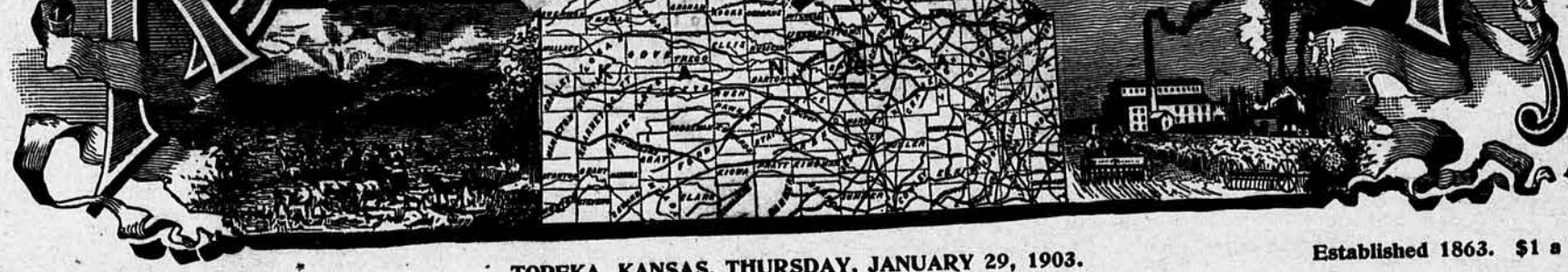


KANSAS FARMER



Volume XLI. Number 5.

TOPEKA, KANSAS, THURSDAY, JANUARY 29, 1903.

Established 1863. \$1 a Year

KANSAS FARMER.

Established in 1863.

Published every Thursday by the
KANSAS FARMER CO., - - TOPEKA, KANSAS

E. B. COWGILL.....President
J. B. McAFEE.....Vice President
D. C. NELLIS.....Secretary and Treasurer

SUBSCRIPTION PRICE: \$1.00 A YEAR

E. B. COWGILL.....Editor
I. D. GRAHAM.....Associate Editor
H. A. HEATH.....Advertising Manager

Entered at the Topeka, Kansas, postoffice as second-class matter.



ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch). Continuous orders, run of the paper, \$1.54 per inch per week.
Special reading notices, 25 cents per line.
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per agate line for one year.

Annual cards in the Breeders' Directory, consisting of four lines or less, for \$16.00 per year, including a copy of the Kansas Farmer free. Special rates for displayed live stock advertisements.
Special Want Column advertisements, 10 cents per line of seven words per week. Cash with the order. Electrotype must have metal base.

Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.
To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

All advertising intended for the current week should reach this office not later than Monday.
Every advertiser will receive a copy of the paper free, during the publication of the advertisement.
Address all communications to

KANSAS FARMER CO.

116 West Sixth Ave., Topeka, Kans.

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BLOCKS OF TWO.

The regular subscription price for the KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with one dollar to pay for both. In like manner two new subscribers will be entered, both for one year, for one dollar. Address, Kansas Farmer Company, Topeka, Kansas.

The Texas Legislature will appropriate \$200,000 for a World's Fair appropriation.

In another place we present a glimpse of some of the steps by which Kansas selects a successor to the eminent and able Senator Harris. These political processes are not a part of farming, but farmers will some day learn that to have their due influence in public matters they must understand the methods by which things are done and must act under organization.

The KANSAS FARMER is in receipt of a great many letters asking for the thirteenth biennial report gotten out by the State Board of Agriculture. The State Board will send this very valuable report as long as the supply lasts, but parties wishing it immediately will have to send the postage, thirty-three cents. Those willing to wait until the legislature shall have appropriated postage may file their requests with the secretary. All requests should be addressed, "Secretary State Board of Agriculture, Topeka, Kans."

Whether Kansas shall have a State Fair and make a representative showing at the World's Fair next year is up to the Legislature now in session in Topeka. All of the State industrial societies have worked hard for several years in formulating a bill which has already been introduced into the House, and there is no reason why it should not pass both the House and the Senate without much delay. The tax-payers and public-spirited citizens of Kansas are behind the measure. In this connection we call attention to an editorial from the Chicago Drivers' Journal on the subject "Kansas Needs a State Fair."

THE NEW KANSAS SENATOR.

Before this number of the KANSAS FARMER shall reach its readers, the legislature will have elected Hon. Chester I. Long to the United States Senate. Mr. Long is now congressman from the seventh Kansas district. His residence is at Medicine Lodge.

The contest for the nomination of the Republican legislative caucus has been a spirited one. Four members of congress and the outgoing Governor were aspirants. These were Congressmen Long, Curtis, Calderhead and Bowersock, and Governor Stanley. Long, Curtis and Stanley seemed to have about equal strength. It became apparent, however, that many of the Stanley men were very friendly to Long, but the caucus adjourned without making a nomination. Immediately, Governor Stanley called his friends

together, told them that it was evident he could not be nominated and released them from further efforts for him. Thereupon a great majority of the Stanley men sent for Long and pledged him their support. This gave Long a majority of the Republican members of the Legislature. Mr. Bowersock soon after announced his withdrawal from the race. Later, Calderhead and Curtis withdrew, so that, when the caucus reconvened, Mr. Long was nominated by acclamation.

If the choice had been left to a vote of the people of Kansas it would probably have resulted in the selection of Mr. Long. Ever since the question of reciprocity with Cuba has been an issue, Mr. Long has been a prominent National figure, cooperating with all the vigor of a strong and judicious statesman in the plans of President Roosevelt for at once redeeming the country's pledges to Cuba and at the same time providing a nearby market for surplus products of the farm and factory. Kansas Congressmen all favored the President's reciprocity measures, but the resolute and industrious part taken by Mr. Long placed him beside the resolute President in the promotion of a righteous measure which means dollars to the farms of Kansas.

Much has been printed about machine and organization in the selection of the Senator. Mr. Long is a competent organizer, no doubt, but the best organization work he ever did was to earnestly and persistently advocate the measures in which Kansas people are interested.

Kansas people have reason to be proud of the record made by the outgoing Senator, W. A. Harris. But for the overturning of the politics of the State he would doubtless have been returned to the position he has honored.

Mr. Long is a young man of breadth of view and great working ability. As a Senator he is likely to command the respect and merit the confidence of all Kansans.

DISCRIMINATIONS.

Those who have examined carefully into the "trust" problem have concluded that much of the evil which society suffers from the trusts results from the discriminations which they are able to force in railroad charges. By some, it is thought that if these discriminations could be eliminated the trust problem, for far as it interests the general public, would be solved. Most of the valid complaints against railroad charges are complaints against discrimination.

A remarkable thing about these discriminations is the fact that railroad corporations and managers would be glad to discontinue them.

When both parties affected by a practice are against it, a way ought to be easily found to stop it. But the practice goes on; the statute and the common law are violated or evaded, and there seems to be no remedy.

An anomalous condition like this is worth examining.

Formerly large shippers at competing points negotiated with carriers for special rates much as a contract for building a house or a bridge is let to the lowest bidder. The small shippers and those who were for any reason unable to obtain the concessions found themselves at a disadvantage. On the other hand the largest shippers learned to bargain so shrewdly that rates were often cut below cost of carriage. Railroad officers tried to bring excessive rate-cutting to an end by "pooling" agreements. This led to another kind of trouble, for the pooling agreements were, naturally, entered into at competing points only, and this amounted

to discrimination against non-competitive points. Objection was raised also by the heavy shippers because of the apparent disappearance of competition among carriers. Laws were enacted against both pooling and discrimination. Serious difficulties have been encountered in enforcing these laws. The largest shippers were and are continually demanding discrimination, either open or secret, and the railroads assert that pooling, or something equivalent to pooling, is necessary to prevent such rate-cutting as would bankrupt the companies.

The advantages to the towns, for whose business pooling arrangements were in effect, became great and obvious. The smaller communities reached by only one road, were and are the sufferers. So, too, the district or State as to which "community of interests" among carriers has been established, may make good losses which have been forced by communities where there is still cut-throat rivalry among railroads. Notwithstanding the laws and the belligerent though ill-defined public sentiment on the subject, the heaviest shippers still so manipulate the competition of carriers as to force discriminations in their favor. So, too, large towns have been able to regulate special rates their due. One of the ways in which they secure these is by pooling their shipping in the hands of an agent or committee with authority to concentrate it upon any road that will recognize the "rights" of the town to "suitable reduction of rates." This agent generally finds some road that can be brought to his views. A rate war results as soon as the other roads learn of the deal, when matters are patched up, but the town has secured a rate lower than is enjoyed by smaller places around. It therefore grows and prospers.

This assault upon rate is repeated at intervals by both individuals and the large town with the ultimate result of very broad and unjust discriminations. To get its share of the business without going below cost and without getting into the meshes of the law requires the efforts of the most costly employees of the railroad.

So great has this evil of discrimination become, so mischievously is it employed by the trusts that the general public and the general railroad manager are ready to join hands to make it impossible. Favored shippers and favored points are likely to try to render nugatory all attempts at remedial legislation, but where both the carriers and the great majority of the people are interested alike in preventing discrimination it is reasonable to expect that under such able leadership as that of President Roosevelt and the Attorney General, Senator Hoar and others of that class the day of relief is to be hoped for.

THE POLAND-CHINA MERGER.

The seventeenth annual meeting of the Standard Poland-China Record Association will be held in Maryville, Mo., on Wednesday, February 4, 1903. Every member of that association should be present at that meeting as matters of very great import to the breed will be considered, notably the matter of consolidating the Standard Record with that of the four other records of this breed into one great National record.

Every breeder who has the best interest of the breed at heart is favorable to this business-like proposition for consolidation. It is unfortunate that there seems to be some determined opposition on the part of the of-

(Continued on page 124.)

The Stock Interest.

THOROUGHbred STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper.

February 2, 1903—G. E. Fuller, Morrowville, Kans., bred Poland-China sow sale.
 February 3, 4, and 5, 1903—Combination sale at Wichita, Kans., Percherons, Shorthorns, and Poland-Chinas. J. W. & J. C. Robison, Snyder Bros., and others.
 February 5, 1903—Thompson Bros.' sale of Poland-China bred sows and gilts, at Marysville, Kans.
 February 6, 1903—Breeders' combination sale of Berkshires, at Kansas City.
 February 6, 1903—Winn & Mastin, Mastin, Kans., Poland-Chinas.
 February 10-11, 1903—G. M. Casey and T. J. Wornall, Shorthorns, at Kansas City.
 February 10, 11, and 12, 1903—J. F. Stodder, George Bothwell, and others, Shorthorns; also C. A. Standard and others, Herefords, at Oklahoma City, Okla.
 February 16, 1903—J. S. McIntosh, Manhattan, Kans., Shorthorns.
 February 17, 1903—Geo. F. Kellerman, Shorthorns, at Kansas City.
 February 18, 1903—C. M. Garver & Son, Abilene, Kans., bred Poland-China sows and gilts.
 February 20, 1903—S. S. Spangler, Milan, Mo., Percheron horses.
 March 3, 1903—L. M. Monsees & Son, Smithton, Mo., jacks, Jennets, saddle horses, and Poland-China swine.
 March 3 and 4, 1903—C. H. Gardner and M. A. Judy, Aberdeen-Angus cattle, at Chicago.

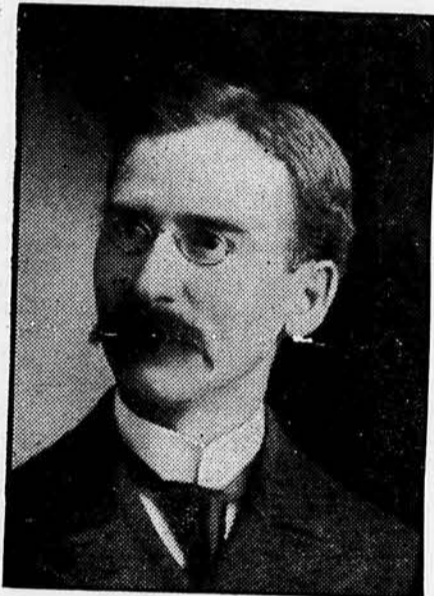
The Stockman's "Finish."

A. C. HALLIWELL, CHICAGO.

Paper read before the Kansas Improved Stock-Breeders' Association.

Gov. Stanley, referring to the increase of \$42,000,000 in the value of live stock in Kansas since 1898 and the increase of more than \$80,000,000 in the principal agricultural products, wisely strikes the key note of the situation when he says:

"If a halt is called in the movement to purchase on time at the present very high prices, it will be of great



A. C. HALLIWELL,
Editor Daily Live Stock World, Chicago.

benefit; in other words, if it has a tendency to keep our people from running in debt for what they buy it will result in much good."

In other words, the Governor wants the stockmen and farmers to prolong and not destroy their good fortune.

The Governor probably does not want to encourage any more brass-band cattle kings to work their credit to the limit and beyond and then make their finish in Mexico.

During every boom period in live stock, thousands of new people jump on the stock train of prosperity without having much idea of where they are going to get off.

The shining light of high live-stock prices attracts to their untimely finish great flocks of would-be stockmen.

Do you recall the boy's earless and tailless pig?

"How did he lose his ears, my son?"
 "I pulled 'em off getting him to his feed."

"Well, what about his tail?"
 "Oh, I had to pull that off to get him out of the trough."

The highways and byways of cattledom are full of human pigs that have lost their ears in getting in and their tails getting out.

People who endeavor to get into the business when everybody else seems to be doing the same thing and expect to sell out in time to avoid losses when everybody else seems to be getting out are only apt to get the worst of it, both "gwine and a comin'."

After having carressed the buzz-saw of boom prices on getting in, and being squeezed in the jam of enforced liquidation in getting out, your "In-At-The-Top and Out-At-The-Bottom" stockmen can see some points in the colored brother's exhortation when

with solemnity he remarked: "Dar am just two ways, my belubed bredren and sistern. One of dem ways leads straight down to destruction and de udder straight down to damnation;" and he can also sympathize with Old Black Joe, who rises up in the Amen corner, and after adjusting his specs so he can look over them at the preacher, declares, "If dat am a fak, den dis heah darkey am gwine to take to de bresh."

During the memorable year of 1902 when prices went up like a rocket and came down like the proverbial stick, the stock business was marked by some desperate finishes.

Speculative plunging in live stock is not very different from speculative plunging in anything else.

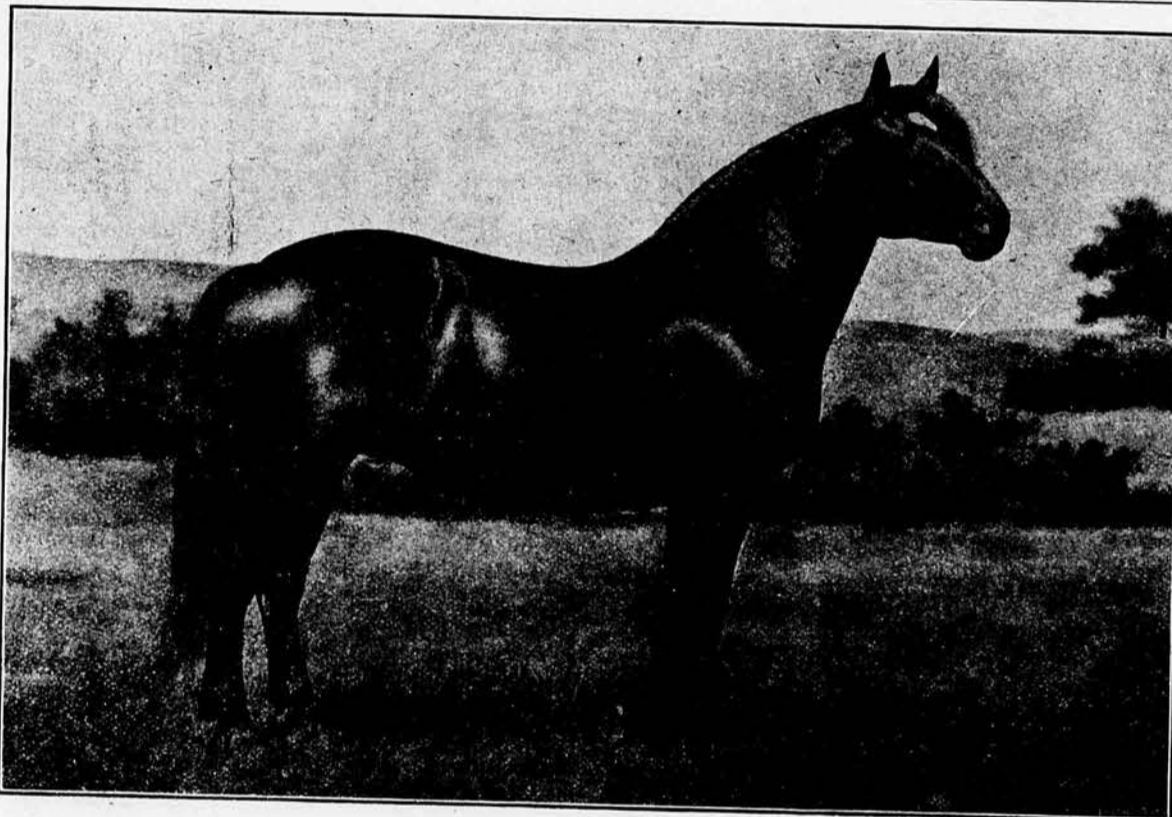
The Iowa man who deeded over an \$18,000 farm because he thought prices were going to stay up to a certain figure for some months after they began to tumble, did not even have the hollow consolation that comes to the "babies that bet on the 'bang tails,'" who, at least, "get a run for their money."

Hosts of reckless men who bought 5@5½ cent feeders and sold warmed up cattle at panic prices, certainly reckoned without their finish.

The men, however, who make the best finishes in the stock business, are of two classes; first, those who make themselves independent by picking up a few animals here, a few there and a few somewhere else, and who breed and feed steadily and systematically, as they would expect to run any business. These people work right along one year with another, being prepared to do what the Dutchman meant when he said the way to do was to "take the bitter with the sour." The second successful class are those who figure out what the crowd is going to do and then do the other thing; that is, they buy most when others are most anxious to sell, and as a rule have something to sell when the others are "all in."

Then, too, the stockman who makes the best finishes are those who keep closest in touch with market supplies and demands and changing conditions.

No matter how good an education one may have acquired in the practical schools of breeding-pen and feed-lot, his education in the school of live stock can not be complete without a post-graduate course, so to speak, at the stock yards, where all sentiment and theory are thrown to the winds



PERCHERON MARE, BIJOU 18372.

Owned by J. W. & J. C. Robison, Towanda, Kans., and consigned to the combination sale at Wichita, February 3, 1903. Bijou is an outstanding draft mare. Standing on a beautiful set of clean limbs, she carries the immense weight of 2,100 pounds. A show mare and a brood mare. Her show record this year, the only time ever shown, is probably unequalled by any mare shown this year in America. Her winnings for 1902 were as follows: Missouri State Fair, 1st in class for mares 4 years and over; Kansas State Fair, 1st in class and sweepstakes mare any age or breed; Southwestern Exhibition, Wichita, 1st in class; Butler County Fair, El Dorado, 1st in class and sweepstakes for draft mare any age or breed. Her breeding is all that could be desired, being a great-granddaughter of the noted Brilliant. Bred to Casino (45462) 27830 April 9, 1902.

Men who had the cattle and the corn and agreed to put them together by a certain time at a certain good price, did not always get as much from the speculator as they could have gotten on the open market when the contract was closed, but they were wisely working upon the sound business policy of taking reasonable profits and letting others take unreasonable chances.

Perhaps to bring about successful "finishes" there is more room for improvement in feeding than in breeding methods. The tendency to fill the feed lots with animals grown by somebody else in not without its advantages, especially while there are sections in the range regions adapted for nursery work more than for finishing; but men like L. H. Kerrick, with wide experience as breeders and feeders, can tell of the advantages of a man breeding as well as feeding his own stock.

Uniformity of finish can only be secured by uniformity of stock at the start, and that can best be secured by a man being fitted to do his own breeding as well as feeding.

The saying, "well begun is half done," is trite and often true, but when it comes to the "stockman's finish"—the stock yards—one might better have stock that is well fed, though poorly bred, than well bred and badly fed.

When things are booming, it takes nerve for one not to be carried away by the crowd, and when values are very low it seems to be still harder to disregard the actions of the many who always figure that high means STILL HIGHER and low means NO BOTTOM.

and practical conditions and plain, hard facts must be faced—that is the stockman's finish.

Class Advertising.

FRANK B. WHITE, CHICAGO, ILL.

Paper read before the Kansas Improved Stock-Breeders' Association.

I am here to tell you something about class advertising, and class advertising before an audience of this kind must mean live stock advertising. For sometime it has been my privilege to work along advertising lines with the various classes that have to do with agriculture. No class is of more importance than that of the live-stock breeder. The very name of your association has an advertising ring to it, and speaks out to the Kansas world the advantages of improved live stock.

If there are any here who are breeding live stock who do not care to sell it at better prices than they have been able to obtain in the local market, my talk will not have in it very much that is of interest. If it is your desire to seek ways and means for the disposition of your surplus stock at better prices than you have been able to obtain in the local market, you surely ought to be interested in my remarks.

Advertising carefully and judiciously planned and placed is one of the most essential features of the live-stock business today. It follows successful live-stock breeding and makes the live-stock breeder a business man in the full meaning of the term.

The question as to whether advertising pays need not be discussed here. In fact there are no grounds for the discussion of that phase of the subject.

ELECTRIC FOR STRENGTH
 You are through with
 wag worry forever when
 you buy one of our
HANDY WAGONS.
 They carry 4000 lbs. and do
 it easily, and don't cost a
 fortune either. Write for the free catalogue. It tells all
 about this wagon and the famous Electric Wheel.
ELECTRIC WHEEL CO., BOX 46, QUINCY, ILLINOIS.

It is sufficient to know that the intelligent men of the business world have cast about and selected the very best talent for the management of their advertising departments. Not only our great mercantile establishments but the manufacturers and the various classes that have to do with agriculture are to be counted in our consideration of this subject.

It is not an uncommon thing to read of some of our progressive live-stock breeders paying almost fabulous prices for good specimens in order that they may raise the standard of their flocks or herds. A Hereford bull sold in Chicago in 1900 for \$7,500. You have had similar records, in fact greater, in the Kansas City market. The manager of Vanderbilt's poultry-farm at Biltmore, N. C., it is said has offered as high as \$500 for a single chicken. It is need-

less for me to quote prices that some of the best specimens of stock of all kinds have brought. As breeders you are probably better posted than I am along these lines. No doubt those of you here have some most excellent stock at home, stock that has cost you a great deal of money, time, patience, and long waiting. I wonder if you ever take an account of stock, cast a balance and see on which side of the ledger your account stands. Have you ever asked the question whether it really pays to breed fancy live stock? Do you always make sales that are satisfactory, and is there a market for all that you produce at prices as high as you would like them to be?

What is the use of it all if you can not make it pay, and surely, gentlemen, if it does not pay in these flourishing, prosperous times, it never will under your present system. Nothing can be sold without advertising. Before an article or an animal can be purchased it is necessary that the buyer should know who keeps that which he wants, and this letting the public know is what is called publicity or advertising.

In former years advertising consisted in blowing a trumpet, or criers were sent out who would go from village to village and announce by word of mouth what was for sale, where it was found and by whom offered. The county and state fairs, expositions, shows, etc., are all means of advertising and they are good as far as they

TO CURE A COLD IN ONE DAY
 Take Laxative Bromo Quinine Tablets. All
 druggists refund the money if it fails to cure.
 E. W. Grove's signature is on each box. 25 cents.

go. I was interested as a boy in hearing the advertising argument that would go on between two farmers who would chance to meet at the end of the furrows, and while their horses were taking a breath they would advertise to each other the things they had to sell, what they proposed to do and how they would do it. Perhaps at the other end of the furrow the advertising would go on with another farmer and by word of mouth it would be known that John Smith had a Berkshire pig for sale and sometimes that intelligence would travel for miles. Perhaps Smith would sell the pig by that method of advertising.

Sunday visiting is not always given up to the discussion of the topic of the Sunday school lesson. Farmers like to see what others are doing, and while they are seeing they are talking, and it usually ends about the same as David Harum's horse trading. If you have good stock for sale it is your privilege to advertise it in this way, but I want to tell you of a better way.

There probably is a poor newspaper publisher who is working mightily hard to eke out an existence in your town, and instead of you wasting a whole lot of breath in doing your own advertising, let him have fifty cents or a dollar and he will talk to four or five hundred of your neighbors. If you have but a few animals for sale, that will help you. If you are a breeder and want to reach beyond your immediate locality, use such papers as the KANSAS FARMER, the Farmers' Advocate, the Poultry Gazette, the Missouri Valley Farmer, and others that circulate in your State.

If you have reached that point where



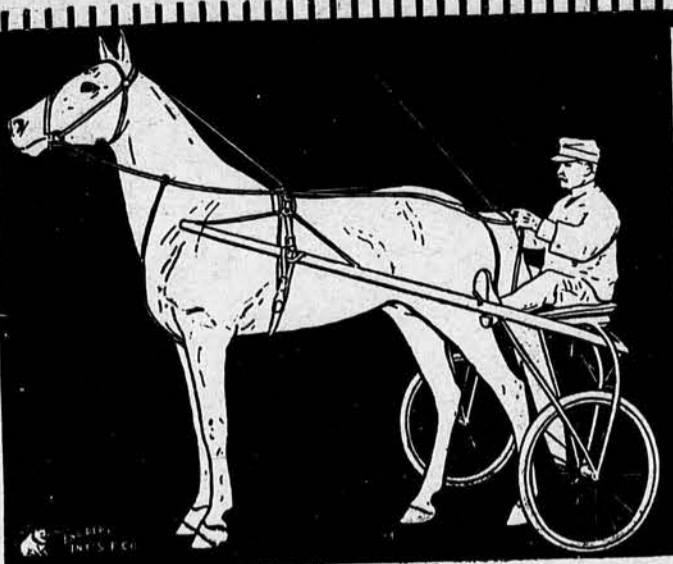
FRANK B. WHITE,
Editor Class Advertising, Chicago.

you have graduated into the class of general advertisers you may then consider that you are on very dangerous ground so far as the advertising subject is concerned and may want the advice of one who knows something about it from years of experience. This is where the advertising agency can advance your interests.

I maintain that every farmer should be a business man, and conduct his business upon the loss and gain basis just the same as the manufacturer or merchant does—only he should be sure that it is gain instead of loss. If you have a lot of stock for sale do not push it to the back end of your farm, but keep a good pasture near the road so that the passer-by may behold some of your best specimens, and if they have not the money to pay for the best specimens, you can take them to the back end of the farm and sell them something of more common value for the improvement of their scrubs.

If you ship stock to distant points be sure that the crate and everything that goes with it is first-class. You can advertise yourself all along the line by seeing to it that what you do in this direction is well done. A good label, shipping tag, or sign, is a valuable adjunct. It is a good idea to have your advertising literature well prepared. Good letter-heads, a good circular or booklet,—make it good. Get out of the notion that the people who are interested in your good live stock are hayseeds and do not care for fine printing.

The farmer is fast becoming an intelligent individual. This is due to the advanced progress made by the agricultural press, which embraces all class papers that relate to agriculture. The agricultural college, the agricultural department at Washington, the improved transportation facilities, the rural mail delivery, telephone, electric interurban railways, farmers' institute



DAN PATCH
Officially Timed at Readville, Mass., Sept. 23, in 1:59 1/4
Champion Harness Horse of the world.
This Engraving was made from a Photograph taken when ready to race.

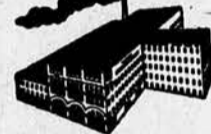
THE \$60,000 PACING STALLION

Just purchased by M. W. Savage, Minneapolis, Minn., as one of the leading stallions for his "International Stock Food Farm." The purchase of Dan Patch was a tremendous sensation in horse circles, and was taken up and given columns of notices in all of the leading dailies throughout the entire country. The price was over Three times as much as was ever paid for a pacer, and by far the largest price paid for a harness horse for a long term of years. This farm is now one of the most famous horse-breeding farms in the world, as Mr. Savage owns the Three Fastest Stallions ever owned by one man or by one farm, Dan Patch 1:59 1/4—Directum 2:05 1/4—Roy Wilkes 2:06 1/2. The establishing of this farm in Minnesota, 12 miles from Minneapolis, means a great deal for the live stock interest of the Northwest as well as for the entire world. It will add thousands of dollars every year to the live stock interests of Minnesota alone, and Mr. Savage expects to prove to the world that high-class harness horses can be raised in the Northwest as well as in other parts of the United States. You are cordially invited to visit "International Stock Food Farm" whenever you are in this vicinity. You will find the celebrated "International Stock Food" 3 FEEDS FOR ONE CENT fed every day to our Stallions, Brood Mares, Colts, Race Horses and other stock. "International Stock Food" has the largest sale in the world for Horses, Cattle, Sheep, Hogs, Colts, Calves, Lambs and Pigs. Over 50,000 dealers sell it on a "Spot Cash Guarantee" to Refund Your Money if the results of feeding it are not perfectly satisfactory to you. It will cause your colts and other young stock to grow rapidly even during the winter. Keeps them free from worms and tones up and strengthens the entire system. It Will Pay You To Test It At Our Risk On Your Stock.

A \$3000.00 STOCK BOOK FREE

IT CONTAINS 183 LARGE ENGRAVINGS OF HORSES, CATTLE, SHEEP, POULTRY, ETC.

The Cover of this Book is a Beautiful Live Stock Picture Printed in Six Brilliant Colors. Book is 6 1/2 by 9 1/2. See engraving for greatly reduced design of cover. It cost as \$3000 to have our Artists and Engravers make these life Engravings. This Book contains a Finely Illustrated Veterinary Department that will Save You Hundreds of Dollars. It describes common Diseases, and tells how to treat them. It also gives Description, History and Illustrations of the Different Breeds of Horses, Cattle, Sheep, Goats, Hogs and Poultry. It contains testimonials, and Life Engravings of many very noted Animals. The Editor of This Paper Will Tell You That You Ought To Have This Book in Your Library For Reference.



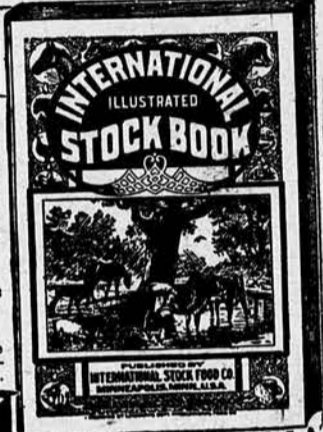
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work, and numerous other agencies are at work for the advancement of agricultural ideas.

It is unnecessary for me to call your attention to the fact that the range question does not concern Kansas people to any great extent. It has given place to the ranch, and the ranch is fast being divided up into small farms. The question that concerns you is how you can produce more on less land. You are concerned in making two blades of grass grow where but one grew before. You are further concerned in driving the product of your farm to market rather than hauling it there. You are concerned in keeping the animal fertility on your farms, and by the successful breeding and marketing of your live stock you become more prosperous, and, in turn, you become better citizens. At least that should be the law of progression. Will it pay you to improve the condition of your farms to meet the requirements of a good advertising proposition? I leave this thought with you and I want you to take it home and think it over.

Let me give you a little experience of an advertising solicitor who chanced to step off of a train at an Indiana railroad station. In answer to the solicitor's question he (the breeder) said: "I'm using a lot of the stock papers, and I sell some of my way-up stuff to breeders, but you know all kinds of live-stock produces more or less stock that is not quite up to the mark from a breeder's way of looking at it. The breeder may be all right, and I know mine is, but the young stuff lacks some fancy point and it must go at beef or pork prices, when, if it was in the hands of a man who had common stock it would make him a lot of money."

"You sell this second-grade cheaper, I presume."

"Sure; I can't sell it to the man who has show-stock and the man who ought to have it does not come to buy it. I've got neighbors who raise corn and sell it at market prices when they might be getting forty cents a bushel for it if they would breed hogs or cattle and feed the corn. They sell \$1,000 worth of corn and their farm has \$350 worth of fertility lost to it, when, if they had fed it to hogs or cattle, they would have saved most of the fertility and got \$2,000 for the stock they fed the corn to."

"You are using stock papers alone?"

"Yes, I want to get at the stockman."

"Why don't you try the farm papers?"

"Just because not one farmer in ten reads anything that tells him about his business."

"How about the one in ten that does read?"

"He's all right and up-to-date and makes money."

"Did it ever strike you that the one farmer in ten who does read and is up-to-date would be a pretty good fellow to get after to sell your good, but not fancy stock to?"

"Oh, I don't know. There's Jones over at Smithtown, who advertises in the farm papers and he is in the same boat with me as far as orders go."

"Yes, I am going to see him this afternoon," said the advertising solicitor. "The trouble with Jones is that he does not use the right kind of advertisements. I have one of them here," and he pulled out a card case and extracted from it this ad:

POLAND-CHINA SWINE.

I extra good 2-year-old sow safe in pig to Black Hawk 99th, fine individual and good breeder at \$35. She is as good as I have seen sell at public sale for \$350. A few good sows due to farrow in June or July. Also good lot of October and November male pigs. W. H. Jones, Smithtown, Ind.

"You see," continued the advertising man, "Jones says the same thing that ten or fifteen more men say and all of them have their advertisements in the same column, or on the same page. I was thinking about Jones last night over at the hotel and I thought I could improve his advertising, and I am going to see him about it."

"Huh, what do you know about breeding live stock?" asked the live-stock man.

"I don't know as much as I might," replied the advertising man with undisturbed serenity, "but I've thought of some thing about advertising live stock that the breeder seems to have missed."

"My card in the papers is just like Jones; we got 'em up one day when it rained; the only difference is that mine mentions the cattle."

"If you wanted to get a man to begin breeding hogs how would you begin?"

"I'd try to get him in the notion first, and then try to sell him my stock."

"That's a good plan. You wouldn't try to interest him by telling him the same thing ten or twenty other men had said before, would you?"

"Well, I guess not; I'd try to think up something new."

"Why not try that with your advertising?"

"There doesn't seem to be anything to say, except to tell what kind of stock a man's got to sell, and tell the price, if he wants to price it to the public."

"Why don't you try the same plan you did on me?"

"How's that?"

"You gave me half a dozen good arguments why a man should breed stock instead of selling corn, and I'm going to look into the matter when I get home."

"I couldn't pay for the space to say all that in the papers; it would break me up."

"Let me see," said the advertising solicitor, pulling out a fountain pen and a pad of paper, "what we could make out of what you said."

Laying the pad on top of the fence he scribbled away for a little while and showed the breeder this:

40 CENTS FOR CORN.

The man who feeds his corn to hogs or cattle gets about 40 cents a bushel for it at present prices. \$1,000 worth of corn takes about \$350 worth of fertility from the farm; if sold, it fed to hogs or cattle \$275 of this is saved and the stock sells for \$2,000. Profit \$1,275. I have Poland-China swine and Shorthorn cattle, high-scoring for breeders, cheaper ones—same breeding—to improve common stock. My circulars are interesting; I send them free. John H. Smith, Jonesville, Ind.

Now, one word as to the following up of your advertising after you have placed it in the newspaper. Many an advertiser will meet you with the argument that he gets inquiries but makes no sales. He spends a goodly sum of money and not making sufficient sales gives up the idea of advertising and ever after condemns it. I dare not recommend advertising under all conditions, but if conditions are favorable it is just as sure as crops are in the most favorable section. Not everyone makes a success of it, but failure is generally traceable to some well-defined causes. If there is any one thing that you should be careful about it is in the placing and handling of your advertising. I dare say that you will make all sorts of sacrifices to take care of a colt or a lamb or a pig because it is of value. You can see that value. Unfortunately advertising is something that you can not measure by the bushel of weigh on the scales. I confess that we have got to exercise a great deal of faith, but the natural law of cause and effect operates in advertising just as it does in farming or in business. "As ye sow, so shall ye reap." If your advertising is well done, you get inquiries from interested parties or possible customers. That inquiry means a great deal to you, and right here I wish to repeat a part of my address before the Minnesota State Horticultural Society at Minneapolis recently:

When you receive an inquiry in response to your advertising, you should make it your positive duty to treat that inquiry just as you would a new friend. It costs something to get an introduction to that friend, it is worth your while to pay a little more for the privilege of doing business with him. I would treat that individual inquiry just as if there were no others, and as though the success of my business depended upon making a sale to that particular individual. The careful fol-

lowing up of that new acquaintance may lead to a business friendship profitable not only with him but with his friends and his friends' friends, because advertising has wonderful expansive power. Thus you see the continued accumulative effect of good advertising.

It is a good plan for every breeder of live stock to interest as many of his neighbors in the same breeds as he can so that he may be in a position to meet the demand of his customers from practically his own stock. Do not be huckster in the business, be a legitimate advertiser, inculcate personality in the breeding of your stock and the transaction of your business and every bit of advertising you do will add to your stock in trade and your business will grow in public favor and your pocket-book will surely feel the effects of it.

I do not believe in advertising in the bargain counter advertising style for the live-stock breeder. To advertise pigs for sale at \$10 each means that some one may get a pig that is worth \$10 and some get another not worth half that amount. Perhaps a few will draw prizes, but the great majority will get left.

It seems to me that a great deal better way would be for the live-stock breeder to request in his literature a statement from his applicant as to the particular quality or degree of excellence wanted, and then it should be his aim to try and meet that demand, and at all times let it be known that he stands ready to make good any promise or statement that he has made. But do not sell a pig worth \$25 for \$5. Do not be afraid to ask what the animal is worth.

Every successful advertiser in a community adds just so much to the wealth of that community. I know of advertisers who are bringing into villages of very small population as high as \$50,000 a year, that money is very largely expended in the community. An advertiser brings money to the community which goes to enrich the community while the ordinary farmer who sells everything for the Kansas City or Chicago market gets his money for it but not half the amount he should.

A business that is worth your while to engage in is worth being advertised. Live-stock that it is worth your time to breed and care for is worthy of the very best advertising.

It is as easy to sell a pig in Florida, Maine, Oregon or California by advertising as it is to sell it in your next county. A manufacturer of incubators in California has made frequent shipments by water from San Francisco to the Atlantic coast. He has sold also by advertising, to be shipped by freight in the State of Maine. On the other hand, some of eastern manufacturers in the same line are sending train loads of incubators to California.

I have been asked what I thought about all-year-round advertising for the live-stock breeder. That depends upon the capacity of the advertiser. It is useless to advertise when one has nothing to sell. Sometimes it is advisable to advertise when you are certain that you will have something to sell in the near future, but it is unwise for any advertising man or newspaper publisher to urge upon an advertiser the use of space when it can not be used judiciously. Strike while the iron is hot.

Our 4,000-acre Experiment Station and Its Possibilities.

J. G. HANEY, SUPT. HAYS BRANCH KANSAS EXPERIMENT STATION.

Paper read before the Kansas Improved Stock-Breeders' Association.

It seems that Providence looks out for Kansas to see that we have big things. The area of land now controlled by the Kansas Experiment Station at Hays is not equalled by any other State in the Union. It is practically 4,000 acres, every foot of which, except the actual creek-bed, is as fine agricultural land as there is in the State. To an Easterner this is a strange statement, but it is only asked of him to come and see. Many visitors have praised the judgment of some army officers in selecting this body of land. The broad level bottoms along the stream running through the tract, gently rising to the upland, together with the large trees and tall blue stems, elicit ejaculations of surprise from all visitors.

It must be remembered that this tract of land was raw sod until last March. Not a cent was spent until the arrival of the superintendent on March 28, 1902. There was no definite plan laid out and only a pittance to begin with. In satisfying a number of squatters, rather than delay work by a

long trial, they were given leases of from three to five years (two years have elapsed). About one-third of the land is so encumbered, and some if it where it is most desirable for opening experiments.

Five hundred acres were broken, nearly half of which was planted to sod-crops as follows:

	ACRES
Cane, sowed thickly	5
Cane and Kafir, sowed thickly	5
Kafir, sowed thickly	11
Barley	25
Macaroni Wheat	12
Corn	15
Millet	8
Cow-peas, in rows 30 inches apart	6
Kafir-corn, in rows 30 inches apart	70
Bromus inermis	4 1/2
Alfalfa	22
Two varieties of millet	2
Kansas stock melons and other melons	10
Peanuts and carvansas	1/2

In addition to the above there has been planted a grass garden containing 31 varieties of grass in plats, most of which are 14 by 24 feet. In each plat 36 hills are planted, 1 foot apart each way except in the alfalfa and bromus inermis, in which there are 240 hills of each. This is for the purpose of observing individual plants, and possibly the selection of superior individuals, as each hill will be thinned to one stock. Also about three-fourths of an acre is set to trees and shrubs sent out by the Agricultural College.

On the old garrison garden-patch has been planted, one acre of potatoes, half of which is mulched, a smaller area to Jerusalem artichokes, three varieties of cow-peas, three of soy-beans, four of corn, cane, Kafir, rape, penicillaria, and a vegetable garden which belongs to the Normal School people.

The prerequisite of a good crop, a good stand, was a secured of everything. The season was not wholly favorable. The barley and macaroni



J. G. HANEY, Superintendent Ft. Hays Experiment Station.

wheat were planted a month too late for best results, but notwithstanding being planted late and on green sod, made fair showings. The twenty-two acres of alfalfa sown from May 26 to 29 in a bend of the creek known as "Camp Custer," but was a prairie-dog town in March, was cut fifty-seven days later and made a fair crop of hay. By actual measurement the growth in places was twenty-four inches. Visitors declare it the most perfect stand ever seen (fifteen pounds of seed was sown per acre). After reserving what would be needed, feed enough was sold to winter 300 head of stock. Two of the varieties of grass appear to be very promising. When even cane and Kafir-corn dried up to the burning point, they were as fresh and green as during the wet periods. If they prove to be what they appear, their value can not be estimated.

To protect the land from trespassers, and to complete a five-hundred-acre pasture, ten miles of wire fence have been built. Some of the old Fort buildings were moved to the "Farmstead" for use. One has been fitted up as a residence; others as a barn, granary and tool-shed, temporarily. Wells have been put down, and such machinery as was absolutely necessary has been bought, begged and borrowed. About four hundred acres of the reservation was occupied by the prairie-dogs, but by using a preparation made by the experiment station for destroying these pests, within thirty days from the time of beginning work on them, they were entirely exterminated at a cost of eight cents per acre.

Until the middle of September, one bald-faced saddle-pony was the only animal owned by the branch. At this time money for buying one team was appropriated from the funds of the college at Manhattan. With this team

and some others that were hired, the fall work was done.

In September fifteen acres more of alfalfa was sown and a fine stand secured with ten pounds of seed per acre. Two hundred acres were sown to wheat, all of which is in experiments such as could be conducted on sod. A part of this work is in cooperation with the Department of Agriculture in charge of M. A. Carleton, cerealist, and a graduate of our agricultural college. There are planted on the station here 165 varieties of fall wheat and nine varieties of rye which have been selected as being adapted to this climate. Many of them are new importations from northern Europe and Asia. There are also a large number of Kansas hybrids of promise. The quantity of seed sown of these varieties ranges from three grains to one hundred bushels. Each variety is carefully planted, staked off and marked with a zinc label. They will be carefully watched with the hope of finding something superior to the varieties now being grown. While an increase of one or two bushels per acre does not look large, yet when it is considered that it costs no more to plant and harvest the increase, and that we plant four or five million acres, it will make quite an appreciable addition to the total wheat yield. The possibilities are only conjectures. Before the Turkey wheat was introduced about twenty-five years ago, the wheat industry of our State did not compare with what it is to-day.

FUTURE WORK.

It is considered impossible to outline definitely what will be done in the future. If it was known now what is hoped will be known twenty years hence, this work could be outlined and followed for that length of time. The work will be divided into several branches: field crops and field operations, plant breeding and selection, forestry and horticulture, irrigation, animal husbandry, including dairying, stock feeding and breeding. It will be seen that the beginning made in these lines will depend on the amount of money appropriated by the present Legislature for this purpose.

THE FIELD CROPS AND FIELD OPERATIONS will be the testing on a large scale of new crops before they are distributed, and also the trial of methods of cultivation. It has been said that there is no place where good farming will pay better, and no place where so much poor farming is done as in the middle and western parts of our State. Every different country must have its own methods of work. The great drawback to Western agriculture has been that Eastern men with Eastern ways have tried to farm in Kansas as they did in "Ohio" and "Indiana." It has taken a generation to learn that Eastern ways would not succeed. The next twenty years will work a great change in the methods of cultivating the soil. The farms are growing smaller, and the range decreasing. This will necessitate a more intense and diversified farming. It is the object of the experiment station to assist in developing new methods and making them known. There is also a great field for the experiment station in simply trying the various new implements. There are hundreds of thousands of dollars thrown away each year on worthless stuff sold by smooth-tongued salesmen.

THE PLANT BREEDING

work will be conducted largely in cooperation with the Department of Agriculture, and will be carried on along two lines. The direct selection of superior individual plants as a probable basis for improvement will perhaps be the most important. In the stock yards can be seen what such selection has done for animals, and it is entirely reasonable to suppose that as much can be done with plants. This method will be applied to all the grains, grasses, vegetables, fruits and forest trees that are adapted to the conditions of central and western Kansas. Hybridizing or crossing will also be followed to some extent. It is hoped that a great deal may be done with corn, and the large area will make it possible to grow a number of varieties, which is not possible with many stations.

THE FIELD OF FORESTRY AND HORTICULTURE

is also very important. Not only for the products in fruit and fuel, but as a means of beautifying the country. The growing of trees, if enough are grown, will also better the climate, reduce the severity of hot winds and distribute more evenly the rainfall. Besides these facts, the growing of fruits, vegetables and ornamentals will, no doubt, change for better the character

Horse Owners! Use GOMBAULT'S Caustic Balsam

A Safe, Speedy, and Positive Cure

The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUSTIC OILS OR BRIMING. Impossible to produce scar or bluish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Cleveland, O.

BALMOLINE The Corn-Husker's Friend.

And Nature's Perfect Healing Salve

MAN OR BEAST.

Druggists, or by mail. Trial box, 4c; 2 oz., 25c; 6 oz., 50c. Balmoline Mfg. Co., Sta. B. Abilene, Kas

LUMP JAW.

A positive and thorough cure easily accomplished. Latest scientific treatment, inexpensive and harmless. NO CURE, NO PAY. Our method fully explained on receipt of postal.

Chas. E. Bartlett, Columbus, Kans.

Immune Hogs

The pigs are born Cholera-proof.

Inoculation before birth the most scientific and best hit ever made in preventing Hog Cholera. Write for free book and agency.

ROBERT RIDGWAY, Box 300, AMBOY, IND.

MOORE'S HOG REMEDY

The Original Hog Dip.

Used on Outside and Inside of Hogs

Kills lice and fever germs, removes worms, cures mange, canker and cough; aids digestion, promotes healthy growth, and Prevents Disease, at Small Cost.

At dealers in Sealed Cans Only. Useful book with illustration of Dip Tank FREE. Address

MOORE C. & M. CO. L. 1501 Genesee St. Kansas City, Mo.

of the people by making their homes attractive and comfortable. The experiment station will seek to develop methods for growing, as well as develop or introduce varieties of vegetables, fruits and forest trees suitable for our climate and soil.

The question of irrigation is also coming to be of considerable importance. The elements are too uncertain to be wholly depended upon; and as the country becomes more thickly settled, this fact becomes more eminent. Plans are already being drawn up to be carried on in co-operation with the irrigation investigation bureau of the Department of Agriculture. The plan will be to see what can be done with well and pumps such as may be had on nearly every farm.

IN ANIMAL HUSBANDRY it is hoped that a beginning may be made next summer with 100 head of native cows. These will be bred to several breeds of bulls, beef and milk, and the offsprings either milked or fed for beef as the case may be.

It is the intention to reserve one thousand acres or more of native grass for pasture and range improvement experiments. Four or five hundred acres will doubtless be put into alfalfa, and the remainder used in the conducting of experiments with crops, etc. One quarter-section will be used as the "Farmstead." The buildings, feed-lots, garden, orchard, etc., will be located on this in as convenient and tasteful manner as possible.

The experiment station now has control of only half of the reservation. The western branch of the State normal has the other, and is leasing it on the crop plan. This arrangement can be only unsatisfactory to the normal people, and the leasing of the land to parties whose only interest is to get all out of the land possible will be serious. It is to be hoped that some arrangement can be made whereby the experiment station can come into control of the whole 7,500 acres. It should never be thought of that the branch

The Books Are Free

Spavin
Ring Bone
Knee Sprain
Fistula
Poll Evil
Lump Jaw

If you have a horse that is lamed or blemished by any kind of a growth or enlargement, that is, Knee Sprung or has Fistula, Poll Evil or Swoeny, or if there is a case of Lump Jaw among your cattle, write us at once. We will send you two big booklets. One tells you just how to cure these diseases and blemishes. The other proves that you can cure them, and we guarantee you success besides. Same methods employed by over 140,000 farmers and stock owners. Write for the books and tell us what kind of a case you have to treat.

PLEMING BROS., Chemists,
213 Stock Yards, Chicago, Ill.

there is no question, but if its tonnage is short it must explain. A few years ago the making of time was the requisite, now it is all tonnage.

At the time for shipment we are shown another schedule, namely, freight rates. These do not vary nor are they behind time, but we must pay them fully or have no service. We pay our money for service we do not get, and under other circumstances the law would claim we had been defrauded. Getting our adjustments of a damage claim is a myth. If we get anything the time and expense devoted to it will eat it up. This rate business is perhaps the greatest disadvantage the breeder has to contend with. In my experience many parties wanting to purchase stock, have objected so seriously to the high freight rates that I have lost the sales and they have bought inferior animals in their own vicinity. In cattle for instance, the Western classification is something like this: A crated calf under 1 year old can be shipped at one and one-half times first-class rate, and anything over 1 year old takes the first-class rate, or a 200-pound calf shipped by freight you will be charged the same as for 500 pounds, or 78 cents per hundred for each one hundred miles. Thus making a 200-pound calf cost \$3.90 per 100 miles. Again, for a 700-pound calf, should he be over 12 months old, you are compelled to pay the rate for 2,000 pounds, or on a distance of 100 miles, it will cost you \$10.40. It costs you \$3.90 for a 500-pound calf (or anything under 500 pounds) for each 100 miles, and \$10.40 for 700 pounds of anything over 1 year old, making the difference, 200 pounds, cost you \$6.50. Thus you pay \$6.50 to ship 200 pounds 100 miles, and \$3.90 to ship 500 pounds the same distance. Before the company will accept your consignment at the above rate, you must sign a release in case of death or injury for an amount far below the animal's actual value. Horse-rates are very much the same as cattle-rates.

Let us look at the hog question. It is so dangerous to ship a hog by freight, that, owing to disease which has been carried in this same car, a shipment of a single hog is hardly ever freighted. One dare not run the risk, so must ship by express. Should he be compelled to ship but a short distance, and have two express companies do the work, he must pay the drayage from one depot to the other and also pay a double rate of express. A man shipping a hog by express, say 25 miles with one company, and 10 miles with the other, is charged a double rate or it costs him as much to ship 35 miles as it costs to ship 100 miles with one company. In expressing other fine stock the case is the same. Why not pro rate?

Here is a man who is shipping one horse that he feels that he can not get full value for at home, and the remainder of his fat hogs, which just fill a car. He has built a good partition to keep the horse separate from the hogs, but to his surprise finds that he must pay the highest rate for this common-stock car, which is the horse-rate, merely because he has loaded one horse. Thus he is charged for a full car of horses. The same thing applies to a mixed car of hogs and cattle. You pay for a full car for whichever requires the higher rate. Stockmen are not often lawyers and do not know just what rights legislatures have with corporations. But could not grievances be adjusted by our legislatures? I am told by stockmen that the railroads are now making all the profits owing to the way shipments are handled, and unless something can be done to remedy this evil it must and will work an even greater hardship to the breeder of pure-bred stock.

Anecdote of Wm. Warfield.

EDITOR KANSAS FARMER:—Sometime away back in the 60's or thereabouts, a gentleman from Virginia called upon Wm. Warfield, the noted Kentucky breeder of Shorthorns, wishing to buy a heifer for the foundation of a small herd, and of course he was desirous of getting one of the best. They started out to look at the stock, and in the first pasture they came to what was a fine 2-year-old roan heifer to which Mr. Warfield called his attention. After looking her over the price was asked, and she was priced at \$200. A more critical examination was then made, and the desire expressed to be shown something better. Mr. Warfield at once suspected what was wrong, and it turned out that his diagnosis was correct, as we shall see. He asked to be excused for a few minutes, on the plea of having forgotten something,

WOULD YOU BE STRONG

WE SAY
We are willing to risk our whole reputation on your being repaid for your purchase of **WATKINS' Vegetable Anodyne LINIMENT.**
It will save doctor's bills and may save your life. Buy of our agent—a special bonded representative of the largest company of the kind in the world. He brings a \$500,000 laboratory to your door. Watkins' Home Doctor and Cook Book free.
The J. R. Watkins Medical Co., Winona, Minn.
28, Liberty Street,
(We have a good proposition for agents in unoccupied territory.)

THE HELPING HAND

OTHERS SAY
Enfield, Conn., May 1, 1902.
Last Fall, having a terrible backache, I tried everything I could think of and having some of Watkins' Vegetable Anodyne Liniment in the house, I applied that, and in a few hours I felt better and in a week I was entirely cured. It is also the best thing for colds, sore throat and all throat and head troubles.
MRS. MABEL HANDLEY,
Dover, Minn., May 16, 1902.
I have used Watkins' Veterinary Ointment for sore shoulders, neck and barb wire cuts, and found it by far the best and cheapest ointment I ever used.
J. I. VERMILYA.

experiment station should be self-supporting. Many experiments will not prove successful, but will be just as valuable as those that do. It costs more to be careful and know what is being done, even when the work can be done on as large a scale as will be possible here.

The location of the branch experiment station in the so-called "semi-arid West" and the fine body of land makes it a most important acquisition to the State. The results of the work done here will be applicable over a larger area, and on areas needing such help more than perhaps any other experiment station. The people of Kansas are coming to have more confidence in the experiment stations and are looking to them for help. The value of such an institution to the State can not be estimated. A single variety of wheat that would increase the yield one bushel per acre would be of more value to the State in one year that has been expended by the State for the support of the experiment station since it was organized.

The following statement has been made as conservative as possible, and it will not be doing justice to the grand gift to the State by starting work with so small an appropriation:

	1903	1904	1905
Dwellings.....	\$2000	\$.....	\$1500
Horse-barns.....	.....	1000	1000
Live-stock experiments.....	.....	5000	.....
Cattle sheds and yards.....	.....	750	750
Teams and equipment.....	2500	.....	.....
Threshing outfit.....	.....	1750	700
Fencing.....	.....	700	700
Implements.....	.....	1000	.....
Horticulture.....	.....	1200	800
Current expenses.....	2000	4000	4000
Water plant.....	.....	2500	.....
Creek-crossings, bridges, etc.....	.....	500	.....
Salary superintendent.....	.....	1200	1200
Totals.....	6500	19600	9950

The appropriation made by the preceding session was but \$3,000 per annum. Where this was expended is perhaps suggested in the statement of what has been done.

It is certainly to the interest of every farmer in the State, and especially of the Western half that no less and more if possible than the above statement of needs be appropriated by the present Legislature.

Railroad Transportation of Fine Stock, Its Evils.

C. W. TAYLOR, PEARL, KANS.

Paper read before the Kansas Improved Stock-Breeders' Association.

At the present time this is one of the matters which should urge itself upon all shippers of stock, and particularly those handling the pure breeds.

The railroads accept our shipments and show us a schedule of time when they leave our station and when they should arrive at point of destination. This seems practically all the use they have for schedule, for after we have them loaded they handle them as they please. The trainmen can not, with the present management, pay attention to schedule. They arrive at our stations late, and of course are entirely dependent upon the despatcher. While he may do his best in the present ways of railroading, he can not get them on the road on time, for the reason that any engine coming from the shops listed to pull five hundred and fifty tons, regardless of its condition, if sent out on the road, sticks on a grade, breaks down, or has to double in to the next town. These engines are run just as long as they will hold together. A trainman recently told the writer he had not been able to have an engine repaired for eight days and did not know whether he would be able to roll a wheel or not. A crew comes in off of a division twelve or fourteen hours late, and

and retraced his steps until he found a colored boy in his employ, whom he instructed to remove that heifer into a different pasture, as soon as they were out of sight. He then returned to the other, and they continued their walk leisurely, looking at the stock. In course of time they came again upon the \$200 heifer in another pasture, and Warfield again called his attention her, and said there was a fine heifer he could have for \$400. The gentleman gave her another close examination, and concluded to take her. Then Warfield politely informed him she was the same heifer he had first priced at \$200. To say that he was non-plussed is perhaps a mild expression, but of course his confidence in Warfield was materially strengthened. He went home without buying, but soon ordered by mail a heifer of Warfield's own selection and price. This story was told me by a Shorthorn breeder who was a personal friend and customer of Warfield, and there is no doubt it is substantially correct.

As this may be read by a large number of Shorthorn breeders, I will suggest this question to all of them, viz., under the same circumstances, how many of us would have sold the heifer at \$400? All who would not, please hold up the right hand.

D. P. NORTON.
Dunlap, Morris County.

Lime With Salt for Abortion.

EDITOR KANSAS FARMER:—I saw in the FARMER an inquiry in regard to abortion in cattle. Two years ago I was bothered with the same trouble. I tried everything I could hear of and could get nothing to stop it. I used lime in water-tanks, I used carbolic acid in the barns, on the cattle, and still they lost their calves. It began in my Durham cows first, then went through my herd of some thirty odd head. I noticed one day in one of our county papers a cure. I tried it and am happy to say I have never lost a single calf since. Take air-slacked lime, one part to two of stock salt; give them no other salt. They may not lick it much at first, but they will get enough to do them good. Keep lime in water-tanks and use carbolic acid in your barns and I think the trouble will stop. Don't use this receipt once and then quit, but keep it up for some time after the disease has stopped. If this does the readers of the KANSAS FARMER any good I will be glad to hear from them.

ISAIAH SPRIGG.
Lewis, Edwards County, Kansas.

Carbolic Acid for Contagious Abortion.

EDITOR KANSAS FARMER:—Some one asks for a remedy for epidemic abortion. I got it in my herds in the fall of 1900, and lost 50 per cent of calves in spring of 1901. In the spring of 1902 I saved every calf. I fed to the cow carbolic acid every other day for about one month; fed it in small quantities at first, gradually increasing it to a little more than one dram at a feed. Diluted it in water and mixed it with ground feed.

W. M. CAMPBELL.
St. John, Stafford County.

How's This!

We offer One Hundred Dollars Reward for any case of Catarrh that can not be cured by Hall's Catarrh Cure. F. J. CHENEY & CO., Props., Toledo, O. We, the undersigned, have known F. J. Cheney for the last fifteen years, and believe him perfectly honorable in all business transactions and financially able to carry out any obligations made by their firm.
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Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price, 75 cents per bottle. Sold by all druggists. Testimonials free. Hall's Family Pills are the best.

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STOCK & EGGS FOR SALE.
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MILLAN FUR & WOOL
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The Thompson Galloways.

The first annual sale of Galloway cattle from the famous herd of I. B. & A. M. Thompson, Nashua, Mo., was held at the Kansas City sale pavilion on January 13, 1903. The crowd was not a large one and the animals, though in good breeding condition, were not show fat.

COWS.

Highland Mary 7th, W. C. Bailey, San Jose, Cal. \$725
Ada Early of Nashua, W. C. Bailey... 95
Alice 4th of Lowood, H. O. Woodard, Eudora, Kans. 70

BULLS.

Princely of Nashua, Geo. W. Wood... 150
Chauncey of Nashua, Geo. W. Wood... 105
Crittenden of Nashua, W. C. Bailey... 80

SUMMARY.

31 cows sold for \$4,140; average... \$133.54
23 bulls sold for 1,850; average... 80.43
54 head sold for 6,990; average... 110.92

The Armour-Funkhouser Herefords.

When the most famous of imported and the most famous of domestic herds of Hereford cattle are drawn upon for the purpose of making a public sale, it makes an event worth going miles to see.

COWS.

Ada Pasha 8th (imported), Armour to C. E. Harper, Corydon, Iowa... \$250
Vivace (imported), Armour to J. L. Carmine, Le Roy, Kans. 200
Lenora, Funkhouser to Gudgell & Simpson, Independence, Mo. 200

Frank Carlock... 195
Amy 2d (imported), Armour to Wm. Howell... 185
Parlor Maid (imported), Armour to Geo. W. Jennings, Grain Valley, Mo. 360

Princely of Nashua, Geo. W. Wood... 150
Chauncey of Nashua, Geo. W. Wood... 105
Crittenden of Nashua, W. C. Bailey... 80

Breeders' Combination Sales at Wichita.

Don't forget that the second annual breeders' combination sales at Wichita, Kans., February 3, 4, and 5, advertised for the last time this week, without doubt will be the best chance offered in the West this year to buy high-class Percherons, Shorthorns, and Poland-Chinas

"C. C. C." on Every Tablet.

Every tablet of Cascarets Candy Cathartic bears the famous C. C. C. Never sold in bulk. Look for it and accept no other. Beware of fraud. All druggists, roc.

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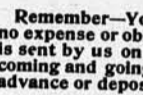
without deposit or advance payment of any kind, freight paid both ways, on 30 days' trial. Unquestionably greatest family labor saver ever invented. Saves time, expense, and wear and tear.



Washes collars, cuffs, laces, and the most delicate materials perfectly clean and positively without tearing them or wearing out a single thread.

ABSOLUTE PROOF. \$1,000.00 will be paid if this letter is not genuine.

KANSAS CITY, MO., May 14, 1902. I have given your washer a fair trial. It is the best washer I ever saw.



Remember—You take absolutely no risk, incur no expense or obligation whatever. The Washer is sent by us on 30 days' trial, freight prepaid coming and going.

THE "1900" WASHER CO., 256 F, State Street, Binghamton, N. Y.

Moss Rose of Maplewood 7th, J. S. McIntosh, Kansas City... \$115
Mischievous, R. Scott, Milwaukee, Ore. 80
Royal Empress, J. S. McIntosh... 90

The Young Folks.

Conducted by Ruth Cowgill.

STORM-BEAT.

Oh sing me not your songs of rest,
Of peace and plenty, fortune blest,
Of valleys calm and sweet,
But tell me a story of war and of strife,
Of the passionate surge of a stormy life,
With its victory and defeat.

For sweet to me is the tempest's roar,
The thundering surge on a rock-bound shore,
The bugle's angry blare,
For 'tis no soft seductive charm
That swells the heart and nerves the arm
Or tempts the soul to dare.

To live, to love, to do, to dare,
To ride in life's charge with sabre bare,
To conquer or to fall,
To face the foe with courage grim,
Till the hand grows weak, and the eye
grows dim,
At duty's bugle call.

All honor to him who, without a groan,
In some fierce battle goes down alone,
His face toward the foe,
For he who worships Virtue's form
Must breast the billow, must face the
storm,
Must stand where the tempests blow.

And when at last the day is done,
And we hear the boom of life's sundown
gun.

And Death beats the reville,
Then shall these storm-beat souls arise
On eagle wings to cleave the skies,
And great shall their guardian be,
Jefferson, O. T. G. A. TANTON.

ANIMAL INTELLIGENCE.

I have seen so many exhibitions of intelligence among dumb animals that I can hardly say which is the greater, but I think perhaps the choice goes to a little Texas pony I own. One summer when she was about 12 years old, she and another mare that was one of her colts each had a mule colt. One evening a little before dusk the two colts and the younger pony were playing on a hillside at the foot of which ran a barbed-wire fence.

The pony, "Old Lady" we called her, ran between them and the fence for several minutes and was evidently afraid that they would get into the fence and injure themselves. At last becoming tired of such vigorous exercise she took them over the hill with all the skill of a Texas cattle-pony, and would not allow them to come back. She did the work perfectly as though guided by a skilled rider.

Another time she was out in the corral and she had backed up to the fence and was rubbing her hind legs when some of the hairs in her tail caught in a crack of the board and she was held fast. My brother happened to pass her and she neighed until she attracted his attention and he freed her.

She had been with an old mare named Sly almost all her life until this fall, when Sly died. It was in the early fall and the flies were still very bad and Lady stood over her all the time she was sick, and kept her head moving to scare the flies away. She only left her long enough to go to the creek for water and ate so little that we were compelled to take her from the pasture to keep her from starving herself sick. She is now 18 years old and in first-class condition.

ANNA A. BIGGS.

Sylvan Grove, Lincoln County.

A Wise Squirrel.

One of the most wonderful instances of animal intelligence that I ever witnessed was one afternoon when out hunting, I came to an old elm-tree which was partly hollow and was inhabited by squirrels.

A squirrel was playing on one of the limbs, but upon seeing me it dodged behind a forked limb of the tree, and on my going around to the other side of the tree, the squirrel would dodge between the two limbs, always keeping on the opposite side of the tree, and not giving me a chance to shoot him, thus saving his life. This was kept up until I became tired, and abandoned the chase.

JAMES WARREN.

Mankato, Jewell County.

Two Smart Dogs.

Buff was a very ugly little dog, but what he lacked in beauty he made up in intelligence. One of Buff's tricks, on a cold day, was to run to the end of the porch and bark as though some one was coming. When he had succeeded in getting some one to come to the door, he would dash past them into the house and curl up under the stove.

Another trick of Buff's was to place his front paws on the window sill and if you would look out he would shake as if he had the ague. Then if you

would call out; "Shake, Buff, shake," he would shake if possible even harder.

Another dog, which, like Buff, was very intelligent, was an old churn-dog. On churn days, Grant made it a point to go to the field. If he was not noticed it was all right for him, because he would get out of churning. But if the men noticed him they would say, "Grant, you had better go home and churn," whereupon Grant struck out at the top of his speed for the house. As soon as he reached the house he leaped upon the wheel and commenced working with a vengeance. When he had finished he trotted back to the field and enjoyed himself with a clear conscience. CLARA M. WILSON.

Arkansas City, Kans.

An Intelligent Mule.

When I was a small boy, father bought a team of 3-year-old mules. One was just an ordinary mule, but the other one, which we called Jack, approached the nearest to human intelligence of any animal I have ever seen. He soon learned how to open the barn door, when it was latched, and was full of mischief or meanness in general. Of the many incidents in which he displayed his intelligence, I shall mention but two.

A man by the name of Rickstraw worked for father, and he and Jack soon became intimate friends. After working several months, Mr. Rickstraw went to Missouri, where he stayed for three years. Coming back to visit relatives and friends, he came to our house for dinner one day. As he wanted to look around, we went out to the barn together. When Mr. Rickstraw entered, Jack picked up his ears, sniffed the air, turned part way around in his stall, and looked at him. After looking him over, Jack told him in the best way he could, by low braying and by his excited motions, that he was glad to see him. Jack was not content until he had been recognized and petted.

Another time father and I were cutting corn with a one-horse sled. I drove Jack, and father took care of the fodder. We had not been in the field more than an hour when Jack got lonesome and gave vent to his feelings by frequent brayings. He thought he had been away from Kate (the other mule) long enough, and made up his mind to go to her. Father was on the ground, and he had taken the lines and was turning around when Jack started to run. It was useless to try to hold him, but father held on until he was dragged loose. Jack's course lay through the orchard, past the house, and across a little hollow, to the barn. He carefully avoided running into the trees, but ran swiftly on until he came to mother's flower-garden; then he stopped short. After looking on each side, apparently deciding the better way around, he walked carefully to the north, and then ran on to the barn. Whether he thought the flowers too pretty to spoil or not, we never knew; but he had a good reason anyway.

Winfield, Kans. ALVA L. SNYDER.

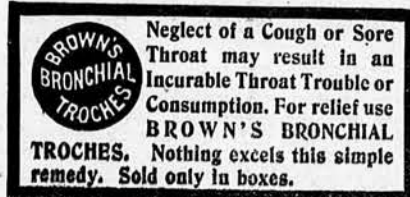
A Wise Pony.

When our little Mexican pony, named Nellie, had her first colt, and I went out to the shed to see her, she was standing in the shed and the colt was lying down a short distance from her. When I came to the gate I stopped and said to her, "Why, Nellie, you have a nice little colt!" She first looked at me and then at the colt, and with a look of great pride and happiness in her eyes she nodded her head three times very distinctly. It was so plain and unmistakable that no one could be led to believe it was not meant that way; she said "Yes," as plain as a creature could who is not gifted with the power of speech. Whenever she gets thirsty and wants a drink, she will first whinny, then look up at the windmill, then whinny again, until some one turns the lever and the mill starts going; then she will look up at the windmill, then at the trough and keep this up until she gets water to drink. IDA MOYER.

Junction City, Geary County.

Another True Dog Story.

We once owned a very intelligent dog. She would lie down and let a



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baby play around her until tired out; and on several occasions the child would make a pillow out of the dog and fall asleep. She would lie still until the baby awoke before making any move. When baby was beginning to walk she would let her pull herself up by her side, and walk around with her as carefully as a person. About that time we were bothered a great deal with cattle that run on the range breaking into the field, and we would go round the fence every few days to see that it was kept up, and she soon acquired the habit of looking after the stock and keeping them away. One day when away from home the stock got in the field. She was seen running them out, and then lay down and watched the fence that was broken down until we came home in the evening. If a hog broke out she would put it back then lie down and watch the gap until it was repaired. We could talk to her and she would seem to understand as well as a person.

Olathe, Kans.

Our prize for story on "Animal Intelligence" goes to Mrs. L. W. Truesdell, Concordia, Kans. The judge whom we appointed was Miss Leavitt, professor of English Literature at Washburn College.

We feel confident the other contestants will consider that the selection has been wisely made for the story of Hagar is both remarkable in itself, and well written. There were others, however, which were so good that we wished we had several prizes to bestow, so that the writers of these stories might know that their efforts were appreciated.

We shall be glad to hear again from any or all whose stories have appeared, on any subject that has the quality of real and genuine interest.

For the Little Ones

THE SNOW-BIRD.

When winter winds are blowing
And clouds are full of snow,
There comes a flock of little birds
A-flying to and fro:
About the wither'd garden,
Around the naked field,
In ev'ry wayside shub or tree
That may a berry yield.

But when the snow-drifts cover
The garden and the field,
When all the shrubs are cased in ice,
And ev'ry brook is sealed,
Then come the little snow-birds
As beggars to your door;
They pick up ev'ry tiny crumb,
With eager chirp for more.

Off to the land of icebergs,
To islands cold and drear,
They fly before the summer comes
To frolic with us here.
Give them a hearty welcome,
It surely were not good
That they who sing in winter time
Should ever want for food.

Little Scotch Granite.

Burt and Johnnie Lee were delighted when their Scotch cousin came to live with them. He was little, but very bright and full of fun. He could tell curious things about his home in Scotland and his voyage across the ocean. He was as far advanced in his studies as they were, and the first day he went to school they thought him remarkably good. He wasted no time in play when he should have been studying and he advanced finely.

At night, before the close of the school, the teacher called the roll and the boys began to answer, "Ten." When Willie understood that he was to say ten, if he had not whispered

during the day, he replied: "I have whispered."

"More than once?" asked the teacher.

"Yes, sir," answered Willie.

"As many as ten times?"

"Maybe I have," faltered Willie.

"Then I shall mark you zero," said the teacher, sternly; "and that is a great disgrace."

"Why, I did not see you whisper once," said Johnnie, that night after school.

"Well, I did," said Willie; "I saw others doing it, and so I asked to borrow a book; then I lent a slate pencil, and asked a boy for a knife, and did several such things. I supposed it was allowed."

"Oh, we all do it," said Burt, reddening. "There isn't any sense in the old rule; and nobody could keep it—nobody does."

"I will, or else I will say I haven't," said Willie. "Do you suppose I would tell ten lies in one heap?"

"Oh, we don't call them lies," muttered Johnnie. "There wouldn't be a credit among us at night, if we were so strict."

"What of that, if you told the truth?" laughed Willie, bravely.

In a short time the boys all saw how it was with him. He studied hard, played with all his might in play-time; but, according to his account, he lost more credits than any of the rest. After some weeks, the boys answered "Nine" and "Eight" oftener than they used to. Yet the school-room seemed to have grown quieter. Sometimes, when Willie Grant's mark was even lower than usual, the teacher would smile peculiarly, but said no more of disgrace. Willie never preached at them or told tales; but somehow, it made the boys ashamed of themselves, just the seeing that this sturdy, blue-eyed boy must tell the truth. It was putting the clean cloth by the half soiled one, you see; and they felt like cheats and storytellers. They talked him all over, and loved him, if they did nickname him "Scotch Granite," he was so firm about a promise.

Well, at the end of the term, Willie's name was very low down on the credit list. When it was read he had hard work not to cry; for he was very sensitive and he had tried hard to be perfect. But the very last thing that day was a speech by the teacher, who told of once seeing a man muffled up in a cloak. He was passing him without a look, when he was told the man was General —, the great hero.

"The signs of his rank were hidden but the hero was there just the same," said the teacher. "And now, boys, you will see what I mean when I give a little gold medal to the most faithful boy—the one really the most conscientiously 'perfect in his department' among you. Who shall have it?"

"Little Scotch Granite!" shouted forty boys at once; for the child whose name was so "low" on the credit list had made truth noble in their eyes.—The British Evangelist.

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Locations in Iowa, Illinois, Minnesota, and Missouri on the Chicago Great Western Railway; the very best agricultural section of the United States where farmers are prosperous and business men successful. We have a demand for competent men with the necessary capital for all branches of business. Some special opportunities for creamerymen and millers. Good locations for general merchandise, hardware, harness, hotels, banks, and stock-buyers. Correspondence solicited. Write for maps and Maple leaflets. W. J. Reed, Industrial Agent, 604 Endicott Building, St. Paul, Minn.

Miscellany.

Barren Stalks in Corn.

EDITOR KANSAS FARMER:—The question of barren stalks in corn-fields is becoming quite an important one for farmers to consider. It goes without saying that all space occupied by stalks that bear no ears is as good as wasted. In an address on "Corn Culture and Breeding," delivered at the thirty-first annual meeting of the Kansas State Board of Agriculture last winter, Mr. A. D. Shamel, instructor in field-crops at the Illinois Agricultural College and Experiment Station, made the following statement:

"By careful counts made in various counties in Illinois for the last three years it was found by the farmers that almost one-third of the stalks in the field were barren. These barren stalks are weeds, of little or no value to the farmers. They probably take nearly as much fertility from the soil as the stalks bearing ears, and they cost as much to grow as the fertile stalks. Of the 137 farms of the Sibley Estate, Ford County, Ill., it was found that nearly 30 per cent of the stalks were barren. On this estate especial attention has been given to seed selection, and the probabilities are, that the corn on these farms is more free from this condition than on the average farm."

If Mr. Shamel's statement holds good generally, the situation with regard to corn certainly gives cause for concern. It would seem reasonable to suppose, however, that if it were true generally that one-third of the crop in our corn-fields bore no ears, attention would have been directed to this fact sooner. With a view to ascertaining something with regard to the condition of local corn-fields with respect to barren stalks, a good average field of upland corn about two miles west of the Agricultural College, in very vigorous condition, was selected last summer for experiment. The field was planted to a yellow dent corn, unselected and without pedigree. On July 19, 1902, all of the stalks in five acres were counted. In making this count only healthy plants and plants physiologically capable of bearing ears, were included. Suckers were not counted. The results were as follows:

	No. of stalks.
First acre.....	6,447
Second acre.....	6,396
Third acre.....	6,407
Fourth acre.....	6,178
Fifth acre.....	7,515
Total.....	32,941

On September 2, after all possible ears had matured, the barren stalks were counted with the following results:

	No. of stalks.
First acre.....	3
Second acre.....	8
Third acre.....	15
Fourth acre.....	10
Fifth acre.....	21
Total.....	57

So that out of a total of 32,941 independent plants on five acres, all of which were healthy, normal ones, only 57, or two-tenths of one per cent were barren. This does not seem to agree very well with Mr. Shamel's figures. There is no question, however, that the abundant moisture of this year, which favored the maximum development of corn-plants in this locality, has been a very important factor in bringing about a diminution in the number of barren stalks. The point which I wish to emphasize and which it seems to me this experiment serves to illustrate, is that barrenness in corn-stalks is rather a physiological matter depending upon the vigor of growth of the plant in the particular season, and that it is not perhaps a factor which can be as greatly influenced by selective breeding as has been urged. In this connection I desire to quote from a letter dated September 27, 1902, from Dr. C. J. Hopkins, professor of agronomy and chemistry at the Agricultural Experiment Station of Illinois, who has charge of the work in corn-breeding there. He says:

"Regarding the matter of barren stalks, I may say that our observations show this to be an exceedingly variable factor in corn-growing. It seems to vary principally with the supply of moisture. Last season, it is true, that the percentage of barren stalks was frequently found to be as high as 30 or 40 per cent, while this year the percentage is frequently less than 1 per cent. In my judgment, the proper method of determining the percentage of barren stalks is to divide the total number of independent barren stalks by the total number of in-



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feed on the fresh, pure air to make their clear, strong, steady, white light and they never blow out in the wind. That is what cold blast means and the principle is worked out to perfection in the

Diets Blizzard Lantern.
It's the lantern for absolute safety and to give great service in a hundred household duties. Globe is raised, lowered and locked by convenient side lever. You never remove it to trim, fill, light or extinguish. One filling runs it 19 hours. See that you get a DIETZ when you go to buy. The name is on every one. If you don't see it don't take the lantern. If your dealer won't send for it write to us. Write any how for our free lantern catalog and make your own choice.

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dependent corn-plants, disregarding the suckers."

This was precisely the method followed in our experiment. That the enormously large percentage of so-called barren stalks in the Illinois corn-fields, may perhaps be the result in some cases of including "suckers" in the count, may be inferred from the following statement in Circular No. 57 of the Illinois Experiment Station, published June, 1902, by Mr. Shamel.

"In former tests there has been some irregularity due to a misunderstanding as to what constitutes a barren stalk. A barren stalk is an independent plant produced from a kernel of corn but which does not bear an ear of corn. A stalk branching off from another stalk either above or below the ground, is a sucker; a distinction should be made between 'barren stalk' and 'sucker' in order that exact information be obtained."

In view of the evidence it seems a little premature to make very much capital out of the supposed reduction of barren stalks as brought about by selective breeding, since the corn at the Illinois Experiment Station quoted by Dr. Hopkins and in which the number of barren stalks has varied from season to season from 1 to 40 per cent, was, it may safely be assumed, pure-bred, pedigreed corn, as was the corn on the Sibley estate quoted by Mr. Shamel. On the other hand the "scrub corn" in the Kansas field examined by us and in which no effort has ever been made to eliminate the barren stalks from year to year, had this year so small a number of barren stalks as to cut no figure whatever in the productivity of the field.

The real thing necessary to discover is whether in dry years, corn which has been worked upon with a view to eliminating barren stalks, shows any advance over corn in which no attempt at improvement in this regard has been made. It certainly appears at present that all the labor spent in eliminating barren stalks from experimental fields has not been well applied. If, say, thirty kernels of corn out of a hundred will, in a dry year, send up stalks which bear no ears, and if, on the other hand, as appears to be the case in both Illinois and Kansas, twenty-nine out of those thirty are likely, in a year of sufficient moisture, to produce fertile stalks, selective breeding to eliminate barrenness would seem to be time thrown away, and the theory suggested that the tassels on such barren stalks produce pollen which tends to breed up a barren race of corn in the ears it fertilizes, is a gratuitous assumption as devoid of foundation in theory as it is of demonstration by experiment.

A great deal more has to be done in determining the relative number of fertile to barren stalks in dry and moist years both in selected and unselected corn, before any conclusion can be drawn.
H. F. ROBERTS,
Botanist Kansas Experiment Station.

Recipes for Curing Meat.

EDITOR KANSAS FARMER:—As you invited your readers to send tried recipes for curing meat, I will send a couple that have proved a success with us. For pork: When the meat is cold enough, salt with common salt, and let it be for a few days until all the blood is drawn out of the meat. For each

100 pounds of pork, take four pounds of salt, and two pounds of sugar. Mix thoroughly. Divide in three equal parts. Rub the first third on the meat. Pack in a barrel three days, then take it out and rub the second part on the meat. Repeat this every three days for nine days. Then hang it up and let it dry.

For beef: Cut the beef in pieces suitable for cooking, then pack it in a tight barrel, as tight as possible. It is well to pound down each layer as solid as possible. When all is packed in the barrel, take fresh water from the well, and add salt until it will float an egg. For each 100 pounds of beef, add one pound of sugar. Then pour the brine over the beef. Don't forget to weight it down so that the beef will not float. Keep it in a cool place and it will keep until spring, if you do not eat it before that time.

If one has two barrels it will be more convenient. If only one barrel is used, be careful to put what was on the top on the bottom the second time, reversing the order each time. It will have to be kept in the cellar, or some other place where it will not freeze while you are curing it.

We have tried this plan for a few years, and find the hams and shoulders are salt enough to keep all the season and not too salt to be palatable.

D. M. ADAMS.

Rome, Sumner County, Kans.

Needed Legislation.

EDITOR KANSAS FARMER:—Some agricultural papers, during the session of their legislature, invite suggestions on needed legislation, and have their readers write to them. I have not seen such a department in the KANSAS FARMER, but suppose that you would use your influence to get bills passed that will benefit the farmer. I will give a few that we need:

1st. The time of our school meeting should be changed. It is now held the last Thursday in July. At that time in Sumner County there is often from one to three threshing machines running in each district, so that it is almost impossible for farmers to attend the school-meeting. If it could be held in winter it would suit the voters better. It should not be held later than 10th of June for this section of the State.

2d. The width of the roads should be cut down to about forty feet. Here the roads are about sixty-six feet, and not over forty feet are used. This leaves a strip along each side of the road that grows up in sunflowers, or has to be mowed a couple of times to keep them down. These strips are worse than useless.

3d. The telephone poles are set in the road, so that they are in the way of the mowing machines, making extra work for the farmers to keep down the weeds. There should be an act to compel companies that place poles or other obstructions in the public roads to keep the weeds down on their side of the road. The farmers get no benefit from these through lines. They have no instruments in the country. If we wish to use them we have to go to town to do it.
D. M. ADAMS.
Rome, Sumner County, Kansas.

Kill the Wolves.

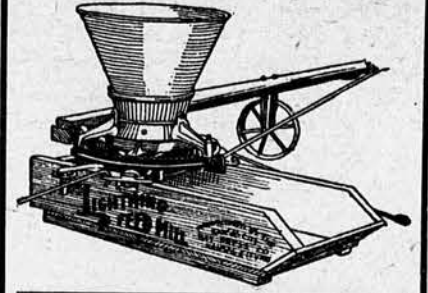
EDITOR KANSAS FARMER:—In a late number of the KANSAS FARMER are letters from Mr. Lantz and Mr. Bohrer in regard to more stringent legislation to protect the game-birds of Kansas.

Being an old sportsman and an enthusiastic lover of the feathered creation, as well as a farmer, I am satisfied that no game-laws will ever increase the prairie-chickens and other game-birds unless severe means are devised to rid the State of prairie wolves. One pair of wolves will destroy more game than all the hunters in a township. When I came to Coffey County eight years ago there were a few prairie-chickens. There has been no increase. Some have been shot. Quails are practically extinct.

In traveling over the large pastures you come across a nest full of chicken-eggs—perhaps nearly hatched. On looking closely you find the feathers of the old hen, who has been killed by the wolves.

Not only do they catch the old hen on her nest but if she hatches her brood, and a wolf comes across her scent, the old one is pounced upon before she can fly out of the grass, and every young chicken is scented out and devoured; not one escapes. This applies to all kinds of birds that nest on the ground. Not only are our birds destroyed, but turkeys, chickens, geese, and young pigs are all killed by these useless brutes. My losses have averaged \$10 a year for the last thirty years. We have lost \$50 worth of pigs

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and poultry in this way this fall and winter. It seems impossible to either trap or poison wolves to any extent. Dogs are worthless as a preventive. I have had many kinds of dogs, but never one that would touch a prairie-wolf. If there are dogs that will run them down and kill them they can get a job in this county, and we will try and make it interesting from a financial standpoint.

Each county in the State should pay a bounty of at least \$5, and the State one of \$3 or more, and try and rid the State of these nuisances. No game-laws will be any good as long as we are letting the wolves have the right of way.
A. G. SKINNER.
Aliceville, Coffey County.

Alfalfa Cut with a Binder.

EDITOR KANSAS FARMER:—I see in your number of January 15 an article on alfalfa from collection No. 114 of the experiment station, H. M. Cottrell. I see that different modes of curing are described, and for the benefit of the readers of your paper, I will give my way of curing alfalfa. I use neither mower nor mulch-rake, but a McCormick self-rake. It can be set to cut low enough and rake the feed off the stubble, a good forkful at a time. I leave it lay until it is perfectly cured and the danger of heating is past. Then load a header-box, and haul it to stack or barn. In this way not a leaf is lost, the color and flavor are preserved, and not even rain seems to hurt it much, if unfavorable weather should set in after cutting. Of course the soil ought to be dry and the alfalfa, too, when cut. I am using the fourth machine (self-rake) after discarding mowers ten years ago, and have cut all kinds of fodder, also millet and prairie-grass the same way. Everything has a better color and flavor. There is less waste in quality as well as in quantity and the meadow is greatly improved if it is not scratched over with the teeth of the mulch-rake, thus robbing the ground of the old mulch, which, in a dry year, will preserve the moisture of the soil and help the next crop, if left on the ground. When raked up it only makes the hay dusty, and the ground a good bed for all kinds of weed-seeds which our Kansas zephyr will blow in from adjoining fields. Now I find that even with such rains as we had last summer, my hay, fodder, millet, and alfalfa did not suffer much when cut with a self-rake and advise my fellow farmers to give it a trial.
CONRAD KRUGER.
Pfeifer, Ellis County.

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In the Dairy.

Conducted by Ed. H. Webster, Professor of Dairy Husbandry, Kansas Experiment Station, Manhattan, Kans., to whom all correspondence with his department should be addressed.

Dairy Day at the Improved Stock-Breeders' Association Meeting.

The Kansas Improved Stock-Breeders' Association introduced a very attractive feature in the program by giving one session of their meeting to the dairy interests of the State. Very excellent papers were read by Mr. T. A. Borman, secretary of Kansas Dairy Association, Mr. W. F. Jensen, manager of the Continental Creamery Co., and Mr. W. W. Marple, president of the Missouri State Dairy Association. No little interest was manifested in the program of the evening, but owing to the reception to the new Governor at the State-house all discussion of these papers was cut off in order to adjourn to the State-house. This was an unfavorable circumstance as far as the program of the evening was concerned.

It was very noticeable the next day that many were loaded for dairy discussion both for and against. It seemed to be the prevailing opinion that dairying was a paying business, a legitimate business, and a honest business. That a man who was built that way had better go into it for all it was worth, breed dairy cows and get the best obtainable. One speaker, more full of prejudice than knowledge on the subject, tried to make the members of the association believe that they never averaged more than 10 cents per pound for butter. He was promptly called down by a large number who could show differently. As a matter of fact butter has been double that mark for the past sixteen months for all who would patronise a first-class creamery.

This session of the association was productive of much good—as many were impressed as never before with the magnitude of the business and its commercial importance to Kansas.

Try as some did to get around the dairy proposition, there was hardly a discussion, be it on sheep, hogs or horses, but it lead into a speech on some phase of dairying. It seems that dairying was the uppermost question in the minds of many attending. So may it remain, for it is one of the best industries of Kansas to-day.
E. H. W.

State Aid to Dairying.

For the year just closed, 1902, the report issued by the dairy division, Department of Agriculture, shows that there were twenty-one States in which dairying was recognized by the creation of State departments of dairying. These offices are usually combined with that of food commissioner, and the designation in fourteen States is dairy and food commissioner. In the other seven the office is simply called dairy commissioner.

In nearly every instance where the office of dairy commissioner and food commissioner is combined the work done for dairying is purely that of inspection for adulterations of dairy products. In a few states there are deputy commissioners appointed who have duties more in line of instructors in creamery and cheese-factory work, with police powers in a few cases, to enforce certain sanitary and other regulations. In the majority of cases the commissioner is in no way responsible

through his office to foster or build up the dairy industry of his State.

In some States where dairying is an important industry there is a movement to separate the office of dairy commissioner from that of the food inspector. The result of the combination is usually such that the dairy interests are of minor importance. In States where this combination does not exist, the officer has time and means to materially aid the interests of dairying. The writer outlined two or three weeks ago something of what the duties of a dairy commissioner for Kansas might be, and how he could aid the farmer, the creamery man, and the cheese man in the work of building up a profitable and substantial industry in our State. Should such an office be created we urge that it be a dairy commissioner rather than a food commissioner with a dairy attachment.

Another interesting thing gathered from this pamphlet of the dairy division is the State aid given to dairy associations. Sixteen States give legislative appropriations ranging from \$4,000 per year down to \$25 per year to the various State associations. In some of these the only aid given to the work is in printing and distributing the proceedings free. All the principle dairy States give a liberal appropriation for carrying on the work through the State dairy associations. Twenty-eight States have dairymen's associations; two of this number have three separate organizations, five have two organizations. There are five associations which have jurisdiction over more than one State, three of these are National in their scope.

Forty-one States give aid to the dairymen by establishing dairy schools and giving instruction in dairying in some form every year at the agricultural colleges.

These various methods of aiding in this industry meet different needs of the people. Kansas has come to the front with a fairly well equipped dairy school. The State is however in a fair way to lose the investment in the building where the school is located as construction is so poor for the purposes required that the repairs in another year will cost more than a new addition built suitable for creamery and dairy work would cost if built at once. It is a matter of economy to place the dairy school in new quarters at once. Aside from this beginning at the agricultural college the State has done nothing to aid one of the greatest industries within its borders. The State Dairy Association has to meet all its own expenses and nothing in the way of dairy laws and provisions for dairy commissioner is on the statute books of Kansas.

After noting the tendencies of some of the older dairy States, Kansas might profit by this experience and establish a dairy department which would be of great value to the State. The small amount it would cost would be returned every year with compound interest in increased business and actual money returns to our farmers. As a suggestion the writer would present the following: That the State legislature this winter be asked to make a liberal appropriation for the dairy interests of Kansas; that the State Dairy Association be rejuvenated and placed on a par with the State Board of Agriculture, and that the secretary of this organization hold a relation to it similar to that held by the secretary of the State Board of Agriculture.

This, at one stroke, would place the Dairy Association on a permanent basis and give such a department of the State the means and power to do for dairying what the State Board of Agriculture has been enabled to do for general agriculture, of what the Horticultural Society does for the horticultural interests of Kansas.

Dairymen can aid their own cause by urging this or similar action by the legislature this winter.
E. H. W.

Need of the Dairy Industry.

E. K. Slater, in Fairmont News, says: The best is always in the greatest demand. The best butter-makers are always busy at high salaries, and the best butter is always selling at a high premium and the demand was never satisfied. I wish it were possible for me to truthfully add that the best cows are in greatest demand in the dairies of the country, but alas and alack such is not the case. According to the annual report of our dairy and food departments among the dairying States the difference between what the average cow produces in a year and what a good cow can easily produce is a sufficient cause for exclamation by those interested in the welfare of the industry. The whole blame must not, however, be laid at the door of breed or

type of cow now predominating. It has been proven that the common cow with proper treatment, i. e., balanced rations, comfortable quarters, regularity in time of feeding and milking, etc., will double the amount of milk she would produce under such conditions as exist in too many dairies throughout the country. Deductions are easily made, therefore, but in such case who is going to be blamed, the cow or her keeper? Good care of better stock is the crying need of the dairy industry.

In the Right Direction.

It is with satisfaction that we note the general tendency of the dairy commissions in various States to devote a considerable part of the time of the inspector to educational work among dairymen, creamery men and cheese-factory men.

Minnesota is asking for five, and Michigan for two inspectors who shall be instructors.

It might be objected that such educational work would be more suitable placed under the jurisdiction of the dairy-schools, but it must be remembered that if the instructor is also an inspector he has the needed police power to enforce improvements where his advice is not needed, thus making his work more effective.

And we might add that it is not only in the dairy line that such educational work can be made profitable by the



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commissioners, but also in other food lines among the small retailers and consumers.—New York Produce Review.

Trying to farm without a farm paper is like trying to sharpen a lead pencil with a pair of scissors. See our "Blocks of Two" proposition.

You can find out something you ought to know by writing to the
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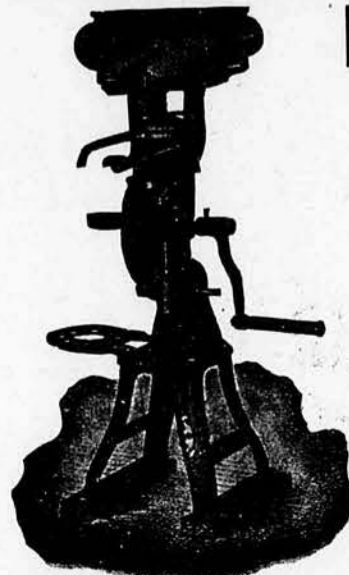
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THE POLAND-CHINA MERGER.

(Continued from page 113.)

vice management and the local crowd at Maryville, who have sent out a circular intimating that the proposed consolidation is simply a pretense to help the Kansas City show, and doubtless have secured a great many proxies, consequently it is important that those who favor consolidation should either be present or send their proxies to such members as they know favor it. Any member of this association who has sent his proxy without instructions can revoke the same and make another proxy. Kansas members should send to H. W. Cheney, secretary of the Kansas Swine-Breeders' Association, North Topeka, Kans., H. M. Kirkpatrick, 1031 Central Street, Kansas City, Mo., Frank D. Winn, Mastin, Kans., or C. T. Deitrich, Richmond, Kans.

The following editorial from the Breeders' Gazette of last week is very much to the point:

"Poland-China breeders have opportunity at hand to effect a consolidation of the several pedigree register associations for this breed of swine. The National merger committee has canvassed the subject thoroughly, taken legal advice and had prepared a feasible plan of consolidation which only awaits the endorsement of the various record associations at their coming meetings. The merger committee has certainly done excellent work in formulating a plan by which union may be promptly effected. Immediate action must be taken unless another year is to drag along without results. It seems incredible that the leaders in this great trade should neglect this opportunity to effect a consummation that commends itself to the judgment of every well-posted, fair-minded man. The desirability of a consolidation of the five Poland-China records long since passed beyond the realm of argument. Hesitation should not mark the action of business men in such an emergency. The opportunity is now presented to take a step forward that will tell appreciably for the breed in public estimate. There is just about as much need of five records for the pedigrees of Poland-Chinas as there is need of five tails to a pig. Nothing can defeat this proposed consolidation except selfish considerations. If the leaders in the trade will submit to be ruled to their detriment by such considerations, we have erred greatly in our estimate of their characters. A consolidation of Poland-China records, a union of the forces of breeders of this American-molded race of swine, are demanded by the best interests of the industry. The way is open."

WHY IS COAL SCARCE?

The Kansas Legislature has a committee at work trying to ascertain the cause of the present coal situation in this State. It has been charged that a conspiracy, or trust, is limiting production at the mines for the purpose of forcing higher prices. The higher prices prevail sure enough. Coal that formerly sold at \$3 per ton in Topeka now commands \$4.50 and is hard to get.

Let us see whether the combine can make money by limiting production and taking this advance in price. Possibly it costs more to mine coal now than formerly. This difference is probably less than 50 cents a ton but let us call it 50 cents. If at the old price the profit was 50 cents a ton, we should then have old price, \$3; cost, \$2.50; profit, 50 cents. New price, \$4.50; cost, \$3; profit, \$1.50.

In the absence of legal restraint, is it any wonder that the supply is slightly limited so as to multiply the profits by three? Trusts may be able to be useful to society, but they are also able to be oppressive. Must the people submit to this kind of extortion?

A FARMER GOVERNOR.

The KANSAS FARMER has, for the last two weeks, been so crowded with the matters peculiar to its special editions containing respectively the proceedings of the State Horticultural Society and the Improved Stock-Breeders' Association that there was no space for comment on passing events.

An event in which all farmers are interested is the installation of a genuine farmer in the office of Governor.

When W. J. Bailey, of Nemaha County, was proposed as a candidate for the nomination of his party for chief executive of Kansas, there were heard none of the old time sneers about the "hayseed." True some thought the other strong men in the field would leave little chance for the Nemaha County farmer, but his candidacy was taken seriously from the beginning. His nomination and election followed. During the last weeks of the campaign he for-

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sook the political field and attended at the bedside of the last illness of his father.

His inaugural address and his message to the legislature were full of the robust vigor of the robust farmer and, withal, were well received by the critics. They evince his interest in the fundamental industry of Kansas, and disclose a breadth of view which does not overlook or underestimate any industry or interest in the State.

Farmers who find it convenient on coming to Topeka to call on the Governor may expect a great, big farmer hand-shake extended with a courtesy none the worse because some people may call it "a little old-fashioned."

CLEAN AND CONVENIENT.

Aside from the great convenience of the proposed post-check currency there is the advantage that new, clean bills will be issued to take the place of those used as checks, thereby keeping the currency in presentable and sanitary condition.

The plan is to have the government bills so printed that there are blank spaces which could be filled out like a check. When not filled they pass current as money just as they do now, but when filled out to pay a small bill, say at some distant point, they must be endorsed by the receiver, and cashed at the postoffice. After that the bill is worthless as currency. The only expense would be a two-cent postage stamp for government fee on the face of the bill when it was converted into a check.

It is calculated that this system would prevent a great deal of the pres-

ent inconvenience which people find who wish to pay a small bill, say a subscription for a paper or a magazine, when such bill has to be sent by mail, and of course everybody knows there is a certain risk in sending ordinary money through the mails.

THE NEBRASKA AGRICULTURAL MEETINGS.

Perhaps the capital city of our sister State on the north was never so thronged with visitors or was the meeting place of so many associations as during the past week. The agricultural associations of various kinds who held their meetings at this time included the State Board of Agriculture, State Swine-Breeders' Association, Improved Live Stock Breeders' Association, Nebraska Dairymen's Association, Nebraska Veterinary Medical Association, Duroc-Jersey Breeders, the Association of Agricultural Students, the State Farmers' Institute, Nebraska State Poultry Association, Central Shorthorn Breeders' Association, Corn-Judging Parliament, Nebraska Corn-Improvers' Association, Bee-Keepers' Association, Nebraska Irrigation Association, Nebraska Stock-Growers' Association. In addition to these meetings there was held a lumber dealers' association meeting, a State Firemen's Association, a great meeting called for the organization of the Farmers' Co-operative Grain Company, a farewell reception to Minister Thompson, prior to his starting to his new field of usefulness as the United States representative to Brazil, and in addition to all these, the regular meeting of the State Legislature. Our limited space this

week will not admit of a comprehensive report of these meetings but we shall publish from time to time a number of the best papers that were presented before the various associations. We were particularly gratified with the large attendance upon the meetings of the Central Shorthorn Breeders' Association and the excellent quality of the papers given there.

The officers elected to serve during the coming year are: President, T. J. Wornall; first vice-president, George E. Ward; second vice-president, L. C. Lawson; secretary, B. O. Cowan; treasurer, R. H. Clay. These also constitute the executive board of the association.

The State Dairy Association officers were elected as follows: President, J. K. Honeywell, Lincoln; vice-president, J. S. Clark, Ravenna; secretary and treasurer, S. C. Bassett, Gibbon; directors, B. R. Stouffer, South Omaha; W. F. Ulrich, Princeton; J. C. Merrill, Sutton; L. D. Stillson, York; A. L. Haecker, Lincoln.

The officers and members of the newly organized Nebraska Shorthorn Breeders' Association are as follows: L. C. Lawson, president; L. J. Hitchcock, vice-president; A. B. Heath, secretary; W. G. Sadler, treasurer. After a lively discussion a motion was finally carried making Lincoln the place for the next meeting, the time to be in January along with the other associations.

The members who enrolled Thursday are: A. Johnson, Douglas; I. W. Chappell, Kearney; E. I. Hays, Braden; W. G. Sadler, Jamaica; L. D. Hitchcock, Rudolph; F. H. G. T. Hag-

Horticulture.

A Study of Orchard Soils.

FROM AN ADDRESS BY PROF. R. W. CLOTHIER, CAPE GIRARDEAU, MO.

One thing we should always bear in mind in discussing soils, and that is that they, for the larger part, are made up simply of ground-up rock, and that whatever difference there may be in the texture of soils, that difference is not due so much to its chemical composition as it is due to its physical properties. You may take the blackest soil that you find in any of your States, burn it, and you will find it to be redish colored sand and clay. Soils are composed of sand and clay mixed in varying proportions, and with that sand and clay we have vegetable matter; these are the three physical components of soil—sand, clay and vegetable matter. The vegetable matter in many senses is the most important part of the soil, although we could not get along without the mineral matter for one moment.

You are aware of the fact that, taking the total weight of a plant, a very small part of it comes from the soil; in many pine-trees less than 1 per cent of the weight of the plant comes from the soil. In grasses and forage plants it runs up as high as 8 or 10 per cent from the soil. In our hardwood trees it is about 3 per cent. The remainder of the weight of the plant comes from the air and from the water, so that the great bulk material produced in plants is not a product of the soil, but is the product of air and water. But small as the percentage is that comes from the soil, that part is of indefinite importance. Plants take something like eight elements that they must have from the soil. It is not necessary to name these eight, but if any one should be absent it is a poor soil, no matter how much of the others may be present. If you deprive your soil of iron it would be impossible for you to produce a plant. You could not get the green coloring matter in the leaves without iron, and without the presence of the green coloring matter the plant could not manufacture starch, and starch is an important part of the tissue of a plant. It would be impossible for us to deprive the average soil of iron, but if that could be done, it would be a poor soil. In discussing the elements of plants I do not want to discuss iron, because iron is so abundant that plants never suffer for it.

There are three elements which you are familiar with that we generally discuss. These are potash, phosphate, and nitrogen. We discuss them because they are more essential to plant life than the other five, because soils are liable to become deficient in these three while they have an abundance of the others. Soils become deficient in other elements; for example, lime. I believe it would pay the chemist to discuss the presence of sulphur. When I mention the three elements of potash, nitrogen and phosphate I have the three most important. Two of these are mineral products of the soil—phosphate and potash. Nitrogen comes from vegetable matter, and is taken from the air by means of the leguminous plants. What is of most importance to you as apple-growers is that the nitrogen of the apple-crop must come from vegetable matter, and does not come from the air—can not be taken from the air. In order to get the nitrogen into the soil you must do it through vegetable matter, through the clover plant or cow-pea, that has power to take the nitrogen from the air. This is the most important point related to your work. Vegetable matter also performs the important service of bringing potash and phosphate into solution. They tend to get locked up in forms in which plants can not obtain them. Professor Charles Snyder has shown that soils rich in humus contain three or four times as much phosphoric acid as those in which the humus is depleted. In addition it serves as conservator of moisture. It helps to retain the rains that fall upon it. Just how that is done I do not believe that even the most practical farmers realize. Last year we had a drouth. It became my duty to sample the various soils in the community and see how much moisture they contained. I sampled soils growing clover and cow-peas, apples, alfalfa, and so on, over something like thirty different farms, having various crops growing on them. I found that in the clover and orchard-grass meadows the water had diminished until there was only one-half of 1 per cent of moisture on the first three inches.

One small orchard had been treated in this way: Twenty loads of good stable manure had been added along

in November, had been plowed and then rye had been sown. Early in the spring, before the rye had grown ripe, it was plowed under. The ground then was disked after each rainfall. The rains ceased about May 1. The disking was continued, only enough to keep the crust broken, after each rain. At the end of the drouth, August 1, there was 16½ per cent of moisture in the first fifteen inches. I sampled an orchard that had not had that treatment, and the percentage of moisture on the first fifteen inches was 9½. I believe the humus was more than half to be credited with saving that moisture. What does that much moisture mean to us? It means almost two inches of rainfall. Corn can not grow—at least in my experience it can not mature—when the moisture falls to 8½ per cent on the best soil, and on clay soil can not grow with moisture at 12½ per cent—the corn would be absolutely dead. Soils contain about 20 per cent of moisture when they are in good tillable condition; so this soil was in first-class growing condition for crops. In sampling I could scrape off the soil and roll it into mud balls; that shows you something of the value of vegetable matter in the soil.

I do not know how many of you have ever studied the effect of the apple-tree upon soils. I take my figures from a bulletin issued by Cornell University. It represents the results of their experiments, and up to the date of publication was the most complete work on the effect of the apple-tree upon the soil, and I will present that to you now and leave the question in your hands.

I shall separate the apple-tree into leaves, trees, and fruit. The average yield of a good apple-orchard is two hundred bushels to the acre every year of its life. We find that the apples will remove in a year thirteen pounds of nitrogen, only one pound of phosphoric acid and nineteen pounds of potash. Figured at the value of commercial fertilizers, 15 cents a pound, I find that the apples remove \$2.45 worth of fertility. The figures given in the Cornell bulletin were on a twenty-year estimate, and they figured that the production of leaves increased as the tree grew older. I estimate that from one year up to thirteen it would remove one-twentieth and have added five years and divided by twenty-five, and got an annual yield of 19 pounds of nitrogen, 5.2 pounds of phosphoric acid and 18.4 pounds of potash removed each year in the leaves. I need not say very much to you about these leaves, but you can see that you can help to prevent your soil from deteriorating by getting the leaves into the ground rather than by piling them up and burning them.

Then, trees and leaves draw nitrogen, phosphoric and potash enough to make the total value \$9.01 per acre per year of average removal of fertility of an apple crop growing thirty years. I have compared that with corn: Corn removed \$9.20, provided you could grow fifty bushels to the acre; but if you count in the corn-fodder as being removed, it would remove \$10.68 in addition, and, adding the two, it gives us \$19.88 an acre, with \$9.01 on the apple crop. So you can see that the apples are about half as hard on the soil as corn. Estimating these maximum yields, which are what we want to get at in our farming, in order to see what we miss, I have taken the fertility in the various soils. I have classified the soils and I have taken the average of all of them. I find in the first foot of average soil 35,466 pounds an acre of nitrogen, 5,176 of phosphoric acid, and 48,181 pounds of potash. That means that such a soil ought to produce apples at the rate stated for 133 years before they would exhaust the nitrogen in the first foot. There is enough phosphoric acid to last 528 years, and enough potash to last 143 years. In Michigan there is enough nitrogen to produce apples for only fifty-nine years; its soil is poor in nitrogen, and needs plenty of manure and cow-peas. Of the soils in Missouri I have only three analyses made, and they are on average upland soils and on average bottom soils. It is about ten years since these analyses were made by Professor Schnitzer. I realize that we ought to have thirty or forty of these analyses in order to say that we have samples of all the soils, but I think we would find the same results—enough nitrogen to last 92 years, phosphoric acid to last 205 years, and enough potash to last 1,045 years—for the apple crop. This table shows that when an apple orchard plays out at the end of twenty-five or thirty years it certainly is not playing out because it has exhausted the fertility of the soil. By faulty methods of cultivation we may

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Birds and Orchards.
 Mr. E. S. Tucker, Kansas State University, Lawrence, Kans., writes as follows:

"In referring my article published in the KANSAS FARMER of November 20, 1902, to the U. S. Department of Agriculture, the following reply has been received, which I submit for the benefit of your readers:

"U. S. Department of Agriculture, Biological Survey, Washington, D. C.
 "E. S. Tucker, Lawrence, Kans.

"Dear Sir:—Your favor of the 5th instant, and the article on "The Destruction of Fruit by Birds in Sedgwick County" has been referred to me for consideration. If you will turn to page 33 of bulletin 54, "Some Common Birds in their Relation to Agriculture," U. S. Department of Agriculture, you will find that I have there described in general terms the situation of which you have given a specific example. The conditions are artificial and abnormal in every respect. When, in addition to the orchards and vineyards, artificial forests, with their accompanying fruit-bearing shrubs, shall have grown the present trouble will practically cease. In the meantime I do not see that there is any other remedy than the one that was applied, much as I deplore such destruction of bird life. Too many birds were collected in a limited area with the usual result. It is evident that the killing did some good as the birds were less destructive last season.

"The fruit growers of California have been for several years struggling with the same problem but the conditions are slowly becoming more normal,—in fact so much fruit is raised there that it is only in small archards that the damage by birds is noticed.

"As I have stated elsewhere, the damage by birds usually arises from too many birds, or too many of one or a few species, collecting in a limited area. Under such circumstances the natural food supply becomes insufficient and the birds turn their attention to other sources of supply with the consequence, usually, that some agricultural product has to suffer.

"I send herewith a copy of bulletin 54, also "How Birds Affect the Orchard," which shows the other side of the case. F. E. L. BEAL.
 In charge Economic Ornithology."

Celery Culture.
 EDITOR KANSAS FARMER:—To grow celery plants, select loose, rich garden soil, work it as long as you find clods. Then with a plow run furrows three feet apart to make beds. The beds must be narrow enough to walk in the furrows. When planting the seeds and cultivating the plants work from each side, sow the seed about the 1st of March, soon as the ground is in a condition to work. I like to have them planted by the middle of the month, and it takes them about two weeks to come up. When you get ready to plant the seed work the ground up fresh. Get a board five or six inches wide, long enough to reach across the bed to mark off the bed into rows. Lay the board down, turn on edge, push the soil just enough to make a shallow row; make the rows the width of the board apart. Sow the seed in the rows and cover them with some fine dirt. Then take the edge of the board and press the soil lightly on the seed. When the tiny plants begin to come through the ground take your hand and sprinkle fine dirt around them. When well up begin to cultivate. I use an old table fork to draw the loose dirt around the plants until they are large enough to hoe. When the plants get six or eight inches high, transplant. Lay off the ground in rows three feet apart. Make the furrows rather deep. Set the plants in the furrow eight inches apart. Have the ground rich and loose. Begin to cultivate soon after setting out. Hold the stalks close together with one hand so the dirt will not get in the crown of the plant and pull the dirt up to the leaves. Work often. Keep hilling up as the plant grows. Be careful not to bruise the stalks. If the earth you hilled around the celery does not Blanch it by cold weather, dig a trench about two feet wide and a little deeper than the height of the celery. Set the plants upright in the trench close together. Cover the roots with dirt and pour some water around them

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if the dirt is dry. Do not pour the water on the tops—will cause it to rot if the water gets in the trench. Cover with boards and throw the dirt around close. In very cold weather put straw or leaves over the celery, but if it gets too warm it will rot.
 La Belle, Mo. B. P. WAGNER.

Bermuda Grass.
 EDITOR KANSAS FARMER:—Recent inquiry as to the suitability of Bermuda grass for this section leads me to give some personal experience. On my south terrace the sun's heat has proved too great for blue-grass or other usual lawn grasses and in April, 1901, I sowed it with Bermuda grass. This came up in patches but made a good growth, which I allowed to remain through the winter without cutting. Early in April, 1902, the Bermuda grass seeming entirely dead, I burned it off close to the ground as the easiest way of being rid of it.

About May 1 I noticed that the roots were throwing out small green shoots or blades and was agreeably surprised to find that it was "not dead but sleeping." From this time it grew with great rapidity until by May 15 the ground was well covered. In color it is a lighter green than blue-grass. It grows very short and compact, putting out runners which form joints every two inches, at each of which it takes root, thus spreading rapidly, so that my terrace which was patchy in 1901 was completely covered in the fall of 1902, and had no equal in the neighborhood.

This experiment leads me to believe that Bermuda grass has its place in this latitude; that it will make abundant pasture and is without comparison for use on terraces with southern slope.
 A. G. TRUMBULL.
 Kansas City, Mo.

Locust for Posts.
 EDITOR KANSAS FARMER:—I have gathered some honey-locust seed, and I would like to know how to prepare the seed before planting.
 C. DOANE.
 Laton, Rooks County.

Both the black and the honey-locusts are good for post-timber. There seems to be little difference in their value as posts, either of them lasting well with other hard woods. The slight difference in their value seems to be in favor of the honey-locust. This difference would vary in different soils, depending on the water content and the fungi in the soil. The black-locust is often badly attacked by borers.

Seeds of both the above may be had at any seed-house and may be put out in the fall where they are to grow, or they may be soaked in hot water in the spring about the time the frost is out of the ground and then sown. The seedlings should be planted in the permanent grove at the age of one or two years.
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 Introducing our King Butter Separator and Acrotator. Produces Creamery Butter from Cream or Milk, Sweet or Sour IN LESS THAN FIVE MINUTES. Every owner of a Cow a customer. Write today for Role Agency stating territory desired. Our FREE SAMPLE and SALARY proposition will interest you.
WILLARD MFG. CO., Dept. 86 Chicago, Ill.

WIRE FENCE at Wholesale. A 54-inch stock fence \$20 per rod. Send for price list and FREE catalogue of Wire Fence and full line of Fence Supplies.
W. H. MASON & CO., Box 62, Leesburg, Ohio.

A FENCE MACHINE
 That combines Simplicity, Durability, Rapidity and Economy, **THE DUPLEX**. It makes over 100 Styles, 50 to 70 rods a day, of Horse-high, Bull-strong, Pig and Chicken-light Fence that combines Strength, Uniformity, Permanency, Reliability and Efficiency AT COST OF WIRE. Machine on Trial. Full information free. Wire of every description at Wholesale Prices. Write today.
KITSELMAN BROTHERS, 811 N. LaSalle, Ill.


A MACHINE
 to weave your own fence of Colored Hard Steel Spring Wire. 22 inches high, at **25 Cts. per Rod.** \$25 buys wire for 100 rods fence. Agents Wanted. Catalogue Free. **GAZEM Wire Fence Mach. Co. Box 24. Mt. Sterling, O.**

WE'D RATHER
 people would say, "Page Fence costs more than others, and is worth more," than to have them say, "It isn't so good, but it costs less."
PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.

HOG AND STOCK.
 The Illinois Wire Company Stock and Hog Fence is guaranteed proof against hogs and all other animals. Every wire a cable, spring twisted, galvanized. Expands and contracts with heat and cold. Cannot slip, sag or break. Cables 3 ins., stays 5 ins. apart. 6 to 11 cables, and up to 63 ins. high. Bars on top and bottom cables if desired. Write us for free illustrated catalogue, prices, etc.
Illinois Wire Co., Dept. 6, Chicago, Ill.

We Sell Advance Fence
 Direct to Farmers at Manufacturer's Prices.
 This plan not only saves you the middleman's profit, but at the same time gives you the best all round farm fence. Many heights to suit all farm purposes. Entirely interwoven. No loose ends to unravel, ruining fence. Write to-day. Have fence ready when you need it.
ADVANCE FENCE CO., 180 D St., Peoria, Ill.

STEEL ROOFING
 Strictly new, perfect, Semi-Hardened Steel sheets, 3 feet wide, 8 feet long. The best Roofing, Siding or Ceiling you can use. No experience necessary to lay it. An ordinary hammer or hatchet the only tools you need. We furnish nails, free and paint roofing, two sizes. Comes either flat, corrugated or "V" crimped.
\$2.00 PER SQUARE.
 A square means 100 square feet. Write for free Catalogue No. 51 on Farm supplies of every kind.
CHICAGO HOUSE WRECKING CO., W. 35th & Iron Sts., Chicago

CANCER CURED
 With Soothing Balmy Oils

MR. M. YANT, OF CRETE, NEB.
 No need of cutting off a woman's breast or a man's cheek or nose in a vain attempt to cure cancer. No use of applying burning plasters to the flesh or torturing those already weak from suffering. Thousands of persons successfully treated by this mild method. Cancer tumor, catarrh, ugly ulcers, piles, fistula, and all skin and blood diseases. Write to-day for free illustrated book. Address **DR. BYE, Kansas City, Mo.**

Free Rupture Cure
 If ruptured write to Dr. W. S. Rice, 1516 Main St., Adams, N. Y., and he will send free a trial of his wonderful method. Whether skeptical or not get this free method and try the remarkable invention that cures without pain, danger, operation or detention from work. Write to-day. Don't wait.

ASTHMA CURED TO STAY CURED
 A complete, lasting constitutional cure, not just a "relief." Absolutely different from all sprays, smokes, and so-called "cures." Over 52,000 patients. Attacks never return. Cause eradicated. Health restored. Whole system built up. Book free.
DR. HAYES, Buffalo, N. Y.

LADIES My Regulator never fails. Box FREE. **DR. F. MAY, Box 31 Bloomington, Ill.**
BED-WETTING CURED. Sample FREE. **DR. F. MAY, Bloomington, Ill.**

Towers' Surface Cultivator
 200 Sold 1898
 "J. D. TOWER & SONS Co.—I have been wonderfully well pleased with your Cultivator, and I say a good word for it amongst my thousands of customers. Years ago you people were regarded as fanatics. To-day your ideas are recognized by the best agriculturists as the only true way of growing corn. J. B. ARMSTRONG, Seedsman." Send for Treatise on Corn Culture, free.
THE J. D. TOWER & SONS CO., 14th St., MENDOTA, ILL.
 1902 5,300 Sold

Sloan's Liniment
 For any part of a horse where a liniment CAN do good, experts know there is none better.
 50 CTS and \$1.00 a bottle Family Sizes 25 CTS ALL DEALERS

The National Cornstalk Remedy
 The greatest discovery of the age, prevents stock from dying of cornstalk disease. The remedy is a real preventive we have such absolute confidence in it that we require no money from buyers until they have fed and tested the remedy. If it is not as represented we pay nothing. We want every farmer to try our remedy. It never fails when fed with salt as directed. Order a pall to-day, which will protect 60 head for the season. The price is \$10.00 per pall. Address
NATIONAL CORNSTALK REMEDY CO.,
Jas. R. Muir, Manager. Range Block, Omaha, Nebraska.

SECURITY STOCK FOOD
 FOR HORSES, CATTLE, HOGS AND SHEEP.
 Contains 42 feeds to the pound, to only 7 feeds of some others—a pound thus going six times as far as a pound of the others. Highly concentrated and perfectly pure. Greatest fattener known. Less feed required and better results obtained. Costs only 8 cents a month to feed Hogs and Sheep, and 16 cents for Horses and Cattle. Nature's own regulator. Every domestic animal benefitted by its use. Should be on every farm and ranch in the country. Try it and you will use no other. Money refunded if not all we claim for it.
SECURITY STOCK FOOD CO., MINNEAPOLIS, MINN.

BLACKLEGOIDS
 BEST PREVENTIVE OF BLACKLEG.
 Blacklegoids afford the latest and best method of vaccination against blackleg—simplest, safest, surest. They are always ready for use; no filtering, measuring or mixing is necessary. Accuracy of dosage is always assured, because each Blacklegoid (or pill) is exactly sufficient for one inoculation. Administration with our Blacklegoid Injector is easy. The operation need not consume more than 2 minutes. Blacklegoids are sold by druggists; ask for them.
 Our newly printed eight-page folder on the "Cause and Nature of Blackleg" is of interest to stockmen. Write for it; it is free.
PARKE, DAVIS & CO. - DETROIT, MICH.
 Branches: New York, Kansas City, Baltimore, New Orleans, Chicago; Walkerville, Ont.; Montreal, Que.; London, Eng.

BLACK-LEG-INE
 Pasteur Blackleg Vaccine ready for use. EACH DOSE SEPARATE.
 Single Blacklegine (for common stock): 10 dose box, \$1.50; 20 dose box, \$2.50; 50 dose box, \$6.00. Double Blacklegine (for choice stock) \$2.00 for 10 doses, first lymph and second lymph inclusive. Blacklegine Outfit for applying Blacklegine, 50 cents.
Pasteur Vaccine Co.,
CHICAGO - NEW YORK - FT. WORTH - SAN FRANCISCO.

FREE FACE BLEACH
 FOR COMPLEXION
 I will send free trial bottle of my FACE BLEACH to any lady sending name and address.
Mme. A. RUPPERT, 6-E-14th St., New York City.

The Topeka Business College
 LEADING SCHOOL OF BUSINESS, SHORTHAND, PENMANSHIP & TELEGRAPHY
 Large School—Reasonable Rates—Good Positions—Catalogue Free—Address: E. H. Strickler, Topeka, Kansas

Grange Department.

"For the good of our order, our country, and mankind."

Conducted by Ed. Blair, Cadmus, to whom all correspondence for this department should be addressed. Papers from Kansas Granges are especially solicited.

NATIONAL GRANGE.

Master..... Aaron Jones, South Bend, Ind.
Lecturer..... N. J. Bachelder, Concord, N. H.
Secretary, John Trimble, 514 F St., Washington, D. C.

KANSAS STATE GRANGE.

Master..... E. W. Westgate, Manhattan
Overser..... J. C. Lovett, Bucyrus
Lecturer..... O. H. Hbner, Olathe
Steward..... R. C. Post, Spring Hill
Assistant Steward..... W. H. Coultis, Richland
Chaplain..... Mrs. M. J. Ramage, Arkansas City
Treasurer..... Wm. Henry, Olathe
Secretary..... Geo. Black, Olathe
Gate Keeper..... G. F. Kyner, Lone Elm
Ceres..... Mrs. M. J. Allison, Lyndon
Pomona..... Mrs. Ida E. Flier, Madison
Flora..... Mrs. L. J. Lovett, Larned
L. A. S..... Mrs. Lola Radcliff, Overbrook

EXECUTIVE COMMITTEE.

Henry Rhoades..... Gardner
J. T. Lincoln..... Olpe
A. P. Reardon..... McLouth

E. W. Westgate, master Kansas State Grange, visited Indian Creek Grange, Friday, January 16, and conferred the first and second degrees upon a class of five and the third and fourth degrees upon one, then installed the officers elected for the ensuing year and enjoyed a hot and hearty oyster supper and was taken to the depot by Brother and Sister Rude in season for the 6 o'clock train for Manhattan. This grange at this time last year numbered thirteen members and was meditating the giving up the ghost, but it received a sudden inspiration from some source, and now numbers forty active, interested members; and one who was a member of this grange has formed a new one near by with about the same number. Bro. Dickinson is doing a grand work in the vicinity of Meriden and we hope to hear good reports of results soon.

Grange Meetings in July.

The worthy lecturer of the National Grange, the Hon. N. J. Bachelder, has promised to give the granges of Kansas six days during the latter part of July, commencing on Monday. I have not been able yet to secure promise of a longer time and I can not have anybody else from the National Grange to increase the number of meetings.

We can have one or more of the faculty of the Agricultural College at all of the meetings, if desired, without extra expense to us. The localities visited will be expected to entertain the Grange officials and, if able, to contribute something towards the railroad fare. Any grange or community wishing Brother Bachelder's presence should so decide as soon as possible. Delays last year proved dangerous and in some cases fatal.

Please let me know your wishes and desires soon. All applications will be carefully considered and those accepted which will best accommodate us for the whole trip and promise most of good to the order.

E. W. WESTGATE, M. K. S. G.

At Rest.

Bro. John Trimble is dead. The news comes as a shock to every one who knew him. The grange could not have been what it is but for him. He was one of the founders. And he was more than a founder. His life has been a perpetual inspiration. For nearly eighteen years he has served with rare ability and fidelity as secretary of the great organization which he helped to establish. He was faithful to the last. On the 30th of December, 1902, he closed his eyes in the restful sleep for which no man was worthier. His work was done. Peace to his ashes. His gentle spirit was always at peace with all men and with God.

Some thoughts are too deep and too sacred for utterance except in the presence of the dead. Life is sacred and mysterious; death seems to be more sacred and mysterious. We bow with bared heads in the presence of those who have lived worthily and have gone at a full age and without fear into the future which none may see but with the eye of faith until they have paid the price which our good Brother Trimble was so willing and so able to pay. He was rich in the precious possessions which are the only true wealth in the final hour—rich in the sacred treasure which passes current in heaven and on earth. His beautiful life had made thousands of lives more beautiful.

All who knew John Trimble loved him. Some there were who met him but never knew him, he was too clean to be understood by the unclean; too honest to be appreciated by the dis-

SECOND ANNUAL GRAND THREE DAYS' COMBINATION SALE

AT RIVERSIDE SALE BARN, WICHITA, KANS., FEB. 3, 4, AND 5, 1903.

Reduced Rates on all Railroads.

FEBRUARY 3.



50 Head Registered Percheron and Shire

Stallions and Mares—Consigned by J. W. & J. C. Robison, Towanda, Kans.; Snyder Bros., Winfield, Kans.; Avery & Son, Wakefield, Kans.

Many of the consignment were prize-winners at Missouri and Kansas State Fairs and other leading Western Fairs in 1902.

FEBRUARY 4.

60 Head of Registered Shorthorn Cattle

Consigned by J. W. & J. C. Robison, Towanda, Kans.; Snyder Bros., Winfield, Kans.; G. D. Stratton & Son, Walton, Kans.; Fred Cowley, Columbus, Kans.; Harrington Bros., Clearwater, Kans. All leading families represented.



FEBRUARY 5.

60 Head of Registered Poland-China Hogs

Consigned by Snyder Bros., Winfield, Kans. This draft will be selected from our herd, which now numbers more than 400 head.

AUCTIONEERS

Col. J. W. Sparks, Marshall, Mo.
Col. R. L. Harriman, Bunceton, Mo.
Col. L. F. Burger, Wellington, Kans.
Col. J. N. Harshberger, Lawrence, Kans.

For Catalogues of Horse or Cattle Sales, apply to
J. C. ROBISON, Towanda, Kans.
For Catalogue of Hog Sale apply to
J. D. SNYDER, Winfield, Kans.

honest; too much of a man to be fully comprehended by little men. The children all loved him; for all children love large-hearted, pure, and generous men. All good women loved him; for his heart was right and his life was above reproach.

We may not speak at length of the good brother who has been called to his reward. Suffice to say that he had reached a ripe old age; that his mind was strong and clear as long as life lasted; that his faith was serene and unshaken by disease or by weakness. Until the very last he was the sweet and gentle man whom none knew but to respect and admire and whom none knew well but to love.

John Trimble is dead. It is not so. We have but spoken in parable. The old body in which our dear friend tabernacled for so many years has been laid away; but John Trimble, the Brother Trimble who was known in every part of the land, lives on in his good works and in the tens of thousands of lives he has inspired. We mourn with those who mourn; we rejoice with those who rejoice. It is as he would have it. Let the dead bury their dead; we live with the living as he lives with the living. Life must be sweeter to him now, as it is sweeter and richer to every one who has felt the benediction of his life and the blessing of his friendship.

Held a Public Installation.

The members of the Olathe grange, No. 118, held a public installation of officers at their hall in the grange building on last Saturday, at which there were about 200 present.

I. D. Hibner presided as installing officer, assisted by D. D. Marquis.

After the installing ceremonies were over all were invited to society hall where several large tables had been prepared which contained all the good things of the season. There was nothing left undone in this annual grange feast.

Mr. Hibner made a short speech on the order that was heartily appreciated.

Music was furnished by the grange.

The day was fine and the large attendance report a very enjoyable time. Olathe grange now has 218 members and new members are continually being added.—Olathe Patron.

Stockholders' Meeting.

The stockholders of the Patrons' Fire and Tornado Association met in annual session in Society hall of the grange building on Wednesday of this week. There was a large attendance present, and the reports of the officers show the company to be in a flourishing condition and growing.

The following officers were elected: President, Henry Rhoades; secretary, I. D. Hibner; treasurer, Samuel McPherson.

Board of Directors—A. P. Reardon, Harvy Hancock, W. C. Teas, W. C.

Brown, Chas. Dellahunt, O. C. Gordon, M. V. Phillips, J. C. Lovett.
Auditors—R. J. Henry, and A. L. Hunt.—Olathe Patron.

Installation.

We had installation of officers of Rock grange No. 1438, Thursday night with a feast afterwards. All members present but three. We initiated three members in the first two degrees. They also stayed to witness the installation, and to enjoy the feast with us. Bro. J. T. Lincoln was our installing officer.

Saturday, a number of us took our dinners (as they were to have an all-day session) and attended the Madison grange, and enjoyed seeing their officers installed. Our master, A. W. Filer, was their installing officer. We had a very pleasant time.

We started our grange in August and now have twenty-six members, and two applications. Mrs. Ida E. Flier, Madison, Greenwood County.

"Millions of Trees" is the title on the front cover of a very attractive catalogue issued by our advertiser, D. Hill, the veteran grower of evergreens at Dundee, Ill. Mr. Hill has been "at it" for more than forty years, and is known not only all over this land but in many foreign countries. He is a native of old England where forestry is more intelligently understood than here. He grows all his stock from seed and develops them into thrifty, hardy trees. Those who deal with him once do so again and again as need arises. Write for his catalogue and mention Kansas Farmer when you do.

Thousands of brain workers and women whose health gives way under the strain of overwork, anxiety, the cares and worries of business or the home, suffer from severe stomach trouble, indigestion, headache, insomnia or general nervousness. Many of these poor sufferers try various treatments for years without experiencing anything more than temporary relief. The reason is plain. Briefly—they direct treatment to the symptoms instead of to the disease, a vital error. These troubles can arise from but one cause, viz., a derangement of the nerves. No matter what the cause, the first bad effects of disordered nerves are usually felt in the stomach, the source of supply of nourishment for the whole body. Stomach trouble comes from loss of vitality and results in inactivity of the nerves of the stomach and of its tributary glands. From this condition arise the attacks of indigestion, headache, sleeplessness, nervousness, irritability and incapacity for the daily work. Since these disagreeable symptoms arise from a derangement of the nerves affecting more particularly the stomach, the natural remedy is one that gently stimulates the action of the stomach nerves while it strengthens and invigorates the whole nervous system. Such a remedy is Dr. Miles' Restorative Nerve, which, as its name implies, nourishes, builds, replenishes and restores the nerves to a condition of health and strength. It is a true nerve tonic, creating strength and power in a permanent manner. It is in no sense a stimulant, whose action is purely temporary. If you are suffering from a nervous disorder in even a slight degree you will find Dr. Miles' Nerve admirably suited to your case. It is especially good for weak, run down, nervous women. It is sold by all druggists on a positive guarantee to benefit you or your money will be refunded. We will be glad to help you to a proper understanding of your trouble. Write us today for free treatise on nervous diseases. Dr. Miles Medical Co., Elkhart, Ind.

Poland-China and Horse Sale

We will sell at our farm, 2½ miles northeast of Abilene, Kans., on February 18, 1903, fifty head of first-class Poland-China sows and gilts, all bred, nearly all for March and April farrow. They are the choice of our spring of 1902 crop of pigs, and a number of yearling sows and yearling gilts. They are very large and growthy, very heavy-boned, yet smooth and well marked. Having been raised with the run of alfalfa pastures, they are very strong and vigorous, and ought to make a useful lot of brood sows. They are of first-class breeding, a number of them being sired by Kansas Chief 28250, a son of Chief Tecumseh 3d. Kansas Chief is a very large, growthy yearling, great depth, fine arched back, fine head and ear, and the best of legs and feet. The yearling sows and gilts are by Hadley I Know, a grandson of Chief I Know; and Hadley 2d. Hadley I Know is a very heavy boned, large hog, of the best quality and an extra breeder. The Hadley I Know gilts are bred to Kansas Chief and the Kansas Chief gilts are bred to Hard to Beat, a very promising young boar, that won third prize at the Kansas City Royal. He is a very heavy-boned, thick meaty fellow, very mellow and even, and ought to be a great sire. Everything to be shipped will be crated and delivered to express office. Any sow or gilt proving not to be with pig will be rebred if returned within thirty days, or we will deduct 20 per cent from purchase price at option of buyers. Parties from a distance will be entertained at the Central Hotel at our expense. Free conveyance to and from sale.

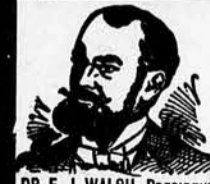
Will also sell 15 head of well-bred young horses, from 3 to 5 years old—drafters, general-purpose and drivers—all broken to harness. Will also offer the Imported French Draft Stallion, Bonnevill 605, a very heavy-bony gray, with splendid style and action. A first-class individual in every respect, sound and all right, and a first-class breeder. Weight 1,850 pounds; in just fair breeding condition; was foaled March 12, 1888. Also a grade stallion, will be 2 years old the 23d of April next; weighed 1,400 pounds at 21 months.

TERMS OF SALE.—A credit of eight months will be given at 10 per cent. If paid when due only 6 per cent will be charged; purchaser to give note with approved security. Two per cent off for cash.

Free lunch at noon, and will commence selling immediately afterward. Catalogue of Poland-Chinas on application.

C. M. Garver & Son, Abilene, Kansas.

Auctioneers: Col. J. N. Harshberger, Lawrence, Kans.; Col. J. N. Burton, Abilene; Col. Jas. T. McCulloch, Frankfort.



DISEASES OF MEN ONLY.

The greatest and most successful Institute for Diseases of Men. Consultation free at office or by letter. BOOK printed in English, German and Swedish. Explaining Health and Happiness sent sealed in plain envelope for four cents in stamp. All letters answered in plain envelope. Varies cured in five days. Call or address

DR. E. J. WALSH, PRESIDENT.

Chicago Medical Institute,
513 Francis St.,
ST. JOSEPH, MO.

THE MARKETS.

Kansas City Live Stock and Grain Markets.

Kansas City, Mo., January 26, 1903. During the past week a ray of light broke through the gloom that has surrounded the cattle trade of the country the past three or four weeks.

The stocker market showed but little change from a week ago. The supply on sale was moderate. Very good stockers cost \$4.00@4.25 or even a trifle better.

Like cattle and hogs, the sheep market recorded an advance during the week. Receipts were a little in excess of the preceding week and about 7,000 ahead of a year ago.

The poultry market held steady during the weeks, but eggs lost nearly 2c per dozen. The near approach of spring and increased supplies from the country were largely responsible for the loss in eggs.

Wheat went up 1/2c last week on account of a good export demand and heavy buying by Armour at Chicago.

Lawrence Seed Markets.

Table listing seed prices: Red clover \$9.00@11.00, Alfalfa 8.00@11.00, Timothy 8.00@ 8.25, English blue-grass 2.50@ 3.50, Millet .75@ 1.00, Cane-seed .60@ .75, Kamir-corn .50@ .52.

F. BARTELDES & CO.

PILES

Rectal Diseases radically cured in a few weeks without the knife, cutting, ligature, or caustics, and without pain or detention from business.

Mr. M. McCoy, Gogonac, Kans., Captain Company A, Fifteenth Indiana Infantry, writes: "Hermit Remedy Company, Dear Sirs:—I have doctored for years since the Civil War—thirty-six years—and am now glad to report that after using your treatment for a few weeks I am completely cured."

We have hundreds of similar testimonials of cures in desperate cases from grateful patients who have tried many cure-alls, doctors' treatments, and different methods of operation without relief.

Special Want Column

"Wanted," "For Sale," "For Exchange," and small or special advertiser's notices for short time will be inserted in this column.

CATTLE.

FOR SALE—Aberdeen-Anrus cattle, to close out; 3 young cows, each with an 8-month calf at side.

FOR SALE—One dark red registered Shorthorn bull. Brookover Bros., Eureka, Kans.

FOR SALE—10 head of registered Hereford bulls, 6 to 20 months old, good individuals, and in good condition.

FOR SALE—A few choice young Angus bulls at right prices. Address J. E. Long, Rock Creek, Kas.

FOR SALE—Red Polled cattle. I have been breeding these cattle seventeen years. No better anywhere.

FOR SALE—A choice herd of registered Holsteins. Six heifers coming 3 years old, and one yearling heifer from first prize cow.

FOR SALE—My herd bull, Baron Knight 134946, 4 years old, dark red, weight 2,200 pounds, got by Gallant Knight 124688.

FOR SALE—A few choice Shorthorn heifers and young bulls. M. C. Hemenway, Hope, Kans.

FOR SALE—Ten young Hereford bulls from the Evergreen Farm herd, headed by Lee 121232.

FOR SALE—Guernsey bulls from best registered stock. J. W. Perkins, 423 Altman Building, Kansas City, Mo.

FIVE HEREFORD BULLS FOR SALE—Never used in a herd, they are in fine fix, at a bargain for cowmen.

FOR SALE—Six good Shorthorn bulls, four of them straight Crunk-hanks; prices reasonable; now is your chance to get a good individual.

HERD BULL FOR SALE—After February 1, will let my double standard Polled Durham bull go; bred in Illinois, good individual, good dehorner.

HORSES AND MULES.

FOR SALE OR TRADE—Theorist, bay stallion, No 12921, 16 1/2 hands, 1,350 lbs., son of high-class carriage horse.

STALLION FOR SALE—Black, 5 years, standard-bred and registered, 1200 pounds, sound, gentle, city-broken single or double, sure foal getter.

FOR SALE—One Percheron stallion, 3 years old, one Hambletonian stallion, 4 years old. Both registered. Very cheap.

FOR SALE—One 4-year-old black jack, 16 hands, weight 1,200 pounds. Fine jennette jack.

FOR SALE—Two registered Percheron stallions, 4 years old, weight 1950 pounds; won second prize at Hutchinson. C. Spolar, Rome, Kans.

FOR SALE OR TRADE—For young cattle, one Percheron stallion, sure foal-getter.

FOR SALE OR TRADE—One imported French Coach Stallion, dark brown, weighs 1,400 pounds, good oreeder; will trade for jack or road stallion.

LEAVENWORTH CO. JACK FARM—34 head of jacks and jennets on hand. O. T. Corson, Potter, Kans.

FOR SALE—Seven jacks, three stallions. For further information call on or address F. W. Poot, Potter, Atchison County, Kansas.

FOR SALE OR TRADE—One of the largest and best Cantonian jacks in Kansas, black, with many points; 2 years old, Oct. 30, 1902.

FOR SALE—One bay Clydesdale stallion, 4 years old, weight 1,800 pounds.

FOR SALE, CHEAP—One 3-year-old black jack, and red Shorthorn bulls and heifers; show stuff.

PROSPECT FARM—CLYDESDALE STALLIONS, SHORTHORN CATTLE AND POLAND-CHINA HOGS.

SWINE.

BERKSHIRES—Two large boars of April farrow, excellent quality and finish.

WASHINGTON LAD—The greatest and best Poland-China I have ever owned.

FOR SALE—Berkshire boars by son of I spotted Commander and King Blossom; also bred glits.

POULTRY.

FOUR young litters high bred, pedigreed, Scotch Collie pups, for sale.

LARGE, LIGHT BRAHMA COCKERELS—Scored by Rhodes, 93 1/2, 92 1/2, 93 1/2, 92, 93, 91 1/2, 92 1/2, 91, 92, 90, 92.

FARMS AND RANCHES.

320-ACRE FARM—with fair improvements, good orchard and water. Price \$4,500; in payments, \$800 cash, balance six per cent interest.

FOR SALE—160, \$20 per acre. Write D. W. Bowman, Burr Oak, Jewell Co., Kans.

FOR RENT OR SALE—Two sections of good pasture land, well watered and well fenced.

FOR SALE—Farms and ranches in central and western Kansas. We have some great bargains in western ranches.

FOR SALE—480 acres of wheat and cattle farm land, 160 acres of it in wheat, 10 acres in alfalfa.

FOR SALE—320 acres fine pasture land in Wa-baunsee County, 2 miles from Halifax.

SEEDS AND PLANTS.

200,000 FRUIT TREES! Wholesale prices; new catalogue. Baldwin, Nurseriesman, Seneca, Kans.

MISCELLANEOUS.

WANTED—A responsible position on a farm. Or would rent a suitable place; ma ried. Dairy graduate.

WANTED—Man and wife on ranch, to live by themselves; also single man; would like parties that have worked on ranches or farms.

MILITARY LAND WARRANTS—\$5.00 paid persons telling who has one, whether I buy or not.

FOR SALE CHEAP—Pedigreed Scotch Collie pups. W. H. Richards, V. S., Emporia, Kans.

PATENTS.

J. A. ROSEN, Patent Attorney, 418 Kansas Avenue, Topeka, Kansas.

The Stray List.

Week Ending January 15.

Shawnee County—A. Newman, Clerk. HEIFERS—Taken up by V. Anderson, in Mission Tp., April 30, 1902.

Wilson Co.—C. W. Isham, Clerk. COWS—Taken up by John S. Gilmore, in Fredonia, Nov. 17, 1902.

STEER—Taken up by G. H. Sutcliff, in Cedar Tp., Nov. 28, 1902.

Comanche Co.—T. M. McIntyre, Clerk. COW—Taken up by L. L. Stubbs, in Nes-caunga tp., Dec. 13, 1902.

Week Ending January 22.

Cowley County, Geo. W. Sloan, Clerk. CATTLE—Taken up by J. C. Gardner, in Silver Creek tp., Nov. 22, 1902.

STEER—Taken up by G. P. Dalley, in Caney tp. P. O. Havana, one red steer, 1 year old, silt in right ear.

Elk County, G. J. Sharp, Clerk. STEER—Taken up by E. H. Russell, in Liberty tp., one red steer, 2 years old, two hog-rings in right ear.

Miami County, Geo. Osborne, Clerk. HOGS—Taken up by M. Walz, in East Valley tp., one black sow, left ear torn.

Week Ending January 29.

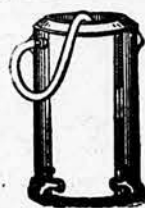
Kingman County—W. B. Long, Clerk. HEIFER—Taken up by Cory De Weese, in Rural tp., November 1, 1901.

STEER—Taken up by W. H. Wilkins, in Oakland tp., January 6, 1903.

MARE MULE—Taken up by A. E. Sherwood, in Hampden tp. (P. O. Burlington), September 16, 1902.

CATTLE—Taken up by James M. Brown, in Winona tp. (P. O. Winona), January 12, 1903.

LABETTE COUNTY—A. H. McCarty, Clerk. COLT—Taken up by Jacob Ozle, in Labette tp. (P. O. Parsons B. F. D.), January 8, 1903.



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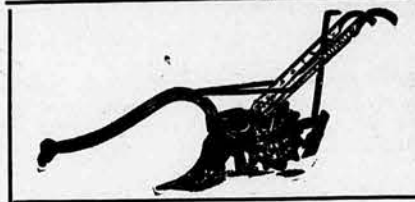
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Sempstress Valentine 157771 and Mayor 129229 at head of herd. Larkin's Duluth and Kansas King at head of Saddle Horse Herd. J. F. TRUE & SON, Perry, Kansas. Railroad Station, Newman, Kansas.



M. E. Moore, Cameron, Mo., is offering some fine Pure-bred Holstein-Friesian Bulls for sale from official tested dams and sires. A few choice females to offer.

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VERMILLION HEREFORD CO., VERMILLION, KANSAS. Imported Alberta 2d blood. Boatman 56011 at head of herd. A few excellent, young bulls for sale. E. E. WOODMAN, Vermillion, Kans.

Registered Herefords.

THOS. EVANS, Breeder, Hartford, Lyon County, Kansas. One car load of bulls, 1 and 2 years old; one car load of heifers, 1 and 2 years old; a few cows with calves by side for sale.

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Owing to the death of my brother, Mr. R. J. Borgan, I am now offering to close out the entire herd of Double Standard Polled Durhams, Shorthorns, and a herd of 150 native cows bred to Double Standard bulls. Parties desiring some first class dual purpose cattle can now buy to advantage by addressing NELLIE BURGAN, FORD, KANSAS

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Herefords headed by Gold Dust 96848; Shorthorns headed by Daring Knight 170761. Twenty registered Hereford bulls, 9 to 11 months old, for sale cheap. Barred Plymouth Rock cockerels, \$2 and \$3; pullets, \$2; 50 of each for sale. LOUIS HOTHAN, Carbondale, Kansas.

COPELAND'S Shorthorns

Forty head of Scotch-topped Young Marys, Floras, Harriets, Ianthas, and Britanias. Minister 2d 150171 at head of herd. J. M. COPELAND, Glasco, Cloud County, Kansas.

COPELAND'S Shorthorns

Forty head of Scotch-topped Young Marys, Floras, Harriets, Ianthas, and Britanias. Minister 2d 150171 at head of herd. J. M. COPELAND, Glasco, Cloud County, Kansas.

SHROPSHIRE SHEEP.

Choice lot of rams and ewes—both Canadian and home bred—for sale. Can supply car lots. Write for our low prices.

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For Sale—100 Rams and 100 Ewes. Greatest winner of any Shropshire breeder in America. Address ALLERTON, VERMILLION Co., ILL.

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PERCHERON HORSES, AND ABERDEEN-ANGUS CATTLE. GARRET HURST, Breeder, ZYBA, SUMNER COUNTY, KANSAS. Young stock for sale, of either sex. All registered.

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Any of the following Percheron Stallions: Keota Gordon, weight about 1,800; Black Joe, weight in flesh, 1,700; Joker Jr., weight in flesh, 1,700; Harlan, weight about 1,600; Major D, yearling, make 1,800 pound horse or over; Carlin, 1,100-pound Standard-bred trotter. The mature horses will be sold so they can pay out this season. Address H. M. DAVIS, Thayer, Kansas.

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The largest herd of Percheron horses in the West and the best bred herd in America. A choice collection of young stallions and mares always on hand. Prices consistent with quality. Address, or come and see, at Wakefield, Clay County, Kansas.

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Greatest Importing and Breeding Establishment in the World. Famous Prize-Winning Stud of PERCHERONS and FRENCH COACHERS.

On hand upward of 500 HEAD. Four Large Importations in 1902, forming, with our home-breds,

The Choicest Collection Ever Assembled, including Four of the Six First-Prize winners at the great annual French Show of the Societe Hippique Percheronne in 1902. At the recent

INTERNATIONAL LIVE-STOCK EXPOSITION at Chicago, the Oaklawn Percherons achieved distinguished honors. The Champion Stallion and every First-Prize winner (except one) in the regular stallion classes were imported by Dunham, Fletcher & Coleman.

Notwithstanding the superior quality of our horses our prices are lower than can be obtained elsewhere in America. If a Percheron or French Coach Stallion is needed in your locality, correspond with us, with the view of our sending a salesman to place one, with your assistance. Reliable men who thus demonstrate ability in this line of work have no difficulty in arranging to represent us in the selling of stallions. Catalogue sent on application.

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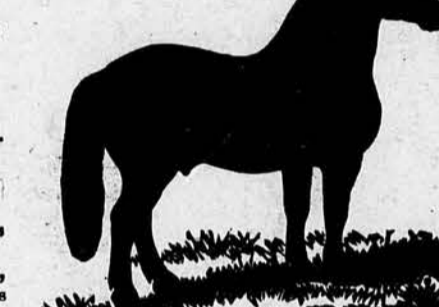
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H. W. McAFEE, Topeka, Kans. Breeder of CLYDESDALE HORSES, SHORTHORN CATTLE

FOR SALE—25 Clydesdales, including three registered stallions of serviceable age, and thirteen mares. Inspection and correspondence invited.

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Anxiety 4th females with Weston Stamp 9th at head WM. ACKER, VERMILLION, KANSAS. Shady Lane Stock Farm HARRY E. LUNT, Proprietor, Burden, Cowley Co., Kans. A few choicely bred Poland-China Boars for sale, some choice open gilts and bred sows

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PUBLIC SALE! ...OF... Duroc-Jersey Brood Sows. "The Famous Reds." Thursday, Feb'y 5, 1903. BEGINNING AT 12.30 P. M. At my farm, just southeast of Fairview. I will offer for sale six tried Sows, nine fall Gilts, and nineteen spring Gilts. All bred with the very best males. TERMS: Six months' time on sums of \$15 and upward without interest if paid when due, and 10 per cent from date of sale if not so paid. Two per cent discount for cash on credit amounts. For Catalogue, address J. B. DAVIS, Fairview, Brown County, Kansas. AUCTIONEERS: COL. ELI ZIMMERMAN. COL. M. W. HARDING.

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IAMS' October, 1902, importation of black Percherons, Belgians, and Coachers was the largest ever made west of the Missouri River. His stallions of big size, quality, finish and extremely low prices are propositions that will make you his buyer. If you can pay cash or give bankable note, you will sure buy stallions of Iams. Only man in the United States that imported only black or bay stallions. He has just imported

63--STALLIONS--63

Shipped to New York by fast boat, then by Fargo Express, special train from New York to St. Paul, Nebraska. Iams' big barns are full of big, black, ton stallions. He is just finishing a new barn 36x100 feet. Iams' horses are the sensation of the town. Visitors throng his barn and say: "Never saw so many big black stallions together." "They are larger, bigger bone, more finish than ever before." "But Iams is progressive;" "He buys them larger and better each year." "He makes prices that makes the people buy his horses;" "Iams has a horse show every day, better than State fairs." He has on hand over

100-Black Percherons, Belgians and Coachers-100

2 to 8 years old, weight 1,600 to 2,500 lbs. More black Percherons, ten stallions, largest French horse show winners, more government approved and stamped stallions of any one importer in the West. Iams speaks French and German; needs no interpreter, no buyer, no salesman; no two to ten men as partners to share profits. His buyers get middlemen's profits and salaries. Iams buys direct from breeders. This with his twenty years' experience secures the best. All the above facts save his buyers \$500 to \$1,000 on a first-class stallion and you get a first-class horse, as only second rate stallions are peddled by sleek salesmen to be sold. Good ones sell themselves. It costs \$600 to \$800 to have a salesman form a company and sell a second rate stallion. Form your own companies. Go direct to Iams' barns. He will sell you a better stallion for \$1,000 and \$1,200 than others are selling at \$2,000 and \$4,000. Iams pays horse's freight and his buyer's fare. Good guarantees. Barns in town. Don't be a clam. Write for an eye opener and finest horse catalogue on earth.

FRANK IAMS,

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References: St. Paul State Bank, First State Bank, Citizens' National Bank.



Spot Cash Talks.

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WESTPHALIA, ANDERSON CO., KANS., and see what it will do if you want a Registered Percheron or Coacher or a big, black, heavy-boned Mammoth Jack or Jennet. All stock guaranteed as represented.
P. S.—A few high-grade Stallions very cheap.



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Percherons, Shorthorns, and Poland-Chinas.

J. W. & J. C. ROBISON, TOWANDA, KANSAS,

Will sell a draft of 60 head from their noted herds. Among the horses they will include most of their 1902 show herd, which won every first prize competed for at Missouri and Kansas State Fairs this year. Don't forget the date—February 3, 4, and 5, 1903 at Wichita, Kans. February 3, J. W. & J. C. Robison and Snyder Bros sell 50 Percherons and Shire stallions and mares. February 4, J. W. & J. C. Robison, Snyder Bros., and G. D. Stratton, sell 60 Shorthorns. February 5, Snyder Bros. sell 60 Poland-Chinas.



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Ours were the Favorite Percherons at the recent International Live Stock Exposition, Chicago. Five of our importation won First. Another one of ours won Championship.
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My October importation now in my Shenandoah Barns. 100 REGISTERED PERCHERONS on the farm; 75 STALLIONS. Most of them ton horses. Come and see them.
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2 1/2 miles south of Kansas City on Frisco; Ft. Scott & Memphis; and K. C. P. & G. Railroads.

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35 Registered, Balance High-grades, and all Red.
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Imp. Prince Lovely 155860 and Scotland's Charm 127264 in service. Fifteen young serviceable bulls for sale. One extra good young Scotch bull, sired by Imp. Royal Favorite 140612, dam Imp. Pavonia. Also 50 heifers and young cows mostly bred, some with calves by side. Visitors always welcome. Long distance phone at farm.
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The Scotch bull, Gwendoline's Prince 130913, in service. Also the imported Scotch Mistle bull, Aylesbury Duke. 100 head of the best Scotch, Bates, and American families.
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Strictly choice show animals of Gilt Edged breeding. Established 20 years. For Sale—100 sows and gilts bred and not bred 20 and 4 yearlings and aged boars. Summer and fall pigs of all ages. Reduced prices before sale.
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SHORTHORNS AND HEREFORDS

TO BE HELD DURING THE CATTLEMEN'S CONVENTION AT OKLAHOMA CITY,
TUESDAY, WEDNESDAY, AND THURSDAY, FEBRUARY 10, 11, AND 12, 1903.

Commencing at 1 O'clock P. M. Each Day.

On Tuesday and Wednesday,
FEBRUARY 10 AND 11,
80 Head of Herefords

Consisting of 40 Bulls of serviceable age and 40 Cows and Heifers, will be sold at auction. They are consigned by the following breeders:

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These are strictly a high-class lot of cattle and we ask you to come and see them.

On Thursday, February 12,
60 Head of Shorthorns

Will be sold—30 head from the famous Clover Blossom Herd, owned by Geo. Bothwell of Nettleton, Mo., and 30 head from the well-known Silver Creek Herd, owned by J. F. Stodder of Burden, Kans. The lot consists of 20 choicely bred Bulls, from 12 to 20 months old, some of them show Bulls, and 40 Cows and Heifers, bred to, or with calves at side, by such bulls as Imported Wanderer's Last and Imported Aylesburg Duke.

For Catalogue of Shorthorns, address

J. F. Stodder, Burden, Kansas.

Auctioneers: Col. R. E. Edmonson, J. W. Sparks, Lefe Burger.

For Catalogue of Herefords, address

C. A. Stannard, Emporia, Kansas

Reduced rates on all railroads to Cattlemen's Convention.

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Royal Queens From the Invincible Herd

AT MASTIN, KANSAS, ON FEBRUARY 6, 1903. . . FROM WINN & MASTIN'S WORLD FAMOUS HERD

Of 50 head of yearlings and 2-year-old sows sired by the imperial cabinet of sweepstake boars, Proud Perfection, Corrector, Perfect I Know, Keep On, Chief Perfection 2d, Perfect Perfection, Missouri Sunshine, Ideal Sunshine, Missouri's Black Chief, and other noted boars. Sows bred to MISCHIEF MAKER, the sweepstake boar at both Iowa and also at American Royal this year, and sired by a sweepstake boar; also to Proud Perfection, Corrector, Corrected, Missouri's Sunshine, Lamplighter, Gay Monarch, the greatest living son of Perfect I Know.

The Show Blood of Herd on Tap.

The Whole Herd is Immunized With De Vaux' Antitoxin.

This bunch of sows have never been equalled in evenness by us before and you know we have had pretty good ones. They are bred for February and March farrow. They will be in the finest possible shape to do buyers greatest good. Everybody cordially invited to be present. Write for catalogue for full particulars and mention Kansas Farmer.

SPECIAL NOTICE!

There will be a Special Train which will leave the Union Depot at Kansas City at 10 a. m. Friday, February 6, over the Frisco Railroad for the farm and sale. It will return to Kansas City immediately after the sale. This train will be chartered at our expense.

GEO. M. CANTRALL, CLERK.
Cols. D. P. McCracken, H. O. Correll, Aucts.

WINN & MASTIN, Mastin, Kansas.



A GOOD TIME

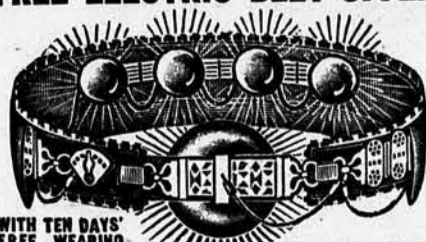
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You won't have to think about it so much afterwards. Made in 6, 8, 10, 12 and 16 foot sizes. We also make Vaneless and Solid Wheel Mills.

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We have in central and western Kansas, all kinds of farm and ranch property, large and small, improved and unimproved, for sale. In many cases we can make a desirable exchange. State what you have for sale or what you wish to buy, and we can accommodate almost any kind of a realty deal. Write for our list of bargains. All correspondence will receive our prompt attention. Address **E. C. PREBLE LOAN CO. CUBA, REPUBLIC COUNTY, KANSAS.**

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....OF....

SHORTHORN CATTLE

At Kansas City, February 10 and 11, 1903

At the Kansas City, Mo. Stock Yards Sale Pavilion.

Where Will You Be On Those Dates? Make No Other Dates. If Not, Why Not? Because!! The "Bone and Sinew" of the Shorthorn Breeding Fraternity Will Be Present and "Whosoever Will May Come," Because!!! It is An "Even Break" Offering from Two Champion Shorthorn Herds of America.

NO FANCY PRICES EXPECTED. - - - - BUYERS' OWN PRICES WILL TAKE THE CATTLE

On Tuesday, February 10, 1903,

T. J. WORNALL & SON

Will sell 49 Cows and Heifers and 10 Bulls from the Grassland Herd of Shorthorns, comprising 23 Scotch cattle and the balance, Bates and Scotch-topped Bates and American families. It will be the best high-class offering of Grassland Shorthorns ever made. For Catalogue, address

T. J. Wornall & Son, Liberty, Mo.



On Wednesday, Feb'y 11, 1903,

COL. G. M. CASEY

Owner of Tebo Lawn Herd of Shorthorns will make his first public auction from this Celebrated American herd—the Great Champion Shorthorn Herd for 1902. Over 50 head, including 9 young Bulls, 21 Cows with calves at foot, balance of breeding age guaranteed safe in calf, 12 bred to Choice Goods. For Catalogue, address

E. B. Mitchell, Mgr. Tebo Lawn Herd, CLINTON, MISSOURI.

Cols. F. M. Woods, Carey Jones, R. L. Harriman, W. A. White, Auctioneers

..PUBLIC SALE..

....OF....

REGISTERED SHORTHORNS

FROM THE

Blue Grass Herd of J. S. McIntosh
Eudora, Kansas.

To be held at Manhattan, Kansas,
Monday, February the 16th, 1903.



A Choice and Select draft of 50 head of young stock selected out of a herd of 135 head. The offering consists of 47 Cows and Heifers and those of breeding age will have calves at foot or safe in calf to the noted Scotch herd-bull, Color Bearer 127045. Three bulls of serviceable age, splendid individuals, are also included in the offering. Of the 33 cows, 26 will have calves at foot. The entire female offering are splendid individuals and the cows and heifers will weigh from 1,400 to 1,700 pounds and the entire lot will average 1,400 pounds or better.

This sale will dedicate the new Sale Pavilion erected by C. P. Dewey & Co., at Manhattan. For Catalogues, address

J. S. McINTOSH, Stock Yards, KANSAS CITY

Auctioneers: Col. Jas. W. Sparks, Marshall, Mo.
L. R. Brady, Manhattan, Kans.

BERKSHIRES

BRED SOW SALE!

FRIDAY, FEBRUARY 6, 1903.

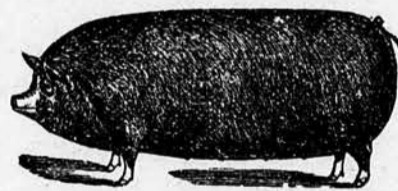
THE GREAT MARKET FOR

...Recorded Berkshires....

AT KANSAS CITY, MISSOURI,

will be supplied with 60 head of Choicely Bred Berkshire Sows, bred to the great boars in use in the herds of the following well known breeders:

CHAS. E. SUTTON
Russell, Kans
EVAN DAVIES
Keytesville, Mo
W. F. CORBIN
Hodge, Mo
BERT M. BARNETT
Jameson, Mo
J. M. BAUGHER
Anson, Mo
O. P. UPDEGRAFF
Topeka, Kans



J. W. WAMPLER
Brazilton, Kans
W. E. BRADFORD
Harg, Mo
WM. SCHAEFER
Fontana, Kans
CHAS. G. MILLS
Pleasant Hill, Mo
JOSEPH LITTLE
Garnett, Kans

REMEMBER THE TIME AND PLACE
OF THE PUBLIC SALE OF

High-Class and Top-Bred

Berkshire Swine,

TO BE SOLD IN THE NEW SALE PAVILION OF THE
KANSAS CITY STOCK YARDS, KANSAS CITY, MO.,

Friday, February 6, 1903.

Sale commences promptly at 10 o'clock a. m., under the auspices of the
American Berkshire Association.

60--Head of Berkshires of Extra Quality--60

WILL BE SOLD TO THE HIGHEST BIDDER.

This sale will consist largely of Sows bred to the best boars in the noted herds of the breeders named above. For information about the stock, address the consignors or the Auctioneer, Col. J. W. Sparks, Marshall, Mo., and for Catalogues, address the Clerk of the sale, CHARLES F. MILLS, Secretary of the American Berkshire Association, Springfield, Illinois.