how long he will last.

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BIG BEN

BIG BARGAINS IN TIRES

Send now for our new "April-May" price list on Imperial and Knickerbocker Tires (both guaranteed tires 3,500 miles)—also big stock of "seconds" in Diamond, Fisk, Goodrich, Ajax, U. S. Century, etc. You pay 30 to 50 per cent more to your local dealer than we ask you for motor car tires. A big stock here in Kansas City. Quick shipments. Every tire C. O. D. on approval. No deposit asked. Established five years. We are the oldest and largest cut-price tire house in the West. Write today for our "April-May" list.

Sample prices: 30 x 3, \$10.10; 32 x 4, \$20.85; 34 x 4, \$22.00.

ATLAS TIRE COMPANY,
1532 Grand Ave., Kansas City, Missouri.

MEN AND BOYS

all over the country are riding the big 1913 YALE Motorcycles. The YALE is the biggest and strongest built motorcycle on the market, bar none. The motor is the best cooled and best oiled, with power and speed to meet every requirement.

"BUILT LIKE AN AUTOMOBILE." You will want our "Big Y" literature.

J. C. HARDING CO., 106 E. Sixth St., Topeka, Kan.
I am interested in the big YALE.

Name.
Town.
R. R.



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

A. I. ROOT CO., Box 320, Medina, Ohio.

FARM AUTO

For the Farm Auto Owner
Inquiries and Suggestions Solicited

Preachers Own Autos.

Three ministers of Abilene, Kan., are now riding in automobiles. The Methodist pastor, the Lutheran pastor and Rev. E. R. Brown, formerly in the Methodist pastorate. They make all their country calls and find machines of great value in their work.

Cycle Car Is Latest.

The "cycle car," a cross between an automobile and a motorcycle, has been brought out by English automobile manufacturers to compete with low-priced automobiles from the United States, according to the bureau of foreign and domestic commerce. The machine is made with either three or four wheels, has an engine of from three to ten horse power, and is being placed on the market at prices ranging from \$400 to \$700.

Motorcycles After Criminals.

The motorcycle has become a fully dependable vehicle, so much so that of the 8,000 owned in Kansas fully 30 per cent of the number are used by rural route carriers. Now a motorcycle patrol is being organized. The patrol will have two or three members in every Kansas town, each a deputy sheriff and each man ready to go thief-chasing on the instant a notice is given. There will be state and county organizations maintained at all times and always ready to hunt criminals. The organization will

fast learning that this quick and handy little vehicle has a practical side which is well worth considering. In town or out the motorcycle has been found most useful for quick service, and on errands and in emergencies it has on many occasions performed services that went a long way towards paying its original cost.

There are few road conditions that will prevent a motorcycle being used, and on the average road it can make fully as good time as the most expensive automobile. In price its first cost is so small as to be trifling consideration in comparison with the work it can do, and the expense of maintaining it is hardly worth consideration. Even where an automobile is owned a motorcycle is also often kept because of its superior convenience and handiness in running errands, not to speak of its rapidity and economy of operation. The motorcycle truly is one of the greatest boons ever invented for the farmer, and he is rapidly coming to a full realization of it in a substantial way.

Alcohol as Carbon Remover.

Most users of internal combustion engines are interested in a means of carbon removal without the necessity of taking down the engine. Experiments in the use of denatured alcohol as a decarbonizer and engine cleanser seem to justify these conclusions:

Denatured alcohol is an efficient de-

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Mileage is the unerring test of tire quality.

Ajax Tires carry the biggest mileage guarantee of any standard tire because Ajax are built to give maximum service.

Eight years ago we set a mileage standard of 5000 miles *guaranteed in writing*.

The only way we could give 30% more mileage than other standard makers was to build tires that would meet our guarantee. So we concentrated on *quality* of product rather than quantity of output. As a result we hold the trade of thousands of car owners all over the country.

AJAX TIRES

Guaranteed (in writing) 5000 Miles

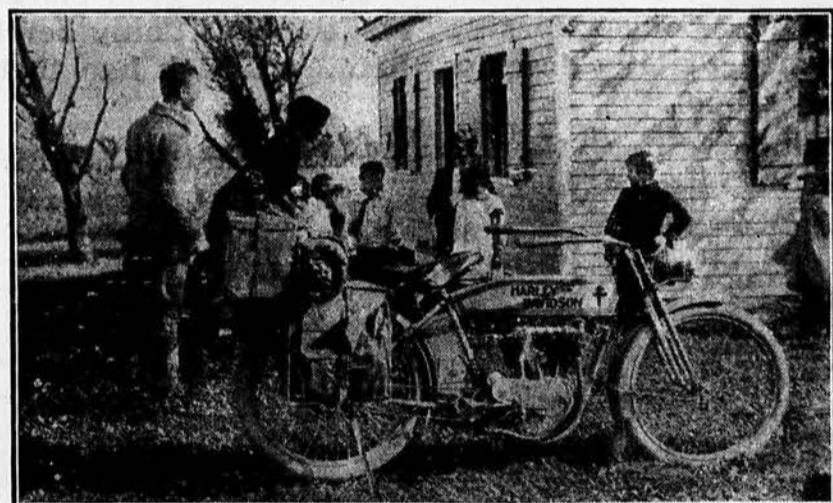
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(10)



THE END OF A THOUSAND-MILE JOURNEY ON A MOTORCYCLE—THE BOYS AND GIRLS AT HOME DID NOT EXPECT THE BROTHER AND HIS NEW WIFE TO "DROP IN" THIS WAY—THE MOTORCYCLE IS FULL OF SURPRISES

be made up along the lines of the Anti-Horse Thief Association and will work with the state and county officials on any matter that may be presented.

"We will have our organization so complete," says P. E. Zimmerman of Lindsborg, the organizer, "that it will not make any difference where a crime is committed, we can get from two to a dozen men going after the criminals in 15 minutes after the alarm is sounded. The big crimes are now committed with the aid of a motor car, and the only thing that can catch a motor car is a motorcycle. We can be of great service to the state and we propose to do it, and we are now working out the details of the organization."

Motorcycle For the Farm.

What the railroad has done in developing communities and promoting progress, the motorcycle is doing for the individual, for it not only provides a rapid means of communication between neighbors, and between outlying districts and business centers, but it gives what the railroad cannot furnish, and that is a means of transportation that is instantly available whenever needed.

For sport and pleasure the possibilities of a motorcycle are too well known to need introduction. The many excursions and tours that are easily possible with the motorcycle that could not be thought of if a horse had to be used; the cooling dash on a warm day, the social call of an evening, all are every day's experiences with a motorcycle, while many a day's fishing or hunting is made possible by a good motorcycle. But the question that is fast growing in importance today is the practical value of the motorcycle, and people are

carbonizer for the automobile type of engine.

It does not injuriously affect the surfaces of the metals with which it comes in contact.

Heat is not necessary, but accelerates the action when used as a decarbonizer.

Denatured alcohol introduced at the working temperature of engine will loosen the carbon deposit so as to permit the deposit to pass out of the cylinder with the exhaust.

The best results are obtained when the combustion space of a hot engine is entirely filled with liquid denatured alcohol and permitted to soak for a period not less than six hours. When the engine is cold the action is about half as rapid as when it is hot.

When the fit between the piston rings and cylinder walls is imperfect, denatured alcohol will leak past the pistons into the crank case and cause the oil in the crank case to become unfit for use for lubricating the engine. However, when a sufficient amount of denatured alcohol has been added to this oil and circulated through the lubricating system of the motor, for a very short period in order to obviate the possibility of damaging the wearing surfaces of the engine, denatured alcohol acts as a cleansing agent, as evidenced by the unusual amount of foreign matter withdrawn with the denatured alcohol.

Due to the cleansing action of denatured alcohol as noted in the preceding conclusions, an engine which has been in service for an extensive period will show a marked increase in operating efficiency when thoroughly treated with denatured alcohol.

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The coat that keeps out ALL the rain

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driving your buildings and give you full directions for putting them up so that you can do it as well as anyone. Write for circular giving particulars.

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We can furnish Roofing and Siding from the cheapest to the best.

Write for our prices on

Galvanized Roofing ft. and up.

ASK FOR FREE ROOFING CATALOG

Valuable information on Ceiling, Siding & Roofing

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Save Work, Time, Money

By using our low down

steel wheel wagon

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saves high lifting, lighter draft, don't rut roads. Spots

don't loosen—wheels don't dry out or rot.

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KANSAS FARMER

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

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Entered at the Topeka, Kansas, post office as second class matter.

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.

**REGARDING HUTCHINSON FAIR.**

Those who have carefully looked into the situation knew that Reno County would not fail to vote the \$50,000 bond issue for the purchase of the fair grounds of the Central Kansas Fair Association, that such grounds might be deeded to the State of Kansas for fair purposes.

During the campaign the Hutchinson papers did everything possible to lead the people of Reno County, and farmers in particular, to believe that the bonds were in danger and that if the vote was not favorable Reno County would forever lose its opportunity to become the home of a state fair. There was absolutely no occasion for the papers to be fearful, except, of course, that they were anxious that the farmers of Reno County assume the burden instead of the people of Hutchinson.

The enabling act introduced by Senator Carey, and made a law during the recent legislature, was such as would by no chance permit failure in delivering the above named fair grounds to the state. For instance, had the county bond issue failed, there would have been three other avenues open. The county commissioners could have appropriated money from the public funds or could have levied a tax for the purchase of the fair grounds. Failing in this, the city commissioners could have bought the grounds with city funds, or could have levied a tax to make the purchase.

It will be seen that there was no chance for Reno County to fail in locating a fair. To be sure, the people of Hutchinson wanted the taxpayers of the county to pay their proportion of the purchase price. However, from the above it is apparent that they might have defeated the bonds, in which event, though, the people of Hutchinson would have voted the bonds and the taxpayers of the county would have had the same benefits as will now accrue to them.

One of the inexplicable things which the Hutchinson papers injected into their campaign for bonds was the claim that Topeka and Wichita had filled Reno County with workers in opposition to the bonds—a lie made out of whole cloth so far as Topeka is concerned and a statement for which the papers of Hutchinson should apologize. KANSAS FARMER cannot speak authoritatively for Wichita. Wichita was not a contestant in the legislation, and this, it seems to us, is fair evidence that Wichita would not in a few weeks experience a change of heart and so oppose the Reno County bonds.

For Topeka and Shawnee County, KANSAS FARMER can speak. The Hutchinson papers correctly state that the editor of KANSAS FARMER is president of the Kansas State Fair Association. We know that the Kansas State Fair Association, KANSAS FARMER, the Topeka Commercial Club and the business houses of Topeka who have solicitors in Reno County, absolutely restrained from taking any interest in Reno County in opposition to these bonds. The best reason in the world for their so doing is explained above in our reference to the enabling act, by which act it would have been impossible to have defeated Hutchinson and Reno County through all the avenues open for the location of a state fair in Hutchinson and Reno County. The statement that Topeka was doing everything possible to defeat these bonds is willful and malicious and does no credit to those who persistently kept the story alive. Such action should be resented by the good people of Reno County who have just reason for rejoicing over the Hutchinson fair situation.

KANSAS FARMER has many readers in Reno County and in surrounding counties, which readers have a right to rejoice upon the location of the state fair in their vicinity. We want these people to understand that KANSAS FARMER has not taken an interest in opposition to their interest and wishes in this state fair matter, and wants them to plainly understand what we have done. The only editorial expression made by us on the state fair subject was in our issue

of February 8, which was while the fight was pending in the legislature and before the fight had been won by Hutchinson.

Our expression at that time, in brief, was that we did not believe that there was a demand on the part of the taxpayers of Kansas for a state fair and that in the face of this lack of interest we were sure there was no justification for an appropriation for the support and maintenance of such fair. We further said that inasmuch as the demand for a state fair did not exist, as we believed, we thought it just that the voters of Kansas should at the next general election express themselves as to whether or not an appropriation for a state fair should be made and at the same time select a location. This is the sum total of the editorial utterances of KANSAS FARMER in this fair matter. We have kept our hands clean in this fight. In KANSAS FARMER our personal opinions were not allowed to jeopardize the best interests of KANSAS FARMER as a publication, nor to interfere with the rights and privileges of our readers in all parts of the state.

NO ADVANCE ON TWINE.

The news press is giving considerable publicity to the statement that the farmers of Kansas will pay higher prices for twine this season because of the destruction of the penitentiary twine plant by fire. It is asserted that the price of twine in Western Kansas has already advanced two cents a pound.

KANSAS FARMER in its issue of April 26 asserted that because of the comparatively small annual output of the Kansas plant its destruction would, in our judgment, have no effect upon the cost of twine to Kansas farmers, basing our conclusion, first, upon the fact that the total output of the penitentiary twine plant would not supply more than two of the wheat counties of Kansas in an average wheat crop year, and second, because twine is sold in Nebraska, Missouri and Iowa and other Missouri Valley states which do not have twine plants at the same prices at which it is sold by the same people to the dealers of Kansas. Furthermore it was our comment that twine manufacturers were quite too good business men and too long-headed to permit the loss of the Kansas twine plant to interfere with the prices already quoted by them for this year's twine.

Inasmuch as the price of twine is a thing which will affect the farmers of Kansas, particularly in a year when the outlook is good for an unusually large harvest, we have taken occasion to investigate the existing twine situation. We find, first, that twine manufacturers and jobbers months ago closed contracts with the retail twine dealers of Kansas agreeing to supply them with this season's twine at the stipulated prices for the several qualities of twine, also that practically all such contracts were made in advance of the destruction of the Kansas twine plant. We find, also, that the International Harvester Company branch located in Topeka has shipped on its contracts in excess of one-half of the twine that will be supplied by it in the territory served this year. It is reasonable to conclude that other branches of that institution, as well as several other distributors in Kansas, have shipped twine to the same extent. It would appear from the above that the completion of dealers' contracts and the shipment of a considerable proportion of twine on such contracts would preclude any possibility of that concern making a change in the price first quoted. We telegraphed McGowen & Finnigan, St. Louis, Mo., distributors for the Plymouth Cordage Company, who advised that there has been no advance in twine prices and that there will be no change in the prices they quoted early in the year. The April 24 issue of the Farm Implement News, Chicago, commenting upon the burning of the Kansas plant, remarks that the output was small and will cause little or no effect upon the twine situation, having particular reference to the ability of the

twine manufacturers to supply the demand.

While looking around for twine information we discovered that the Indiana prison twine plant is charging 9 cents for twine this season in less than carload lots, as compared with 6½ cents last year, and that the Kansas plant made practically the same advance in its quotations. The scarcity of sisal is given as the justification for advancing, and this same condition in all probability applies to other manufacturers. It may be that this is the advance to which the news press refers, and if so the advance now being given much publicity is attributed to the wrong cause.

If the manufacturers and jobbers are to be taken at their word, it would seem that twine prices made to the local dealer for this season's twine had not been advanced and cannot be advanced this season because of existing contracts. To be sure, the manufacturer or jobber cannot speak for the local dealer or the man who actually delivers twine to the farmer. We do not know and have no way of knowing whether or not all local dealers sell twine on the same margin or at the same price the season through. The retail situation must be considered under the present existing conditions and an advance locally is quite within the range of possibility without an advance on the part of the jobber or manufacturer.

ENCOURAGING FEED SITUATION.

The 1912-1913 feeding experiments with cane, kafir and corn silage at the Kansas Experiment Station and elsewhere, reported in detail in this issue, are worthy of careful study. The experiments are worth much to Kansas farmers in that silage from cane and kafir compares so favorably in feeding value, with corn—the latter crop having heretofore been regarded as the premier silage crop. Corn is such where it grows and produces well and is reasonably certain. There is the western two-thirds of Kansas, however, in which kafir and cane should be the dependence for silage crops—just as it has been in the main for forage.

We in Kansas have long known the certainty of cane and kafir compared with corn. We know that we can plant or sow kafir or cane as late as August 1, if necessary, with a chance for a crop, provided previous plantings or sowings have failed either from drouth, chinch bugs or other causes. We have, on our father's farm, sown cane as many as four times in one season and finally got a forage crop from the last sowing—the one made after harvest. This shows somewhat the wide range of adaptability for cane and the advantages it offers. When you sow cane or kafir for forage this spring, be sure and have enough seed in reserve for another sowing or two in case the first sowing fails.

There is much talk about the presence of chinch bugs and much fear is entertained that the pest will do serious damage this season. We had a considerable touch of damage by bugs last year and can expect the same damage—possibly greater—this year, especially so if the season should be a bit dry. We must prepare to fight the bugs. If we neglect this as we neglected to destroy the bugs last fall by burning, we can look for great damage. Anticipating this, then, do not place the whole dependence for next winter's feed on a single crop or single sowing.

Now that we have the silo—a silo of some sort being within the reach of every farmer—and the value of our best dry weather resisting crops being established as almost the equal of corn silage in feeding value, it seems that the near ideal feeding condition is within the reach of the Kansas live stock keeper.

There is an occasional daughter of a Kansas farmer family who by choice or necessity is seeking profitable employment off the farm and beyond the confines of the neighboring town. Some such are fitting themselves for school teaching, and a considerable percentage of such are seeking a teacher's training

in domestic science. However, there is one other occupation not often thought of or considered by the farm-reared girl, and for which she is well adapted, and that is professional nursing. This work has been made more desirable and in all probability more remunerative by the passage of a law by the recent legislature which provides for the examination, registration and regulation of trained nurses. Such nurses must now pass a satisfactory examination before a state board of examination and obtain a certificate of proficiency. A two years' course of training with systematic instruction in a general hospital will enable the applicant to secure the proper certificate without further examination, provided, of course, the applicant's training has been for the required time in a general hospital, state hospital, sanatorium, or special hospital in good standing. A two years' course, therefore, in such approved institution, with diploma therefrom, is the requirement necessary for entrance to the profession under the laws of this state.

NEED WORD TO PROCEED.

No, the marketing bureau to be established by the Kansas Agricultural College, as suggested by the representatives of the Grange and Farmers' Union, the Society of Equity, et al., in session at Manhattan during the first week in January, has not been lost in the shuffle. Agreeable to the acceptance of such plan by representatives of the above named organizations, the authorities of the Agricultural College mapped out a plan for procedure of such bureau and selected a man to take charge of the work, and stands ready, with proper authority, to go ahead.

The only hope that readers of KANSAS FARMER can hold for the further development and maturity of the arrangement is that the plan may be considered favorably by the new board of administration. We presume that such board will consider carefully the plan before deciding either for or against it. The board will take charge of the educational institutions July 1 according to law, but it is altogether probable that the board of administration will approve or reject the plan before that time. It was hoped to have the bureau in operation by September 1, 1913. This is yet possible upon immediate favorable action by those who are determining the usefulness of the Agricultural College.

It is not amiss to call to the attention of the board of administration that for years and years there has been a steadily growing demand on the part of the farmer for co-operative marketing. For more than 40 years organizations have been born and have died—the lofty purpose of which organizations was to buy cheaper for their members and to sell the products of members to better advantage. Small co-operative successes are to be found here and there throughout Kansas and which have accomplished such for their members.

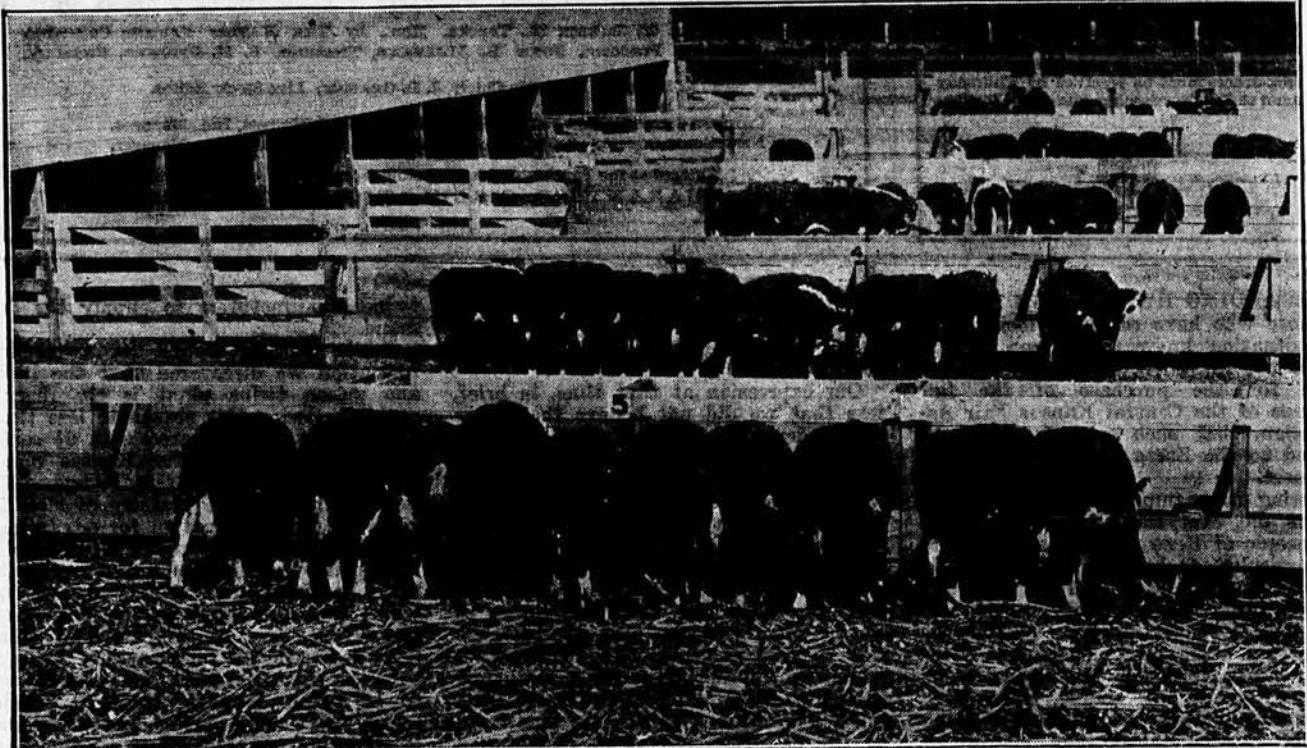
To organize a half million farmers along any line is practically an impossibility and it would seem that the state could in some way aid in this movement. The Agricultural College has for years aided in the distribution of improved varieties of seeds and grain—corn, wheat, oats, etc.—and last fall assisted 50 or more apple growers in finding a market for their fruit. This would indicate that the Agricultural College occupied a position by which it can render a marketing service more far-reaching in its effect and more prompt in its results than could any other organization now formed or to be formed along present existing ideas. It is certain that there is sufficient sentiment in favor of the plan among farmers to warrant the board of administration in permitting the college to complete its arrangements and put the co-operative marketing bureau into operation.

The man who has had any good tree planting intentions during the year should now let these express themselves in a practical way.

A BEEF CATTLE INNING

*A Demonstration
of the Work Done
at the Agricultural
College in the Interests of the Beef
Producing Farmer*

By I. D GRAHAM



FIVE LOTS OF TEN STEERS EACH, FED ON DIFFERENT KINDS OF SILAGE AND ON COMMON FEEDS.

VENTS happen quickly at Manhattan. There is something of interest occurring almost daily at the big state farm, and if only a small proportion of the knowledge developed there could be put into practical use by every farmer in Kansas, the state would break new records each year. The strongest feature of the work which is being done by the live stock and agricultural experts at the Kansas State Agricultural College is to be found in the fact that their work is not only practical and of ready application by the every-day farmer, but that it is made available to every farmer.

An illustration of this fact was made in the big demonstration meeting held at the college on Friday, May 2, when 500 cattlemen from all over the state, and a considerable number of live stock commission men from the big markets, were present to listen to the addresses and watch the demonstrations which were the culmination of a series of the most interesting feeding experiments of which we have any knowledge. Although this event had not been extensively advertised, it brought together this large group of men of affairs who are accustomed to think as they work. If the methods practiced by the college professors in producing beef are better than those which they practice, they want to know it. If there is any new feed or combination of feeds which will increase results and decrease costs, they want to know this, and, judging by the comments which were made by these visitors to this greatest of all sources of agricultural information, there was not a man present who was not many times repaid for the time and expense incurred in this visit to Manhattan.

The show steers, which are being fitted for exhibition at the big stock shows, and the famous "starvation bunch," under the direct management of President Waters, were all yarded at the old barn. The experimental calves that were developed on silage rations were yarded in their quarters at the extreme north end of the experimental farms, while the judging demonstration and the lectures took place in the stock judging pavilion.

One of the most important addresses that has ever been delivered in Kansas was that given by President H. J. Waters of the Agricultural College on "How an Animal Grows." This address was illustrated by the animals under experiment, led into the ring by students in animal husbandry, and as this address will appear in full in the columns of KANSAS FARMER, the details will be given later.

Standing in the ring in front of President Waters were three Hereford steers. One of these weighed 1,588 pounds, the second weighed 1,200, and the third one weighed 780 pounds, and yet they were all bred alike, all were exactly the same age, and all started in the same conditions. The difference was due wholly to the feeding of the animals, and shows fine results for the purposes of illustrating the points brought out by Presi-

dent Waters and also for the weight produced on the big steer at two years old. This big steer had never been allowed to lose his calf fat, but had been under continuous development from weaning time. His great size and weight, with his perfect development as a beef animal, showed one extreme of accomplishment where size and weight only is aimed at without special reference to economy of production or to cost. A 1,588-pound steer at two years old is above the market requirements and probably was not economically produced from every viewpoint. The 1,200-pound steer at two years old comes more nearly meeting with market requirements, although in the development of this animal he had not attained the breadth of frame or the spring of rib shown in the larger one, and this was due wholly to the method of feeding.

The 1,200-pound steer was kept on a maintenance ration for one year. That

pounds, and yet it was the same age as the 1,588-pound steer. No more violent contrast could be shown or thought of than that presented by this group of steers with the big, highly-finished animal at one end of the line, and the little, ill-conditioned two-year-old runt at the other. President Waters brought out some very important facts and had the proof before him on the hoof. Among these may be mentioned that stunting from short feed may be partially overcome, and that domestic animals develop parts which are absolutely in the way of wild animals and would interfere with their securing their living. That every animal on short feed tends to revert to the wild type of his ancestors, which means that the animal will develop his forequarters for fighting purposes and his hind quarters for speed. This is shown by the thinner frame and the sloping hind quarters of the half-fed animal.

Another point of importance is that those parts of the animal which are valued most highly for beef cuts are the last to be developed. The development of the loin, rump and round are due to the artificial work of man and are not provisions of nature. The feed given an animal will develop its frame and its necessary muscles first, and then by gradual selection and liberal feed it will add on what we know as the high-priced cuts of beef. Another point of importance in this connection is that the fat of an animal is his reserve of fuel and energy. Every animal that goes to the block or dies in any other way has exactly the same number of muscles that he had at birth. The lean meat of an animal may be increased in size by proper development, but cannot be increased in quantity. On the contrary, the fat may be increased at will, but it must be done through proper breeding. The fat contains as much energy to the pound as does 4½ pounds of lean meat, and the laying on of this fat is best determined by an inspection of a Jersey steer in comparison with a Shorthorn or other beef-bred animal.

All animals take on fat in the intestinal tract first. Later they add fat on the inner walls of the body, and then comes additional fat under the skin and outside the body framework. The marbled appearance of meat, which is so much sought after by judges, is due to the fact that fat has been laid on outside the carcass and between the muscles.

The muscular tissue is not changed in any way, although the muscles themselves are separated more widely by the layers of fat. The intestinal fat is comparatively easily and cheaply produced, while the exterior fat under the skin is expensive to produce, and was estimated by President Waters to cost about 25 or 26 cents a pound. This address of President Waters was characterized as a "million dollar speech," and we are glad to be able to announce that details will be given later in KANSAS FARMER.

Dr. C. W. McCampbell gave one of his inimitable addresses on judging live

stock. He used some of the show cattle for object lessons and has kindly furnished a synopsis of his address to be published in KANSAS FARMER. Following Doctor McCampbell's address a luncheon was served in the new Agricultural Science hall, rounded out by some delicious ice cream supplied by Professor Reed's college creamery, and by some very fine apples supplied by Professor Dickens of the horticultural department.

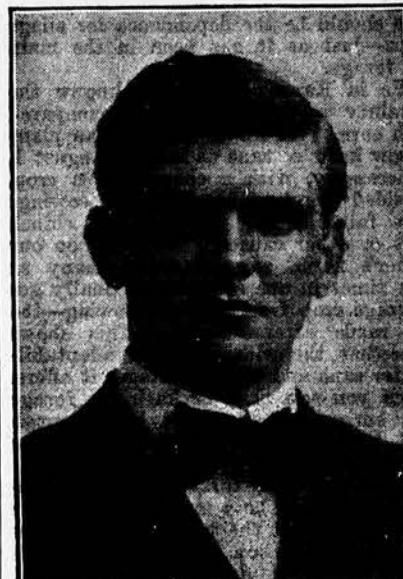
After luncheon Prof. W. A. Cochel gave an address on "Silage for Fattening Steers." This address was of great importance for several reasons. In the first place, it proved beyond any question the value of silage for beef making, and in the second place it showed the comparative value of silage made from different crops. The calves under experiment were on inspection, and visitors were invited to examine them before the address was given, so that they might have in mind the rank of each group. There were ten calves in each lot and these were handled in exactly the same manner so far as care and environment went, and the difference was due entirely to the different rations fed them. The lots of calves were selected with great care and could not have well been more evenly divided. The lots weighed at the beginning of the experiment an average of 417 pounds, 412, 428, 424, and 429 pounds respectively. The final weights were 570, 575, 586, 574 and 591 pounds respectively for the average weight of each animal. Lot 1 was fed on corn silage and cottonseed meal, with an average daily gain of 1,528 pounds. The total cost of feed was \$55.06, or a little over 5½ cents per day for each animal. This lot gained 1,528 pounds at a cost of \$3.60 for the gain. The original cost of Lot 1 was \$325.40. The final value was \$427.50, or a profit of \$47.05 on the lot.

Lot 2 was fed on kafir silage and cottonseed meal. This lot gained 1,627 pounds, or nearly 1.67 pounds per day. The feed cost \$4.96, or a trifle less than 5.4 cents per steer per day. The cost of gain was \$3.37 as compared with \$3.60 in the lot fed on the corn silage. The original value of Lot 2 was \$321.65 and its final value was \$437.07, showing a gain of \$60.46, and at the same time the enormous value of kafir silage for beef production.

Lot 3 was fed on sweet sorghum silage and cottonseed meal. These steers made a gain of 1,584 pounds, or 1.58 pounds per day. The feed cost \$4.95, or an average of a trifle under 5.4 cents per head. The gain cost \$3.46, while the profit on the lot was \$51.03.

Now compare the figures given for these three lots of silage-fed steers with Lots 4 and 5, which were fed more in the ordinary way. Lot 4 was given corn silage and alfalfa hay. They only gained 1,500 pounds, or 1½ pounds per day. The cost of feed was \$57.46, or about 5.7 cents per day for each animal. The gain cost \$3.83, while the total profit on the lot was \$48.04.

(Continued on Page Thirteen.)



W. A. COCHEL, PROFESSOR ANIMAL HUSBANDRY, K. S. A. C.

SORGHUM CROPS VS. CORN

Feeding Results of Corn, Cane and Kafir Silage

By O. E. REED and J. B. FITCH, K. S. A. C.

SORGHUM crops, both the saccharine and non-saccharine, can be used for silage with good results. The corn plant has considerable prestige as a silage crop and it has been more generally used for this purpose than any other crop. In fact, its use has become so general that some of the farmers and stockmen have believed that it was the only crop fit to be used for silage.

Two years ago the dairy department of the Kansas Agricultural College planned an experiment to determine the value of sorghums for silage. In most parts of Kansas the yield of the sorghums, such as kafir and sweet sorghum, is a great deal larger than that of corn, and some seasons the yield is several times larger per acre. It was thought that if these crops could be made into silage they would be of particular advantage to the farmers and stockmen of Western Kansas, where they have difficulty in getting a crop of corn. The first sorghum crop put in the silo was the sweet sorghum, which is commonly called cane. Previous experiments with this crop, and the experience of some farmers, has given the general impression that the cane contains too much sugar, and that silage made from it would be very sour and stock would not eat it. Our results the first year show that silage made from the cane did not contain as much acid at any time during the year as did the silage made from corn. This, of course, is quite contrary to the belief heretofore held by many, but it was easily explained after a little thought and investigation. Where cane had been made into silage it had been put up entirely too early. Those who tried it had put it into the silo at the same time that they cut their corn for silage. At this stage of maturity the cane contains entirely too much sap or moisture, and if put up at this time it is certain to result in a sour silage. The cane was not put up until three weeks after the corn silage was made. At this time the cane seed was hard but the stalk was well filled with sap, yet it did not contain an excess of moisture. The cane used in this experiment was grown on upland soil on the college farm. One-third of the field was drilled and another third was listed in. The remainder of the field was in corn. The drilled cane made 12.5 tons of silage per acre, the listed cane 8 tons, and the corn made 5 tons per acre.

In the fall of 1912 one silo was filled with cane, one with kafir, and one with corn. The following yields were obtained this year: Corn, 7.1 tons silage per acre; cane, 8.2 tons, and kafir, 6 tons. The yield of kafir was not a representative one. The season of 1912 was not a good season for kafir and the early frost cut down the yield considerably. Here, again, we had the same results with the cane as we had previously. It made a good quality of silage, and after analyzing the different silages for acidity, it was found that the cane silage did not contain as much acid as the corn silage at any time during the winter.

In the first year's experiment, cane silage was compared with corn silage as a feed for dairy cows giving milk. Two lots of four cows were selected from the herd for the experiment. These lots were handled in the following manner: Lot 1 was fed for the first 20 days on corn silage. The second 20 days (after a period of 10 days intervening), they were fed on cane silage, and the third 20 days they were changed back to corn silage. Lot 2 was fed cane silage for the first period, corn silage during the second period, and again changed to cane silage during the third period. It was planned to get a direct comparison of these two feeds by comparing the average of the first and third periods with the second period in each case. The cows gradually decline in milk flow and the average production of the first and third periods would be about equal to the production of the second period. These cows were fed a grain and hay ration in addition to the silage. The hay ration was always kept constant and the amount fed was based on what the cows would consume. The grain ration was fed in proportion to the amount of milk produced, and this remained practically constant during the experiment. The only change, then, in the ration during the experiment was the change made from one kind of silage to the other. The cows were weighed every morning at a stated time in order

that we might keep check on the gain or loss in live weight for each individual. The following table gives the results of the experiment:

FIRST TRIAL, 1911-1912.

Lot I—Corn silage vs. cane silage; four cows, 20-day periods:

	BUTTER	BODY
MILK	FAT	WEIGHT
1. Corn silage	1,336.7	54.77
2. Cane silage	1,252.4	51.38
3. Corn silage	1,177.8	49.01
Av.—1st and 3d periods, corn	1,257.3	51.90
2d period, cane	1,252.4	51.40

Difference 4.9 .50 24.0

LOT II—FOUR COWS—20-DAY PERIODS.

	BUTTER	BODY
MILK	FAT	WEIGHT
1. Cane silage	1,192.1	54.20
2. Corn silage	1,166.8	51.10
3. Cane silage	989.3	46.15
Av.—1st and 3d periods, cane	1,090.7	50.80
2d period, corn	1,166.8	51.10

Difference 76.1 .30 79.0

In studying the table giving results on Lot 1, we find that the cows declined in milk and butter fat production on being changed from the corn to the cane silage. At the same time there was an increase in live weight when the change was made from corn to cane silage. Dur-

cane silage made gains in live weight. The four cows made 76.1 pounds more milk and a trifle more fat on the corn silage than on the cane. Each cow produced three-fourths of a pound more milk per day on the corn silage than she did on the cane silage. The total increase in the live weight for the four cows for the 20 days was 79 pounds, which is equivalent to one pound gain per day per cow in favor of the cane silage. Here, again, the increase in live weight, when the cows were changed from corn to cane silage, suggests that the cane silage is more fattening than the corn silage.

During the winter of 1912-1913 a feeding experiment was conducted with 15 dairy cows in which the comparison was made of the three crops for silage. The general plan of the experiment was similar to the plan carried out the first year. The 15 cows were divided into three lots. Lot I, of six cows, was used to compare kafir silage with corn silage. Lot II contains five cows, with which we compared cane with kafir silage, and in Lot III the four cows were used to determine the comparative value of corn silage and cane silage. Each lot was fed for three periods of 30 days each, and a 10-day period intervened between the first and second periods and also between the second and third periods, at which time the change in feed

Results of experiments with Lot 1, in which kafir silage was compared with corn silage, indicate that the corn silage is slightly superior to the silage made of kafir, for milk production, but the cows showed a loss in live weight when changed from kafir to corn silage. The increase of 26.5 in milk production in favor of corn is very slight for the lot, as this is the increase for six cows for 30 days, or less than one-sixth of a pound of milk per cow. The kafir silage proved to be more fattening than the corn silage.

Cane and kafir were compared in Lot II. The results obtained here are more striking than in the other lots. Kafir silage, according to these results, is very much better than cane for milk production. Comparing the production during the periods the cows received cane silage with the period they received kafir silage, it is found that the five cows produced 230 pounds more milk on the kafir silage than they did on the cane silage in 30 days. This means about 1½ pounds of milk per cow per day. The cows made a very slight gain in body weight while on the cane silage.

Corn silage was compared with cane silage in Lot III. Corn proved superior to the cane silage. When the cows were changed to cane silage they declined in milk production in the second period, as shown in the table, and when they were changed back to the corn silage in the third period they showed a general increase in milk. While the cows were on corn silage they each produced slightly more than one-half pound more milk per day than they produced on cane silage. In this trial the cows made a very slight gain in live weight in favor of the corn silage, but this is so small that it is negligible.

IMPORTANT CONCLUSIONS SUMMARIZED.

In summing up the work of both trials, the following conclusions may be drawn. Corn silage is slightly superior, as a milk producer, to silage made from kafir and cane.

Kafir silage ranks second as a feed for milk cows, as shown by the results of the experiment.

Cane silage ranks third as a milk producer, according to the results here given.

In both trials the cattle seemed to gain in live weight on cane silage more readily than on the silage made from kafir or corn. This fact would indicate that it contains more carbohydrates and sugar, or fattening nutrients, than the other feeds. In this experiment the grain and hay ration was constant and the kind of silage was the only change made in the feeding. It is our opinion that the cane silage would prove the equal, ton for ton, of the corn or kafir silage if the grain ration were changed so that the animal would use the nutrients more economically. This could be done by feeding more protein and less fat-forming nutrients in the grain ration.

Although the kafir and cane silage were shown to be slightly less valuable than corn silage from the experiments just explained, there are other factors that must be considered, namely, yield and adaptability to local conditions. Without doubt, the increased yield of cane and kafir per acre will offset the slight increase in feeding value obtained from corn silage. Kafir and cane are drought-resistant crops and can be grown over a wider territory than corn, and from one-third to one-half more tonnage per acre can be obtained.

It was also noted during the experiment that the majority of the cane seed and a great amount of the kafir seed passed through the animals undigested. This suggests that the nutritive value of these crops as silage is, to a certain extent, limited to the nutritive value of the stalk and leaves.

The quality of silage obtained from all crops was very good. The kafir silage was perhaps the poorest on account of being immature, when the heavy frost forced an early harvest.

The cows ate the silage with relish. The cane silage seemed to be the most palatable. The silage was stored in wooden staves and in cement silos. It kept equally as good in cement as it did in the wood.

The time of cutting cane and kafir for silage is all-important in making good silage from these crops. These crops should be practically mature; that is, the seed should be mature. At this time the stalk is still filled with sap

(Continued on Page Seven.)



A GOOD COW WILL SUPPLY THE MILK NEEDED FOR HER OWN CALF AND ENOUGH BEYOND FOR A LITTER OF PIGS

ing the third period, after the cows had been changed from the cane back to the corn silage, they lost in live weight. This shows a direct influence that the feeding of the cane silage had on the live weight. A study of the table giving the average of the first and third periods at the time the cows were fed on corn silage, and comparing this with the second period, when the cows were receiving cane silage, shows that the cows gained nearly five pounds in milk and one-half pound of fat on the corn silage. It also shows that the cows, when fed cane silage, made an increase in body weight of 24 pounds. The increase made in milk, fat and live weight is the total increase made by four cows in 20 days. The increase made in milk and fat production in favor of the corn silage is so small that they do not mean very much. In fact, the increase as shown here is not much more than a variation that would be caused by change from one feed to another, or a change that would be caused by a change of weather or other such variable conditions. The increase of 24 pounds of live weight for the lot is a little more than one-fourth of a pound gain per cow per day for the period, which suggests that cane silage is more fattening than corn silage.

Lot II made a similar showing. These animals were fed cane silage during the first period, then changed to corn silage during the second period, and received cane silage during the third period. The order of feeding was just the reverse of that in Lot 1. It will be noticed here that the cows did not make a direct increase in milk when changed from the cane silage to the corn silage, but there was a direct decrease in gains when the change was made. The table giving the average production of the first and third periods and comparing it with that of the second period shows that the corn silage produced more milk and butter fat than the cane silage, and that the

was made. The experiment included only the 30 days in each period. The grain and hay ration was kept constant, as described in the other experiment. The only change made was in the kind of silage. The amount of silage was kept constant. The cows were weighed each day and the gain and loss in live weight was noted. The following table gives the results of the second time:

SECOND TRIAL—1912, 1913.

Lot I—Kafir silage vs. corn silage; six cows, 30-day periods:

	BUTTER	BODY
MILK	FAT	WEIGHT
1. Kafir silage	3,373.0	141.5
2. Corn silage	3,382.5	139.9
3. Kafir silage	3,339.1	138.8
Av.—1st and 3d periods, kafir	3,350.0	140.1
2d period, corn	3,382.5	139.9

Difference 26.5 .2 21.0

LOT II—FIVE COWS.

Cane silage vs. kafir silage; five cows, 30-day periods:

	BUTTER	BODY
MILK	FAT	WEIGHT
1. Cane silage	2,383.6	106.5
2. Kafir silage	2,491.6	111.5
3. Cane silage	2,139.2	97.9
Av.—1st and 3d periods, cane	2,261.4	102.2
2d period, kafir	2,491.6	111.5

Difference 230.2 .9.3 10.5

LOT III—FOUR COWS.

Corn silage vs. cane silage; four cows, 30-day periods:

	BUTTER	BODY
MILK	FAT	WEIGHT
1. Corn silage	1,952.7	88.6
2. Cane silage	1,831.9	85.7
3. Corn silage	1,851.7	85.1
Av.—1st and 3d periods, corn	1,902.2	86.8
2d period, cane	1,831.9	85.7

Difference 70.3 1.1 2.0



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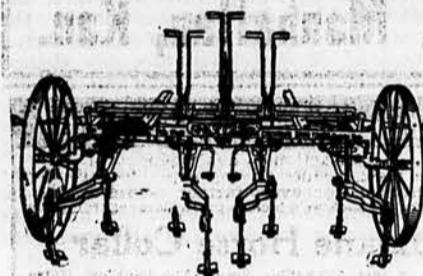
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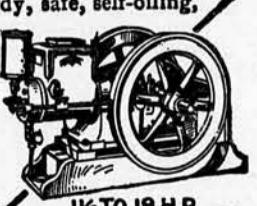
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THE FARM



Co-Operative Farmers' Institute Topic.

The 400 farmers' institutes of Kansas will on Saturday, May 17, discuss co-operation among farmers. This is the subject suggested by Edwin C. Johnson, superintendent of farmers' institutes. The discussion is not designed to lead to organization along co-operative lines, but is intended to discover the several lines along which farmers may co-operate. For example, in every community there are people who understand in some measure the possibilities in community breeding of cattle, in co-operative shipping of live stock, in co-operative ownership of machinery such as traction plows, silage cutters, etc., co-operative marketing of apples, eggs, etc. The subjects suggested for discussion are: Community breeding of stock; production of pure-bred seed; the construction of silos; buying machinery; owning machinery; buying fuel and feed; marketing eggs; picking and marketing fruit; marketing grain; marketing potatoes; marketing cream.

Sub-Irrigation Thoroughly Practical.

W. B. H., Decatur County, commenting upon the article of the Rev. A. L. Carlton on the subject of underground or sub-irrigation printed in KANSAS FARMER issue of April 19, says that underground irrigation has for years been proven satisfactory and profitable in Decatur County. He says that the pipes used have been mostly tin and iron and that these soon rusted out. The writer suggests that Rev. Carlton give KANSAS FARMER readers more information relative to underground irrigation.

There is no question about the advantages and practicability of sub-irrigating small tracts, even with a comparatively limited water supply. The extent of the tract sub-irrigated, of course, depends wholly upon the available supply of water and the expense attached to the laying of the tile. The common clay drain tile or cement tile can be used successfully. The Rev. Carlton wrote with reference to a continuous cement tile with a continuous opening for the escape of the water. We have no information relative to the availability of such tile-making machinery. There is plenty of tile on the market satisfactory for sub-irrigation for those who are desirous of employing such irrigation methods.

Drain Tile and Lime Grow Alfalfa.

KANSAS FARMER has in times past printed results of a number of interesting demonstrations undertaken by O. A. Rhoads of Cherokee County. He writes: "We have just succeeded in growing a patch of alfalfa on land underlaid with a clay subsoil and which heretofore has been regarded as land unsuited to alfalfa. Our first step was to tile drain the land. This was in the spring of 1911. We placed the tile 50 feet apart and 3 feet deep. We had learned from former experience that the first step in producing a crop on such land was to dispose of the surplus of moisture, the free movement of which was prevented by the character of the subsoil and which made the land unfit for crop production.

"In August, 1911, we applied two tons of ground limestone per acre. Following this, the land was prepared in such way as to give the alfalfa a deep finely pulverized but compact seed bed. We sowed 15 pounds of alfalfa seed to the acre and obtained a fine stand.

"In 1912 we made two cuttings of a ton each, per acre. Owing to a dry fall we had a light third crop. This was pastured off. During the latter part of the winter of 1912 and 1913 we applied 15 tons of barnyard manure to the acre, and on this date—April 27—the alfalfa stands about 12 inches high with every prospect of producing a good first crop.

"These methods demonstrate, according to our judgment, the successful handling of much valuable land in this county for the successful growth of alfalfa and which land, generally speaking, has heretofore been regarded as impossible to set to alfalfa."

Binder Engine Advantages.

The promise of an abundant harvest and the early reports indicating as large if not larger wheat crop than Kansas

has ever before harvested, is, of course, causing farmers to think about the manner in which they will take care of that harvest. Harvest time is the busiest season of the year, and this is why they begin thinking about it early. It is when every able-bodied man works to his maximum and when every horse is put into service and worked to the limit of his power. Just a little delay on account of extremely hot weather when man and beast cannot do the most, often has a serious effect on the manner in which the crop is harvested.

Several inquiries have recently been received as to the success and the advantages of the gasoline engine driven binder—a considerable number of which binders are being operated in Kansas and in other states with a high degree of satisfaction. We have just received from S. T. Watts, Harvey County, the following:

"Last year I cut 120 acres with a binder, the power for which was furnished by a gasoline engine built especially for this kind of work. With an engine furnishing the power, I can cut more wheat with two or three horses than with four or five horses without the engine. If the field is soft the engine-driven binder can be successfully operated and the wheat saved, whereas with horses alone I could not cut at all. With the engine I bound 20 acres a day and drove a half mile to the field morning and noon, and I was not uneasy about its getting wet and stopping me. I have a neighbor who cut 135 acres with the same kind of an outfit, averaging 30 to 35 acres a day with three horses. We use from 2½ to 3 gallons of gasoline a day when cutting wheat."

Handling Sandy Soil.

F. F. C., Miami County, writes: "I have some sandy bottom land which does not produce as it once did. This land has never been plowed deeper than is customary to plow in this section. Would it produce better crops if I should plow deep?"

The above is our subscriber's inquiry, reduced to its most simple terms. By reading between the lines in his letter we believe this field is not what we consider sandy, but may be slightly sandy, or such as is commonly called a sandy loam. If the field were really sandy it would not have produced corn in the manner as reported by the subscriber. Really sandy fields are deficient in plant food and do not produce abundant crops. Our subscriber reports that this field has grown as much as 80 bushels of corn per acre in favorable seasons.

It will probably pay to plow the land deeper unless the subsoil is over-sandy. Deeper plowing will bring to the surface plant food which heretofore has not been available. We would not at the first plowing expose more than an inch of the soil which has heretofore not seen daylight. At the next plowing we would plow a little deeper, and so continue until we had plowed as deep as is practical. Deeper plowing would, as a matter of fact, be beneficial to practically all cultivated fields in Kansas. We believe that of all the plowing we have seen in the best agricultural states, we in Kansas are more addicted to shallow plowing than are our neighboring farmers. Shallow plowing year after year has the effect, particularly in heavy soils, of compacting the subsoil and into which the plant roots do not penetrate and grow. The best time for bringing new soil to the surface as is done by deeper plowing is in the fall of the year.

We recommend that our subscriber at as early a date as possible plow under a heavy green manuring crop. In a favorable year he would be able to do this by drilling cow peas between the corn rows with a one-horse wheat drill at the rate of 1½ to 2½ bushels an acre. These should be sown at once after the last plowing. In order to plow these peas under while green it would be necessary to either cut and shock the corn or put it in the silo. If the corn crop is not so handled, sow the field to oats next spring and immediately after harvest sow cow peas and plow under in the fall. This would greatly improve the physical condition of the soil and

at the same time would add plant food thereto. Sandy soils are often lacking in plant food owing to their liability to lose the same by leaching. The more sandy the soil, the greater is the loss of plant food by leaching.

Every Farmer Should Have Silo.

Our subscriber, W. W. K., Douglas County, writes his silo experience for the feeding season of 1912 and 1913, as follows:

"I am feeding corn and kafir silage. The corn silage is everything claimed for it, but I think that the kafir silage comes near being worthless for milk production. I am feeding the silage to milk cows and with it I feed a small forkful of hay to each cow twice a day. To the young stock I feed the silage and wheat straw and in each instance am satisfied with the results.

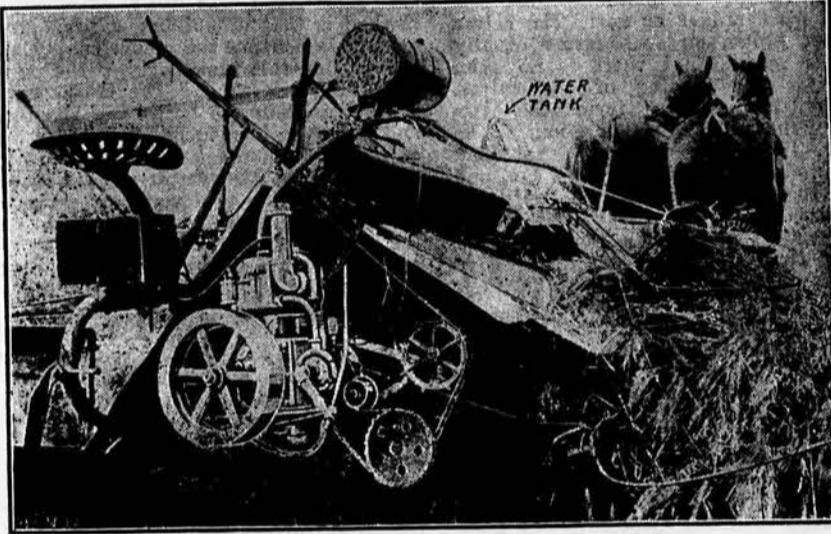
"I think that one ton of silage is worth five tons of fodder or three tons of clover hay or the ordinary run of alfalfa hay. I have not planted corn especially for silage, but I think it should be planted thicker so that the stalks will not become so coarse.

"I like silage because it is the best roughage I have ever fed and you can save the entire corn crop, and can, if you will, put it all back onto the land except the food nutrients extracted by the animal.

"It cost 83 cents a ton to fill my

results of KANSAS FARMER inquiry above mentioned, we find that no feeders of cane silage reported. We know, however, that there are many feeders of cane silage who have been pleased with the results.

It is safe to say that no crop will make better silage than corn, and the heavier the corn the better the silage. Where corn produces well and is a reasonably sure crop, there is no justification for the growing of kafir or cane for silage. However, in those sections in which corn will not produce at least 25 bushels an acre in an average year, we are confident that kafir and cane can be used as silage to better advantage than corn. In those sections where the corn yield is small and the crop is uncertain—in other words, in those sections where kafir and cane are grown as the principal crops for forage—then it is certain that both cane and kafir are the crops for siloing. Our subscriber will note that his opinion of kafir silage is not borne out by the users of kafir silage whose opinions we have above given. Either our subscriber has not been in a position to fairly test the use of kafir in comparison with corn, or possibly the kafir siloed was immature and had little or no grain thereon. It must be kept in mind that kafir and cane, like corn, should, in order to make the best silage and possess the highest



THE ENGINE-DRIVEN BINDER WITH TWO HORSES CUTS OVER MORE ACRES THAN FIVE HORSES WITHOUT ENGINE

silo, and I regard the silo as an essential in the economical and most certain feeding of live stock.

"The feeding of silage requires only half as long as to feed the old way. A man with a small farm can keep more stock on that farm than he can if he dry feeds them. He can use silage the year around if he so desires.

"I am slow in replying to your letter, but the questions you asked me were so specific that I could not answer conscientiously until I had fed the season through and knew what I was talking about. My advice is that every farmer should have a silo, even though he has only five or six cows and their calves and the usual poultry and eight to ten head of hogs. All these eat silage and do well on it.

"I want some light on the value of cane silage. If the silage from cane is good, then I will sow a field of cane this spring and put this crop in the silo."

Hundreds of silo users throughout Kansas have in the several years past filled their silos with cane and kafir and report to KANSAS FARMER satisfactory feeding results from each. We have printed within the last year the observations of the Kansas Agricultural College in feeding silage from corn, kafir and cane to milk cows. This was during the winter of 1911-1912 and the results were surprisingly favorable for both cane and kafir. However, the experiment was not considered conclusive and the college did not feel like laying too much stress on silage from these crops. The college pursued another experiment with the idea of arriving at the comparative merits of silage from these three crops, during the past winter. The results have not yet been made public.

In our issue of February 8 KANSAS FARMER printed the experience of a considerable number of silo users and those users who have fed corn and kafir silage seem to think that corn silage is worth about 25 per cent more than kafir silage, and in our opinion this estimate is not far from the fact. In looking up the

feeding value, be cut as late as possible before maturity and the hardening of the stalk and grain. Corn to make the best silage should be cut when it is in the dent stage, and kafir and cane just after the seed has passed the dough stage.

Sorghum Crops vs. Corn

(Continued from Page Five.)

and will make good silage. If put up too green it will make a sour silage. These crops should be put up before frost if possible, but it is advisable to let the crop stand until after frost instead of putting it up too green. After a heavy frost the crop should be cut and siloed immediately. If it dries out too much, add sufficient water to pack well.

SAVE 25 per cent HAIL INSURANCE of your premium on

COMPARE COMPANIES

Figures given are taken from sworn statements of Companies for the season of 1912

	Losses Paid in 1912	Expenses Paid in 1912	Percentage expense to losses paid
Union Mutual Hall, Wichita, Kansas.....	\$ 15,762	\$ 24,266	\$ 1.54
Central National Mutual, Topeka, Kansas.....	5,644	14,135	2.50
Kansas Mutual Hall, Sterling, Kansas.....	2,432	7,376	2.98
Home Mutual Hall, Wichita, Kansas.....	2,790	6,192	2.21
Grain Growers Hall, Topeka, Kansas.....	5,000	9,000	1.80
Harvesters Mutual Hall, Osage City, Kansas....	2,130	5,747	2.69
State Farmers Mutual Hall, Waseca, Minn....	194,967	55,818	.29

Jan. 1, 1913, all six Kansas Cos. had but \$22,000 in cash assets combined. Jan. 1, 1913, the Waseca Co. had \$165,521 in cash assets and \$351,234 in additional assets, our total net assets being \$516,755. One-fourth Cheaper, yet incomparably Better and Safer Insurance.

The Waseca Company is the oldest and strongest hail company in the United States. In eighteen years it has never pro-rated a loss. We have paid over \$60,000 in losses to Kansas farmers (send for list) and will pay \$1,000 for proof that a single loss was not paid in full as adjusted. In disastrous years we pay while others pro-

SPECIAL NOTICE.—Losses this year will be paid in cash in full at time of adjustment immediately following the storm the same as by Stock Companies. Our rates are the cash rates of the Stock Companies in your county less one-fourth or 25 per cent. Insure today before your neighbor secures the preference, as we write but \$1,600 in a section. Cut out and mail application at once.

This Company is absolutely dependable.—Farmers Nat'l Bank, Waseca, Minn. Your Premium will be returned at once if Policy is not satisfactory.

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includes in addition to the
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Horses with sore shoulders can't use their full pulling power. The Lankford Horse Collar, if properly fitted, is guaranteed to cure sore shoulders and galls. It is filled with medicated soft cotton which absorbs the impurities of the sores and keeps the shoulders cool and comfortable even while the horse is at work. Built for hard service and gives it. Easily adjusted to fit any shape neck.

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We save on rates because we save on expense.

Expense \$66,716

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6 Kansas Cos.

Expense \$35,818

Loss \$194,968

WASECA Co.

Application for Hail Insurance.

State Farmers Mutual Hall Ins. Co., Waseca, Minn.

I hereby apply for membership and indemnity in accordance with the by-laws and rules of the Company against loss or damage of the following described crops by hail, commencing with issuance of policy and ending September 15, 1913.

\$.....on.....acres of wheat on S.... T.... R....

\$.....on.....acres of on S.... T.... R....

\$.....Total Ins. all situated in.....Co.

Kansas, and diagrammed as follows:

Sec. Twp. Rge. Sec. Twp. Rge.

I enclose herewith \$..... in full payment of premium being three-fourths of the rate charged by capital stock Ins. Cos. in this county.

It is understood that upon receipt of the policy if it is not satisfactory to me in every respect that I may at once return same to the Company by registered mail, in which case this premium remittance will be returned to me in full.

Name..... P. O. Kan.
Use pencil and mail TODAY to State Farmers Mutual Hall Ins. Co., Waseca, Minn.

Ask Your Neighbor About his DE LAVAL

Wherever you find a De Laval user you will find a "booster."

The De Laval satisfies, pleases and makes money for its more than a million and a half owners.

There are probably quite a number of your neighbors who are using cream separators and in most communities a majority of these machines are De Lavals.

If you expect to buy a separator it will be worth your while to see what some of these De Laval users think of their machines.

If the evidence of your neighbors who use and recommend the De Laval is not enough to convince you of De Laval superiority, have the local De Laval agent put one in on trial for you and try any other machine you want to alongside of the De Laval.

Let the De Laval start saving your cream right now, this spring. It will soon pay for itself.

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 digs right down into the tiniest cracks and removes every particle of grease. Cuts butter-rims as nothing else can. Cleans the churn thoroughly, hygienically and keeps it sweet.

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READ KANSAS FARMER'S CLASSIFIED
ADVERTISING PAGE FOR READY BARGAINS

DAIRY



We have several times mentioned that an effort was being made in Leavenworth County to organize a cow-testing association at Tonganoxie. The arrangements have come near completion several times, but each time something has occurred which prevented the completion of the organization. While in Leavenworth County recently, in discussing the matter of cow testing with some of the dairy farmers of the Tonganoxie neighborhood, we learned that the inability to organize an association was due to the lack of interest on account of those farmers shipping whole milk to the Kansas City market. We are not surprised at this attitude being taken by the so-called "milk men." Farmers who produce milk for shipment to the cities are, almost without exception, not interested in a high development of their dairy herds. We think this due principally to the fact that on few such farms are the calves grown and there is no particular reason why it should be known whether the mother of the calf was a good milker or not. The calves are not grown on such farms usually for the reason that there is no skim milk for the feeding of the calves. Usually, too, on such farms the cows are bought when fresh or about to be fresh. They are fed heavily, that they may produce all the milk they can, and when they fail to produce a profitable quantity are fattened and sold to the butcher. At any rate after they have passed their flush they are disposed of and other cows bought to take their places. It is easy to see why under such system dairy farmers should not be interested in a cow-testing association. The man who is interested most in a testing association is the fellow who is desirous of building up his herd to the highest degree of efficiency, who grows his calves and who desires to replace the poorer cows in the herd with the calves from the better cows, and who ultimately will sell good cows for good prices. Such farmers are usually sellers of butter or of cream, and these farmers are not justified in allowing the "milk men" to stand in the way of the organization of a cow-testing association.

equipment. Briefly stated, the cream should be cooled immediately after separating. If cooled to the temperature of well water, which in Kansas varies from 52 to 58 degrees, and is held at this temperature, it will not sour rapidly. Each separation of cream should be cooled before it is mixed with cream previously separated. Thus the accumulation of cream is not heated and thus there is a smaller quantity of cream to cool after each milking. The cream should be held at as near the temperature of the well water as possible until it is delivered to the cream receiving station. When on the way to the station the cream can should be protected from the sun by having placed over it a blanket. The blanket need not be wet. A dry blanket is effective and is more easily and pleasantly handled.

The best arrangement for holding cream has several times been illustrated in KANSAS FARMER. Briefly, the most easily arranged and fully satisfactory method is that of building a tank large enough to contain the cream supply and placing this tank between the pump and the stock tank. The fresh water should run into the bottom of the tank and three or four inches below the top of the tank should be inserted the pipe which carries the water to the stock tank. Thus the cool water is delivered in the bottom of the cream tank and the warm water is drawn off at the top and all the water pumped for the stock is circulated around the cream cans as it is pumped. The cream tank may be placed in a milk house if the farm is provided with such, but if the dairyman does not have a milk house the tank may be placed out in the open, but should be protected with some kind of shade. On most farms the cream tank can be most easily made from a coal oil barrel, the upper one-third of which has been sawed off, and the barrel of course burned out to remove the odor of the oil. Such an arrangement will keep cream in a perfectly good condition for delivery to the cream receiving station three times a week during the hottest weather.

It must be kept in mind that in the cooling of cream stirring is necessary, and this stirring should be done with an up and down motion. When the cream comes from the separator, place it in cool water and stir until it reaches the temperature of the water in the well. This will necessitate at least two lots of water, the first lot used having become warm from the cream before the cream is thoroughly cooled. The second pumping will usually reduce the temperature of cream to within a degree or two of the temperature of the water fresh from the well. Not more than eight to ten pails of water need be pumped to thoroughly cool the average farm separation of cream, and on most farms the pumping is done by a windmill and the water, later finding its way to the stock tank, is not wasted. Stirring is essential. Cream is slow to give off its heat unless it is stirred. Cream is also slow to become warm after it is once cooled. In other words, cream is a poor conductor of heat and cold, and this fact makes it much more easy to give proper care to the cream than is generally believed. The thicker the cream the more easily it is cared for, also. First, because the quantity is smaller, and second, because thick cream becomes warm more slowly than thin cream. On the other hand, thick cream is more difficult to cool, also.

There has been a lot of talk, pro and con, to the effect that the hand separator is not conducive to the making of good butter. In a general way the statement is erroneous. If the cream is allowed to deteriorate before being made into butter, then, of course, the butter made from such cream cannot be good, but there is no reason in the world why hand separator cream should not be delivered, following the general principles above stated, in as perfectly good condition for the making of butter as in the case of whole milk. If the creameries of Kansas should demand whole milk for butter making, there would be no dairying in Kansas.

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Man Knows
Cream Separators

**Farmer
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Advice to Farmers**

Look at this BEATRICE. I paid \$75 for it instead of the \$100 to \$110 usually asked for less capacity. It's the only A No. 1 separator on the market which has these two most important virtues:

Highest quality and fair price.

1,000 lbs., \$75.
They have smaller machines for less money.

Twice a day I spend less than 2 minutes to make this

**BEATRICE
Cream Separator**

scrupulously clean and sanitary. The patented device does the trick. How's that compared with the time it takes to clean some other cream separators? I have never seen a machine that skims closer. At a rough guess my saving every year on cream alone would buy me a new machine. But it's going to be a long time before I need a new machine, for a glance will tell you that the BEATRICE is built for long, long wear.

Let your dealer show you a BEATRICE, or write direct to

THE CONTINENTAL CREAMERY CO.

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**CURE THAT
SPAVIN**

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

Kendall's Spavin Cure

"I have been using your Spavin Cure for years for Spavin and Ringbone, and would not be without it because it never failed." "I am sending you a letter. Get a bottle of Kendall's at once. You may need it any day. At your druggist's, a bottle, 6 for \$5. Ask for 'Treatment on the Horse'—Free, or write to Dr. B. J. Kendall Co., Keosauqua Falls, Vermont, U.S.A."

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Write Today for our
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Hildreth, Kansas Sunflower, Boone County, Commercial White, White Pearl, Kafir. Fully guaranteed. Write for sample and circular.
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FOR SALE Scotch Collie Pups. Sable and White stock farm.
U. A. GORE, Seward, Kan.

When writing advertisers, please mention KANSAS FARMER.

LIVE STOCK



Our subscriber, S. M. Surber, of Woodson County, Kansas, writes that cattle are so high in price that farmers are afraid to invest in them, and some of the pasture will not be filled this summer. Hogs are on a safe margin, and there is a big demand for breeding stock as well as stock hogs of all kinds. Horses are increasing in numbers very slowly, though the price holds about the same as last year.

Our advertiser, Frank Michaels, of Erie, Kan., who has had long experience as a Poland China breeder, writes that there are now very few hogs among the farmers. He thinks that the average will not be more than two sows to each farm in his part of the county. Cattle of all kinds are very scarce and milk cows are selling at from \$50 to \$80 per head.

Charles Morrison of Phillipsburg answers a lot of questions as to live stock conditions in his part of the state, and adds that he has sold his Red Polled bulls early this year and has had to let go a number of six-months-old bull calves to meet the demand. The inquiry for dual-purpose cattle is growing stronger in Oklahoma. Mr. Morrison states that a fine slow rain, which went into the ground, has put their section of the state in the finest possible condition this spring.

One of our Missouri subscribers, J. Z. Hartzler, East Lynne, shows a spirit in contending with modern conditions which ought to be emulated all over the corn belt country. He says, "We are experimenting in raising high-grade beef cattle on land worth \$125 per acre. Many farmers claim that it cannot be done profitably. I claim that it can, and I am proceeding to show them. Of course time will tell the story." Mr. Hartzler states that the silo is growing in popularity in his section of the state.

Our subscriber, John E. Painter, of Roggen, Colo., writes: "Dry land farming has about ruined the live stock business in Eastern Colorado under old conditions. Homesteaders are largely going away in many localities as fast as they prove up, as it is impossible to make a living in many sections without the use of live stock, and their limited holdings do not permit them to run enough stock to be profitable. Everything is in a more or less unsettled condition, but will probably adjust itself in the course of a little time. Farmers in the irrigated sections are showing a little more tendency toward diversification of crops and seem a little more inclined to run the stock on their farms, which is so badly needed."

A good word comes from Harper County, Kansas. This county was originally a great wheat producer which helped to create what is now known as the wheat belt. After cropping their land to wheat for many years and with greater or less profit, the farmers of that county found that they must diversify their operations, give more attention to live stock, or more to other farms. Oliver & Sons of Danville, who are surely in position to know, state that there is not now as much live stock in the country as in previous years, but that the quality is much better, especially among hogs. There are a number of good registered stallions and a few good jacks, while the influence of the breeders of pure-bred hogs has manifested itself.

It is somewhat remarkable to note that in all of the hundreds of letters lately received by the live stock department of KANSAS FARMER, the shortage of all kinds of live stock is commented on, while it is almost equally remarkable to note the increase in the demand for dairy cattle and the building of silos. A considerable number of men who were formerly breeders of beef cattle or of hogs, or of both, are now breeding dairy cattle, though still retaining their interest in hogs. There can be no question that the dairy cow of proper quality is a money making proposition, and there is no question in the minds of men who have tried it that the beef

cow on the corn belt farm is also a money making proposition, especially if she is assisted through the great economies of a silo.

One of our Iowa breeders, O. G. Gibbon, of Atlantic, writes that "the general condition of the live stock business is very good throughout this section. The various breeds of beef cattle are making rapid strides, with the people eager to have better stock. Nearly all stock farms are being equipped with silos, and the farmer generally is beginning to understand and learn the value of this cheap feed in fattening stock during the winter months. A great deal of cattle feeding is done here, and nearly all of the crops are utilized through the silo."

Our subscriber, C. J. Winger, Polo, Mo., thinks that the hardest problem with which the farmer has to contend is the hired help question. He does not complain on account of high wages which he has to pay so much as the uncertainty of the men staying with the job. He thinks that these high wages are the direct cause of this uncertainty of service. The men are likely to leave at any time, and the better the wages the more liable they are to go, because the high wages enable them to live while they are spending time in looking for other jobs. This is rather a novel viewpoint, but seems to have much in it. It is a well recognized fact that the employments and environments of the city have been strong bidders for men who have their labor to sell, and this has almost eliminated the farmer as a competitor in the labor market. The bums and hoboes will not hold a job long either in city or country, but there is a class of steady hard-working men who prefer to live in the country and who seek their employment on the farm. These men, however, do not move very often.

Right now at a critical time in the live stock situation, when we need every hoof that we have or can produce on our farms, and when the anti-hog cholera serum has demonstrated its value in preventing hog cholera, there comes another setback which is reported by numerous correspondents in the loss of spring pigs through the cold damp weather of March. This is a serious drain upon the resources of any hog-raising farmer, and suggests that it is one which can be remedied by better housing and more care at farrowing time. The best hog-raising farmer that I know of demands of himself and his men both day and night service in the early farrowing pen, and the result is that he saves a larger proportion of his hogs than any of his neighbors and a very much larger proportion than the average. Right now is the golden opportunity for the live stock farmer. The world-wide shortage of meat-producing animals, an increasing demand for meat products, and high prices, certainly offer inducements which have never before appeared in this country. It will be seen how highly desirable it therefore is to take care of the early farrow.

A good many of our readers in different localities in five states report the presence of more or less cholera among hogs. These cases are so isolated and so limited that a widespread scourge of the disease over a large scope of the country is not indicated, although centers are numerous enough to start this if precautions are not taken. Out of some hundreds of letters just received by the live stock editor, just one man does not give credit for the efficiency of the serum treatment against hog cholera. This man thinks, or at least he so states, that he lost his hogs by reason of the vaccination, but plainly indicates in his letter that there is very large room for doubt. That is, he does not seem to doubt, but the facts as stated in his letter give ample room for it. There ought never to be any question raised again about the efficiency of anti-hog cholera serum that has been properly administered. Its value, as a preventive measure, has been so frequently and thoroughly demonstrated that there never should be any question raised about serum again.

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Only two horses required—smooth, even running—no failures to bind—work goes right along.



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The engine does all the work of operating. 4 h.p. Weight under 200 lbs. Speeds up to 5 h.p. easily. Automatic throttle governor measures out fuel according to work. The original binder engine and more in use than all others combined. Detach and use for all-purpose farm power. Easy to handle, fits in anywhere. We also build 6-6 and 20 h.p. engines with same high efficiency—engines for all heavy duty. Write for free catalogues.

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If you have never worn Barnyard shoes write for Free bottle Barnard non-rotting preparation. Send your dealer's name. Try it on any shoe. It will convince you that Barnard shoes are what you need.

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For the farmer and breeder for sale at this office. Send for catalog.

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

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THOMAS OWEN,
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Pens headed by four grand Buschmann-Pierce roosters, sons of Wildfire 2d, first pen cock Chicago, 1912, he by the \$2,500 Wildfire. Other pens mated to roosters as well bred. Fifteen eggs, \$1.50; 30, \$2.50; 50, \$4.00. Range flock, 50, \$2.00.

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THEREFORE

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HOME CIRCLE



We have a pattern order dated March 4 from Mrs. J. C. Beal for Number 4595. Please give your town and local address, also size of pattern desired.

Lots of folks who pray for daily bread will be greatly disappointed if they do not get cake and jam with it.

Orange Rings.

Boil two cupfuls of granulated sugar and one-fourth cupful of water until it will form a ball in water. Remove and add the stiff white of an egg and a half cupful of orange pulp. Beat until creamy, and turn on a greased board. Grease the rolling pin and roll the mixture out thin. Cut in rings with a small baking powder can lid, and dip each ring in grated almond meats.—Woman's Home Companion.

To Clean Suede Shoes.

Don't put vaseline on your corn if you wear suede shoes. But if you already have done that very thing don't throw away the shoe, girls. Even if the spot is as big as a dollar it can be removed with gasoline.

Both shoes should be held over a basin and gasoline should be poured on slowly, being careful to reach all parts. The idea in treating both shoes is so that any change in color or nap will be alike. After pouring gasoline over them take a soft cloth and rub the grease spot gently so as to be sure to apply enough gasoline to dissolve the grease.

Place the shoes outdoors until the gasoline evaporates. Then the gasoline may be strained back into the can through a rag, and unless used repeatedly for cleaning purposes is practically uninjured for burning. If the shoes are colored, as grey or brown, it is best to put them on the end of a stick and tilt it so the toe is elevated. Any dirty gasoline collecting runs off the heel, but seems to settle around the toe, if it is down, discoloring it.

Farmer's Wife in Symphony Orchestra.
The wife of one of KANSAS FARMER's subscribers, Mrs. E. E. Yaggy of Reno County, created the sensation of the spring music festival here last evening when, by invitation of Emil Oberhoffer, the conductor, she rendered the difficult Mendelssohn concerto in E minor, as a violin solo, with the orchestra.

Fifteen years ago Mrs. Yaggy—then Laura Reed, of Kansas City—was prominent as a concert violinist in that city. It was then that Conductor Oberhoffer became acquainted with her work. Since then she became the wife of a Kansas farmer, laid aside the violin and dropped professional music work.

When the Minneapolis Symphony Orchestra arrived in Hutchinson for the spring festival, Mr. Oberhoffer renewed old acquaintance and invited Mrs. Yaggy to play for him. At his request she appeared as a soloist at the festival last evening, with the orchestra.

Even those who have known that Mrs. Yaggy had ability as a musician were surprised, and the members of the orchestra at the close of the rendition of the concerto threw down their instruments, arose and applauded the Kansas woman who had proven that she could "come back" as a violin artist, notwithstanding her duties as the wife of a busy Kansas farmer.

Green the Restful Color.

Green is the most soothing and restful color. The fact that it is the predominating color in nature supports this assertion. Any woman to whom green is becoming should wear it as much as possible, especially for house dresses. Her husband may not observe her costume closely enough to tell what specific color it is, but green will be soothing to his nerves, where some other color might prove irritating.

Blue is the color of distance. It is a cool looking hue, suitable for outdoor wear.

Red and orange are warm colors and have been found to be exciting and irritating to the nerves. Yellow has the same effect, but it is not so pronounced.

Black is a somber color and should not be worn by elderly women, as it emphasizes every line and shadow in the face.

White worn near the face will make any complexion look clearer. It is a cool color, especially suitable for summer wear.

Three general rules may be advantageously followed when choosing colors for clothing: For street wear, select a shade matching or harmonizing with the color of the hair. For indoor wear, match the color of the eyes as nearly as possible, either in a corresponding or harmonizing hue. For evening choose some color which brings out the most pleasing tints in the complexion.

How to Iron.

Before beginning to iron have everything in readiness—paraffine or beeswax, a heavy paper on which to test and clean the irons, a dish of water and small sponge for dampening surfaces which have become too dry to iron or need to be done over. Stand the ironing board where the light can fall directly upon it, with the ironing stand at the right and clothes basket on a chair at the left. Place a rug to stand on so the feet and limbs will not ache quite so much from the standing. The height of the ironing board should be regulated to suit the convenience of the ironer. The early part of the day is the best time to iron. It is far better to take two mornings to finish the ironing than to keep at the task after physical weariness makes it a drudgery. Table linen should be sprinkled very damp. Bed linen and towels require very little dampening. Sprinkle dresses, waists, skirts, handkerchiefs, lace and embroideries well. Roll each piece tight and place in clothes basket previously lined with paper and old sheet. When the clothes are all placed in the basket cover with a heavy cloth. Everything irons more easily if clothes are sprinkled the night before, thus distributing the dampness evenly. In the summer time clothes will mildew if allowed to stand too long before ironing. Sprinkle only as many pieces as can be easily ironed at one time.

See that the irons as well as the range are perfectly clean before placing them on to heat. Give the iron a good, steady pressure, lifting from the board as little as possible and iron the piece until finished. Take the sheets first, giving extra pressure to the hem. Towels may be ironed on the sheets and in that way the sheets are ironed with less effort, moving the sheet after each towel is ironed. Pillow cases may be treated in the same way. The flannels, knit underwear are better from a hygienic standpoint folded and put away unironed. Iron table linens thoroughly dry with good hot irons, using a strong pressure on the right side lengthwise and parallel with the selvage. This brings out the pattern and imparts a satiny gloss, leaving it dainty and soft. Iron napkins on the wrong side first and then finish on the right side. Handkerchiefs are treated in the same way. Iron all embroideries on the wrong side. Ruffles are ironed before the body of the garment, going well up into the gathers with the small point of the iron. Bands and hem are ironed on both sides. Colored clothes, lawns, percales and chambrays are ironed on the wrong side. Too much ironing will yellow thin fabrics, and as they dry out quickly it is necessary to iron rapidly with a moderately hot iron. Skirts and dresses are easily and quickly ironed by ironing the waist part first, then slipping the board through the skirt, taking care to have something beneath to prevent them from touching the floor. To iron a shirt waist iron the collar and sleeves first, then the body of the waist. Press shoulder seams on the inside until dry. Hang on a coat hanger. The secret of ironing is to iron each piece dry, especially dresses, waists and skirts, taking care that the folds, seams and tucks in each garment are dry. As each piece is ironed hang on bars or line until thoroughly dried and aired, as a certain amount of moisture remains even after ironing and must be entirely removed before sorting the clothes away. Have plenty of coat hangers for dresses, skirts and waists. They are cheap. Half the charm of any woman's or girl's appearance lies in the perfectly laundered garment, and after it is once ironed care should be used to fold and hang it up properly and not laid carelessly away.—MRS. W. C. PALMER.

Red and orange are warm colors and have been found to be exciting and irritating to the nerves. Yellow has the same effect, but it is not so pronounced. Black is a somber color and should not be worn by elderly women, as it emphasizes every line and shadow in the face.

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240 Acres, highly improved, in high state of cultivation; good orchard, silo, alfalfa; near best college town, \$52 per acre. Write for farm list. T. B. GODSEY, Emporia, Kan.

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WILL TRADE my \$3,700 automobile for a Kansas farm. Must be unincumbered. Auto is in good condition. One of best makes. Address Auto Man, Care Kansas Farmer, Topeka, Kan.

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160 acres	\$12,500
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All bargains. Write for particulars. T. H. MILLER, OLATHE, KAN.

400 ACRES near Whitewater. No buildings, 240 in cultivation, balance pasture with wind mill. All tillable. 80 now in wheat. Phone line and R. F. D. Will raise anything. Price, \$55 per acre. Owner, G. B. HANSTINE, Whitewater, Kan.

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

ED A. DAVIS, Minneapolis, Kansas.

ABILENE, KANSAS. 106 acres, unimproved, all fine river bottom land, no overflow, 1½ mi. to good R. R. town; rich black loam soil; 86 acres now in wheat, all to go to purchaser if sold soon. Good terms at 5 per cent. Write for list. Briney, Pautz & Danford, Abilene, Kan.

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.

FOR SALE—400 acres, every acre tillable. Two sets of good improvements. Twenty acres of alfalfa. This farm on the main traveled road from Humboldt to Iola. Electric line now building, switch 20 rods from each residence. Must close this out in 60 days. This farm is worth \$40,000.

JAMES PERRY, Humboldt, Kan.

IDEAL DAIRY FARM—320 acres, 1½ mi. of Utica. Seven-room house, large outbuildings, spring, large grove, orchard, alfalfa, all tillable land; 160 pasture; in Utica High School district; black loam soil, well and mill. This will suit you if you want something good. Price now only \$7,000. Easy terms of \$3,500 cash, balance long time.

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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.

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JOHN W. BAUGHMAN, Plains, Kansas. Drawer "B."

I HAVE THREE ESTATES that must be sold by June 1. 280 acres, just 1 mile from this city, fine home and ranch, \$60 per acre. 240 acres well improved, 40 acres alfalfa fenced hog-tight, 110 acres wheat looking good, 100 acres fine grass land, all can be plowed; 7-room house, good barn. Price, \$55 per acre, easy terms. Only 5 miles from town. 320 acres, one of the best farms in Clay County, close to town and market. Trustees of this estate say sell at once. Worth \$80 per acre, but will sell for \$55 if sold in 22 days from this date. Well improved, good land. Write me you're coming.

F. L. NEWTON, Clay Center, Kansas.

Artist Visits Kansas. Breeders of pure-bred live stock will have an opportunity in June to have their breeding animals sketched so that they may have good cuts to use in their advertising and catalogs for their fall sales and state fairs. A. V. Lock of Remington, Ind., will be right here in Kansas doing sketching, and all who are going to make fall sales should write him at once and have him call and do this work while he is in this state, as it will save time and money for you.

POULTRY



Owing to the continued cold weather the hatching season will be extended at least a month.

Our prediction is that there will be more chickens hatched during May than in any month of the year.

And more in June of this year than in any June for the last 10 or 12 years.

And there is no reason why the May and June-hatched chickens should not thrive and flourish, for the chances are that real hot weather won't come till at least a month later than usual. In the meantime the chicks will grow and flourish like a green bay tree.

The English hens are in the lead in the egg-laying contests at Mountain Grove, Mo., and at Storrs, Conn., with White Leghorns at the former and White Leghorns and White Wyandottes at the latter. It must be a great handicap to a pen of fowls to be sent thousands of miles away from home into an entirely different climate, and yet for all this the English pens are away ahead in egg laying over all competing pens. There is no doubt but the English fancier knows a laying hen when he sees it, and knows how to get it into the best condition. He studies the characteristics of the hen and pays more attention to details than we do. The English Leghorns have extraordinary large combs. It used to be a characteristic saying years ago that the larger the comb a hen has the better layer she is. Maybe the Englishmen have treasured that saying in their minds and have acted accordingly.

How to Feed Young Ducks.

A correspondent asks: "Can you tell me how to feed young ducks successfully? Haven't had very good luck in raising them during the week after they are hatched."

Those who raise ducks on a large scale, to be sold when 10 weeks old, feed in this manner: From the time of hatching until five days old, feed the following mixture: Cracker or bread crumbs and corn meal, equal parts by measure; hard-boiled eggs, 15 per cent of the crackers and corn meal; sand, 5 per cent of the total. Mix into a crumbly mass and feed four or five times a day, always remembering to have water where the ducklings can get it while eating. The eggs used are the

other feed stuffs. From 20 to 40 days, feed the following mixture: Wheat bran by measure, 2 parts; corn meal, 1 part; beef scraps, 5 per cent of this bulk; sand, 5 per cent; green feed, 10 per cent. Mix and feed as above. From 42 to 70 days, feed by measure: Wheat bran, 1 part; corn meal, 2 parts; beef scrap, 10 per cent of this bulk; coarse sand or grit, 5 per cent; green stuff, 10 per cent. Mix and feed as before. Feeding should be done at 6 A. M., 10 A. M., 2 P. M. and 6 P. M.

It is a good plan to have grit accessible to the ducklings, and a box of crushed charcoal is valuable, as charcoal seems to help the digestion. Some feeders give one part of a second grade of flour with good results.

It should be remembered that both green stuff and beef scrap are absolutely necessary to the best growth of ducklings; and no one should undertake to raise them without both, as ducks deprived of them never make as good growth as those which are supplied with them. Mix the feed fresh for every day in a trough, and if the weather is hot, mix twice a day. Keep the mixing troughs clean and sweet. Feed in thoughts, giving at each feed as much as will be eaten clean before the ducks stop eating, and no more. A little observation will show how much to feed. Ducks that are to be reserved for breeders should not be forced as rapidly as those to be sold in market. While the rations for breeding ducks should be rich in protein, they should not be such as to produce a surplus of fat. In raising breeding ducks the object is to secure large size, which needs a large frame, thick muscles and great vitality. For this reason less corn meal is fed and beef scraps is reduced somewhat. An excellent ration for reserve ducks follows: Equal parts by measure of corn meal, wheat bran and green stuff, with 5 per cent of beef scraps and 5 per cent coarse sand or grit. Ducks in laying time do well on the following mixture: Three parts corn meal, 3 parts wheat bran, 2 parts green stuff, 1 part beef scrap, 1 part second grade flour. Salt lightly, mix with water and feed twice a day. Give the birds a grass run if possible; if not, give them boiled turnips, mixed with cut clover or alfalfa.

These rations are meant for those who keep a large number of ducks. While they are the best that have been devised, those who keep only 40 or 50 ducks on a farm will be able to simplify



"CHUMS," A PAIR OF TWO-YEAR-OLDS, ON MRS. MYERS' FREDONIA POULTRY RANCH..

infertile ones tested out of the incubators during the hatch. From five to twenty days feed the following mixture: Wheat bran by measure, 2 parts; corn meal, 1 part; rolled oats, 50 per cent of this bulk; beef scrap, 5 per cent; sand, 5 per cent; green feed, 10 per cent. Mix with water to a crumbly mass and feed four times a day. On Long Island the green feed is water grass, a plant that grows in the inlets along the shore, having a peppery taste, ducks being very fond of it. Where this is not available, green clover or lettuce, rape, or even tender grass of any kinds, oats, rye, or any such tender green stuff, may be used. It should be cut into short lengths before being mixed with

them to a considerable extent by allowing the ducks to run on grass and hunt bugs and insects on the farm. Ducks are good grasshopper catchers and industrious insect hunters, but they should be given beef scraps regularly, even when they have their liberty. Ducks thrive on the whole grains, but those who keep them in large numbers prefer to have most of the grain ground.

Keep the young ducks from dabbling too much in the water, for strange to say, a wetting is more harmful to them than to young chicks.

A good many folks eat their cake before they have it, and live on johnny-cake all the rest of their lives.

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When writing our advertisers say you saw the advertisement in KANSAS FARMER. That insures to you the full benefit of the publishers' guarantee. See top of editorial page.

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WHITE INDIAN RUNNERS—EGGS, \$2.25 per 12, prepaid. W. Hilands, Culver, Kan.

INDIAN RUNNER DUCK EGGS, 20, \$1; 100, \$5. Gertrude Haynes, Meriden, Kan.

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INDIAN RUNNERS—BLUE RIBBON FAWN AND WHITE. Color, shape and size right. George Wasson, Anness, Kan.

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INDIAN RUNNERS OF QUALITY, AMERICAN STANDARD Light Fawn and White. Eggs, \$1.50 and \$2.00 per 15. Ed. H. Killian, Manhattan, Kan.

PRIZE-WINNING WHITE-EGG WHITE INDIAN RUNNERS, and pure-bred Buff Orpington chickens. Eggs reasonable. Mrs. G. W. Goudy, Stromsburg, Neb.

FINE INDIAN RUNNERS—EGGS, \$1.00 per 15, \$5 per 100. Black-Tailed Japanese Bantams, \$1.00 per 15. Stock of both cheap after June 1. Circular. Mrs. Henry Greve, Earlington, Kan.

WHITE INDIAN RUNNERS, SPENCER AND DUN STRAINS. Eggs, \$3.00 per 18; \$5.00 per 26. Golden Fawn and White Runners, Pen 1, \$1.50 per 13 eggs; Pen 2, \$1.00 per 13. Absolutely white egg strain. Circular. Mrs. E. F. Lant, Dennis, Kan.

LANGSHANS.

BLACK LANGSHAN EGGS—PURE STOCK. Prices on request. Clarence Wood, Route 1, Manhattan, Kan.

BLACK LANGSHAN EGGS, 15, \$1.50; 100, \$7.00. Baby chicks, 15 cents. Mrs. George W. King, Solomon, Kan.

FOR SALE—WHITE LANGSHAN EGGS, 15 for \$1; 100 for \$5. Henry Neidig, Madison, Neb.

BIG-BONED GREENISH GLOSSY BLACK LANGSHANS, scored 92 to 96. Hens, \$1 each; cockerels, \$2.50. Eggs, 10 cents each. Guaranteed. H. Osterfoss, Hedrick, Iowa.

BLACK LANGSHANS—PEN, \$1.50 PER 7.00; \$2.75 per 30; open range, \$1 per 15; \$1.75 per 30. Good hatch guaranteed. D. W. Wolfe, Route 2, Carrollton, Mo.

EGGS—WHITE BLACK LANGSHANS, \$3.00 per 50, \$5.00 per 100. Bronze Turkeys, \$2.00 per 11. Toulouse Geese, \$1.50 per 7. Rouen Ducks, \$1.25 per 13. W. L. Bell, Funk, Neb.

CHICK FEED.

Egyptian Wheat—Best Chicken Feed, 1b., 25c, prepaid. Bronze Turkeys, Light Brahmans, White Wyandottes, Buff Orpingtons, Runner Ducks, Pekin Ducks, one White Muscovy Drake, Geese, stock and eggs. Mrs. Emma Ahlstedt, Roxbury, Kan.

TURKEYS—BOURBON RED TURKEYS—GOOD SIZE AND COLOR. Nine eggs, \$3.00; eleven, \$3.50.

EGGS FOR SALE—BOURBON RED TURKEYS. There are all from our prize-winning birds. Eleanora Poultry Farm, Brighton, Colo.

BRAHMAS.

MAMMOTH LIGHT BRAHMAS—MATING LIST free. Mrs. J. F. O'Daniel, Westmoreland, Kan.

LIGHT BRAHMA EGGS, \$1.50 AND \$3.00 per 15. Chicks, \$3.00 and \$5.00 per dozen. Exhibited at nine shows, won 30 firsts, 19 seconds. A. P. Woolverton, 623 Monroe, Topeka, Kan.

MINORCAS.

SINGLE COMB BLACK MINORCAS. Eggs, \$2.00 per 15; \$3.50 per 30; utility flock, \$1.00 per 15, \$5.00 per 100. Dan Oberhellmann, Holstein, Mo.

WYANDOTTES

WHITE WYANDOTTE EGGS, 15, \$1.00; 100, \$4.00. Andrew Kasear, Glasco, Kan.

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

EGGS FROM WHITE WYANDOTTES, \$4.00 per hundred. Mrs. C. A. Lewis, Beatrice, Neb.

SILVER AND WHITE WYANDOTTES. Light Brahma eggs, extra fine panned stock, \$1.00 per 15. Mrs. Emily Asp, Galva, Kan.

PURE SILVER WYANDOTTES—EGGS, 15, \$1; 100, \$6. J. B. Fagan, Minneapolis, Kan.

GOLDEN WYANDOTTES—EGGS FROM HIGH SCORING birds, \$1.50 per 15. J. F. Ingalls, Clay Center, Kan.

WHITE WYANDOTTES EXCLUSIVELY. Eggs, \$4.50, 100; \$1.75, 30. Mrs. Will Beightel, Holton, Kan.

SILVER WYANDOTTE EGGS—PEN, \$2; range, \$1 per setting. Good stock. Mrs. Cecile McGuire, Pratt, Kan.

COLUMBIAN WYANDOTTES—FINE STOCK. Some selected pens for sale, also one cockerel. B. A. Chamberlain, Station D, St. Joseph, Mo.

SILVER WYANDOTTE EGGS FROM good healthy free range birds, \$5.00 per 100. Mrs. Alvin Tennyson, Route 5, Miltonvale, Kan.

FARM RAISED SILVER WYANDOTTES, selected stock. Eggs, \$1.00, 15; \$5.00, 100. Baby chicks, \$1.00 hundred. Mrs. Julia Haynes, Baileyville, Kan.

WHITE WYANDOTTES—FOUR PENS select matings. Pure Fishel strain. Eggs for sale. Dodd's White Wyandotte Farm, Route 2, Girard, Kan.

SILVER WYANDOTTES THAT CAN WIN in any company. Eggs from our best yard, \$3.00 per setting, \$5.00 per 30; from farm flock, \$5.00 per 100. M. B. Caldwell, Broughton, Kan.

WHITE WYANDOTTES—OWEN FARM, Fishel and Cyphers strains. Prices of eggs, prepaid. Pens A and B, \$2.50 per 15, \$6 per 45; Pen C, \$1.50 per 15, \$3.50 per 50. Hatch guaranteed. Prompt shipment. W. T. Noland, Box 546, Dewey, Okla.

BUFF WYANDOTTES—CUT PRICES for balance of season. Eggs from all our breeding pens at \$1.50 per 15; \$5.00 per 100. Baby chicks, \$1.50 per dozen. Mating list on application. Wheeler & Wylie, Manhattan, Kan.

RODE'S PRIZE-WINNING PURE SIX-GEE Comb Brown Leghorns—Eggs, \$3.00 per 100; \$2, \$1.25. Chas. Dorr & Sons, Osage City, Kan.

S. C. BROWN LEGHORN EGGS—\$1.00, 16; \$6.00, 105; pure-bred, safe delivery, satisfaction guaranteed. A. B. Haug, Centralia, Kan.

EGGS—SIMPLE COMB WHITE LEGHORN Hundred. \$4.00. White Runners, 12, \$3.00. Chicks, 10 cents. Will Tonn, Haven, Kan.

The GRANGE

DIRECTORY OF THE KANSAS STATE

GRANGE OFFICERS.

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Overseer.....	J. L. Heberling, Wakarusa
Lecturer.....	L. S. Fry, Manhattan
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NATIONAL GRANGE OFFICERS.

Master.....	Oliver Wilson, Peoria, Ill.
Lecturer.....	N. P. Hull, Diamondale, Mich.
Secretary.....	C. M. Freeman, Tipppecanoe City, O. S. C.

Rose Hill Grange No. 1522 reports 15 new members during the last quarter.

Twin Rose No. 1519 reports 31 members initiated during the quarter ending March 31.

State Master Reardon reports a new Grange organized by him at Germania, in Brown County, with 52 charter members, dated April 1, 1913.

There is talk of erecting a memorial to "Father Kelley" in the shape of a monument or building at Fredonia, New York. This is where the first Grange was organized in April, 1868—just 45 years ago. This is a subject that all the Granges should be interested in, as they will be expected to be a part of the great plan.

A recent communication from Fort Scott, Kan., contained the following: "We 'hayseeds' here at Fort Scott have been organized one year on April 1, 1913. At our next regular meeting on April 12 we are to have a basket dinner, 'for everyone and their relations.' We also have a lot of new members for admission. We now have 75 members and are doing quite a co-operative business—George Purdy." This letter also contained a cordial invitation to the secretary to be present, which he appreciates, and is glad to find them in such fine condition.

In a recent communication from National Secretary Freeman, the following states report Granges organized and reorganized from January 1, 1913, to March 31, 1913, both inclusive: Organized—California, 1; Colorado, 3; Idaho, 2; Illinois, 1; Indiana, 4; Iowa, 1; Kansas, 6; Maine, 2; Maryland, 3; Massachusetts, 6; Michigan, 8; Minnesota, 8; Missouri, 9; Montana, 15; Nebraska, 10; New York, 16; Ohio, 14; Oregon, 5; Pennsylvania, 21; South Dakota, 12; Washington, 6; Wisconsin, 7; Wyoming, 2; total, 162. Reorganized—Colorado, 1; Kansas, 1; Massachusetts, 1; Ohio, 1; Pennsylvania, 2; Washington, 4; total, 10.

Among the Granges.

Masters of subordinate Granges who had planned on the cipher key to the secret work of the Grange are doomed to disappointment for a time longer, at least. Word comes that very little has been accomplished, and further, the plans for completion seem very indefinite.

New Modern Grange Hall.

Pleasant Ridge Grange, Shawnee County, is soliciting funds for the building of a new hall. Between \$4,000 and \$5,000 will be raised. The site for the hall has not been selected as yet, but will be chosen soon. The second annual Grange fair was held by this Grange last fall and they did so well that it was determined then that a hall was needed. The work and plans for the new building will be rushed. This will be the second big hall to be built by the Granges of Northern Shawnee County. The first is the one built about four years ago by the Indian Creek Grange. When the new Grange hall is completed Northern Shawnee can boast of two of the finest Grange halls in the state.

Meantime that part of the county lying south of the river is not idle. Oak Grange has one of the oldest Grange halls in the state, and, at the time it was built, one of the most complete. It is now sadly in need of enlargement. Berryton Grange has owned a very desirable site for a hall for some time and now has the building material on the ground. A very large and complete building will be erected, complete with kitchen, dining room, etc.

While none can question that much of the prosperity enjoyed by Shawnee County farmers has been due to the influence of the Grange, its greatest good is seen in the quality of the men and women who compose its membership.

KANSAS FARMER

A Beef Cattle Inning

(Continued from Page Four.)

Lot 5 was fed on corn stover, shelled corn and alfalfa hay. This lot gained 1,624 pounds, or 1.62 pounds per day. The feed cost \$59.56, or nearly 6 cents per day per head. The cost of the gain was \$3.66 and the total profit was \$49.34. Lot 5 was fed according to the best practice of the general run of farmers who do not use silage, but if the results obtained from the feeding of this lot are compared with those obtained in feeding Lot 2 on kafir silage and cottonseed meal, the great economy of the silo is shown, as well as the value of kafir for silage. Professor Cochell's paper will appear in a later issue, accompanied by the details of the experiment.

This most important meeting to the farmers of Kansas and to the beef feeders of the nation was closed with a paper on "Results of Winter Maintenance Experiments," by Assistant C. M. Vestal, which will be published later.

FIELD NOTES

Poland Chinas at Prairie View.

One of the very successful big type Poland China breeders of the Central or Western half of Kansas is Mr. J. E. Wills of Prairie View, Kan. Mr. Wills has been in the business for several years and has fully demonstrated his ability not only as a breeder but as a developer. Mr. Wills is very enthusiastic regarding the process of vaccination by which hogs are made immune. He was one of the very first in his part of the state to take it up and when his neighbors were losing hogs he saved all of his. The breed now numbers about 125 head, 100 of which are spring pigs. These pigs are for the most part of early farrow and were saved because of Mr. Wills' ingenuity in fitting up his farrowing house with steam pipes by which the pigs could be kept warm. The herd boars are Captain Jensen, a line-bred Mogul boar, a grandson of Old Mogul, Jensen's noted boar and his dam was a daughter of Mogul's Monarch, the best son of Mogul. He is assisted by a yearling son of L's Exception and his dam was sired by Sampson. A few litters are by Robert Logan by Chief Logan by Prince Wonder, Mouw's great boar. Ten sows in the herd are daughters of Chief Logan, they are very large, motherly kind of sows and always bring big litters. The dam of Chief Logan was by Bright Look, the first big Kansas boar that ever won sweepstakes at Nebraska State Fair. Other sows in the herd are daughters of Old Mogul, Blue Valley Blue, etc. Mr. Wills owns a fine hog farm with the alfalfa and shade together with running water, all essential for the production of good hogs.

Hardy Nebraska Polands.

One of the best herds of strictly big-type Poland Chinas in the West is located in Kansas near the Nebraska line, just south of Hardy, Neb. Mr. Joshua Morgan, the proprietor of this herd, has in his quiet and unassuming way been producing and building up a herd for the past several years. Those who have met him at some of his best sales and contended with him for the ownership of the tops will not be a bit surprised to know that his herd at this time takes rank with the best herds of the territory. The herd now numbers about 200, of which 140 are spring pigs sired by several different boars. Quite a lot of them by Mr. Morgan's old standby, M's Jumbo by Chief of Pawnee 2nd, tracing to Johnson's Chief. His dam was a Tecumseh bred sow making this boar one of the very few line-bred Tecumseh boars now in service. Others were sired by Long Sam by Shuttuck's boar Sampson and his dam was the \$465 sow sold open and herself a daughter of Big Standard. A few are by the great yearling boar, Guy's Price Wonder, also owned by Mr. Morgan. This is the best boar on the farm and bids fair to make some Poland China history. He was sired by Guy's Price Last, a grandson of the 1,000-pound state fair winner and his dam was an "A Wonder" sow. This young boar combines quality with wonderful size and is one of the mellowest of big type boars. The other boars mentioned are largely of the same type, very large with heavy bone. The sow herd represents a big variety of the very best breeding and in selecting herd sows Mr. Morgan has always stuck to his type and has never bought sows just because they could be had at a bargain. They carry the blood of Pfander's Giant Pride, Expansive, Jumbo Jr., etc., and all through the breeding can be found the names of Big Hadley, Johnson's Chief and other noted big boars. During the past five years Mr. Morgan has bought and taken to his farm over \$6,000 worth of pure-bred Poland Chinas and last year topped at least three of the best sales held in the territory.

W. A. Burk's Big Type Polands.

W. A. Burk of Trenton, Mo., is one of the young, big type Poland China breeders that is making good progress in building up a big type herd that has all that could be desired in the way of size and at the same time is maintaining very high quality. At present he is using two big type boars that as individuals are remarkably good. Both have the size and quality and both are proving to be excellent breeders. One of them, Black Jumbo, is a son of Long King's Equal and out of Jumbo Lady out of Lady Jumbo. The other, A Wonder Boy, is a son of A Wonder out of Mammoth Giantess 2d. They are two of the good, big type boars in service. Mr. Burk has an excellent herd of sows. They are daughters of such boars as King's Giant, Columbia Chief 2d, Prospect by Big Prospect and Black Jumbo and other noted sires. Mr. Burk's herd is noted for large litters and this year he has a great lot of spring pigs sired by his herd boars and also by Long James by Big Sensation. It would be hard to find a more worthy lot of big type pigs and among them are several pigs that at this time are outstanding herd header prospects. Mr. Burk has adopted the plan of very close culling and his offering of both boars and gilts for fall trade will be one of the outstanding good ones of the season. Watch for his announcement as it will interest big type breeders.

Rinehart's Red Farm.

Out at Smith Center, Kan., is located one of the greatest farms in the whole state. The soil is black, rich loam but the farm is literally red with registered Duross. A. M. Rinehart and son Melvin have been busy during the past two months caring for the sows and pigs. Now there are

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items or stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 300,000 readers for 4 cents a word for one week; 8 cents a word for two weeks; 12 cents a word for three weeks; 16 cents a word for four weeks. Additional weeks after four weeks, the rate is 3 1/2 cents a word per week. No "ad" taken for less than 50 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

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

HELP WANTED.

RAILWAY MAIL CLERKS WANTED—\$90 month. May examinations everywhere. Sample questions free. Franklin Institute, Dept. N-85, Rochester, N. Y.

WANTED—MEN WITH KODAK OR camera to take farm views in Kansas for Kansas Farmer, Topeka, Kan. Write for particulars.

FREE ILLUSTRATED BOOKLET TELLS about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-69. No obligation. Earl Hopkins, Washington, D. C.

GOVERNMENT POSITIONS OPEN TO men and women, \$90 month. Annual vacations. Short hours. No "lay-offs." Parcel post means thousands of postal appointments. "Pull" unnecessary. Farmers eligible. Write immediately for free list of positions open. Franklin Institute, Dept. N-85, Rochester, N. Y.

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

GOOD PAY AND PERMANENT BUSINESS connection for one man in each county in Kansas, Nebraska and Oklahoma to look after established business. \$25 or better per week at start can be made, working small towns and rural routes. Good chance for rapid advance in earnings. Complete outfit free and credit given. Previous experience unnecessary. Write at once. Fireside Sales Co., 623 Jackson St., Topeka, Kan.

SEEDS AND PLANTS.

FOR SALE—VELVET BEANS. PRICES and sample on request. F. C. Hester, Lady Lake, Fla.

DWARF MILO MAIZE, RECLEANED and graded, \$1.00 per bushel. M. V. Hess, Fowler, Kan.

YODER'S CORN MULCHER IS A NEW invention for corn growers. Write for circular. M. S. Yoder, Shipshewana, Ind.

CHOICE BLACK-HULLED WHITE Kafir and Dwarf Milo, recleaned and graded. Kafir, \$1.00; Milo, \$2.00 per bushel. A. L. Beeley, Coldwater, Kan.

FOR SALE—SWEET POTATO PLANTS: Yellow Jersey, \$1.25; Red Bermuda, Red Jersey and Black Spanish, \$1.50 per thousand. Albert Pine, 376 Penn St., Lawrence, Kan.

SPANISH PEANUT SEED AND WHIPPOORWILL PEAS, carefully selected, recleaned, fanned, and hand-picked at our own mills. Get next to these splendid crops, today. Williams-Hubbard Peanut Co., Texarkana, Ark., Texas.

PLANT OUR KAFIR CORN. RIPE selected seed from 80-acre field, averaged 56 bu. per acre. \$1.00 per bu., sacked, Topeka. Grand Champion white seed corn from \$280 prize corn, \$3.00 per bu. Snyder Seed Co., Topeka, Kan.

MISCELLANEOUS.

ROOFING COMPOSITION, SLATE, TILE, sheet metal, tinwork. Rinner & Warren, Topeka, Kan.

WE PRESS, CLEAN, DYE, MAKE AND repair clothes. Glenwood Cleaners, Topeka, Kan.

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MAIL PRESCRIPTIONS TO GIBLER'S drug store. Filled correctly, sent parcel post. Topeka, Kan.

about 150 of the best pigs the writer ever saw at this season of the year. It would be impossible to give pigs better care than these little fellows are receiving. Every night each mother and her litter are provided with their own nice, clean, warm sleeping place and during the day have the freedom of the farm. They are just learning to eat and in a very short time will be weaned. The herd boars on the R. & S. farm are Rambler Wonder and Model Hero, by Golden Model and R. & S. Crimson Wonder by Crimson Wonder Again. The last named is out of a sow by Valley King. The pigs were sired by these boars with the exception of the litters bought at last winter's sales. The Rineharts were good buyers at several sales during the early winter, topping the Leon Carter and John T. Higgins sales. Three were bought at the last named sale and include sows bred to Cherry Colonel and Good Enuff Model Again. At Carter's sale they bought for the top price No. 1, sired by River Bend Colonel and bred to Dreamland Colonel. This sow has a great litter of seven line-bred Colonels. One of the sows bought at Higgins' sale was Golden Lady sired by Golden Model 11th. She has a great litter by Cherry Colonel. In the herd are several daughters of the great old sow sire, King of Kantbeebat, one of the greatest boars of his day. These sows are very large and make a great nick when crossed with such boars as Model Hero and R. & S. Crimson Wonder. Rambler Wonder is a boar of great scale and produces the very long broody sort of sows. Rinehart & Son know the science of breeding and watch with the greatest care the results of every cross made. If in the market for a herd boar write this firm and state the type of sows and blood lines and get lined up for their fall sale. Between now and that time visit this great herd if possible.

When writing advertisers, please mention KANSAS FARMER.

CATTLE.

SOME CHOICE JERSEY BULLS THAT must be sold quick. Two nearly ready for service. Chester Thomas, Waterville, Kan.

FOR SALE—ONE REGISTERED EXTRA good 2-year-old Shorthorn bull. Roy Norman, Bennington, Kan.

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

THREE FINE YOUNG SHORTHORN bulls, ready for service. For breeding and price, write H. O. Peck, Route 6, Wellington, Kan.

AN EXTRA GOOD WHITE SHORTHORN bull, two years old now; grandson of Choice Goods, bred by Loch Bros. \$150. F. Vrtiska, Pawnee, Neb.

FOR SALE—5 HEAD HOLSTEINS, 3 TO 6 years old, fresh and springing; also Jerseys, Guernseys, a few fawn Jersey heifers, bred; special prices; satisfaction guaranteed. Jack Hammel, 215 Adams St., Topeka, Kan.

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

MUST SELL TO CLOSE ESTATE, NINE quarters choice land, well located, and the new railroad from Dodge City passes through land. Only 5 miles west from Santanta. Box 844, Garden City, Kan.

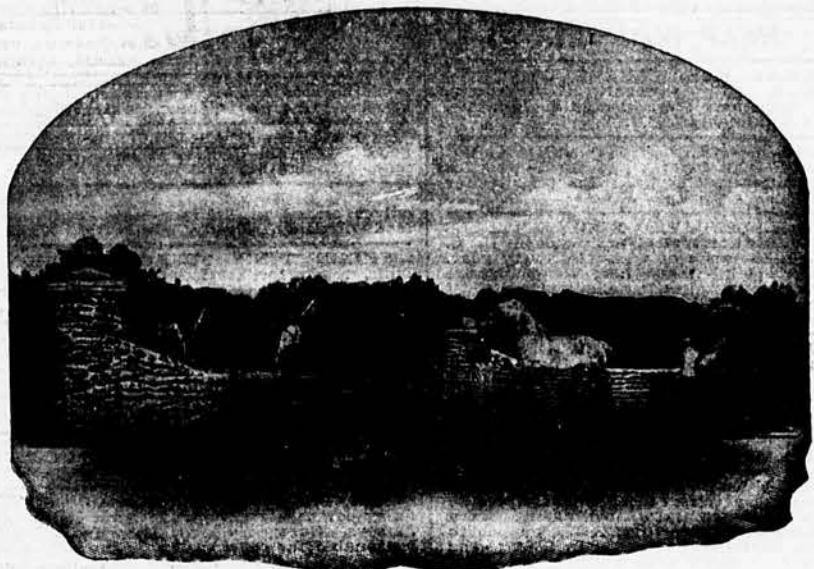
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Greatest chance ever offered in America to secure young imported and American-bred Percheron stallions and fillies.

Thirty yearlings of both sexes, imported especially for this sale. All are acclimated and in good condition. Sired by the most noted sires of the breed, including "IMPRECATION" champion at the International Live Stock Exposition at Chicago in 1911 and 1912. Also by INTITULE, a winner at Chicago and costing more money than any other stallion imported to America in 1912.

Ten mares with colt by side and bred again to CASINO.

IMPORTED mares with colt by side and bred to CASINO.

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Every animal is tuberculin tested and is guaranteed to be sound in every respect.

The big producing kind; big barrels, large udders, good teats, and are all young and ready to go to work and pay for themselves.

We have a number just fresh, balance close springers.

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We also have two A. R. O. Bulls that will go.

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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.

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HERD BULLS—Financial Countess Lad, grand champion Jersey bull, Dairy Cattle Congress, Waterloo, Iowa, 1912, the largest Jersey show ever held in the United States. Sold for \$2,500 when 90 days old, and again as a two-year-old for \$6,000. Dam, Financial Countess 155100, the 1908 national butter champion, 13,248 pounds milk, 935 pounds 10 ounces butter.

Ruby Financial Count 87211, a grandson of Financial King; milk record of 50 pounds per day.

Herd founded on Finance, Interest and Gamboge Knight families. Cows

milk, as three-year-olds, 40 to 50 pounds per day. Every cow in herd on test.

No dairyman ever considered a cow beautiful unless she is a heavy producer.

Constitution first, production second, beauty third.

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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.

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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.

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And you will have to hurry if you want one of those toppy fall boars. A few good ones left, but they are going fast. They are sired by Expansive Chief, Expansive's Wonder and Long King's Best. All are cholera immune. Write now.

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BIG BONED POLAND CHINA BOARS

Outstanding fall boars weighing 225 pounds and over, sired by such boars as Belle Prince, Duke's Jumbo and Sterling Prince and out of Peter Sterling, Pawnee Giant and A. Wonder sows. Some outstanding herd header prospects. Priced to sell quick. Description guaranteed. Address

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ADVANCE 60548

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Stock for sale.

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We have for sale on registered bull calf past three months old, which we will sell cheap. He is a fine looker and bred as good as the best. We got his sire from Prof. Hill of Chicago University. He is one that will do to head any herd.

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Two aged A. R. cows; 14 pure-bred cows 2 to 8 years old; 1 two-year-old heifer, pure-bred; 7 pure-bred heifer calves, three months to yearlings; several pure-bred bull calves; 10 grade cows, and 10 grade calves and yearling heifers. Also Jethro Bass Jr., the promising young son of Jethro Bass, dam Hawthorne's Florentine, whose butter record is 627 pounds in one year. Nothing better than these ever offered, in the West.

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Twenty 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.

KANSAS FARMER**FIELD NOTES****C. W. Parsons Sells Durocs.**

On June 7, Mr. C. W. Parsons at Harper, Kan., will sell 50 head of bred sows and gilts. They are a useful lot and bred to three good boars. Please send your name early for a catalog and watch for sale ad in later issues of Kansas Farmer. Mr. Parsons has no mailing list and therefore send your name in for catalog.

O. I. C. Boars For Sale.

R. W. Gage of Garnett, Kan., is offering a few extra good fall boars for sale at very attractive prices. They are well grown out and fit to head herds. Mr. Gage is also booking orders for spring pigs in pairs and trios not related. If you wish to start a herd it might pay you to write Mr. Gage for prices. Please read ad in this issue and mention Kansas Farmer when you write.

Frank Boyd's Spotted Polands.

Frank Boyd of Jamesport, Mo., owner of one of the good herds of big boned, spotted Poland Chinas, has a fine lot of spring pigs this year. They are big, growthy fellows with the spots. They were sired by such boars as Lucky Judge Goodenough and Chief Jr. and out of Budweiser and Brandywine sows. Mr. Boyd will have some good ones to offer breeders of the big, spotted kind this fall.

Holsteins For Sale.

Frank Buzard, St. Joseph, Mo., whose dairy made money on \$1,200 an acre land, now has a bigger farm and more pure-bred Holsteins for sale. He is making a special offer on two A. R. O. herd bulls, but has others. He is running two advertisements in Kansas Farmer, in one of which he offers a number of high-grade cows and heifers to pure-bred bulls. Look up both these advertisements and go and buy some Holsteins.

Evergreen Farm Oxford Down Sheep.

Attention is called to the card of J. H. Walker of Lathrop, Mo. In this issue of Kansas Farmer. Evergreen Home Farm is noted throughout the corn belt for fine stock. The dual purpose Short-horns, Berkshire hogs and Oxford Down sheep from this farm have a reputation covering many states. At present Mr. Walker is offering breeding stock from his great flock of Oxford Down sheep that is without doubt one of the best flocks of that breed of sheep now in existence. The sheep of this flock are the large, hardy, prolific, heavy fleeced kind and breeders wanting Oxford Down breeding stock that is right in every way should investigate his offering. Write him for description of stock. He guarantees description as absolutely reliable and guarantees satisfaction. He can furnish rams up to a carload. Please mention Kansas Farmer when writing.

A. C. Buckingham's Durocs.

A. C. Buckingham of Jamesport, Mo., is one of the breeders of Duroc Jerseys that has made good and his herd is one of the good ones. The herd is headed by Top Inventor by Proud Inventor by Inventor. His dam was a daughter of Tip Top Notcher. Top Inventor is one of the big Duroc boars. He not only has the size but he has the quality and he is one of the good breeders now in service. The spring pigs of this herd are an out and out good lot. They are out of daughters of King of Colonels 2nd, Crimson Rambler by Crimson Chief, a grandson of Ohio Chief, Crimson Wonder, Top Inventor, Woolen's Claxton and other good ones. They were sired by such boars as Top Inventor, King of Colonels 2nd, Crimson Chief and Colonel Model Top. The boars of this herd are an outstanding good lot of individuals and a feature is the remarkable large litters this year. Mr. Buckingham will have an offering for the fall trade that will be right in every way and Duroc breeders should not overlook his herd when selecting high class breeding stock. Watch for his announcement later in Kansas Farmer.

Thompson Bros.' Good Durocs.

Kansas Farmer readers that pay attention to such things will remember Thompson Bros., the very successful Duroc Jersey breeders and showmen located at Garrison, Kan. The brothers established their herd some years ago and have made a great success of the breeding business. For the past two years they have been out with show herds and have won many first and sweepstakes premiums. A recent visit to the farm by the writer demonstrates to him at least, that Thompson Bros. are among the most progressive of all Duroc breeders now operating in the state. They have at this time about 40 extra choice fall and last summer gilts, most of which will be reserved for their winter sale. There are about 60 spring pigs, all doing well. About all of the fall gilts were sired by the herd boar Golden Chief, a grandson of Ohio Chief, a sire of show stuff and himself now being fitted for the fall shows along with a full herd for all classes. Golden Chief had for his dam a sow sired by the great boar Pearl's Golden Rule, so it is no wonder that he has proven himself such a splendid breeder. He is assisted in the herd by Colonel Harris by the show boar, Ohio Colonel and himself winner of first at Hutchinson and headed first prize young herd at same place. Thompson Bros. will offer boars later. Watch for their announcement.

L. E. Klein Visited.

Never before in his history as a breeder of strictly big type Poland Chinas has Mr. L. E. Klein, Zeeland, Kan., been so well fixed with herd boars and big sows. His spring stock of pigs is the best the writer ever saw on the farm at this season of the year. There are about fifty spring pigs and a nice lot left over that were farrowed last fall. Of these about half are fall boars that are now being sold, the others are gilts that Mr. Klein will hold and breed for his February 17 sale. Mr. Klein's herd boar, Chief Price, now in his two-year old form, bids fair to become the best producing boar owned on the farm. He was bred in Iowa and carries the blood of the best big type families. All but two litters of the spring pigs were sired by this boar. These two were sired by Chief Price Best, another Iowa bred boar. The spring pigs average seven to the sow which average is extra good considering the kind of weather that has prevailed during the past few months. Mr. Klein has for several years been a good buyer at the best sales, always buying the tops or those selling close to the top. As a result of this his sow herd is one of the best to be found anywhere. The best spring gilts will be reserved for the winter sale and the boars offered privately. Watch this paper for later boar announcement, but write any time, mentioning Kansas Farmer.

Samuelson Bros. Have 165 Pigs.

Samuelson Bros., the veteran Duroc Jersey breeders located at Cleburne, Kan., again lead all Kansas breeders in point of numbers for spring pigs saved. They have

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The O. H. C. Hog Oiler uses crude oil or any liquid.

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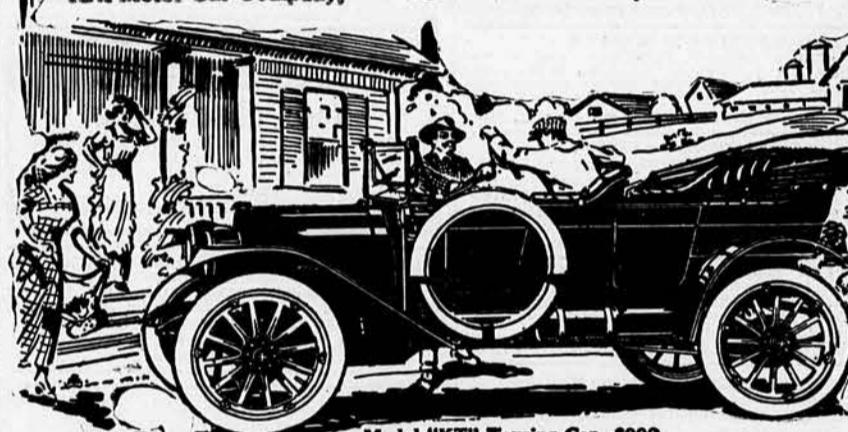
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