

KANSAS FARMER

For the improvement of the Farm and Home

Volume 52, Number 28.

TOPEKA, KANSAS, JULY 11, 1914.

Established 1863. \$1 a Year

A NEWSPAPER cannot hope to be 100 per cent efficient that permits any but reliable advertisers to be represented in it.

A newspaper, to be of value to its readers, must have their entire confidence. It means nothing to the reader to have a paper in which he does not believe, and if he has reason to doubt any statement that appears in it, whether in the editorial portion or in an advertisement, his confidence in the entire paper will weaken.

Some papers, apparently, care nothing for the confidence of their readers, judging from the class of advertising they carry. The publishers of this paper, however, care so much for the confidence of their subscribers that no amount of money could induce them to publish an advertisement of doubtful character.



No Questionable Advertising Printed In Kansas Farmer



Victrola VI, \$25
Other styles \$15 to \$200

Listen to the band! Anywhere at any time with a Victrola.

The world's greatest bands to play for you any selections you want to hear.

Hear your favorite music at any Victor dealer's. Write to us for catalogs.

Victor Talking Machine Company
Camden, N. J.
Berliner Gramophone Co.,
Montreal, Canadian Distributors



TIRE SALE

Greatest money-saving opportunity ever offered to motor car owners! SAVE AS HIGH AS 40 PER CENT on Tires and Accessories. Most remarkable tire prices ever offered. All the standard makes! Brand new stock, fresh from the factories! "Factory Seconds"—but not faulty tires! Just a blur in the serial number—that's all. Write today for our FREE circular, full new price list and information. Here's a sample of the prices: 30x3, \$8; 30x3 1/2, \$11; 32x3 1/2, \$11.70; 34x3 1/2, \$12.50; 34x4, \$16; 36x4 1/2, \$23.50, etc., etc.

The National Tire Co.

1621 Grand Ave., Kansas City, Mo.
Department C.

HEAT FOR YOUR HOME

Let us show you how you can install a modern heating plant in your home that will not only save you time, and labor, but will greatly reduce your coal bill, and at the same time comfortably heat your entire house. We can save you money on any kind of a heating system. Write today for our free book.

WESTERN ENGINEERING COMPANY,
446-B Sheldley Bldg., Kansas City, Mo.



ZINCK & CO., 7404 Greenview Ave., Chicago, Ill.

POLITICAL ADVERTISEMENT.



Major A. M. Harvey,

Of Topeka, Kansas.

CANDIDATE FOR THE REPUBLICAN PARTY NOMINATION FOR UNITED STATES SENATOR.

To Republicans:

Let's pull together—without intolerant strife, and again make the Republican Party a powerful force for good government and better conditions.

Friends who can use cards or literature in their work for me, please write to above address.

A. M. HARVEY.

Rules For Borrowing Money

FIVE rules designed to convince farmers that there is no magic about credit, are set down in Farmers' Bulletin No. 593, "How to Use Farm Credit," which the Federal Department of Agriculture has just published. Unless the farmer who is thinking of borrowing money fully understands these rules and is willing to be guided by them, the government's advice to him is: DON'T. As it is, there are probably almost as many farmers in this country who are suffering from too much as from too little credit.

Of these rules the three most important are:

1.—Make sure that the purpose for which the borrowed money is to be used will produce a return greater than needed to pay the debt.

2.—The length of time the debt is to run should have a close relation to the productive life of the improvement for which the money is borrowed.

3.—Provision should be made in long-time loans for the gradual reduction of the principal.

The first rule is, of course, the key to the wise use of credit. Between borrowing money to spend on one's self and borrowing money to buy equipment of some sort with which to make more money, there is all the difference between folly and foresight, extravagance and thrift. If the money is borrowed for a wise purpose it will produce enough to pay back principal and interest and leave a fair margin of profit for the borrower into the bargain. If it is borrowed for a foolish purpose it will produce nothing and consequently there will be nothing with which to repay the loan. From this point of view it matters comparatively little whether the interest be high or low. It is the repayment of the principal that is the chief difficulty.

Rules 2 and 3 deal with the most satisfactory ways of repayment. Underneath them both is the same principle: The loan must be repaid with the money it earns itself. For example, if the

money is used to buy a machine that will last ten years, the machine must earn enough in that time to pay for itself or it never will. The loan, therefore, should be entirely repaid before the ten years are up or the farmer will lose money on the transaction, paying out interest for no benefit in return. On the other hand, if too early a date is set for repayment, the machine will not have had sufficient opportunity to make the requisite money and the borrower may have difficulty in raising it elsewhere. Rule 3 provides for some form of amortization, the system by which the principal is repaid in installments so that the amount of the loan is continually diminishing and in consequence the interest charges also. Such a system is quite feasible when the loan is really productive, when it returns to the borrower a definite revenue each year. Tables showing the payments required to pay off principal and interest in varying periods of time are appended to the bulletin and are recommended to the serious consideration of everyone who contemplates borrowing money. The bulletin also advises the farmer to secure the lowest possible interest. At first sight this seems too obvious to be worth mentioning. Of course, the interest should be as small as possible. Everybody knows that—except the lender. But if the other rules are observed, if the borrower manages his financial affairs soundly, he will be surprised to find how much easier it is to obtain favorable terms. The right kind of lender does not want to foreclose mortgages; he wants his money back with a fair profit, like any other merchant. For money that is borrowed wisely, for money that is sure to be repaid, he charges low interest.

This, in fact, is why the government has published these rules for borrowers. It is not so much a matter of driving a shrewd bargain as it is of observing a few fundamental principles which alone can make credit a blessing and not a curse.

New Rule For Handling Stock Hogs

The constant presence of cholera in the stockyards at the great central markets has made it impossible to develop the business of shipping stock hogs back to the country for feeding. Some months ago an effort was made to develop a stocker trade in hogs through regulations which were put in force by the Bureau of Animal Industry. These regulations required that hogs be vaccinated by the simultaneous method and held in quarantine for 21 days before being shipped out to the country for feeding.

Even with the expenses incident to holding stock hogs this long period of time in the yards under quarantine, quite a good many were shipped out and fed last fall. The conditions perhaps were a little abnormal at that time but every year stock hogs are produced that cannot be fattened for market in the sections where grown.

The Bureau of Animal Industry has just put into effect, beginning July 1st, a new set of regulations which will undoubtedly simplify to some extent the transfer of stock hogs from the yards to the farms where they are to be fattened.

The principal change from the old rules is the regulation which permits hogs to be vaccinated with the serum-alone treatment in a portion of the yard set aside for this purpose. Inspection by an inspector of the Bureau of Animal Industry is required and they must be pronounced free from symptoms of cholera or other contagious or communicable diseases. After they are injected with the serum, which shall be serum prepared in plants licensed by the department of agriculture, they must be disinfected in a 2 per cent solution of cresol compound-U. S. P. They must then be held in non-infected pens at least six hours before being loaded for interstate transportation.

Hogs protected and handled in this manner are practically sure to be protected from cholera infection unless they become infected on the farms after the temporary immunity has passed.

The new rules likewise make a modification where hogs are given the simultaneous treatment, requiring only 14 days of quarantine instead of 21 as under the old ruling. These new regulations, while apparently very stringent as to matter of disinfection, make it possible to greatly increase the handling of stock hogs. These new rules are in-

cluded in order number 210, B. A. I. and are entitled, "Regulations Five, to Prevent the Spread of Cholera and Swine Plague." Those especially interested will be able to secure copies of these rules by addressing the Bureau of Animal Industry, department of Agriculture, Washington, D. C.

Millet, Cane and Kafir Seed.

Within the last week a considerable number of KANSAS FARMER folks have inquired if cane, kafir and millet seed is still obtainable, and if so, where it can be had. Each inquirer was answered promptly and advised where the seed could be obtained. It will be a matter of general interest to know that there is still much of this seed available. Some of it is in the hands of farmers, many of whom have advertised in KANSAS FARMER's classified columns during the past two weeks. The seed houses advertising in KANSAS FARMER advise that they have good stocks of all kinds of seeds of common spring-planted crops. We recently advised one inquirer in New Mexico where he could obtain three hundred bushels of kafir seed. The farmer who is desirous of securing seed of these crops can get it if he will make an effort so to do.

Minister Should Know Farming.

If the rural minister knows something about modern agricultural methods he will be able to reach his farmer congregation with much greater success. Upon the basis of this principle is built one of the courses in the school for rural leaders to be held at the Kansas State Agricultural college July 6 to 16. In this course subjects of real interest to the farmers will be discussed by agricultural professors capably speaking with authority. Subjects to be taken up are farm tenancy, soils, roads, poultry, dairying, landscape gardening, fruit growing, live stock and feeding, and field and fruit insects.

So much has been heard of Argentina beef and corn lately that these figures may prove of interest. Henry Wallace writes in Wallace's Farmer that it grows about one-third as many hogs each year as are produced in Iowa, that the corn crop of that country amounts annually to about half of that of Iowa. Since Iowa is the big corn and hog-producing state of the Union, the above figures enable one to get a good line on Argentina in these two respects.

HELP BOOST WHEAT PRICES

By Not Glutting the Market.

The unusually large crop is going to make wheat low at harvest time.

Store your wheat and get the extra profit, by being able to sell at right time.

Congested traffic is going to cause trouble and delay in getting cars at threshing time.



BUTLER Grain Bin

Corrugated. Can't Cave In. Rat-Proof. Fire-Proof.

Can be used for store house. Capacity increased by additional sections. Keeps grain perfectly. Large door removable shoveling board.

Ask for prices and descriptive Booklet Showing Letters From Satisfied Users.

BUTLER MANUFACTURING CO.
1209 W. 10th St., Kansas City, Mo.

POLITICAL ADVERTISEMENT.

ATTORNEY GENERAL JOHN S. DAWSON

ANNOUNCES HIS CANDIDACY FOR JUSTICE OF THE SUPREME COURT

AND WRITES TO THE VOTERS

LADIES AND GENTLEMEN:—The Legislature has removed the election of Justices of the Supreme Court and Judges of the District Court from the strife of party politics. Henceforth they will be nominated on a separate ballot which each voter will receive in addition to his own party ticket at the primary. There are three Justices of the Supreme Court to be elected this year. I respectfully ask to be made one of the three of your choice for these positions. I have served in various capacities in the Attorney General's office for about twelve years. During that time I have participated in nearly all the important lawsuits which the State has had, and always on the people's side. That long roll of litigation includes bond collections, suppression of school land frauds, gambling, prohibition, ouster suits, freight rates, two-cent passenger fares, constitutionality of state laws, cases in the Federal courts, the United States Court of Appeals at Denver, St. Louis and St. Paul, cases before the Supreme Court of the United States at Washington, D. C., and a world of miscellaneous litigation in the State Supreme Court, and in the various District courts of Kansas, like the gas trust case, bridge fraud cases and the like.

Moreover, the Attorney General is the legal adviser of 105 county attorneys and half a hundred state boards and state officers. I make no pretense that this work has been done without mistakes, doubtless many of them. I merely say I have given you the best service of which I was capable. Now, if you will overlook my shortcomings, and give me this promotion, I will strive to make you a studious, conscientious and courageous judge and will be under no obligations to anybody but you. Respectfully,

JOHN S. DAWSON.

Hill City, Kan., July 11, 1914.

POLITICAL ADVERTISEMENT.



R. F. GINDER

Democratic Candidate for the Nomination for Lieutenant Governor of Kansas.

I kindly ask your support in the August primaries. I hope to hear from you all personally. I stand squarely with the agricultural interests of Kansas and am a native Kansan.

Headquarters

501 New England Bldg., Topeka, Kansas.

Don't fail to read Kansas Farmer Classified Advertising Page. It is filled with bargains every week.

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

ADVERTISING RATES
30 cents per agate line—14 lines to the inch. No medical or questionably worded advertising accepted. Last forms are closed Monday noon. Changes in advertising copy and stop orders must be received by Thursday noon of the week preceding date of publication.



KANSAS FARMER

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

Published weekly at 625 Jackson St., Topeka, Kansas, by THE KANSAS FARMER COMPANY.
ALBERT T. REID, President. JOHN R. MULVANE, Treasurer. S. H. PITCHER, Secretary.

T. A. BORMAN, Editor in Chief; G. C. WHEELER, Live Stock Editor.

CHICAGO OFFICE—604 Advertising Building, Geo. W. Herbert, Inc., Manager.
NEW YORK OFFICE—41 Park Row, Wallace C. Richardson, Inc., Manager.

Entered at the Topeka, postoffice 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.



STACKING IS STORAGE.

"Wherever practicable, Kansas farmers should stack their wheat," is the admonition of J. C. Mohler, secretary of the Kansas State Board of Agriculture, in his first bulletin. "Aside from the recognized benefits of this practice," he says, "it is particularly important this year, owing to the tremendous wheat crop and its accompanying problems. Stacking clears the land for early plowing, and experience has proven early plowing advisable. The grain going through the sweat in the stack improves its quality, in color, condition and test. Stack threshing may be done at any convenient season, by fewer men, and when temperatures are lower.

"But this year there are other weighty reasons for stacking. The Kansas yield of wheat is far above the average, but the facilities for handling it are practically the same as in recent years. Providence has imposed a task on Kansas in caring for an aggregate of wheat such as she has never before experienced. The railroads will be taxed beyond their capacity, storage facilities are inadequate, and prices have already faltered and broken as a result of the impending glut of wheat at the market centers.

"It lies with the farmers themselves to measurably assist in solving these transportation and storage problems and in upholding prices by more generally stacking their wheat. A great deal of wheat must be held anyhow, by somebody, either in the shock, stack or bin. In many instances threshing outfits cannot be had when wanted. Left in the shock the grain is constantly subject to damage. Stacked grain is storage on the farm. Properly stacked, it is safe against the weather, will keep indefinitely, may be insured, and money borrowed on it. Stacks arranged in "settings" make possible the most economical handling of the straw and separated grain, and means continuous work for the thrasher.

"An important feature of stacking this year is the influence it may have on maintaining and bettering prices, by holding the wheat on the farms away from the glutted markets. Lower prices naturally follow big productions, but it is imperative to the farmer's best interests to hold prices at the highest level good management makes possible. It is the dollars that count with the farmers, rather than the number of bushels he has garnered, and he should do every reasonable thing to secure maximum returns from the wheat he has. Dumping wheat on a glutted market makes conditions in which the grain speculator revels, but in which the farmer finds no joy. It seems the chances are that prices will be little if any less than at present, and they may be much higher. Many extensive growers in the 'wheat belt' proper will doubtless find it impracticable to stack, and others will thresh from the shock and rush their grain to market as fast as transportation facilities makes possible because they need the money. But these conditions seem to make stacking all the more desirable.

"Taking into consideration all phases of the unusual wheat situation in Kansas, stacking will have a more far-reaching effect than in other years and appears to bear a closer relationship than usual to the prosperity of the Kansas wheat grower."

HOLD THE WHEAT.

If possible, hold your wheat for a higher price later. This is the advice given Kansas farmers by W. M. Jardine, dean of agriculture in the Kansas State Agricultural College. That farmers will profit by adopting this plan was reached as a conclusion at a meeting of grain men, railroad officials, and others interested in handling the present wheat crop of the state.

Dean Jardine suggests that farmers may advantageously hold their wheat in the stack. This will prove more economical, he believes, than other methods of storage.

"The present price of 60 to 65 cents is low," Dean Jardine says, "and is brought about largely through farmers rushing their wheat to market faster than it can be taken care of, thus causing congestion at terminal points.

"The world's wheat crop is not unusually large. More wheat will be exported from the United States than in several years past. The average price of wheat, therefore, for the coming year, is not likely to be unusually low, and the lowest price will probably be reached in the next six weeks.

"Farmers who are in position to take advantage of this condition will be observing sound business principles by holding their grain for a higher price. We can avoid serious car shortage, and consequent congestion in marketing our wheat, only by close co-operation among all interested persons, including the farmer. The farmers can best assist by holding as much wheat on the farm as possible. There is little question this year that by so doing he will be sure of substantial interest on the capital he has tied up.

"The railroads assure us that they are assembling in Kansas, Oklahoma and Nebraska, all the surplus cars possible, and that they will do everything in their power to keep these cars moving. Terminal and gulf elevator companies are being called on to see that cars are promptly unloaded and returned to the fields. The farmers, nevertheless, will profit by holding as much wheat as possible. It took practically a year to grow this crop, and there is no reason why we should try to sell it and ship it out of the country in six weeks or two months."

I. L. Diesem of Garden City seeks nomination before the primaries for member of the State Board of Irrigation. Mr. Diesem is one of the first of the Kansas irrigationists and for twenty-five years has lived at the seat of successful irrigation in Kansas. His knowledge and observation ought to make him a valuable member on the board. Whether or not he is a member of such board will depend upon whether or not the voters of Kansas are sufficiently interested in having an experienced irrigationist on that board to cast their votes for him.

DISK AND PLOW EARLY.

The marvelous wheat crop of this season will certainly be followed by a "ten bushel" crop if the threshing and marketing keeps farmers from early work in preparing a good wheat seed bed. Experiments of five years at the Agricultural College and the experience of thousands of Kansas farmers have proved the benefit of early disking and plowing of land where wheat is to follow wheat. Very little corn land will be seeded to wheat this year, but at least two-thirds of the wheat stubble ground will be put back to wheat. It is to be hoped that farmers who cannot thresh very soon and store will be able to stack the bound wheat and thresh at their convenience. This will enable them

to disk the ground in July. In all districts that have Hessian fly this early disking is very important as it will encourage the growth of the volunteer wheat which should then be plowed under by the middle of August. Thus the field will have no food for the August brood of Hessian fly. If those fields can be kept clean, with no sign of wheat after the middle of August and no new wheat until after September 20 or 25, the fields are pretty well insured against the fly. Disking before plowing will help make a better seed bed and will make plowing easier and is a tolerably sure method of preventing the growth of volunteer wheat.

It is newspaper report that this winter's legislature will be asked to appropriate a hundred thousand dollars for the equipping of a twine plant in connection with the state reformatory located at Hutchinson. We have no doubt that the western members of the legislature will be strong for the appropriation. However, Superintendent Herr of the reformatory admits that the reformatory is well supplied with industries and that a twine plant is not needed to supply the boys with work. His claim for a twine plant is wholly on the basis that the reformatory is located in the center of a wheat-growing area and that it is a logical location for a plant. It would seem the part of good business, if Kansas desires to enlarge her twine-making operations, to concentrate a maximum of production at the penitentiary where the present plant is located. The modern business view is few plants worked to capacity at a high degree of efficiency. This would seem a good business view for the state also. The average legislature, however, is more inclined to a multiplicity of plants and institutions than to the application of principles which tend to greater economy.

Yields of wheat running as high as 60 bushels per acre, and oats 75 bushels per acre, are reported in the daily newspapers. Of course, it is only the exceptional yield which makes an item of news worthy of newspaper mention. There are comparatively few fields of either wheat or oats in Kansas, even this year, that are reaching the above figures, but the threshing results indicate that the yield of both wheat and oats will exceed the expectation of a month ago.

A Hutchinson man sought to buy dairy cows in Kansas instead of going East for them. He offered a Larned dairy farmer \$150 per head for a herd of 22 cows. The offer was refused. The Hutchinson man is having poor success buying dairy cows in Kansas because those who have good animals refuse to sell. The moral is that Kansas can, if she will, produce as good dairy stock as any state in the Union, that there is a market for this stock and that those who will engage in the breeding of good milking stock can make money for themselves by so doing.

Prizes For Photographs

HUNDREDS of farmers' boys and girls are making photographs of the various phases of farm life, stock, buildings, fields, farm operations, etc. To encourage the efforts of these, KANSAS FARMER will offer monthly prizes as given below. The photos may be of any size, should be unmounted and without writing on front or back. A description, with location, name and post office address of sender, should be given in letter with photo. All photos submitted become the property of KANSAS FARMER. Prizes each month are:

Best photo, subject and photography each considered . . . \$3.00
Second best photo . . . 2.00
Third, fourth and fifth75

Keep in mind that experience in photography is not necessarily essential to success in this competition—neither is expensiveness or size of camera. Many of the pictures printed in KANSAS FARMER are from amateurs who use small and inexpensive cameras. Address,

ART EDITOR, KANSAS FARMER.

CAMERA SELLS LIVE STOCK.

The taking of pictures is one of the most fascinating pastimes. There is no place where it can be enjoyed to a greater extent than on the live stock farm. Almost daily there are scenes which we would give much to preserve. Picture taking has been so simplified in recent years through the introduction of efficient hand cameras of all kinds that no live stock farm can be said to be complete without its camera and official photographer. Some member of the family is always certain to take up this fascinating work if they but have the opportunity.

On a farm where pure-bred live stock is raised the camera is becoming more and more useful in a business way. Carefully posed and well taken photographs of animals taken at different stages of their growth and development have a distinct value in connection with the future breeding operations.

The greatest use, however, of the camera on the pure-bred stock farm is in connection with advertising and selling surplus breeding stock. Every farm of this kind should use properly designed letter heads in connection with business correspondence. A half tone from a well taken photograph illustrating in an attractive way the special kind of live stock produced, can be used most effectively on this letter head.

People are always attracted by good illustrations. The reader on opening a farm paper is instantly attracted by the half tones made from photographs, appearing on its pages. The advertiser who can use such half tones in connection with his advertising is almost sure of securing the attention of the reader at once. From the half tone the eyes naturally travel in the direction the animal is looking and here should be displayed the printed matter regarding the stock. This means that to be most effective advertising cuts should be used in two column space.

The average live stock advertiser does not, as a rule, use large space. Such advertisers, however, can make use of the photograph most effectively in connection with answering inquiries. After the paper has secured the inquiries it is up to the breeder to make the sale, and the breeder who is in a position to furnish carefully made photographic prints of his animals is oftentimes able to sell stock where he would not be able to do so from mere word descriptions.

These photographs should be so made as to show the animal to the best advantage possible. People have confidence in photographs because they know positively the camera will not lie. It has its limitations, however, and those making use of it should make a careful study of these limitations so as to secure pictures that will show their animals as good as they are. Camera companies furnish much instructive material in connection with the use of their cameras, and this material should be carefully studied.

The breeder of pure-bred stock who is equipped with a camera should make special effort to secure good, well posed pictures of such animals as are for sale so that prints can be sent to every prospective purchaser. The advertiser equipped to do this should so state in his advertising matter. Many live stock breeders are already doing this and finding it works out most satisfactorily. It is most difficult to describe an animal properly by mere words, although written descriptions can oftentimes be used to splendid advantage in supplementing the picture. A good picture which shows the animal at its best is of great value in making sales and can be easily secured by almost anyone who will give a little attention to the details of picture making. Instances are on record where animals have actually been sold in the public sale ring on the basis of a photograph and a milk record. The camera certainly is a great boon to the breeder of pure-bred live stock and is gradually being used more and more by up-to-date breeders.

DOGS AND MUTTON SUPPLY

Vagrant, Uncontrolled Dogs Serious Menace to Sheep Raising—G. C. Wheeler



"THE SHEEP HAS A GOLDEN HOOF" IS A PROVERB THAT HAS COME DOWN FROM ANTIQUITY. THEY RESTORE FERTILITY AND RETURN EACH YEAR A DUAL PRODUCT—WOOL AND LAMBS. THE FEED CONSUMED BY THE SMALL FARM FLOCK IS SUCH AS IS ORDINARILY WASTED. AS GLEANERS THE RETURN IS CLEAR PROFIT. VAGRANT DOGS ARE THE GREATEST MENACE TO THE SHEEP, AND SHOULD BE TAXED OUT OF EXISTENCE.

MARKET values for the various meat products have been such during the past few years as to arouse new interest in the subject of live stock in connection with general farming. It is apparent to those who have watched closely the trend of events the world over that we are facing a widespread meat shortage. In this renewal of interest in live stock farming the place of sheep on the general farm might well come in for more careful consideration than it has been given in the past, especially through the corn belt territory. All through the grain growing sections the hog has been the main dependence of those who would market their crops in concentrated form as live stock products. Sheep have some peculiarities, however, which render them especially adapted to yielding maximum returns under the conditions prevailing on almost every farm of the grain producing area. Nearly all of these farms have some small tracts at least, that are too rough for farming purposes but well suited to pasture for sheep.

Sheep have long been recognized as destroyers of weeds and in fact on some farms where they have been kept, they have been considered solely as scavengers and have not been given the care and attention they deserved.

On the average farm there are many wastes of feeding value, including the weed growth which can admirably be utilized by a small flock of sheep. They are better adapted to this purpose than hogs since much of this waste is material which a hog does not readily consume. The sheep has an advantage over the hog in that it can be prepared for market almost entirely on roughage feeds, requiring almost no grain to make it marketable. As consumers of roughage they eat much that cattle will not touch and the amount of labor required to produce a given value on mutton is less than that required to produce a similar value in beef. There is probably no animal kept on the farm that puts as large a per cent of the material it consumes into marketable form as the sheep. They can be sold at from three to eight months of age and it is during the growing period that all animals make their increase at a minimum feed cost.

There is another advantage coming from the keeping of a small flock of sheep on the average farm and that is the fact that the lamb carcass is small and may be consumed by the average sized family. The securing of fresh meat on the farm during the summer time is oftentimes quite a problem.

In consideration of the facts given above, it might be interesting to have the attention called to the probability of there being a serious mutton famine in the near future. The same conditions which developed the immense business in the growing of cattle on the range lands of the west developed a similar

large production of mutton on these ranges. The production of beef cattle and mutton, to a certain extent on the farms, was decreased as a result of this widespread range production of beef and mutton. The great decrease in the range production of cattle in recent years is the chief reason for the falling off in beef production in the United States; the same conditions are operating to reduce the range handling of sheep.

Receipts of sheep and lambs at the five principal western markets during the first five months of this year have broken all previous records. The range sheep man for several years has been liquidating his holdings; this has been especially true in Montana where the large flocks have been cut down in recent months with a vengeance. The shortage of mutton and mutton products through the corn belt states has served to maintain prices and this has stimulated the liquidation of the range products. For the past three years the ewe lambs have been rushed into the stock yards as a result of the high prices which have prevailed. As a result of this, to a great extent, the ewes constituting the breeding flocks of the west and northwest are on the down hill as concerns the matter of age. This condition is especially favorable to the introduction of sheep as a profit making kind of live stock to be kept on the farms of the corn belt.

Variations in the price of wool in years past have had much to do with the ups and downs of the sheep business. Many of the former sheep growers who were in the business extensively, handled sheep from the wool standpoint only; that time is past, however, and while the demand for wool is bound to continue, the mutton value of the sheep must be considered as the chief basis for this production, the wool coming in as a secondary consideration.

In spite of the increased popularity of mutton and lamb and the high prices which have prevailed in recent years, there has been little disposition on the part of the average farmer to introduce the sheep into his farm practice.

We have only to glance at British agriculture to appreciate the fact that as land advances in value and better business methods are adopted the place of the sheep upon farms becomes an increasingly important one.

The superfluous dog in villages and on non-sheep-raising farms constitutes a very serious obstacle to the logical development of farm sheep husbandry in the United States.

This dog nuisance is probably the most serious menace to the keeping of sheep. There seems to be some foolish sentiment which has prevented such legislation as would adequately protect the sheep farmer from the ravages of these stray, worthless curs. The actual losses in sheep killed by dogs is serious,

but where one man has met loss, dozens are deterred from attempting to grow sheep because of the probability of such loss. If such laws could be passed as would tax out of existence the stray, worthless curs and require that valuable dogs be at all times kept under the absolute control of their owners this most important phase of the live stock industry would undoubtedly be greatly developed and be a source of added profit on many a farm. There is absolutely no more reason why dogs, however valuable they may be, should have the freedom of the country than that other live stock should be permitted to roam at large.

Some few sheep men, by careful herding of sheep and constant watchfulness, have been able to keep sheep with a fair degree of success. All this requires extra labor, however, and is a burden which should not be imposed upon the man who is striving to add to his income by the use of these most profitable farm animals.

The bureau of statistics of the Federal Department of Agriculture, has recently received from its county crop correspondents a very interesting and suggestive set of replies to questions prepared by the bureau of animal industry.

One of the questions asked for an estimate of the extent to which the present numbers of sheep might be increased without displacing any other farm stock. A great many of the correspondents gave 1,000 per cent in answer to this question. Answers to this and similar questions were summarized for 36 states. In 27 states the correspondents state that there might be an increase of over 100 per cent in the number of sheep kept without displacing other stock.

When asked to name the things that prevent more general keeping of sheep 30 states gave as a large majority of their answers, "dogs." Six states answer "fences," indicating a lack of working capital as a hindrance to sheep raising. The total replies from the 30 states referred to are distributed as follows: Dogs, 526; fences, 191; price of wool, 122; miscellaneous, 63.

Competent opinion seems well agreed that the dog stands in the way of an increased supply of one of the chief kinds of meat. In answer to this arraignment of the dog, it is sometimes stated that owners of sheep killed by dogs are compensated for their losses from the dog-tax fund of the municipality. It is true that a considerable number of counties do compensate owners of killed sheep, but the rate of compensation practically never exceeds the actual meat value of the animals killed. Such redress, while it may alleviate the seriousness of the sheep owner's immediate loss, is in no way conducive to the stability or extension of sheep raising.

Compensation for damage done by dogs seldom takes account of injury to

that part of the flock not killed. These are often maimed and rendered so uneasy and unthrifty for months that the lamb crop of the following spring is seriously lessened. In addition to this uncompensated loss, there is the discouragement of the owner and the spread of the idea among other farmers that sheep raising is unsafe and unsatisfactory.

The treasurer of one county in Ohio reports that 649 sheep were paid for in 1913 as having been killed by dogs. In one Indiana county having 24,000 sheep, 300 were killed by dogs in 1912. This probably means that sheep were killed by dogs in one-fourth or one-fifth of the flocks. In the course of 10 years the flock that has not been invaded by dogs is the exception. News of such loss makes a much deeper impression upon non-sheep raisers than does anything they may hear in regard to profits from a flock so fortunate as to escape the attack of dogs.

When the states levy taxes sufficiently high to curtail the number of unnecessary dogs and put upon the dog owner the burden of keeping the animal off of other people's farms, then the sheep industry will have a fair chance to contribute as it should to the nation's meat supply.

New Book on Sheep Feeding.

Prof. Thomas Shaw, who was for many years professor of animal husbandry at the University of Minnesota and who is the author of many valuable agricultural books, has just written one on the subject, "Sheep Feeding and Management," which should prove most helpful to the beginner in this branch of live stock.

Sheep husbandry in America is little understood. The little island of Great Britain has nearly half as many sheep as the whole of the United States. There have been a number of good books written recently on the subject of sheep; none of these, however, have been confined to the feeding and management as has this book written by Professor Shaw. Its 500 pages cover in most minute detail practically every phase of sheep feeding and management. Almost every imaginable question which would come up to the beginner in the feeding and handling of sheep will find an answer. The book is very carefully paragraphed and headed and is so arranged that the various subjects of which it treats can be conveniently and quickly found by reference to the table of contents. This is characteristic of all the books written by Professor Shaw and makes them especially useful as books of reference. The material is thoroughly reliable and we would commend it to anyone wishing a book which covers the sheep question in the way it is covered by this book. It is published by the Orange Judd Company, New York. The price is \$2.

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

ONE of the readers of KANSAS FARMER in Eastern Kansas wishes to know just what the value of tankage is as a supplement to corn. Tankage seems high in price and for that reason the question as to its probable value in hog feeding constantly comes up.

It has been demonstrated over and over again that under almost no conditions is corn alone a satisfactory and profitable feed for hogs. In bulletin No. 192, from the Kansas Experiment Station is reported a summary of the results of feeding eight lots of hogs on corn alone in the dry lot. While it is true that this summary showed that with pork at eight dollars per hundred weight the pork produced returned a value of 71 cents per bushel for the corn fed, the value of the corn was greatly increased by properly supplementing it with nitrogenous feed. The same bulletin summarizes the results secured in feeding 10 lots of hogs, involving 162 animals, on corn supplemented with tankage or meat meal. Deducting the cost of the tankage fed at the rate of \$2.25 per hundred, the value of the pork produced at eight cents per pound made the corn fed worth over 91 cents per bushel. In a summary of a number of lots where shorts also was used as a supplement at \$1.20 per hundred, the pork produced at eight cents per hundred weight returned a value of \$1.09 per bushel. This means that when fed in the dry lot the tankage added 28 per cent to the value of the corn fed and the use of the shorts and tankage combined as a supplement increased the value of the corn fed over 53 per cent.

These results were secured in dry lot feeding. Where hogs have good pasture and especially alfalfa or clover the necessity for the nitrogenous supplement is not so great. With the high prices of corn it would probably pay even when hogs are on pasture to use a limited amount of nitrogenous supplement, especially if the hogs are to be fattened for early market. Where hogs are being grown as economically as possible on pasture with the intention of deferring the fattening until into the winter very little grain should be fed.

Soaking Corn For Hogs.

One of our readers, who is running a drove of hogs on pasture, writes to ask as to the advantages of soaking the shelled corn these pigs are receiving. Whenever corn is so hard that it is apparent the hogs do not eat it with as keen relish as they should, it most certainly should be soaked. Care must be exercised in this soaking so that the corn does not become sour. An occasional sour feed of soaked corn might work harm.

As the result of some experimental tests made at the Iowa Experiment Station, the feeding of soaked corn to hogs weighing over 200 pounds, on pasture, gave little return when the cost of the preparation was considered. At the same station a recent report on the feeding of younger pigs seemed to indicate that the pigs made slightly larger gains on dry ear corn than on soaked shelled corn.

In all probabilities the soaking has little effect except in cases where, as has already been mentioned, the corn is so hard and flinty as not to be eaten with a keen relish. Under such condition it is always a good plan to soak the corn before feeding.

Rape in Corn.

One of our subscribers writes to ask regarding the desirability of sowing rape or some other crop in corn to furnish fall pasture. This is a splendid practice. Rape seed is cheap and about four pounds to the acre is a sufficient quantity of seed to use. It may be sowed at the last cultivation and if conditions are reasonably favorable will make a fairly good growth during the summer. As soon as cool weather comes in the fall the rape will start to grow with renewed vigor. It is not affected by the early frosts and will produce considerable growth after ordinary vegetation has been frosted. It will supply a splendid lot of forage for hogs or sheep.

Cowpeas or soy beans make an excellent crop to sow in corn for fall pasture. Being legumes they benefit the ground and assist in balancing the ration of the animals used in grazing them down in the fall. The peas and beans, however will be nipped by the

first frost and make no further growth. The seed also is rather expensive.

The question often comes up as to what effect upon corn yield these crops will have when sown between the rows in midsummer. Apparently the yield is not reduced. The rape does not make heavy growth until late and actual experiments conducted at the Manhattan Experiment Station have shown that corn in which cowpeas were sown in this way has actually outyielded corn which did not have the peas growing between the rows.

When to Cut Alfalfa.

Subscriber, H. A. C., Mitchell County, inquires as to the proper time to cut alfalfa hay.

It has for years been considered that alfalfa for hay should be cut when about one-half of the plants are in bloom. During recent years the best alfalfa growers have been cutting, when they could, so soon as the first blooms appear. Such growers are strongly inclined to the belief that the best hay is at this time obtained and also that cutting at such time is best for the succeeding crop. There are two considerations in the harvesting of alfalfa for hay. The first is that of obtaining hay of the highest feeding quality, and the other that of cutting at such times as will result in the largest annual yield.

If the crop is allowed to stand until

should be stapled on the top of the post running. Our investigation with seedsmen, however, indicate that there are reasonable stocks of these seeds still on hand and that they can fill orders. Kafir and cane yet to be sown should be drilled thin in rows. This applies with particular importance to the central and western thirds of the state and to the high lands of the eastern third. This row planting will give greatest crop assurance, although at this seeding date it is not reasonable to expect a seed crop but with reasonably favorable growing conditions good fodder crops may be expected. On bottom lands where the seed is sown broadcast or with a wheat drill the seeding should also be thin, it being inadvisable to use more than one-half such seed as is customary on such lands for spring planting.

To "Ground" Wire Fence.

J. T. C., Greenwood County, asks for information as to how he can "ground" a barbed wire fence and reduce to a minimum the damage to stock from lightning.

The common method of "grounding" a wire fence is to place a smooth wire on each third or fourth post, having that wire extend from the top of the post across each wire on the post and into the ground until permanent moisture is reached. The grounded wire



ROOKS COUNTY FARMERS LISTENING TO TALK OF A. S. NEALE OF KANSAS AGRICULTURAL COLLEGE EXTENSION FORCE, ON SUBJECT OF FEEDING SILAGE TO MILK COWS—NEALE'S CHARTS ARE DISPLAYED ON THE SIDE OF THE BARN.

it is in full bloom the stems become woody and a considerable proportion of the leaves are lost in the harvest. It would seem, therefore, that from the standpoint of hay quality the cutting reached as near maturity as possible but before such time as will result in woody stems and leaf loss.

Every alfalfa grower has observed that just in advance of blooming the crown of the alfalfa plant starts new shoots for the succeeding crop, and the editor is inclined to the belief that the appearance of these shoots is a better guide as to the time of cutting than is the bloom. If the crop is allowed to stand until a considerable proportion of the plants are in bloom the grower will note that the sprouts which are to produce the succeeding crop become dwarfed and will not produce as much hay as if the crop has been removed and the crown shoots been allowed to grow without interruption. It is our belief, therefore, that the largest yield of best quality hay will result from the cutting of alfalfa just so soon as these new shoots from the crown appear, provided, of course, this be permitted by conditions of weather and other farm work. To be sure, if alfalfa hay is to be used largely for horse feed, the hay should be ripened and so cut later than if it is to be eaten by other stock.

Seeds Wanted for Catch Crop.

There are still numerous calls for the seed of kafir, feterita and cowpeas, indicating that many farmers are considering the use of these in planting catch crops. These seeds have within the past few months been advertised by farmers in our classified columns. However, there are not now many such ads

to plant only a small area in those states to which it has been brought.

The growers of small patches in Colorado, Nebraska and other Northern and Western states have not been willing to take the time and incur the expense necessary to save and thresh the two or three bushels of seed which may be produced by the small plots they have grown. The Colorado Experiment Station has been active in an effort to prove the value of Grimm's alfalfa on the high and dry plains of the eastern slope, and while the trials in growing have been encouraging in establishing its superiority to common alfalfa for that section, the station has not been able to produce more seed than is needed in its co-operative work.

It is said also that the Federal Department of Agriculture has for several years purchased practically all of the available seed of Grimm's alfalfa for use in its dry land seed distribution and that this is another reason why it is not obtainable by farmers through seedsmen or others.

What Breed of Sheep?

A Shawnee County farmer recently came into KANSAS FARMER office in search of information as to the breed of sheep most desirable to place on his farm. This farmer has never raised sheep and has had no experience with them but has come to the conclusion that a small farm flock should be introduced as part of the equipment of his farm. His principal purpose at the present time is to use these sheep as the means of cleaning up the farm of weeds and brush. His idea is that it would pay him to select and secure a good class of sheep for this purpose.

Farmers who are planning to start in with the raising of sheep may well give considerable thought to the selection of the breed. There are at least 30 breeds of improved sheep, 12 of which are already well established in various parts of United States. While each of these various breeds have their own points of superiority, the farmer must be guided in his choice by his individual conditions.

In selecting a breed which is to become a permanent factor in the farming it should be remembered that under present conditions the sheep farmer must not leave out of consideration either mutton or wool. On fertile farms such as are found in Shawnee County where feed is likely to be abundant mutton should be the primary consideration. Wool, however, should not be neglected.

There are three main groups of breeds, namely, the Middle Wool, Long Wool and Fine Wool breeds. The Middle Wool breeds have practically all been bred primarily for mutton production, but considerable attention has been paid to the fleece as well. The most familiar of the Middle Wool breeds are Shropshires, Hampshires, Southdowns and Oxfords. The Shropshire is probably the most widely grown and is a splendid farm sheep. The Hampshire, which somewhat resembles the Shropshire is increasing in popularity and has many points commending it as a farm breed. One of its strongest characteristics is the rapid growth made by the lambs when young. This breed is the largest of the Middle Wool breeds. For grazing on rough lands they perhaps are not quite so well adapted as some lighter, more active breeds.

In communities where a few flocks of sheep are already kept it is usually a better plan to select the same breed as is already being grown. There are several reasons for following this practice. The most important perhaps is that rams may be exchanged between the flocks and where new stock is brought in its value is increased because of the fact that its usefulness can be more widely extended.

The department of agriculture has recently published Farmers' Bulletin number 576, "Breeds of Sheep for the Farm." This 16-page pamphlet has descriptions and photographs of the principal breeds and contains the names of the secretaries of the record associations of the various breeds, and such additional information extremely useful to the man interested in sheep. It can be secured by addressing the department of agriculture, Washington, D. C.

Director Jardine of the Kansas Agricultural Experiment Station has been delegated to prepare the Kansas exhibit of grain crops for the Panama-Pacific exposition.

Grimm's Alfalfa Again.

Thomas County subscriber, P. A. L., inquires why the seed of Grimm's alfalfa is so high in price.

The acreage of Grimm's alfalfa is comparatively small. It is said that the alfalfa of this variety is principally grown in Minnesota on a comparatively limited acreage and that the conditions for growing seed in that section are not favorable except in dry years. Therefore, because of the limited quantity the price has heretofore been so high as to warrant the purchase of sufficient seed



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THE FARM



The organization of farmers' elevators is just now commanding much attention throughout the state. In Kansas the co-operative grain elevator has been more markedly successful than other lines of co-operative enterprise. The farmers' elevator is credited with having operated to the profit of those whose money is invested in the enterprise and also with profit through increased prices to all who grow and sell grains handled through such elevators. The organization and the successful establishing of such enterprises has been fraught with many discouragements and there have been many temporary if not permanent failures. However, in the states of Illinois, Iowa, Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska and Kansas, the farmers' elevator has become well established and generally successful. Failures generally have been temporary and due to inexperienced management. In localities in which farmers have persisted in making success of these institutions and have seriously endeavored to remedy their troubles they have succeeded in putting the business on a substantial basis. The principal cause for failure has been incompetent management. A man who has had no experience in the grain business or in the operation of an elevator is a poor man to be placed in charge of such business. Not long since we talked with the president of an elevator company in Dickinson county. The elevator of his company had lost ten or twelve thousand dollars until the organization decided to employ a competent manager at \$2,000 a year. In a few years this management had paid the company's debt and had accumulated a little surplus. This president said it took a long time and an actual loss in money to convince the members of his company that a man of experience was needed as manager. This question of management is the important thing in all co-operative commercial enterprises. There is something of real money value in training possessed by the experienced man as compared with the inexperienced. The failure of co-operative enterprises to recognize experience and to pay the money necessary to get it, is responsible for the downfall of many worthy institutions in localities in which they should succeed.

The Federal Department of Agriculture issues a warning to the farmers of Illinois, Indiana, Missouri, Kansas, Oklahoma and Nebraska, to the effect that the conditions are extremely favorable for a serious outbreak of Hessian fly next season. All of the states named have been more or less affected by fly this season, the states farther east being those most seriously affected. The federal department has recently issued printed matter which in thought, and recommendation is identical with that distributed June 1 by our own Professors Dean and McCulloch. In KANSAS FARMER, issue of June 6, on page 5, was a Hessian fly article which KANSAS FARMER folks should look up and read again. The map in that article should be kept for handy reference. It shows the fly-free sowing date for each of the several sections of the state and the observance of these dates is essential to Hessian fly control. These dates have been determined as a result of many years of experimental sowing at various dates. The sections in which late sowing was done last fall are those sections most free from fly at the present time. The fact is that the experience of observing wheat-growing farmers has been such as to establish the advantage of fly-free date observance. The other methods of control are those of disking immediately after harvest. This operation will start the growth of the volunteer wheat which will result in the early emergence of the fly. The disking will also expose the flaxseeds to the weather and which exposure will destroy a considerable proportion. More than this, the disking will conserve moisture and make plowing easier. The plowing done for wheat should be at least six inches deep and all volunteer wheat and stubble should be covered by at least three inches of soil. If plowing is done thoroughly it will be impossible for the flies to reach the surface. Following plowing the ground should be packed and worked

into a good seed bed. The field should also be kept free from volunteer wheat. These methods of fly control are such as result in the best preparation of seed bed for wheat and such preparation gives increased crop assurance. Consequently labor done to control the fly is that which will most years produce the best crop and the two things together would seem to justify the labor and expense involved.

Oklahoma is just now in the throes of an outbreak of grasshoppers and sections of that state are suffering in no less degree than did southwest Kansas last summer and fall. Indeed, there are counties in Kansas which just now are suffering from the attack of grasshoppers on corn, kafir and cane. These counties are in west-central and north-west Kansas. In such counties the grasshopper attack was comparatively light last season, but enough hoppers came through the season to alarm farmers this summer. In this connection it is worthy of note that in those counties in Kansas in which the Kansas Experiment Station was able to organize the farmers in an anti-grasshopper campaign and in which hundreds of tons of poisoned bran mash were used in grasshopper destruction there have been no calls for help this season. The poison used last season seems to have cleaned up the grasshoppers in the areas over which the poison was distributed. In those counties in which no poison was distributed and also in Oklahoma where no poison was used, the grasshopper is this year doing business. The present situation would indicate that it was the poison distributed last year which had its effect in destroying grasshoppers and not other conditions as contended by those who were doubtful of the efficiency of the poison and who but attributed destruction to other causes. KANSAS FARMER has received many inquiries from individuals in western Kansas for the recipe for poison bran mash. The recipe with instructions in the use of the mash, was promptly forwarded. Professor Dean of the Manhattan Experiment Station, is instructing an average of a half dozen farmers per day in the preparation and use of the mash. It is the part of wisdom for every farmer to use the mash so soon as the grasshoppers appear on his farm. The bran mash has this season proven as efficient in the destruction of army worm and black crickets as in the case of the grasshopper.

Last week the editor spent a few hours in a locality in the Kaw Valley some twelve or fifteen miles from Topeka. In this locality no less than a half dozen farmers had used road oil in the construction of barriers to protect the growing corn from the ravages of chinch bugs which were moving from the wheat into the corn. Each farmer reported satisfactory results and not one entertained a fear of any considerable damage from the bugs. When you come to think of it, this feeling of security on the part of these farmers is truly remarkable. The disposition shown by them indicates that experiment has to a very great extent brought the chinch bug under control. You may substitute the word "science" for "experiment" if it pleases you better. The fact is that the work of those investigators whose business it is to solve, if possible, the difficulties of the farmer, has borne fruit. There is much evidence that this is so. In the case of grasshopper and Hessian fly control, as shown above, the investigator has been of help to the farmer. To be sure, there are things which the farmer himself must do and which can only be done by him. Hereafter the farmer has not placed any too much confidence in what the experimenter said he could accomplish, but demonstration here and there and such as has been made in Kansas for years, is slowly overcoming the spirit of doubt. The grower of crops is realizing that he can protect himself to a very great degree if he will. In the little neighborhood mentioned above, some ten or twelve barrels of road oil were used in connection with the construction of barriers which methods have been fully described in KANSAS FARMER and which are quite generally well understood by

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the reading farmers of the state. If you do not understand thoroughly chinch bug barrier construction, write KANSAS FARMER or the Kansas Agricultural College for information.

Two or three trips of fifteen to twenty miles each up and down the Kaw Valley from Topeka and in different directions within the past week, reveal the extraordinarily thick planting of many fields of corn. We believe that fully one-half of the growing fields observed on these trips are planted so thick that only an extraordinarily wet season can produce a normal corn crop for Kaw Valley bottom land. The thick planting can be accounted for only through the fear that the seed corn would not grow and because of this fear more seed was planted than was needed. Unfortunately in such cases the surplusage of seed grew and the stand is now too thick. This is a condition in the case of growing corn which runs largely by communities, but such communities are sure to suffer as a result of this careless planting. We sometimes are in doubt as to whether or not any good is accomplished in advising relative to the conditions of seed. If information relative to the failure of any seed to germinate is not followed by testing so that the actual condition of the seed planted is known, then it is just about as well that the farmer be not advised of the prevalence of poor seed. This, for the reason that a thick stand of corn, alfalfa or cane is in fact more disastrous than are thin stands. There is, year after year, accumulated evidence which seems to warrant, and, in fact to the necessity of the testing of the seed of corn, kafir and cane, if the greatest assurance of a crop is to be realized. This should prove to the various organizations interested in the farmer's behalf, the necessity for testing seed. In some localities bankers arranged last spring to test the seed of corn for all those farmers who submitted samples. The number of bankers who did this was comparatively small. Some of this work was done in schools, both in the schools of the country towns and in the rural schools. These are available for this work. There are also other mediums through which the work can be done. It should be the business of some one in every locality to see that the seed for the largest number of farmers possible is each spring tested.

The other day we were visited by C. C. Blake, a Shawnee county resident, who for more than fifty years has been "guessing" on Kansas weather. Mr. Blake, of course, does not consider that he is guessing, believing that he has reduced weather forecasting to a science. We have not kept tab on Mr. Blake's forecasts. However, our late friend, George W. Crane, the Topeka publisher, who was known in a large percentage of the farm homes in Kansas, often told us that he had followed Blake for many years and had found that in general his forecasts could be depended upon. Mr. Crane was a close observer and having been Blake's publisher for many years, he was in a better position to place an accurate estimate upon Mr. Blake's work than any other man known to us. It may prove interesting to KANSAS FARMER folks to know that Mr. Blake believes that Kansas will this year harvest only a half corn crop. He is looking for dry weather from the middle of July to the middle of September. He is then expecting six weeks of normal fall precipitation. Following this, he thinks we will have an extremely dry, cold winter which will prove disastrous to growing wheat. Consequently, he looks for a failure of the wheat to be this fall planted. He is so sure of this that he thinks every possible bushel of wheat of this year's crop should be held for a dollar a bushel. KANSAS FARMER, we think, in our article on page 4 of our issue of June 13, gives a better reason for the holding of wheat than that given by Mr. Blake, but aside from those reasons it does appear to the editor that there are probable conditions of weather which will operate against a big wheat crop for next season. The tremendous amount of work involved in taking care of the present crop will delay plowing and preparation for wheat this fall. We are looking for a less than normal wheat acreage to be harvested in 1915, and all things together indicate to us that it will pay to hold wheat.

While talking about holding wheat, it appears essential that every man who grew a wheat crop this year should put away one year's seed. That is, following this fall's seeding enough wheat should somehow, somewhere be stored to seed the 1916 acreage. This in case of a failure of the 1915 crop. It is much

easier to save a few bushels of wheat for seed when one has the wheat than to obtain seed when there is little or no wheat in the country. The present crop would have been larger—that is, there would have been more acres sown last fall and many a man materially helped thereby—had more seed been available. Why not, from the present crop, place a year's seed in reserve? Should there be farmers who have not this year grown a crop, then seed cannot be bought more cheaply than during the next month or six weeks. To store a year's reserve of seed will pay big interest on the investment, even though it is not necessary to use the seed. Twenty-five or thirty bushels of wheat stored is as good as money in the bank. In fact used as seed it is better than money in the bank, because it will give a larger return. It pays to play safe on this question of seed. This not only applies to wheat but to all other kinds of farm seed. There are western farmers who will this year give one-fourth of their crop in return for seed supplied them by farmers and capitalists last fall. A fourth of this year's crop looks like a big return on the investment, but under the conditions under which wheat growing in western Kansas has been pursued in the past, the return is not larger than the risk war-

ranted. It is for every man to take care of himself. He can do that cheaper than he can or will be taken care of by other people. A campaign ought to be begun through local rural organizations to handle the seed question along the lines indicated.

Dragging Dirt Road.

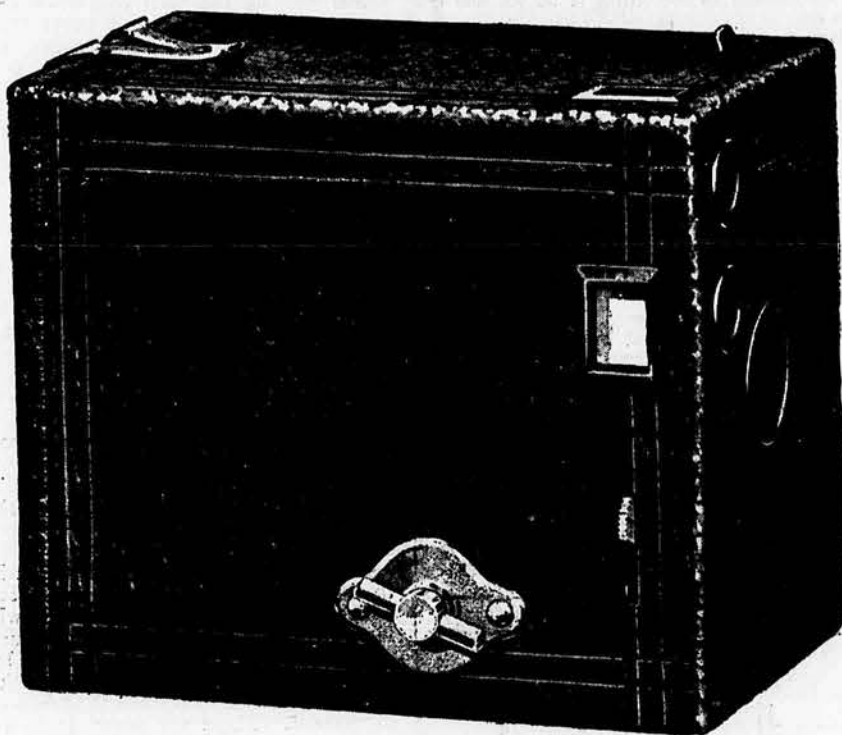
The road drag is the simplest and least expensive contrivance yet devised for maintaining earth roads, according to the experts in the United States Department of Agriculture, who are co-operating with state and county authorities in work for better roads.

Properly used, the drag gives the needed crown to the road, smooths out ruts and other irregularities, spreads out puddles of water, thereby accelerating the drying of the road, and makes the surface more or less impervious to water by smearing over the so-called pores in the earthy material. The cost of operation depends, of course, upon local conditions and the thoroughness with which the work is done. It is safe to say, however, that it is less expensive than any other efficient system of upkeep.

Farmers' Bulletin No. 597, of the Federal Department of Agriculture, discusses under the title of "The Road Drag and How It Is Used," the best

methods of maintaining earth roads in good condition by this simple device. In this bulletin, which has just been published, the department points out that of more than 2,000,000 miles of public roads in the United States, only about 200,000 miles have been given a hard surface. It is true, of course, that a large part of the remaining mileage consists of roads that are entirely unimproved, and that on roads of this class the drag is practically useless. There is a much larger mileage, however, that has been partially improved, and it is on roads of this character—roads that have been crowned or drained, but have not a hard surface—that the use of the drag is advocated.

Congress last week decided to make the appropriation for a government exhibit at the Dry Farming Congress to be held in Wichita in October, \$20,000 instead of \$10,000 as originally agreed upon. The exhibits of the Federal Department of Agriculture at past meetings have been on a \$20,000 basis and there is no good reason why when this congress meets in Kansas the Federal Department should not spend as much money on its exhibits as when the meeting was held in other states.



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big things.*

Price, \$1.25

No. 0 Brownie

MADE by Kodak workmen in the Kodak factories, it is accurate, reliable, efficient. So simple that anybody can make good pictures from the very start and is economical to operate, the film cartridges for eight exposures costing but twenty cents.

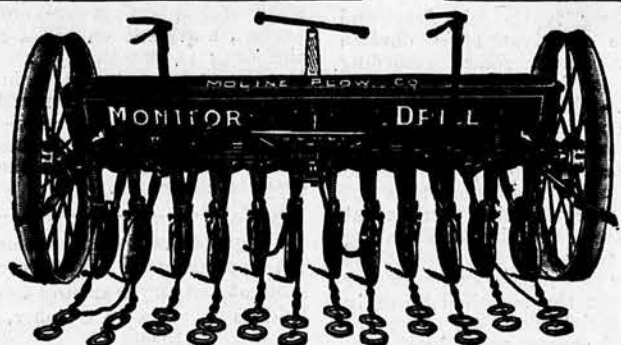
The No. 0 Brownie has an automatic shutter for snap-shots and time exposures, a carefully tested meniscus lens, and has two view finders, one for vertical and one for horizontal exposures. The pictures are $1\frac{5}{8} \times 2\frac{1}{2}$ inches, the same size as those made by the famous Vest Pocket Kodak. Like all the Brownies it loads and unloads in daylight with Kodak film cartridges. You can do your own developing and printing (without a dark room if you like) or your dealer will do it, or have it done for you.

With each camera we give without any extra charge a complete manual of instructions and a year's free subscription to our monthly photographic publication "Kodakery"—a beautifully printed and delightfully illustrated 32 page magazine that is full of helpful hints to the amateur photographer. You can take good pictures. It is part of the Kodak service to help every one of its customers to successful results.

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The Monitor Single Disc Drill is especially adapted to the conditions of the Southwest where a strong, positive, accurate and absolutely reliable Drill is required. It insures larger crops than any other Drill because it places every seed at a uniform depth, none too shallow, none too deep, and ridges the ground which prevents the light soil from blowing.

Every Seed in the Bottom of the Furrow

The boot is placed low on the disc and it is not necessary to run the discs so deep as other machines, as all the seed goes to the bottom of the furrow before the dirt has time to fall on it, instead of scattering it at various depths as other drills do.



It saves seed—it increases the yield—it raises the grade—because the seed is all planted at a uniform depth—all covered evenly—all comes up at one time—matures uniformly—grades high—"The Monitor Drill Pays for itself."

Note the strong, compact construction of the single disc arm, boot and scraper. All the parts are of steel, come within the angle of the disc, thus preventing clogging in weedy or trashy ground.

The Monitor Drill is made almost entirely of steel. This makes it much stronger than other drills and avoids the breakage and the many annoying delays common to them.

Where a Double Disc Drill is desired, ask your dealer to show you the Monitor Double Disc Drill, used and recommended by the leading Agricultural Colleges of the country.

We also build Shoe, Hoe and Fertilizer Drills—each a leader in its class.

Flying Dutchman Dealers everywhere sell MONITOR DRILLS. Write us for Free Booklet.

MOLINE PLOW Co.

Dept. 4 MOLINE, ILL.



A farm dairyman was in this office a few days ago and he was in a horrible plight. He had been using a shallow dug well as a storage for hand separator cream, there to keep it cool and sweet, and in good condition for delivery to a restaurant in a nearby town. Through an accident some cream had been spilled in the water and it was no longer fit for storage purposes. Every farmer knows that a mixture of milk and water is most offensive and that a well in which milk has been spilled is no longer fit for milk or cream storage and the water is of no value for domestic or live stock purposes. Under such circumstances, of course, there is only one thing to do and that is to pump or draw the water out of the well until the water is free from contamination. The editor well remembers that he one time had just this sort of job on his hands and as the well contained about twelve feet of water and as it flowed in rapidly, this was some chore, since the water had to be removed with two common well buckets. Those who are using wells for cream or milk storage can well afford to be careful that no milk or cream is spilled therein. There is no good reason for spilling provided a satisfactory arrangement for raising and lowering the can is provided. In the first place, a five or ten-gallon milk can should be used. These are comparatively heavy and the handles are strong. If the rope is securely tied into both handles the can will remain erect, it will readily settle into the water and danger of spilling the contents is reduced to a minimum. An ordinary well wheel should be suspended directly above the opening into the well and the rope to which can is attached should be run through this. If this arrangement is properly made there is little possibility of accident.

A dug well which is three and a half to four feet in diameter at the bottom, which is reasonably well walled, which is not so deep that it is not thoroughly ventilated and which is surrounded by a good curb, is a good place in which to store milk and cream until it is delivered to market. There are many such wells on farms on which more or less dairying is done and which wells are not used for this purpose. Still, the dairyman contends that he has no facilities for keeping milk or cream sweet. It is true that more or less inconvenience attends the use of a well in this manner, but nevertheless a little ingenuity in arranging for the easy and secure attaching of the can to the rope and the arrangement of a pulley as above suggested, will make the use of such well quite convenient. It should be remembered, however, that the animal heat should be removed from the milk or cream before it is dropped into the well. However, in this respect the milk need not be so thoroughly cooled as if it were to be held above ground in a smaller quantity of water. On the home farm of the editor's, we used a shallow well for this purpose for years. This was in the days when we sold whole milk to a creamery. The well was sufficiently large in diameter to accommodate a half dozen ten-gallon cans. In this well the milk was held from Saturday night until Monday morning for delivery to the skimming station and on only one or two occasions in some eight or ten years was any portion of the milk so held delivered to the station sour. But this milk was cooled before it was placed in the well and this is regarded as an important bit of instruction for keeping milk sweet even in a shallow well having water of a temperature of 54 to 57 degrees.

However, most wells in Kansas are drilled wells and cannot be utilized for cream or milk storage. Yet, as we have numerous times explained the water from such wells will keep milk or cream in good condition for every other day delivery. In general, this can be arranged by having a small tank in the well-house through which all the water pumped for the stock will run. Thus, the water in the small tank is kept cool and if the tank is protected from the direct rays of the sun it will keep cream in good condition. If there is no well-house, then the tank can be placed under a temporary sun shade which will well

answer the purpose. It must be borne in mind, however, that regardless of the cooling facilities employed, it is necessary to cool the milk or cream just as soon as possible after milking, to the temperature at least, of average well water. The stirring of the cream or milk is an important feature of the cooling process. When undisturbed milk or cream cools slowly. In fact in a ten-gallon can half full, the center of the cream will not be cooled to the temperature of that of the outside in ten or twelve hours and in this time the center has begun to sour with the result that the entire quantity will also sour rapidly. In addition to the removal of the heat promptly after milking or separating and the storing of the cream in a cool place, it is necessary that absolute cleanliness be observed in the care of milk pails, cream separator parts and in the cans in which the product is stored. The dairyman who understands these principles will have no trouble in keeping cream or milk sweet for delivery to market at reasonably frequent intervals.

The above remarks relative to the keeping of milk and cream in good condition are at this time appropriate for consideration by KANSAS FARMER folks since the Kansas State Dairy Commissioner proposes to inaugurate a system of buying milk or cream on grade which means that sour cream which had bad odors and may be otherwise objectionable, will sell for a lower price than that which is reasonably sweet and of clean flavor and is really a fine commodity. In last week's paper we mentioned this method of buying cream but stated that we were not advised as to the details and that we had written State Dairy Commissioner Hine for circular matter which would enable us to present the facts to KANSAS FARMER folks. At this writing we have not received the information desired but hope to have it in time for next week's paper, but, regardless of the details of Commissioner Hine's cream grading plan, the observance of the general principles outlined above, will enable every farmer to deliver to the cream receiving station cream of such quality as will enable him to command the top price therefor. It is just and proper that cream be bought on the basis of its merits. For years good and poor cream has commanded an equal price. This is unjust to the producers of fine quality cream and was more than fair to the producer of poor quality. Such buying principle has had the effect of placing a premium upon neglect and carelessness and this is certainly wrong. Eggs are being bought nowadays on the basis of their quality. In the egg business, as in the cream business, the injustices above indicated have prevailed for years. So, however, only because plans of a thoroughly practical and workable character have not been available. There is a time coming when all products of the farm will to a greater degree than at present be bought and paid for on a basis of their quality. It will be well, too, for producers as well as consumers, to hasten the day. However, when the day arrives there will have been a considerable readjustment in all handling methods.

In this connection it is not amiss to say that the editor has received a sample ten-gallon can of the Sturges refrigerator type which has several times been mentioned in these columns. This can is being put into service with some KANSAS FARMER reader who is shipping cream and the effect in keeping quality upon the cream will be observed. However the can presents every appearance of durability and is in fact, a much lighter can than we expected to see. It is, in fact, a ten-gallon can of standard type around which another can just as strong and durable has been built. The space between the two is filled with some light material which undoubtedly is a most excellent non-conductor of heat and cold. The can is plain—that is, without fixtures which harbor dirt and germs—consequently should be easily and thoroughly washed. We entertain strong hope that many KANSAS FARMER readers will, through the use of this can, avail themselves of the opportunity to supply city markets with

More Time For Rest

instead of spending
your time pumping
water for the house and
stock — if you have a

Fairbanks-Morse Eclipse Engine

attached to your pump. Your boy can easily start it. The little engine can be attached to any standard windmill pump, and it has the pumping power that saves a lot of time and labor. Made in two sizes — for shallow and deep-well pumping. Either size useful for turning the washing machine, churn, cream separator, grindstone and other light machinery.

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Manufacturers of Oil Engines, Pumps, Windmills and other machinery.

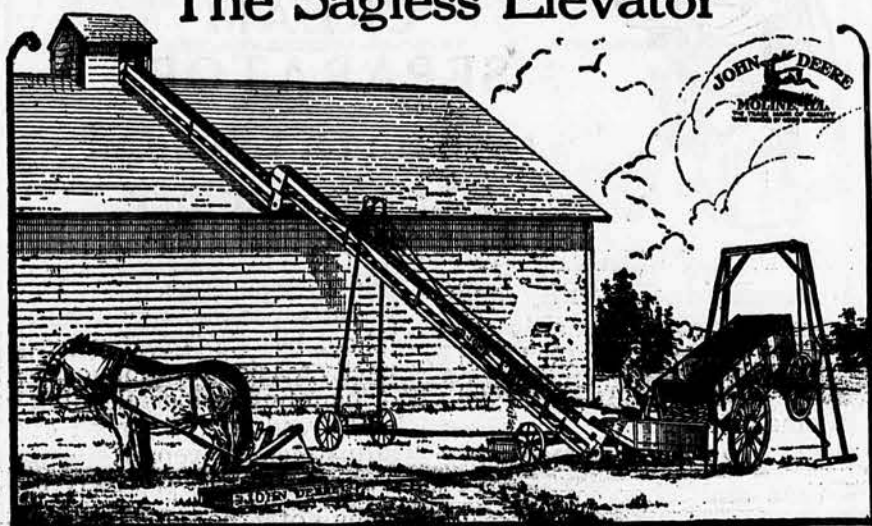
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ADVERTISING PAGE FOR READY BARGAINS

John Deere The Sagless Elevator



UNLOAD your corn in four or five minutes to the load and do no hard work yourself. At the same time crib your corn in good condition. Use a John Deere—The Sagless Elevator. Separates shelled corn from ear corn when elevating ear corn.

Readily set up by one man. Has large capacity and is light draft. A boy can easily operate it.

Runson roller bearings, is made entirely of steel and does not sag.

Ask about the kind of an elevator you are interested in: John Deere—The Sagless Elevator, John Deere Inside Cup Elevator and John Deere Cypress Wood Portable Elevator are for ear corn or small grain and John Deere Tubular Steel Elevator is for small grain only. All described in elevator booklet.

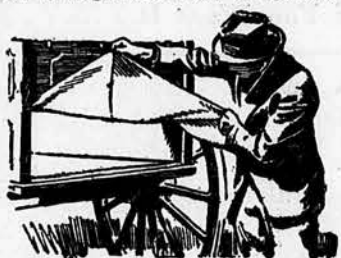
How to Build Corn Crib—Plans Free

Book with blue print plans shows in figures how more than the cost of an elevator outfit can be saved by the way the crib is built. Tells all about John Deere Elevators. To get it without charge ask for Book No. A-13

John Deere, Moline, Illinois

DON'T WASTE YOUR GRAIN IN HAULING

The Grain Saver at Work. Notice the patent hooks and close fit to wagon bed. Easy to operate.



Do you realize when hauling your grain to the elevator that you are losing on an average of one bushel per load. Say you make four trips in ten hours—that means four bushels of grain lost in one day, or four dollars in gold.

THE S. R. GRAIN SAVER

will pay for itself in a day. Just hooks on any wagon bed—old or new. No matter how large the cracks, it will stop the leaks. An investment that will pay large dividends. Grain Saver complete, only \$6.50. Send for one now. Write for interesting folder giving complete information.

The Gate City Tent and Awning Company
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Two Good Bins in One

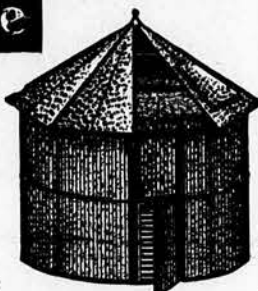
A galvanized steel wheat bin with special ventilating system so that it can be used as a first class corn crib. Practically two bins for the cost of one. Proof against fire, mold, rats and burglars. Sizes: 500 to 2,000 bushels capacity. Made of heavy gauge galvanized steel sheets interlocking. Frame of 2 x 2 angle iron uprights and heavy hand iron hoops. Movable. Lasts a lifetime.

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SAVE HARNESS MONEY

Write today for big free catalog of harness and saddles direct from maker at wholesale prices. We prepay freight charges. H. & M. HARNESS SHOP, Dept. 140 St. Joseph, Mo.



THINGS THAT GROW

THIS being the season for growing things, we are reminded of something else that grows—confidence of the public in advertised goods. We have seen some business institutions grow from very small beginnings to great national concerns because of advertising. They made good merchandise and told the people about it—not once, but hundreds of times, continuously throughout the years.

Some of the advertisers in KANSAS FARMER have been with us for many years; some are just beginning their advertising stories. You will find all of them good people to deal with.

MENTION KANSAS FARMER WHEN YOU WRITE.

LIVE STOCK



Shipping Hogs in Hot Weather.

With hogs worth \$8 a hundred the shipper cannot afford to lose many hogs out of his bunch as a result of careless or rough handling. Fat hogs are unable to stand hot weather and must be moved with the greatest caution if loss is to be avoided. When hogs are being handled for loading the owner and his helpers often become exceedingly impatient at their snail-like movements. The restraining of the patience and the proper control of the temper at such times is a matter of dollars and cents. Hogs are oftentimes bruised and injured to such an extent that the packers must discount them when they purchase them on the market.

When safely loaded the floors of the cars should be thoroughly drenched with water. If there is any possibility of any of the hogs being badly overheated it is not always safe to throw water on their backs. It has been suggested that cakes of ice be placed in the cars. Last season an enterprising shipper who was handling hogs in hot weather worked out a scheme whereby chunks of ice were suspended in the car in sacks. This was a distinct advantage in keeping the temperature down and might be a splendid practice to follow in shipping hogs in extremely hot weather.

Live Stock Students Back to Farms.

The charge is constantly made that the long courses in agriculture, which now prevail in our agricultural colleges, have a tendency to wean the young men away from actual farming operations to a considerable extent. This educating away from the farm has really been a serious fault in much of the education of the past. Even the agricultural graduate in many cases seemed to find himself out of touch with actual farm life when finally granted a diploma.

With the increasing interest in live stock farming, strong animal husbandry courses have been developed at all of our agricultural colleges and these have been especially attractive to students desiring to equip themselves to go back and handle the live stock farm to better advantage. Of the graduates in animal husbandry at the Kansas Agricultural College at the recent commencement only five were available for teaching, experiment station or other salaried positions. The remainder of the young men electing animal husbandry were so situated as to find ample opportunity to utilize their special training without the necessity of taking salaried positions.

At the recent commencement at the Iowa State College at Ames, of the 115 graduates of agriculture, 58 were in the animal husbandry course; the rest elected agronomy, agricultural engineering, dairying, horticulture and agricultural education. The strong trend toward live stock production as the most sound and dependable system of agriculture is strongly indicated by the increasing interest taken in animal husbandry courses by the best of our agricultural students who are going through our agricultural colleges. Live stock farming has an air of permanence about it which is not possessed by any special line of grain farming and this is undoubtedly responsible for the fact that such large percentages of the agricultural students are electing these courses and after completing their work at the college going back to the farm which is already equipped and ready for them to put into practice the special training they have received.

Wide Awake Stock Breeder.

In the breeding of live stock, as in other lines of business, the man who is always ready to grasp every opportunity when presented, is the man most likely to succeed. Many a competent breeder of live stock fails in a business way because he is unable to sell his stock satisfactorily.

An instance where quick, aggressive action brought results, recently came to our attention. A telegram came to KANSAS FARMER office asking that the sender be placed in touch with breeders who could supply a large bunch of hogs of certain classes. We promptly notified several of our advertisers likely to have such stock. We learned later that one of these advertisers immediately sent a night letter describing and pricing the stock that he had on hand; the result

was the buyer took the next train for this breeder's town and purchased and loaded out a carload of breeding hogs the next day. The promptness of this breeder in getting in touch with the customer was undoubtedly responsible for his success in making this sale.

There is a lesson in this for every breeder of pure-bred live stock. It often happens that inquiries are received in which specific questions are asked regarding prices of stock and detailed descriptions. The breeder who lays aside these letters to be answered at some convenient time in the future, is neglecting one of the cardinal principles of good business. A belated reply to an inquiry is not likely to bring results. The purchaser, in all probability, has written letters to a number of breeders and the one coming back promptly with full and complete answers to his inquiries is in a favored position as regards the possibility of making a sale.

There is another business principle that is often violated in connection with describing pure-bred stock by mail, and that is the tendency some men have to exaggerate and deal in generalities in describing their stock. A man, of course, is pardoned for emphasizing the strong points his animal possesses and touching lightly on its weak points; it is not to his best interests, however, to grossly exaggerate in describing the good points his stock possesses. The buyer is likely to recognize exaggerated statements and to discount them accordingly. A good, clear, honest description which has the ring of sincerity about it catches the attention of the possible buyer and will often cause him to come back when the plainly exaggerated statements would result in his letter receiving no further consideration.

If the buyer should purchase an animal which has been over-described, he is apt to be disappointed and as a result the seller has lost a future customer. Absolute sincerity and honesty in describing stock is necessary in building up a good mail order business.

Feed Work Horses Carefully.

Dr. McCampbell of the Agricultural College again calls attention to the necessity for giving careful attention to the diet of the work horses during the season of the year when they are performing the most severe work.

The amount of grain used in the ration should always be increased as the work is increased. A horse cannot do his best work when overloaded with rough feed. The overloading of the digestive organs with roughage quite materially interferes with respiration. Ten or twelve pounds of hay daily per 1,000 pounds live weight is sufficient for the horse doing hard work. About one-third of this hay may be given in the morning, very little if any at noon, the bulk of the ration being fed at night.

As a grain ration oats have long been recognized as of great value for horses, but they are usually too expensive in most parts of Kansas. Corn, kafir or milo may be used satisfactorily if properly balanced. Dr. McCampbell recommends a combination of 70 per cent corn, 25 per cent wheat bran and 5 per cent oil meal. This gives fully as satisfactory results as a ration of oats.

In regions where alfalfa is grown the protein is furnished by the alfalfa hay and the oil meal is not necessary. It is not desirable, however, to feed the heavy working horse to exceed about five pounds of alfalfa per 1,000 pounds live weight; some additional roughage in the form of cane hay, straw or prairie hay should be supplied. The excessive feeding of alfalfa hay to work horses is responsible for many difficulties, owing to the large amount of protein this hay contains.

Here are the reasons for understanding well the strength required in silo construction: The outward pressure on the wall of a silo filled with cut corn, is about 11 pounds for every foot in depth; making a pressure of 110 pounds at a depth of 10 feet; 330 pounds at a depth of 30 feet; and the enormous pressure of 440 pounds per square foot at a depth of forty feet. This increase in pressure as the depth increases must be considered in silo construction and the lower portion made much the stronger.

Fall Colt Shows.

The high quality, top-notch drafters have steadily held up in price in spite of the fact that the prices of horses as a whole have declined during the past year. Inferior horses have been exceedingly slow sale during recent months and even fairly good drafters lacking quality and the best conformation have been rather slow sellers.

We have plenty of the common and inferior kinds of horses in Kansas but far too few of the really topky kind that are so strongly in demand in the city markets. The holding of colt shows under proper management is one of the best methods of stirring up the interest in the production of these high class horses, such as are in demand.

The heavy, high class drafters such as are still being required for much of the heavy dray work of the cities will be more and more grown on the small farms in the future. The farmer who requires a certain amount of horse power on his farm might just as well grow the kind of horses that are in demand and that will bring him good prices on the market.

Wherever colt shows have been held the invariable result has been a keener interest in the producing of good horses. In communities where there is any interest whatever in the growing of horses it would be a splendid plan to begin at once to work up a sufficient interest in this subject so that a good colt show may be held some time this fall.

Prize money must be provided for and it is not too soon to begin to make plans for the securing of such funds as may be necessary. Where a number of good stallions are kept the stallion owners oftentimes are glad to get back of a proposition of this kind financially. Local business men are usually sufficiently interested to contribute to the cause. Sometimes prizes in merchandise

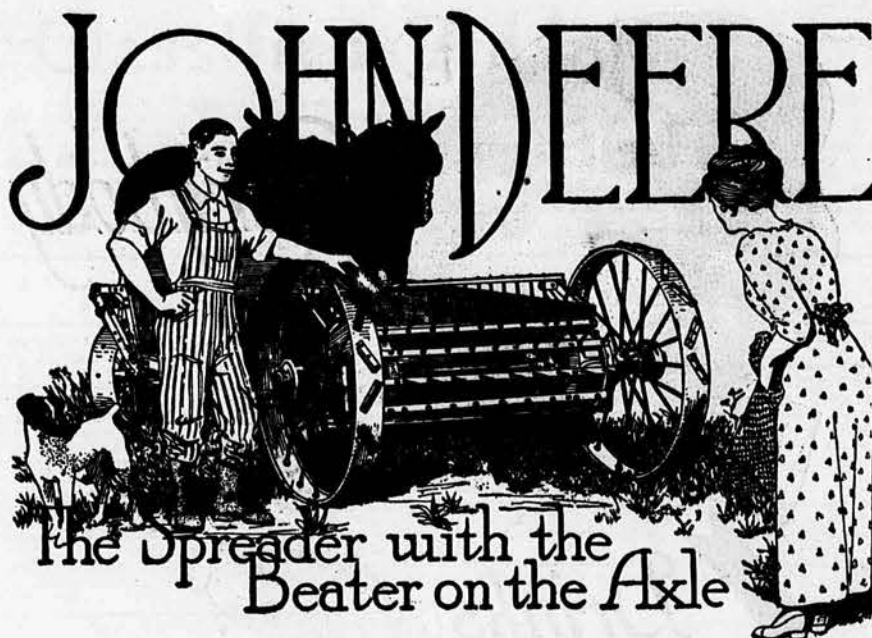
on such short notice that the plan cannot be carefully worked out and as a result much confusion follows at the time of the show. The time to begin is right now. Provision should be made for the prizes, but in addition to this, committees and officers must be arranged for, in order to make it possible to carefully work out all the details connected with the proper handling of the show some time in advance.

Preliminary Classifications Panama Pacific Exposition.

The preliminary classifications for live stock at the Panama Pacific International Exposition has just been received. The exposition fund devoted to live stock premiums amounts to \$175,000; in addition to this, considerable sums have been appropriated by various associations so that in all, \$500,000 will be distributed as live stock premiums; there will also be cups, medals and other trophies.

The preliminary classification is most complete, having places for practically every breed of cattle, horses, sheep and swine known in this country. In the horse department are included classes for Percherons, Belgians, Shires, Suffolks, Standard Trotters, Thoroughbreds, Saddlebreds, Morgans, Hackneys, Arabians, polo ponies, Shetlands, Welch and other ponies. Prizes are also provided for jacks, jennets and mules. In the cattle classes provision is made in the beef cattle section for Shorthorns, Herefords, Aberdeen-Angus, Galloways, Polled Durhams, Red Polls and Devons. In the dairy breeds the list includes Jerseys, Guernseys, Holsteins, Ayrshires, Dairy Shorthorns, Brown Swiss, Simmenthals, Kerry and Dexters.

Dairy Shorthorns probably have never had so liberal classification as is being offered. The sheep and goat classification includes practically every known breed. In the swine section the classifi-



HERE'S the low down spreader with the big drive wheels. The beater and all driving parts are on the rear axle. That means no clutches to give trouble, no chains to break or to get out of line; it means less than half the parts heretofore used on the simplest spreader.

Only hip high to the top. Easy to load. You see where to place each forkful. The result is an even load that spreads uniformly.

Light draft because the beater runs on roller bearings and the center of the load is comparatively near the team. Staunch, strong and easy to operate.

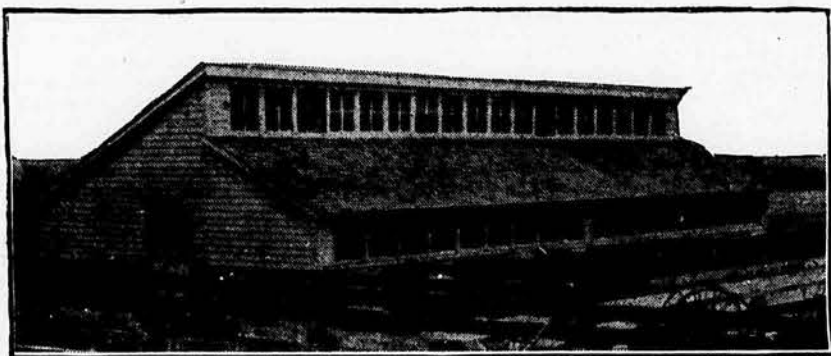
See the John Deere, the spreader with the beater on the axle. Sold by John Deere dealers everywhere. Send for beautiful booklet, also for:

"Farm Manures and Fertilizers"—Free

A book by Dr. W. E. Taylor, soil expert. It tells the value of manure, how it should be stored, and how applied to the land to get the most out of it. You can get both books free when you write about John Deere Spreaders by asking for package No. Y 13

JOHN DEERE, MOLINE, ILLINOIS

MENTION KANSAS FARMER WHEN YOU WRITE.



THIS HOG-HOUSE IS ON THE FARM OF C. W. TAYLOR OF ABILENE.—IT IS SO ARRANGED THAT SUNLIGHT REACHES EVERY PEN.

such as halters, bridles, saddles, etc., are offered by local business men who may be interested in encouraging the production of better horses in their communities.

One of the important things in planning for a show of this kind is to distribute the prizes over a considerable number of exhibits instead of placing the money all on first and second. In the colt classes five or six prizes should be offered if possible. Even though the winning in money may be small, the colts shown have been given recognition and have been awarded a ribbon showing this fact. In offering the prizes grade colts by pure bred sires should be given strong classifications. Where there are enough pure breeds in a community to warrant offering special classifications for them, it is usually desirable to give them special prizes.

Owners of high class stallions are usually more interested in improving the horses of the community than anyone else and it often falls to these men to take the initiative in starting shows of this kind. It sometimes adds to the interest in the show to have special prizes offered by these men for colts by their respective stallions. The open show in which all the colts compete should not be neglected, however, for these classes.

In every community where there is any considerable interest in good colts it will be found that the showing of farm teams will attract much interest. In showing farm teams it is a good plan to divide them into groups according to weight, making special classes for the heavier teams and giving the teams of somewhat less weight an opportunity to compete separately. In many communities the interest in mules is such that plans should be made for offering liberal prizes for mule colts and likewise, mule teams.

Too often colt shows are arranged for

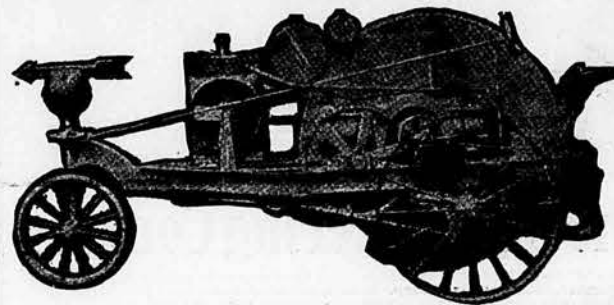
cation includes Poland Chinas, Berkshires, Duroc Jerseys, Chester Whites, Hampshires, Mulefoots, Tamworths, Large Yorkshires, Large English Blacks, Victorias, Essex and Cheshires.

In addition to the animals shown in competition for premiums, what are known as "View Herds" of the various breeds of animals and poultry will be maintained. These "View Herds" are to be carefully selected by competent authority and are to be typical of the breeds they represent. This gives an opportunity for every visitor to see and study the various breeds of live stock, no matter what time the visit may be made. At all previous great expositions of this kind this opportunity has been denied those who were unable to be present at the time the regular live stock competitions were in progress. All are interested in improved live stock and this feature should have a great educational value to the many visitors.

Cottonseed meal has long been recognized as the cheapest form in which protein can be purchased on the market. Wherever it has been used with silage it has been found to be even more efficient than when used in connection with ordinary dry roughage. Silage and cottonseed meal make an admirable combination for feeding almost any kind of live stock.

Dr. R. L. Mount, of Polo, Mo., owns one of the extra good herds of old original big-boned spotted Poland Chinas. His herd is composed of individuals representing the very best blood lines of the breed. They are the kind that have both size and quality. Anyone wanting the popular old-fashioned spotted Polands should investigate the offering. From this herd now ready to go out among the lot is a number of choice fall borns, big, rugged, high-class fellows ready for service; also a select lot of spring pigs, both sexes, pairs or trios not related. Farmers and breeders will find the offering and prices satisfactory. Look up Mr. Mount's card and write him. It will be to your interest to mention Kansas Farmer when writing.

Bull Tractor \$335



F. O. B. Minneapolis

\$370 F. O. B.

Kansas City,

Complete with Hitch and Lug Equipment.

Still more equipment and no change in price. BULL TRACTOR NOW equipped with GOVERNOR.

This Tractor was designed by Mr. Hartsough, who built the Big Four Thirty, and by perfecting this Tractor has provided the farmers of the country with a machine that they have been looking for for years, and that will enable any farmer to shorten his hours and save a risky investment in horse flesh.

Better write or wire today for full information, which we will send you by return mail, or come to Kansas City and witness a demonstration of this wonderful Tractor!

USE THIS COUPON.

EVERY FARMER CAN NOW OWN A TRACTOR.

If you have sixty acres or more you cannot afford to be without the Bull Tractor. It is the simplest, most economical and most hearty worker of any Tractor ever made. It has but one main drive gear that will last during the life of the Tractor. It pulls Plows, Seeders, Harvesters, Mowers, Drills, Discs, and then grinds feed, saws wood, or any stationary belt work to be done on the farm.

COSTS LESS THAN A GOOD TEAM—PULLS LOAD OF FIVE HORSES.

Here is the farm sensation of the year. This wonderful little Tractor enables you to plow deep, plow early, to stay in the fields all day when horses would be exhausted. It costs half as much for gasoline as for horse feed and does better work than half a dozen teams could do.

The Bull Tractor is a three-wheel machine—two in a hard smooth furrow, one on the stubble. Will pull two 14-inch stubble plows in any ordinary soil.

THIS AMAZING LOW PRICE MADE POSSIBLE BY SIMPLICITY OF CONSTRUCTION.

The Bull Tractor costs \$1,000 less than any other reliable Tractor on the market and will do the work of any Tractor made. The reason for the low price of the Bull Tractor lies in its wonderful mechanical construction. Its single Bull Wheel is the real distinguishing characteristic of the machine. This Wheel is five feet high and connects directly with the engine gearing. Hence there is no transmission or differential, and 10 per cent of the power developed pulls the Tractor.

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WITH shop work from the beginning. We have the largest and most complete school machine shop in the U. S. Modern apparatus, tools and machinery. School practically all year. Enter any time. No examinations. Full standard courses given in three years of 48 weeks each, at about one-half what it would cost in an Eastern college. Save a full year. Get your B. S. and be earning a good salary a year ahead of graduates of other colleges. Special short courses. Big demand for trained men. Our graduates in paying positions everywhere.

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The Machinist Course is completed in 48 weeks, equivalent to 5 years' apprenticeship. Actual work on lathe, drill, shaper, chuck, milling machine, planes, grinder and vise. Special attention to accuracy and speed.

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Chauffeur Course Complete in 12 weeks. Teaches the general knowledge of the auto and all its parts.

Small tuition fees. Board \$2.25 to \$3.25 per week. A limited number of students can earn part of their expenses. School terms open Sept. 1, Oct. 12, Nov. 24, 1914; Jan. 4, Feb. 16, Mar. 29, May 11, June 8, 1915. New classes formed each term. Students advance rapidly. Send for illustrated catalog.

HIGHLAND PARK COLLEGE, George P. Magill, President, Des Moines, Iowa

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Kansas Wesleyan Business College
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WAROLD SOMERS, 150 DeKalb Ave., Brooklyn, N. Y.

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

HOME CIRCLE



If you find that your flower holders are porous, coat them on the inside with melted paraffin.

One ounce of hustle is oftentimes worth more than a pound or two of knowledge.

If the melted chocolate you are using to cover creams with, seems inclined to curdle, add a very little olive oil to it. This is said to make it smoother and better than when it is not used.

A man's own good breeding is the best security against other people's ill manners. It carries along with it a dignity that is respected by the most petulant.—CHESTERFIELD.

Whenever you discover a fruit stain on clothing or table linen wet it with a little camphor. If this is done before the stain has been wet with water the stain will entirely disappear when the articles are laundered.

If you are going out camping add a long-handled corn popper to the list of cooking utensils. This will be found a great convenience for broiling bacon or chops, etc., over a camp fire. It will save many a spill or burned fingers.

Has it occurred to you that possibly the reason that your clock does not run smoothly is because it needs oil? This trouble may be easily overcome at home. Saturate a piece of absorbent cotton or a woolen cloth with kerosene oil and put it inside of the clock underneath the pendulum, being careful it does not touch it. Leave this in for some time, a month or so. When the cotton is removed it will be very much soiled which would indicate that the fumes of the kerosene have not only oiled the parts of the mechanism but have cleaned them as well.

Pineapple Water Ice.

Add two cups pineapple chopped and pressed through a sieve, with two table-spoonsful lemon juice, to plain water ice.

Raspberry Bombe Glace.

Line a mould with raspberry water ice; fill with vanilla ice cream, or whipped cream sweetened and flavored. Pack in ice and salt for four hours.

Steamed Raspberry Dumplings.

Four cups raspberries, 2 cups sugar, 1 teaspoon vinegar, 1 tablespoon butter, 2 cups flour, 4 teaspoons baking powder, 1 teaspoon salt, $\frac{1}{2}$ cup milk. Mix flour, baking powder and salt; add butter, mix until mealy; add milk. Put sugar, berries and vinegar in bottom of buttered baking dish. Cover with flour mixture and steam forty-five minutes. serve in dishes in which it is cooked.

The Canny Andy.

As Herbert Corey tells it, he went to a dinner once where Andrew Carnegie was a guest.

"After the eating was over and the speech making had started," said Corey, "Mr. Carnegie reached in his pocket for something and pulled out a handful of small change. A dime got away from him and fell on the floor, and at the first chance Mr. Carnegie got down under the table and looked for it."

"Did he find it?" asked one of the audience to whom Corey was narrating the incident.

"Did he find it?" echoed Corey. "He found fifteen cents.—The Saturday Evening Post.

No Such Name.

Paul Armstrong tells of a friends of his, an exceedingly deaf man, who was being introduced to a young woman. The young woman was pretty, but she had a strange name. Her name was Dinglefugle.

"Mr. Smith," said the mutual acquaintance, "this is Miss Dinglefugle."

The deaf man cupped his hand behind his ear.

"Please pardon me," he said, "but I am hard of hearing. What did you say the name was?"

"Miss Dinglefugle."

"I'm awfully sorry," murmured the afflicted one with a strained and puzzled

look in his eye; "but I haven't caught it yet."

"Miss Dinglefugle!" he blared. Resignedly, hopelessly the deaf man shook his head. "It's no use," he said; "sounds like Dinglefugle to me."—Saturday Evening Post.

"The Jug Method."

Cucumbers are among the most profitable garden crops, but the vines have more insect enemies than any other. Here is how I grow them very successfully: List off the ground five feet each way; sink a one-gallon jug at each cross; fill the jugs with water and cork with a loosely-rolled paper. Make a hill on top of each jug, out of earth and well rotted stable manure. Plant ten seeds in each hill, and when well up thin out to three plants.

You will not be bothered with bugs on the vines, for they will not stay where there is so much moisture. The vines, continuously fed by the water from the jug, will bear all summer, and the fruit will be extra crisp and green. Try it and be convinced.—Woman's Work.

The Legend of the Elephant.

Thus say the Mohammedans of Hindustan:

At the creation, the elephant was warned by Sherja, the lion, that a creature called Adme (man) would subdue and enslave him; and that gigantic bird, the Roc, whereof you have read in the Arabian Nights, also warned the great beast that a small insect, the ant, would creep into his ear and kill him.

Now the elephant, proud of his size, strength and wisdom, disregarded the warning of Sherja the lion, and was enslaved by man even according to the prophecy; and therefore, does he ever pour dust upon his head in token of his sorrow and repentance. And, moreover, to avoid the ant, whereof the Roc warned him, ever does he sway his head from side to side and shake his great ears.—A. G.

Have School Boards Overlooked This?

Either many of the school boards have overlooked the new law concerning distribution of school books, or they have failed to report their action to their county superintendent or the secretary of the State School Book Commission, Topeka. The law of 1913 provides:

First.—The school district, by a majority vote, may buy the school books and furnish them to the pupils free.

Second.—The school district board or board of education may set aside a revolving fund from which the district clerk shall purchase books, selling them to pupils at cost and returning the moneys received to the revolving fund. Orders must be sent to the secretary of the School Book Commission.

Third.—The school district board or board of education may designate some dealer or dealers to handle the books for that district, in which case said dealer shall be allowed a commission of ten per cent. All dealers so designated must make application to the Secretary of the School Book Commission, accompanied by an agreement endorsed by the county superintendent of his county. Blank applications may be had from county superintendents.

These provisions for distribution of books apply to books printed by the state only. The adopted books the contracts for which have not expired are still handled in the same manner as before.

Social Center Activity.

More than eight hundred rural school teachers in fourteen counties of Kansas have expressed their intention of initiating social center activity in connection with their school work the coming autumn. This is the result of visits of Walter Burr of the rural service department of the Kansas State Agricultural college extension division.

During the past month Mr. Burr has visited fourteen teachers' institutes, in which he has presented practical, definite methods for making rural schools community centers. Among methods suggested by him were an open forum in which subjects of interest to farmers might be discussed, traveling libraries, and art collections for the walls of the school rooms

Bulbs Should Be Ordered Soon

L. H. COBB, Dunavant, Kansas

IT IS time now to begin to think of what you will want this fall in the bulb line. Fall bulbs are among the most satisfactory classes of flowers for the farm garden. They require so little care, are certain to bloom, last several years without replanting, and are not expensive. You should be sure that your order is in before the first of September, for the main supply comes over from the growers about that time, and you get them fresh as soon as they are unpacked. Some varieties come sooner, and if you place your order in July with instructions to ship as soon as they arrive, you will get the candidum and Bermuda Easter lilies and the Freessias in August, or sometimes the last of July. The lillies lose vitality very rapidly when exposed to the air, so they should be planted as soon as they arrive. Freessias should be planted as soon

as possible for they can make a good growth in the open air before they have to be taken in the house. This makes them strong and compact, and the flower stems will be much stronger when they come up later in the winter. They will begin blooming much sooner, also, and continue longer. Freessias are exceptionally fine for window culture, especially if grown in this way, for the sprays of pure white flowers are showy and very fragrant, yet with a fragrance that is pleasing, and not sickening, as is the case with many of the bulbous flowers. Freessia bulbs can be used over and over, for they do not deteriorate if kept growing well.

The tulips and narcissus come in along in September, and can be kept out of the ground without deterioration for a long time, not losing vitality to any extent

[Continued on Page Fifteen.]

FASHION DEPARTMENT—ALL PATTERNS TEN CENTS

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



No. 6740—Ladies' Waist: Waists simulating the overblouse effect are the most popular of all summer styles. In this model the loose sleeve is set in at a very wide armhole, extending to the waistline, and with the edge of the blouse seamed on the outside. The pattern, No. 6740, is cut in sizes 34 to 42 inches bust measure. Medium size requires 2 yards of 40-inch all-over lace and 4½ yards of wide edging for collar and cuffs. No. 6697—Ladies' Dress: A simple frock for morning wear and one that can be made suitable for other uses by selecting dressy materials. The plain blouse has front closing, regulation sleeves and a removable peplum. There are pretty collar and cuffs of contrasting material. The pattern, No. 6697, is cut in sizes 34 to 46 inches bust measure. Medium size requires 4½ yards of 36-inch material. No. 6705—Ladies' Waist: Practical and pretty, this shirt waist can be made of silk, crepe, voile or wash materials. It has the yoke and sleeves in one piece, and below the yoke the material is quite plain, with only a trifle of fullness above the belt. The pattern, No. 6705, is cut in sizes 34 to 44 inches bust measure. Medium size requires 2 yards of 36-inch material. No. 6708—Ladies' Skirt: This is a handsome, practical two-piece model which has a three-piece yoke and is trimmed where the two parts join with a graduated circular ruffle. In the back is a box pleat, and the closing line of the upper part of the skirt is nearer the center than that of the lower part. The pattern, No. 6708, is cut in sizes 22 to 32 inches waist measure. Medium size requires 3½ yards of 44 or 50-inch material. No. 6661—Ladies' Two-Piece Skirt: This is one of the more serviceable designs for constant wear with separate waists, or as part of a plain suit. The lines of drapery hang from the waistline which may be raised, or regulation finish. The pattern, No. 6661, is cut in sizes 22 to 32 inches waist measure. Medium size requires 2½ yards of 44 or 54-inch material. No. 6684—Girls' Dress: This novel suspender dress shows a blouse of plain material with suspenders, belt and skirt of contrasting fabric. The short skirt is pleated at the sides and has panel front and back, with back closing. The pattern, No. 6684, is cut in sizes, 6, 8, 10, 12 and 14 years. Medium size requires of plain material 1½ yards of 36-inch, and of figured 1½ yards the same width. No. 6750—Boys' Suit: This suit is novel in the closing of the underwaist. This is seamless back and front and has tabs at the shoulders and at the waistline which button from front to back. The trousers open at the side seams and have a straight edge. The pattern, No. 6750, is cut in sizes 2, 4, 6 and 8 years. Medium size requires for blouse and trousers 2½ yards of 36-inch material; for underwaist ½ yard of 36-inch lining.

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 per week. No "ad" taken for less than 60 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.

GOVERNMENT FARMERS WANTED—Age 21 to 50. Good salary. Write Ozment, 44-F, St. Louis.

AGENTS WANTED TO SELL STANDARD acetylene lighting plants. The successful farm home light. Write Acetylene Factory, Wichita, Kan.

RAILWAY MAIL, CLERK-CARRIERS, and rural carriers wanted. I conducted examinations—can help you. Trial examination free. Ozment, 44-F, St. Louis.

SHELDON SERUM COMPANY WANTS thrifty shoats weighing from 60 to 90 lbs. 300 Hall Bldg., Kansas City, Mo., Phone Main 7054.

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

WILL PAY RELIABLE MAN OR woman \$12.50 to distribute 100 free packages Perfumed Borax Soap Powder among friends; no money required. Ward Company, 214 Institute Place, Chicago.

LADY AGENTS WANTED EVERYWHERE; excellent opportunity on well paying proposition; write at once; good money for your spare time. The Chaswalk Co., 201 West 6th St., Topeka, Kan.

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

THOUSANDS OF GOVERNMENT LIFE jobs now open to men and women. \$65 to \$150 month. No layoffs. Summer vacations with full pay. Common education sufficient. Full directions how to get position—free. Write immediately, Franklin Institute, Dept. J-82, Rochester, N. Y.

REAL ESTATE.

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

WANTED—TO HEAR FROM OWNER of good farm for sale. Send description and cash price. D. F. Bush, Minneapolis, Minn.

LIST YOUR FARMS, RANCHES AND city property with me for sale or exchange. R. F. Ginder, real estate specialist, 501 New England Bldg., Topeka, Kan.

WANTED—TO HEAR OF GOOD FARM or unimproved land for sale; send description and price. Northwestern Business Agency, Minneapolis, Minn.

CALIFORNIA FARMS, ANY SIZE; RICH—est valley land, \$60 per acre; \$6 down; 60 cents monthly; booklet, map free. Locks-Paddon Co. (F6), San Francisco, Cal.

FARM—160 ACRES, 3½ MILES THIS town; improved; \$5,200. 160-acre farm; improved; 4½ miles this town; \$5,200. Bargains. J. P. Donahue, Mound Valley, Kan.

320 ACRES GOOD AGRICULTURAL land, \$24 acre; 20 oats, 75 wheat, 14 flax goes with it till July 15; 135 more plow land, all fenced; seven miles out. John M. Hiner, Reed Point, Mont.

440 ACRES IRRIGATED IDAHO FARM, 60 acres alfalfa, 290 broke, balance sage. Fenced, under ditch. New buildings. Good hog ranch. \$25 per acre. P. O. Box 122, Mackey, Ida.

160 ACRES LITTLE RIVER COUNTRY valley lands; 60 a. cult.; bal. timbered; 130 under hog tight fence; house; orchard; 4 mi. Ry. town; white community; \$20 a. terms. Robt. Sessions, Winthrop, Ark.

FARM FOR SALE—FINE KANSAS farm, 120 acres, eight miles from Olathe, 20 miles from Kansas City; close to market, school; improved; fruit, good buildings. Great bargain if taken in July. J. O. Hall, Hutchinson, Kan.

KANSAS CITY BUSINESS PROPERTY, 150x50 feet, corner Fifth and Troost Ave., must be sold to settle an estate. A rare bargain in the fastest growing city in the West. Address K. C. Property, care of Kansas Farmer.

GROUARD, THE CENTER OF THE famous Peace River country, offers rare opportunities for conservative investment both in town lots and improved farms. For particulars write Anglo-Colonial Investment Co., Ltd., Grouard, Alberta.

FOR SALE—LAND IN CLEARWATER Valley in Idaho; no irrigation; plenty rain; big crops every year; nice climate; no cyclones; no blizzards; good markets; good schools; best of water; plenty timber. For information write C. M. Butler, Stiles, Ida.

VICTORIA, AUSTRALIA WANTS SETTLERS; special inducements; government land; railways; free schools; cheap irrigation; 31 years to pay for farms adapted to alfalfa, corn, grains, fruit, etc.; climate like California; ample markets; reduced passages; special excursion next November; free particulars from F. T. A. Fricke, Government Representative from Victoria, 687 Market St., San Francisco, Calif. Box 34.

HONEY.

HONEY FOR SALE—GUARANTEED strictly pure extracted honey for sale in 60-pound cans. The Arkansas Valley Apiculture, Cheek & Wallinger, Props., Las Animas, Colo.

HOGS.

FREE BOOK—FACTS ABOUT MULE-foot hogs; history, description, pictures, breeders' names. Address National Mule-foot Secretary, Ada, Ohio.

CATTLE.

GRADE HOLSTEIN COWS AND HEIFERS. Arnold & Brady, Manhattan, Kan.

FOR SALE—HIGH GRADE HOLSTEIN calves, both sexes. John Bradley, Garnett, Kan.

POLLED HEREFORDS—ONE GOOD bull, seven 2-year-old heifers, two cows; write me at once. Ben Anderson, Rt. No. 1, Lawrence, Kan.

CARLOAD OF TWO-YEAR-OLD HIGH grade Jersey heifers. Geo. Ald, Gallatin, Mo.

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

HOLSTEIN CALVES; BEAUTIFULLY marked; 3 to 5 weeks old; 15 sixteenths pure; \$17.50; crated for shipment anywhere. Edgewood Farm, Whitewater, Wis.

WE ARE OFFERING FOR SALE AT reasonable prices two very fine young bulls, bred by Fern's Lad of Roycroft, whose sire sold for \$9,000 at Mr. Gardner's sale. The dams of these bulls are from such blood as Jacoba Irene and Ida's Pogs. For pedigree and price please write. Paul Berger & Son, Oconto Falls, Wis.

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

TREES, SEEDS AND PLANTS.

SWEET CLOVER SEED; WHITE AND biennial yellow; hulled and unhulled; prices and circular on request. E. E. Barton, Box 3, Falmouth, Ky.

FOR SALE—80 BUSHELS LEFT OF alfalfa seed tested by Station and pronounced first class; \$6 per bushel for immediate sale f. o. b. cars Elgin, Kan. J. L. Henderson, Elgin, Kan.

SUDAN GRASS SEED—I HAVE FOR sale, early delivery, strictly high grade Sudan grass seed at \$1 per pound. If you are interested, write quick, as the supply this year will be limited. Chas. A. Felker, College Station, Texas.

FETERITA—PRICE REDUCED FOR late planting; 1 bu. \$1.75, 2 bu. \$3.40, 5 bu. \$8, 10 bu. \$15; drill after oats and wheat for fine seed and fodder crop; fine tested seed; sacks free. H. M. Hill, Lafontaine, Kan. Rt. 1.

HORSES AND MULES

STALLIONS FOR SALE—1,700-POUND Black Percheron; 1,200-pound Bay Denmark, half brother to Rex McDonald. Fine individuals. Fine breeders. Should sell for \$800 or \$900. A snap at \$550 for both. Write me. J. S. Messick, Clinton, Mo.

FOR SALE—GOOD GENTLE TEAM, weight between 2,300 and 2,400, mare and horse; mare good breeder, with foal by good draft horse. Will try them to plow to buyer's satisfaction. Price, \$190. Fred R. Eastman, Route 1, Matfield Green, Kan.

FOR SALE CHEAP IF TAKEN SOON, one 10-bottom Case engine gang plow, nearly new. W. W. Smith & Sons, Clay Center, Kan.

PATENTS.

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

MISCELLANEOUS.

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

BUTCHER SHOP AND FIXTURES FOR sale; good business and location. Sam Wedel, Pawnee Rock, Kan.

MY BRAN BREAD CURES CONSTIPATION. Get the recipe and eight others all for 50 cents. The Special Recipes, Clinton, Iowa.

TYPEWRITERS—GREATEST OFFER ever made. \$5 will buy new visible typewriter; universal keyboard; absolutely guaranteed. Parcel post prepaid. Standard Shorthand School, Washington, D. C.

DOGS.

COLLIE PUPPIES, SABLE & WHITE Stock Farms, Seward, Kan.

SCOTCH COLLIES. WESTERN HOME Kennels, St. John, Kans.

FOR SALE—FOX TERRIER, RALLER and Hartz Mountain Canaries. Ginnette & Ginnette, Florence, Kan.

BEE SUPPLIES.

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

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THE TELEPHONE AND VACATION TIME

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The great railroads of America maintain bureaus with men presiding over them who will do just the very thing you most desire—suggest a place to you to spend your vacation.

Don't rush about trying to decide. Keep cool. Use the Bell Telephone. Tell the man how much you want to spend, whether you like hills or valleys and how much time you have, he will fix you up.

When you telephone **USE THE BELL**
BY THE WAY, HAVE YOU A BELL TELEPHONE?

The Missouri & Kansas
Telephone Company



HAVE YOU BOYS AND GIRLS?

Whom you want to send to school? The best schools and colleges for both boys and girls place their ads regularly in KANSAS FARMER. Turn to their ads for definite information.

If you cannot find just the kind of a school or college you are looking for in just the locality you are particularly interested in, we shall be glad to have you write for further information. Address

KANSAS FARMER

School Department.

TOPEKA, KANSAS.

PURE BRED POULTRY

BLACK AND WHITE LANGSHAN, ALSO Houdan eggs, \$2.00 per 15. Circular free. E. D. Hartzell, Rossville, Kan.

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

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

BARRED ROCKS; 68 PREMIUMS, TOPEKA, Manhattan, Clay Center, Denver. Eggs—15 for \$1; 60, \$3.25; 100, \$5. Chicks and breeders for sale. Mattie A. Gillispie, Clay Center, Kan.

PAWN AND WHITE, ALSO PURE White Indian Runners, Pekin Ducks, White Guineas, Geese, Chickens. Stock only. Emma Ahlstedt, Roxbury, Kan.

IRWINDALE FARM THOROUGHbred Crystal White Orpingtons produce heavy winter layers, also blue ribbon winners for our customers. Sale stock exhausted. Free catalog. Route 7, Topeka, Kan.

EGGS FOR HATCHING FROM PUREbred ducks, turkeys and chickens. Poland China pigs, the big easy-keeping kind, \$8 each, \$16 a pair (not related). Mrs. Maggie Rieff, St. Peters, Minn.

BOURBON RED TURKEYS, BUFF ORP-five mated pens, from large prize-winning stock. Prices right. Mating list on application. Write at once. E. H. Hartenberger, R. F. D. 4, Box 1, Newton, Kan.

I DEFY ANY MAN ANYWHERE TO give you better quality in combined bred-to-lay and exhibition S. C. White Leghorn eggs. They cannot do it. Ninety per cent fertility guaranteed. \$1 per 15; \$6 per 100. Send for my illustrated mating list. Geo. E. Mallory, Box 476, Boulder, Colo.

THE MEXICAN WAR

Is of vital interest to every public spirited citizen in the United States. Our newest book tells the complete story of intervention and invasion of Mexico and mediation negotiations at Niagara Falls. Cloth, 352 pages, handsomely illustrated. To know all about the Mexican situation you want this book. Sent parcels post, \$1.00.

TRI-BAKERS CO.,
Dept. 22, 1936 So. Spaulding, Chicago, Ill.

BUFF WYANDOTTES—THE UTILITY breed. A splendid lot of youngsters coming on. Wheeler & Wylie, Manhattan, Kan.

S. C. WHITE LEKHORNS, THE KIND that lay eggs. Eggs for hatching, \$1.15; \$5 per 100. Write J. L. Shaner, Route 1, Maple Hill, Kan.

R. C. RED EGGS FOR HATCHING FROM fingsons, S. C. W. Leghorns, Indian Runner Ducks. These are all from prize winning stock. Eleanor Poultry Ranch, Brighton, Colo.

White Plymouth Rocks

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

THOMAS OWEN,

Station B.

Topeka, Kansas.

POULTRY



The Hen That Lays in July.

Here's to the hen that lays an egg
In the torrid month of July;
She's more than worth her weight in gold,
I'll tell you the reason why.

You talk about your winter layers,
That lay when nice and cool;
Why any hen can lay just then,
That is, a hen that's not a fool.

Give me the hen that lays an egg
In the middle of July,
When everything is sizzling hot
And wells are running dry;

When meat is tainted, water hot, -
And bread and cake are dry;
Give me an egg that's freshly laid
In the middle of July.

To lay in spring when weather's mild,
Most any old hen may try;
But it takes a hen that is a hen
To lay the middle of July.

—T. O.

A real fresh egg in July is a scarce commodity.

One bad egg in a consignment damages the reputation of the whole lot.

Be careful, therefore, that your good eggs are not contaminated with the company of any bad ones.

Hot weather is now the order of the day. The merciful poultryman will not forget to provide shade for his fowls, or water for them to quench their thirst.

In marketing your eggs during hot weather be careful that there are no stale ones among the lot. An egg commences to spoil so quickly this hot weather that it must be gathered almost as soon as it is laid to preserve its freshness.

What next? A setting hen covering a setting of eggs was recently shipped from Reno, Nevada, to Merced, California. Hen and eggs arrived in good condition. The Wells-Fargo Express employees handling the shipment, claim it to be the first of the kind during their experience.

At a recent meeting of the English Poultry Club, a sub-committee was appointed to look into the possibility of obtaining entries and to arrange for a display of English-bred poultry at the Panama-Pacific Exposition. This will be the grandest and largest exhibition of poultry ever held in this country.

In North Dakota and Wisconsin, poultrymen are organizing co-operative associations to promote the breeding and marketing of pure-bred fowls and the marketing of eggs. They are proving very successful and are doing the marketing through the agencies of the creameries at several towns. Why would this not be a good move for the poultrymen of Kansas?

"Swat the Rooster." Why?

Subscriber, G. A. H. Linn County, says he has been reading about the "swat the rooster" campaign and is interested in knowing what it is about.

In a number of states the campaign above named has been begun. Such campaigns hinge around the fact that infertile eggs keep longer and are of more value for human food than fertile eggs. Those states in which the "swat the rooster" campaigns have been begun are those in which is being imposed upon the buyer of eggs the obligation of candling and the refusal to purchase eggs which are not in prime condition. The elimination of poor eggs from the market basket by the grocer will entail considerable loss upon the farmer. It is to avoid this loss through the production on the farm of a better keeping egg, that is responsible for this campaign.

There is no reason for keeping the male birds with the laying hens after

the breeding season. It has been pretty well established that a flock of laying hens will actually produce more eggs when the male birds are not running with them. An infertile egg will keep for two weeks under the same conditions which cause a fertile egg to become unfit for human food within twenty-four hours. The fertile egg exposed to the prevailing temperatures of the hen house, barn or other nest location in this latitude, begins deterioration almost immediately after it is laid. In a warm living room, in the country store, or in the wagon enroute to market, it also deteriorates. The fact is that eggs are among the most perishable of all foods and it is to raise the standard of egg quality and to prevent the loss resulting through the present-day greater care in the purchasing and handling of eggs, that interest has developed in the infertile egg.

Facts About Egg Formation.

For some time the pathological department of the Missouri Experiment Station has been observing abnormal eggs and facts as to their cause, significance, etc. Thirty-six abnormally small eggs were recently examined; 25 contained yolk or some part of yolk; 5 contained blood clots; 3 contained particles of chalazae; 1 contained a hard lump of albumen; 1 a normal yolk; 1 contained a ruptured yolk and no albumen.

The common idea is that when a hen lays an abnormally small egg that the hen has laid her clutch and is going broody or else it was the first egg laid by a pullet. This idea is incorrect for, as a rule, the hens which lay small eggs lay regularly both before and after laying the small eggs. The facts are, that any object getting into the funnel of the oviduct will stimulate the oviduct action so that it is moved down the oviduct, causing the albumen and shell to be placed around it.

In certain yards at this experiment station on April 28, 1914, 1,058 eggs were laid. On the night of April 28 there were 27 soft shelled eggs laid, or an average of about 1 egg to 40 hens in these same pens. Of the 18 hens which we know positively laid soft shelled eggs, 12 of them laid on that date, the day before and the day after, showing that the soft shelled egg is laid in the regular course of laying, between hard shelled eggs. With regard to the soft shelled eggs, there are many theories advanced such as the lack of egg shell forming material, over exertion on the part of the hen or of her egg organs, inflammation of oviduct, etc. The tests made here indicate that a lack of shell forming material such as shell, grit, etc., is not always the cause of soft shelled eggs. They may have imperfect shells, but a lack of material will not produce a soft shelled egg one day and a hard shelled egg the day before and the day after.

It is interesting to note that, principally, during the day is nature's time for movement of the eggs through the oviduct, and at night the egg rests and receives the shell in the shell forming section. For this reason the soft shelled eggs are laid in the fore part of the night, and the harder shelled ones later in the night. The records of 24 double yolk eggs were kept. Six of the hens did not lay the day before, but laid the day after; eight of the hens laid the day before, but did not lay the day after; nine of the hens laid the day before and the day after; one hen laid only one egg during the month. Some of the double yolks were contained in one chalazae, while some of them were in separate chalazae. In eight large eggs containing two yolks which were examined, six eggs contained yolks which were the same size. In two, one yolk was smaller than the other. In three, the yolks were in the same chalazae. One of the largest hens in the contest is a Plymouth Rock and weighs 8½ pounds, and has laid 12 eggs, or not quite 1½ eggs to every pound of her body weight. One of the smallest hens in the contest is a Campine and weighs 1½ pounds, and has laid 103 eggs, or nearly 70 eggs to every pound of her body weight.

BARGAINS IN LAND

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

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

FOR SALE—160 acres well improved, Marion County, \$7,500; 320 acres well improved, Butler County, \$13,500; 640 acres well improved, Butler County, \$24,000. Gus Schimpff, Burns, Marion County, Kan.

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

FINE FARM 240 ACRES, fine improvements, 1/4 mile south Sedan; 120 acres pasture, 120 acres farm land with about 55 acres in alfalfa; mtg. \$4,200, 2 years 6 1/2%. S. PARK & SON, Sedan, Kansas.

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

BUTLER CO., KAN., SNAP—80 ACRES—All second bottom alfalfa land; well improved and fenced, 4 1/2 mi. to town; only \$60 an acre. Write for full description of this and other snaps.
THOMPSON & AKEMAN, Whitewater, Kan.

NOTICE: Improved 4,000-acre ranch; owner in bad health; will sacrifice; no trade; good terms; bargains in smaller tracts; investigate before buying. Address Box 376, Sharon Springs, Kansas.

NORTH Central Kansas; 480 acres, good new improvements, 140 acres bottom land, 60 acres fine alfalfa, 250 acres in cult.; 3 mi. town; price, \$35 per acre. Cut out address; write for terms. J. F. BAUM, Natoma, Kan.

THREE-FOURTHS SECTION—Must be sold in 30 days to settle estate. Immediate possession. Ten-room residence, large barn, granary; 300 in cultivation, 160 pasture; not one acre bad land. All smooth.
Thos. Darcy, The Land Man, Offerle, Kan.

FARMS FOR SALE OR RENT.
Twenty well improved farms to rent in Eastern Oklahoma, running from 80 to 300 acres, with option to purchase at end of first year. Best of corn, oat and wheat land. Write to
CHAS. B. ALLEN, Inola, Okla.

FOR SALE.
270 acres, two miles from station, 18 miles from Emporia; well improved; excellent water; \$40 per acre. List describing farms and ranches mailed on application. G. W. HURLEY, Emporia, Kansas.

SPECIAL SNAP.
Eighty acres, improved, well located, in Southeastern Kansas. Terms, \$800 cash, balance in small payments from 2 to 10 years. Price very low. Fine climate. Big crops. Send for illustrated booklet. Address,
THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas.

BREWSTER SHIPPED 220,000 bu. of 1912 wheat; 110,000 of 1913, and will ship 350,000 of 1914. Over \$17,000 worth of 1913 cream, and will ship \$30,000 worth in 1914.
LISTEN!
We have two 640-acre farms close in; 960-acre farm 10 mi. out. In fact, all sizes of farms and distances from this prosperous town, for sale
CHEAP
BEFORE BIG CROP brings prices up. Get prices and description from
E. W. ALBRIGHT, Brewster, Kan.

WISCONSIN

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

Ideal Combination Wheat And Stock Ranch

480 acres, 225 in cultivation; good wheat land; 9 miles to county seat; good road; on mail route; good shade; creek fed by springs; never goes dry; good grass; could farm more. Price, \$10 per acre; good terms. Plenty of alfalfa and wheat farms for sale; also good cattle ranches. Send for our lists or come and see us soon.
TAYLOR & BRATCHER,
The Comanche Land Men, Coldwater, Kan.

NO PLACE IN THE U. S.

has better crops than E. Okla.; land selling for one-third value; buy before advance; get share of crop if bought quick.
SOUTHERN REALTY CO., McAlester, Okla.

ARKANSAS

I have for sale, **FERTILE ARKANSAS FARMS**; small and large; improved and unimproved; slope and valley land; mountain and river bottom land; virgin timber land; no irrigation. For particulars write
W. KNIGHT, Bigelow, Perry Co., Arkansas.

IRRIGATED ALFALFA LANDS

In the wonderful Pecos Valley of Texas. Most profitable farming in the world; 5 to 7 cuttings annually with average price above \$14 five years past; finest fruit in America; better climate than Kansas; cheapest water; lowest taxation and freight rates; best and cheapest irrigated land anywhere; will sell 20 acres or more on terms to suit, or accept choice city or farm realty in payment. Special inducements to colonies. Write for full particulars.
STRATTON LAND CO., Wichita, Kansas.

160 ACRES 1 1/2 miles from good town on main line of Mo. Pac. Ry.; in the oil and gas belt; farm pays oil royalty of \$15 per month; 60 acres in cultivation, balance in fine blue stem grass; 20 acres in alfalfa. This is a fine creek bottom farm and one of the best stock and grain propositions in the country. Farm fenced and cross fenced; no other improvements; no agents; will sell direct to purchaser on easy terms. Address Lock Box 761, Fredonia, Kansas.

FOR SALE OR TRADE.

240 Acres. If on the lookout for a land deal, write us about it. We have a lot of bargains for cash. Send for list.
KIRWAN LAND CO.
West Plains, Howell County, Missouri.

NOTICE.

If you have property to exchange or sell, it will pay you to write for particulars of our systematic services and guarantee. Describe property in first letter.
REAL ESTATE ADVERTISING AGENCY,
Dept. 6, Riverton, Neb.

WIDOW MUST SELL.

Sudden death of husband causes sacrifice of well improved 80, handy to school and town. \$3,000 on easy terms. Write for description and list of bargains in the county, Labette, that has led Kansas for two years in oats production.
D. H. WALLINGFORD, Mound Valley, Kan.

FIELD NOTES

G. C. WHEELER
Manager Live Stock Department.

FIELD MEN.

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

PURE BRED STOCK SALES.

Jersey Cattle.

July 28—F. J. Scherman, Topeka, Kan. Sale at Topeka Fair Grounds.
Sept. 22—H. C. Johns, Carthage, Mo.

Shorthorns.

Sept. 23—Andrews & Cowley, Girard, Kan.

Durocs.

Aug. 26—W. W. Otey & Sons, Winfield, Kan.
Aug. 20—W. T. Hutchison, Cleveland, Mo.
Oct. 27—Moses & Fitzwater, Goffs, Kan.

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

Poland Chinas.

Aug. 20—Roy Johnson, South Mound, Kan.
Oct. 27—C. L. Branic, Hiawatha, Kan.
Sept. 5—J. E. Willis, Prairie View, Kan. Sale at Downs, Kan.
Oct. 15—Fred G. Laptad, Lawrence, Kan.
Oct. 20—U. S. Byrne, Saxton, Mo.
Oct. 21—H. E. Walter, Emmingham, Kan.
Oct. 21—Dering Ranch, Oswego, Kan.
Oct. 22—H. C. Granger, Lancaster, Kan.
Oct. 28—Walter Hilgwein, Fairview, Kan.
Nov. 2—W. A. Prewett, Asherville, Kan.
Nov. 4—E. M. Wayde, Burlington, Kan.
Nov. 14—L. E. Knox, South Haven, Kan.
Nov. 12—Harry Wales, Peculiar, Mo.
Feb. 2—John Kemmerer, Mankato, Kan.
Feb. 9—L. E. Knox, South Haven, Kan.

O. I. C.'s

Oct. 1—Alvey Bros., Meriden, Kan. Sale at Fair Grounds, Topeka, Kan.

W. T. Hutchison of Cleveland, Mo., is claiming August 20 as the date for his fall sale. Mr. Hutchison will sell the best draft of Duroc Jersey sows at this sale he has ever offered. Keep the date in mind and watch for his ad later.

Fred P. Campbell, of Altamont, Kan., recently purchased a very fine Shorthorn bull from the herd of H. M. Hill, of Lafontaine, Kan. Mr. Hill owns one of the good Shorthorn herds and breeding stock from this herd never fails to make good. Mr. Campbell has purchased bulls from this herd for the past twelve years and every purchase has made good.

O. R. Strauss, of Milford, Kan., is offering a number of choice September boars sired by his noted boar, Model Wonder, one of the great big-type Poland China boars now in service. The dams of the offering are big, mature sows of the best big-type blood lines. Anyone wanting strictly high class big-type Poland boars should investigate this offering before buying. They are priced reasonably and Mr. Strauss guarantees description. Write for prices, mentioning Kansas Farmer.

Breeders wanting strictly high-class Durocs should look up the card of Samuel Drybread of Elk City, Kan. He is offering select September and October boars, open gilts, bred sows and spring pigs at prices that are very reasonable when it is understood that more champion blood will be found in this herd than in any Duroc herd west of the Mississippi River. Look up his card and write for pedigrees and prices.

Samuel Drybread, of the Star Breeding Farm, Elk City, Kan., is offering a choice lot of registered Hereford bulls for sale. His offering at this time consists of yearlings and two-year-olds. They will be sold singly or in car lots and at prices that are right. Mr. Drybread's breeders can depend on stock from his herd. Look up his card and if interested in Herefords write him, mentioning Kansas Farmer.

W. A. Prewett, of Asherville, Kan., will hold a Poland China sale November 2. Mr. Prewett has been breeding Polands for a long time and has developed a type of hog that cannot help but make good. Those who have bought breeding stock from this herd have a habit of coming back again the next year for some more of the same kind. Mr. Prewett also breeds Polled Durham cattle.

S. B. Amcoats, of Clay Center, writes that he has sold all of his fall pigs. He has an extra lot of spring pigs and will be ready for the fall trade with a select offering. He has a Big Orange here boar that he can spare. This boar is a fine individual and an unusually good breeder. He will also have a choice bunch of Shorthorn bull calves for the fall trade. They are Scotch and Scotch topped and were sired by Secret Sultan, one of the good Shorthorn sires.

Alvey Bros.' Jersey Sale.

The Jersey cattle sale held by Alvey Bros. at the Topeka, Kan., fair grounds, Thursday, June 25, was a bit disappointing. A number of valuable cows sold for small their real value. The crowd was small owing to a number of prospective purchasers being detained at home by a big wheat harvest, and the local support was not strong. A number of real high class registered Jersey cows and heifers with fancy pedigrees sold for the price of grades. Those who wanted some good cattle missed a valuable opportunity by not being present at this sale. We omit report in full.

SHORTHORN CATTLE

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

CHOICE SHORTHORN BULLS

One red, 20 months old, well grown, straight and smooth, at \$125. One dark roan, 19 months old, very finely finished, well fleshed, large, attractive, at \$150.
G. A. LAUDE & SONS, Rose, Kansas.

OXFORD HERD SHORTHORN CATTLE.

For Sale—Young bulls and females at farmers' prices, for dual purpose cattle. Come and see me. Farm on Strang line near Overland Park.
DR. W. C. HARKEY, Lenexa, Kansas.

When writing advertisers, please mention KANSAS FARMER.

F. J. Scherman to Sell Jerseys.
F. J. Scherman claims July 28 as the date for his Jersey dispersion sale. On that date he will sell his herd of registered Jerseys, including noted show winners and dairy cows bred to Sophia's Tormentor, a grandson of Golden Fern's Lad. Mr. Scherman will have an offering that will interest breeders and dairymen wanting high class Jerseys. Watch for ad next week.

Stryker Bros. Sell Hadley.

Stryker Brothers parted with one of their good herd boars a few weeks ago when they sold Hadley 191285 to H. F. Toller, of Cordell, Okla. Hadley has more ribbons to his credit than any other boar we know of, and he sure is one of the good ones. Mr. Toller certainly ought to be congratulated for bringing such a good boar to the state of Oklahoma. Hadley was first in class, Junior champion, and reserve grand champion boar at the Kansas and Oklahoma state fairs as a pig in 1912. In 1913 he came back to the shows as smooth as a pig and had more size for his age than any other boar ever exhibited at the state fair. He was first in class and reserve champion at Kansas. At Oklahoma he was first in class, senior champion, grand champion, winning over the grand champion boar of Kansas State Fair. Hadley is not only a show boar, but he breeds that kind, having sired the first prize litter at Oklahoma State Fair, which also won first at other shows. Stryker Brothers breed the improved Poland Chinas and they produce the best hogs on earth, as their hogs have the size with quality.

J. R. Smith's Duroc Boars.

Don't fail to read the ad of J. R. Smith of Newton, Kansas, offering a number of Duroc Jersey boars. They are choice individuals and are bred right. Please look up ad in this issue. This herd represents some of the best blood lines known to Duroc breeders. Mr. Smith is offering a choice lot of fall boars ready for service, sired by J. R. Col, he by Graduate Col, and out of sows by Tatarrax. These boars have been well grown and are priced reasonable. Mr. Smith also offers a few gilts bred for June litters to Gold Medal by Crimson Wonder 4th. If you need some new blood in your herd and want good hogs well grown, write to J. R. Smith at Newton, Kansas. They are priced very reasonable for quick sale. Please mention Kansas Farmer when you write.

Bulbs Should be Ordered Soon

(Continued from page thirteen)

until after the first of December. Hyacinths, paper white narcissus, and VonSion narcissus are exceptionally good for the house, while the hyacinths, tulips, and all the narcissus family except the paper whites, and other of the polyanthus type, are splendid garden flowers. November is the best month for planting in the garden, except the candidum lily, which must be planted early to succeed best. For house culture they can be planted at any time.

Paper white narcissus and the Chinese sacred lily will bloom by Thanksgiving if they are planted as soon as they can be obtained, and they can be had in bloom from that on until spring by planting at intervals. The Chinese sacred lily grows as well in soil as water, but it is usually grown in a glass dish with pebbles around the bulb, and nothing but water to supply the nourishment. It has the necessary supply of plant food to develop the flower in the bulb. The same is true of the paper white narcissus, but they are usually grown in soil as the flowers and larger and have better substance. Neither the sacred lilies nor the paper white narcissus bulbs are of any value after being once forced. Hyacinths and the other varieties of narcissus can be planted outside and will bloom in the garden all right after they have been used in the house one winter. They can be used in the house again, but they are not so satisfactory as fresh stock.

Do not invest in a lot of the miscellaneous bulbs if you are just beginning to grow bulbs, for they will disappoint you. A good supply of the standard varieties will be best, and when you have a few beds of them well established it is then time to experiment with the snowdrops, scillas, alliums, grape hyacinths, and many other varieties listed in your catalogues, but seldom seen in the gardens. The Spanish iris is an exception to this rule, though, for it is not well known, and yet it is a very fine bulb for the garden and very cheap.

SHORTHORN CATTLE



TENNISOLM SHORTHORNS

Two good young bulls; one 18 months, the other 13 months old; both red; wish to dispose of them soon. Prices reduced to \$90 and \$80.
E. S. MYERS, Chanute, Kansas.

RED POLLED CATTLE

RED POLLED CATTLE

A few choice bulls, ready for service, priced reasonable.
I. W. POULTON,
Medora, Kan.



RED POLLED CATTLE

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

COBURN HERD RED POLLED CATTLE AND PERCHERON HORSES

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

RILEY COUNTY BREEDING FARM.

Red Polls headed by the last son of Cremo. Bulls all sold. Percherons headed by son of Casino. Visit herd.
ED NICKELSON, Leonardville, Kan.

HAMPSHIRE HOGS



ECLIPSE FARM HAMPSHIRE.

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



ATTRACTIVE PRICES.

Some extra nice gilts bred for August litters and a few choice 200-pound boars; also one tried sow bred for June.
F. C. WITTORFF,
Medora, Kan.

Registered Hampshire Hogs

For sale, both sexes. Choice belting and type. Priced reasonable.
E. S. TALIFERRO, Route 3, Russell, Kan.
Shipping point, Waldo, Kan.

Registered Hampshire Hogs for Sale

Tried sows and gilts of very best breeding and individuality, bred for fall farrow. Prices right. WM. INGE & COMPANY, Independence, Kansas.

BRED GILTS, serviceable

boars, January and February pigs. Best breeding, well marked. Singly, pairs and trios. Satisfaction guaranteed. Prices reasonable.
S. E. SMITH, Route 5, Box 18, Lyons, Kan.



DUROC JERSEYS



TATARRAX

HERD DUROCS.
Spring Pigs.
Buskirk & Newton,
Newton, Kan.

TATARRAX 14239

BON ACCORD DUROCS

Choice September boars for sale; home of grand champion sow, Model Queen.
LOUIS KOENIG, Solomon, Kan.

Boars---Good Boars---Durocs

Of September and October farrow last. Open gilts; bred sows; spring pigs either sex; most popular blood lines.
SAMUEL DRYBREAD, Elk City, Kansas.

BELLAIRE DUROC JERSEY HERD.

Fall boars and gilts; immunized, double treatment; best of breeding; good individuality; spring pigs, both sex. Write for prices.
N. D. SIMPSON, Bellaire, Kansas.

FANCY DUROC BOARS AND GILTS.

Fall boars by Smith's Graduate by J. R.'s Col. by Graduate Col. out of best sows. Choice lot of gilts by J. R.'s Col. bred for June litters to Gold Medal. Priced for quick sale. J. R. SMITH, Newton, Kansas.

Crystal Springs Duroc Jerseys. The Big

Prolific Kind.. Boars by Bull Moose Col. by King the Col. From big, well bred sows. Write for descriptions and prices.
Arthur A. Patterson, Ellsworth, Kansas.

GOLDEN RULE DUROC JERSEYS.

Twenty spring boars, tops of entire crop. Sired by Dreamland Col. and River Bend Col., out of big mature sows. Priced to sell.
LEON CARTER, Asherville, Kan.

Good Enough Again King 35203, the sensation

grand champion of Kansas State Fair, 1913, heads our great herd. Forty sows and gilts for sale.

THE MEN WITH THE GUAYANTE.

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

Weanling Pigs and Brood Sows.

Immune Duroc pigs, \$15 each during June; pairs and trios not related; Superba, Defender, B. & C's. Col. and Ohio Chief blood lines; choice gilts and sows bred to order; individuality guaranteed.
JOHN A. REED, Lyons, Kan.



Bruce Saunders
President

JACKSON COUNTY BREEDERS' ASSOCIATION

MOST PROGRESSIVE BREEDERS OF
JACKSON COUNTY UNDER THIS HEAD



Devere Maffet
Secretary

SHORTHORNS.

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

ABERDEEN ANGUS.

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

POLLED DURHAMS.

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

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

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

BUFFALO AGUINALDO DOEDE heads Shadland farm herd. Dam, Buffalo Aggie Beets, the world's second greatest junior 3-year-old cow. Young bulls for sale. **David Coleman & Sons**, Denison, Kan.

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

JACKS AND JENNETS.



M. H. ROLLER & SON
Circleville, Kan.

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

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

P. E. McFADDEN, HOLTON, KANSAS. Live stock and general farm **AUCTIONEER**

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

FRED CHANDLER



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

PHIL WALKER, Moline, Elk Co., Kansas.

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Special Offering
Sutton Farm
Berkshires

200 HEAD

40 Boars, 20 Bred Sows, 40 Open Sows, 30 Fall Pigs, All at Attractive Prices.

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Large English
BERKSHIRES

Choice bred sows and gilts; fall farrow. Choice pigs sired by prize winning boars, either sex.

H. E. CONROY, Nortonville, Kansas.

HEREFORD CATTLE

HEREFORD BULLS FOR SALE. Choice young registered Hereford bulls, sired by Dan Shadland 363260, out of Anxiety and Lord Wilton bred dams. **C. F. Behrent**, Oronoque, Norton Co., Kan.

Star Breeding Farm. For Sale—Hereford bulls, yearlings and two; singly or carload. **SAMUEL DRYBREAD**, Elk City, Kansas.

GUERNSEY CATTLE

GUERNSEYS. Registered bull calves and heifers for sale. **E. C. KRUEGER**, Burlington, Kan.

HERFORDS.

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

FAIRVIEW JERSEYS.—For quick sale, a 4-weeks-old bull out of a fine young cow now giving 4 gallons of 5.6% milk daily. He is fine type and priced reasonably. **E. A. GILLILAND**, Mayetta, Kan.

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

Spring Hill Dairy Farm Bull Calves by sons of Gamboe Oxford Princess, 2 lbs. 6 1/2 oz. butter; Diploma's Fair Maiden, 11,400 lbs. milk, 9 mos. Also females. **S. B. PORTER & SON**, Mayetta, Kansas.

MAPLE LAWN DAIRY FARM. Fontain's Valentine heads our herd. Unregistered cows for sale. **W. R. LINTON**, Denison, Kan.

POLAND CHINAS.

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

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

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

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

SPRING PIGS by Major Jim, Blue Valley Baster and a Jumbo Wonder and out of Gold Metal, Major Jim, Model Look, Big Bone Pete and What's Ex sows. Priced reasonable. **O. B. Clemetson**, Holton, Kan.

HORSES AND MULES.

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

Route 7, Chariton, Iowa.

POLAND CHINAS

CEDAR LAWN POLAND CHINAS

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

S. B. AMCOATS, Clay Center, Kansas.

Moore & Son's Polands

Choice male pigs by "Choice Goods," a splendid big-type boar of the great Tecumseh family, conceded one of the greatest boars living and out of large, prolific sows of best big-type breeding. Pigs shipped at 12 weeks old at \$15 each for a short time. Will breed a few select sows to this great sire, very reasonably.

F. E. MOORE, Gardner, Kansas.

Pioneer Herd Big-Type Poland Chinas. Choice lot of sows and gilts for sale, bred for summer and fall litters to the three times champion boar, Smuggler S58913, A173859, and Logan Price. Booking orders for spring pigs in pairs or trios. Prices reasonable.

OLIVIER & SONS, Danville, Kansas.

BIG BONED SPOTTED POLANDS. My spring pigs are ready to ship. Now is the time to buy dandy boars, \$20; the best, \$25; sow pigs, \$25. Satisfaction guaranteed. A few boars ready for service. Write me your wants before you buy elsewhere. Also Jersey bulls and bred heifers for sale. **THE ENNIS FARM**, Horine Station, Mo. (30 miles south of St. Louis.)

BIG TYPE BOARS AND GILTS. Special offering—choice boars and bred gilts; three July boars; \$30 choice, \$25 second choice. Choice gilts bred for September farrow. Spring pigs. Reasonable prices. **DIETRICH & SPAULDING**, Richmond, Kan.

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

SMITH'S BIG-TYPE POLANDS. A choice lot of fall pigs, either sex. Strictly big-type breeding. High-class individuals, priced to sell. **AUSTIN SMITH**, Dwight, Kansas.

A ORANGE AGAIN. Heads our Poland Chinas. Choice big fall boars for sale, also 50 spring pigs. **HUBERT J. GRIFFITHS**, Clay Center, Kan.

SPOTTED POLAND CHINAS FOR SALE. Five fall boars, spring pigs, both sexes. Prices reasonable. **R. L. MOUNT**, Polo, Missouri.

POLAND CHINAS

LYNN GROVE SPOTTED POLANDS. Choice bred gilts, outstanding boars, spring pigs by Spotted Boy, Cainesville Boy, Billy Sunday and Lucky Judge; dams, Brandywine, Clipper, Goodenough, Budweiser, Lineville Chief and Clifton breeding. **J. O. RILEY & SON**, Cainesville, Mo.

Faulkner's SPOTTED POLANDS. Famous. **ASK FOR CATALOG OF OUR AUGUST 5th SALE OF BRED SOWS, BOARS AND GILTS.** **H. L. FAULKNER**, Box K, Jamesport, Mo.

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A good Holstein is little short of a perpetual motion milk-making machine, that while in milk uses her food for milk production and when dry stores up body fat to be converted into milk fat as soon as she freshens. She will earn 50 per cent on the cost of her feed. Why not keep this kind?

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BULL CALVES FROM A. R. O. COWS. Sired by Sir Korndyke Imperial 53683. Calves suitable for heading registered herds.

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HOLSTEIN COWS AND HEIFERS. For quick sale—car grade Holstein cows and heifers; ten heifer calves; ten grade Guernsey cows and heifers; four registered Holstein bulls ready for service; all tested; priced right. **HENRY GLISSMAN**, Sta. B, Omaha, Neb.

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Oskaloosa, Kan. Watch this space for the best thing in Holsteins. **F. J. SEARLE**, Prop., Oskaloosa, Kansas.

CORYDALE FARM HOLSTEINS. Headed by Jewel Paul Butter Boy, Reg. No. 94245. Five choice registered bulls, ages 4 to 9 months, from large richly bred cows with strong A. R. O. backing. Nicely marked. Splendid dairy type. Reasonable prices. **L. F. CORY**, Belleville, Kan.

HOLSTEINS FOR SALE. High-grade cows and springing heifers, also registered bulls ready to use. Exceptionally good breeding. Write **Springdale Stock Ranch, Concordia, Kansas.**

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

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Fifty cows, 40 yearlings and 2-year-old heifers, 40 heifer calves; also 6 registered bull calves. **CLYDE GIROD**, Towanda, Kansas.

GOLDEN BELT HOLSTEIN HERD. Prince Hadra at head of herd. He has 28 A. R. O. sisters, 21 brothers and several daughters. Extra choice young bulls for sale out of 600-pound A. R. O. dams. Farm near town. **W. E. BENTLEY**, Manhattan, Kansas.

SIXTY HEAD of registered and high-grade Holstein cows and heifers, also a few registered bull calves. **HIGGINBOTHAM BROS.**, Rossville, Kansas.

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Headed by Frost's Buster, a great sire of prize winners; choice August boar by this sire; also two grandsons, November farrow. Booking orders for February pigs. Will sell herd boar illustration—a good one. Prices right. **DAN WILCOX**, Cameron, Mo.

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We are offering two fine fall boars, a few good gilts, spring pigs sired by our grand champion boar, Don Ben 2d 3181; can please you in both quality and price. **R. W. GAGE**, Mount Ida, Kansas.

WALKER'S O. I. C. HOGS. Write for prices. **G. A. WALKER**, Bogard, Missouri.

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CAMPBELL'S MULEFOOT HOGS. LISTEN—If you want the genuine big bone Mulefoot hogs, write for Campbell's rockbottom prices on young boars; gilts, bred sows; also herd boar; absolutely the best to be had. **A. I. CAMPBELL**, Rice, Kansas.

JERSEY CATTLE

JERSEY BULLS

We are long on bulls, so are offering young bulls from our very best cows; some ready for light service; way under value; sired by Vesta's Knight, a son of Gamboe Knight; Golden Love's Son, a son of Sultan's Jersey Lad; G. Melia Ann's King, grandsons of Noble of Oaklands and Eminent's Raleigh.

\$50 AND UP

A few bred cows for sale; crated, registered and transferred. **GLENWELL'S FARM**, Grandview, Mo.

Bank's Farm Jerseys

Quality with milk and butter records. One of the best sons of CHAMPION FLYING FOX, imported, at head of herd. Stock for sale. **W. N. BANKS**, Independence, Kan.

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

TWO JANUARY BULL CALVES. Out of high producing dams; Flying Fox and Golden Fern's Lad breeding; for sale at very low prices. **D. A. KRAMER**, Washington, Kan.

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

BENFER JERSEY CATTLE. February bull calf for sale; sire, Sultan of Comfortholme; dam, imported Sultan's Peri; fawn color; solid except white tongue and switch. Price, \$50. **E. L. M. BENFER**, Leona, Kansas.

REGISTERED JERSEYS. Butter-bred bull calves from heavy producing cows, priced right. **MAXWELL JERSEY DAIRY**, Topeka, Kan.

POLLED DURHAM CATTLE

ROAN HERD 3613 - 229963

THE INTERNATIONAL CHAMPION heads my herd of Double Standard Polled Durhams. Few choice young bulls for sale. Mo. Pac. Railway 17 miles southeast of Topeka, Kansas. Farm adjoins town. Inspection invited. **D. C. VAN NICE**, Richland, Kansas.

POLLED DURHAMS

FOR SALE **TEN HERD BULLS** sired by Roan Choice, the junior champion of 1911. Prices reasonable. Come and see my herd. **C. J. WOODS**, CHILES, KAN.

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THE STRAY LIST

COUNTY CLERK, HAMILTON COUNTY, Kansas. Taken Up—On the 8th day of June, 1914, by A. Perkins, one colt, 4 feet 6 inches, bay, 2 years old, bald face, white forehead, foretop clipped when taken up, shoulders scarred some from collar, no other marks or brands. Appraised value, \$35.

J. E. HILKEY, COUNTY CLERK, OSAGE County, Kansas. Taken up on the 19th day of May by C. C. Black of Dragon Township, Osage Co., Kan., one bay horse about 15 years old, weight about 1,000 lbs., both hind feet white, small white spot on forehead, foretop clipped when taken up, shoulders scarred some from collar, no other marks or brands. Appraised value, \$35.