



Volume XLI. Number 33.

TOPEKA, KANSAS, AUGUST 13, 1903.

Established 1863. \$1 a Year.

## KANSAS FARMER.

Established in 1863.

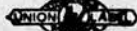
Published every Thursday by the  
KANSAS FARMER CO., - - TOPEKA, KANSAS

E. B. COWGILL.....President  
J. B. MCATYRE.....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 Breeder's 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 advertising.

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.

### Table of Contents

Advertisements, read the.....	851
Alfalfa.....	838
Alfalfa? what ails the.....	838
Ants, bisulfide of carbon for.....	839
Apples and other fruits in the U. S.....	853
Beauty, the return of.....	846
Booker T. Washington and the Florida colonel.....	846
Breeding for improvement.....	840
Bridge of life, the (poem).....	846
Celery on a large scale, harvesting.....	853
Coburnian, the live stock exposition will be.....	837
Colliver, A. D.....	841
Commercial fertilizers.....	838
Condra, P. L.....	838
Corn, a good ear of.....	847
Corn, how to score.....	856
Cows, profitable and unprofitable.....	850
Dairy barn, wants a cheap.....	851
Dog, a wonderful.....	845
Drainage questions.....	848
Eckert, J. N.....	838
English blue-grass question, an.....	839
Farmer must be a scientist, the.....	839
Feeding for size (poultry).....	857
Fruit, marketing.....	857
Gilmore, John S.....	839
Grange department.....	852
Greatest on earth, the (poultry).....	857
Haworth, Richard.....	837
Hazen, C. E.....	847
Hedge and trumpet creepers, how kill.....	838
Hens, better.....	857
Hessian fly, preventive work against.....	837
Hints on the selecting of a college.....	844
Hog cholera, how to prevent.....	841
Home-makers, trained.....	845
Hoover, Clarke.....	838
Horticulturists in line, Kansas.....	848
Kansas farmer in the old country, a.....	846
Letter, an unfortunate.....	845
Little deeds of kindness (poem).....	845
Macaroni wheat.....	839
McKinster, M. G.....	839
Meadow fescue.....	849
Morgan, E. A.....	856
Mules, points in judging.....	840
Myers, Geo. L.....	838
Mygard, J.....	856
Noble, T. H.....	838
Norton, J. C.....	841
Oleo law, other side of.....	842
Our pilgrimage.....	844
Panic this time, no.....	837
Pasteurizing plant.....	850
Pasture grasses for thin upland soil.....	838
Pasture grasses for land subject to overflow.....	838
Popenoe, E. A.....	839
Products, movement in.....	848
Recipes, reasonable.....	846
Room at the top, (poem).....	844
Roy's fire.....	845
Rusher, R. W.....	838
Scours in pigs.....	841

Section-boxes, how to arrange the.....851  
Seed-corn, points to be observed in the selection of.....847, 856  
Seed-corn, improved.....847  
Shoesmith, V. M.....838  
Soy-beans and crimson clover.....838  
Stanfield, W. W.....847  
Starting (apiary).....851  
Think it over.....856  
Wheat crop? how big is the Kansas.....848  
White, Clarence H.....847  
White clover and alfalfa, time to sow.....838  
Zimmerman, T. S.....839

There has grown up a custom of very recent date in several counties of the State where herds of pure-bred cattle and swine exist, of making a discrimination in taxes against registered animals. In Crawford County, for instance, we are informed that the board of county commissioners has adopted a schedule which lists ordinary scrub cattle at \$15 per head; grades at \$30 per head; and registered animals at \$50 per head, although by a more recent action the latter was reduced to \$45. This seems a suicidal policy. Instead of trying to encourage the breeding of pure-bred stock and thus improve the financial condition of the county and all of its people, they place a tariff on the pedigree of the animal which is almost prohibitive. So far as present information goes there is no warrant in law and there ought not to be in policy for making such a distinction. This increased taxation can only result in the discouragement rather than the encouragement of those who would breed pure-bred stock. This is nothing more nor less than the placing of a tax on the pedigree of the animal and a premium on the raising of scrub cattle, so that farmers who desire to avoid high taxes must content themselves with scrub cattle. It seems that those in authority could easily understand that by giving proper encouragement to the breeding of pure-bred live stock the general condition of the farmers would be such in a short time that the returns from the tax list would be largely increased without the injustice of a tax on the pedigree of the animals. Live-stock breeding is the very foundation of the prosperity of this country and every inducement that could be offered should be made for its encouragement.

### 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, Kans.

### THE LIVE-STOCK EXPOSITION WILL BE COBURNIAN.

When the management of the Louisiana Purchase Exposition sought a suitable person for chief of the division of live stock, plenty of able men were found to be competing for the

place. Some of these were backed by successful experience in the line of work to be undertaken. To the great surprise of these the management sent for a man who was not a candidate and who had no experience as an exposition manager. When he went to St. Louis in response to this invitation Mr. Coburn was far from decided whether he would accept the place if tendered. But the management wanted his views as to the proper scope of the live-stock exposition and the best methods of creating such an exposition. On these points Mr. Coburn's opinions were well formed and they were presented with the clearness and precision for which he is well known. They contemplated a live-stock exhibit such as no one beside him had conceived. When finally the management insisted that Mr. Coburn should undertake the creation of this division of the fair he called a halt. He was well suited with the work he had in hand as secretary of the Kansas State Board of Agriculture. He was given his own way in conducting this work and on this account had been able to make it the model of its kind, the admiration of the world.

But the management wanted the greatest, the most universal live-stock exposition ever held and had the money to pay for it if only a capable chief could be obtained to create it. The management was well acquainted with Mr. Coburn's record as a man who does things, a man whose achievements are uniformly greater than the public has expected. He was informed that his services must be had, that he should be as free to do as he pleased as in his office at Topeka, and that the creation of his kind of an exposition was the only thing asked.

With the advent of Mr. Coburn, the live-stock division of the World's Fair was immediately established in the confidence of the stockmen of the world. They knew that an exposition was to be had such as no prominent breeder could afford to ignore. They knew that intelligence and integrity would preside over the live-stock division. The announcement that \$250,000 in cash prizes would be hung up created no surprise but was regarded as about the Coburn size. The division scarcely needed the services of a department of publicity, for the news-gatherers know that where Coburn works there is news, and that it will be courteously furnished as soon as developed. He is the same old Coburn who works without reference to quitting time or the limitations of his own strength, but solely with reference to the accomplishment of his well-planned purposes. The indications point to an exposition of live stock which will not only surpass all ever held hitherto, but be a gratification to Mr. Coburn's almost unbounded ambition.

### NO PANIC THIS TIME.

There was a considerable flurry in Wall Street last week on account of the failure of some of those interested in dealings on the Stock Exchange. These failures resulted from the great declines in market prices for the stocks and bonds in which the failed houses were interested. In some cases the house owned the "securities" and

in others—perhaps the majority of cases—the house had the "securities" pledged for money loaned to speculators in that kind of "property."

The productive values of the actual properties represented by these stocks and bonds were in no wise affected by the Wall Street doings. The Santa Fe and the Rock Island railroads, for examples, went right on transporting passengers and freight and charging for the service just as if their stocks and bonds had gone up instead of down. So, also, to the great surprise of Wall Street, the wheels of industry in general and of commerce were not retarded in the least by the excitement of the traders in paper representatives of properties.

But notwithstanding the immunity from harm enjoyed by those engaged in legitimate industries, a catastrophe on Wall Street may, in future as it has in the past, bring panic to the country. The purpose of these gambling schemes is to separate the producer of wealth from his money. Had these producers been investors in options on the paper "properties" to the extent desired by the promoters, or had the bankers and traders throughout the country been largely involved in these transactions, there might easily have been a panic last week. Let us examine for a moment into the conditions of such a panic: Suppose that in a Kansas town one of the heaviest capitalists thinks he sees a chance to make a fortune by investing in, we will say, Steel Trust shares. Now Kansas banks have large amounts of their customers' money on deposit. They, in turn, deposit much of this money in New York. It is the bank's business to receive deposits and to loan money. Experience has shown and the law requires that they keep on hand a certain percentage of the amount of their deposits ready to meet the call of depositors. Often they have more than the required amount because of slack demand for loans. The heavy capitalist offers another leading business man as security and obtains from the bank the money with which to "deal" in Steel Trust stocks. He does not pay for the shares he buys but pays only the "margins" on them. By so doing he is enabled to buy very largely and have the profit on the large purchase when the shares advance in price, as he has figured they must. The case is the same if he has thought the Steel Trust will go down instead of up, except that in this case he sells shares he does not own, whereas in the former case he buys shares he never expects to own. In either case he gets the profit if the market goes the way he expected, and he suffers loss if it goes the other way. We have supposed that the capitalist in the country town bought shares—country speculators are usually buyers. Steel Trust shares declined rapidly last week. It was therefore necessary for our supposed country buyer to telegraph more money to New York to keep his margins good. When his ability or disposition to so keep up his margins failed his holdings were thrown upon the market and sold. His investment was a total loss. If his "dealings" were large a considerable

(Continued on page 848.)



## Agricultural Matters.

REPLIES FROM THE AGRICULTURAL  
RIST OF THE KANSAS EXPERIMENT  
STATION.

### Pasture Grasses for Thin Upland Soil.

I wish to increase size of pasture, and note in KANSAS FARMER that you recommend English blue-grass, orchard-grass and alfalfa mixed, also Bromus inermis. With the exception of alfalfa, I know nothing of the grasses named, but wish to sow that which will produce the most pasture and withstand drought best. The tract I wish to sow is rather thin upland soil.

GEO. L. MYERS.

### Cowley County.

I have asked Director J. T. Willard to send you all the available publications of this station in regard to grasses.

I can not say just what would be the ultimate result of sowing a mixture of English blue-grass, orchard-grass, Bromus inermis and alfalfa. The alfalfa or some of these grasses, probably Bromus inermis, would crowd out the other grasses in time. It is difficult to tell just what grass is best adapted to the particular field, and in choosing several grasses, you are more liable to get one or two which are especially well adapted to your local conditions. It seems impossible to make a forecast of the weather in Kansas, and a mixture of grasses would survive wet and dry seasons better than one grass. Some grasses also make a good growth early in the season, while others renew the pasture later in the season. At this station we have sown a small field to a mixture of alfalfa and Bromus inermis. This was done this season, and I can not say as yet how this grass and legume will grow together. The alfalfa has seemed to have the mastery thus far, but I think that the Bromus inermis will make a good showing yet. I think the mixture which Prof. Ten Eyck has recommended, is a good one. Fall meadow oat-grass might also be added. It may be that alfalfa would not do well upon your soil, if it is thin upland. Bromus inermis is undoubtedly the best able of these to withstand drouth.

V. M. SHOESMITH.

### Alfalfa—Commercial Fertilizers.

Have you any pamphlets on how to raise alfalfa? Also have you any experience in using commercial fertilizers in raising corn? Will it pay to use it? Any information in regard to these questions would be thankfully received. If you have any pamphlets giving light on these things, would consider it a great favor to receive them.

P. L. CONDRA.

### Montgomery County.

I have sent you Bulletin No. 114, which treats of alfalfa-growing in Kansas, and which will tell you more about this subject than I can say in a letter.

Commercial fertilizers are quite generally used in the Eastern States, but as a general rule I think the time has not yet arrived when it will pay Kansas farmers to invest in commercial fertilizers. The same results may be secured at much smaller cost by the use of green manuring crops. If you could seed certain portions of your farm down to alfalfa for a few years, you would find that your land would be considerably improved for the growing of corn. The various clovers will also have the same effect. If you do not care to grow the legumes mentioned above, or if you wish more immediate results, I would advise the growing of cow-peas or soy-beans. These crops when turned under, will increase the fertility of the soil very rapidly, especially so in that valuable element, nitrogen, which is apt to be lacking and which is essential to plant growth. If you do not care to sacrifice one year's crop, it is not necessary to do so. You may sow cow-peas or soy-beans after wheat harvest in July, or sow them with a one-horse drill in the corn-field about the time of the last cultivation, and then plow them under in time for fall seeding of wheat or the various spring

crops. The various legumes will have a very beneficial effect on the soil, even if the crop is not turned under, as the roots, and the leaves which fall to the ground and are finally decomposed are manufactured largely, as far as nitrogen content is concerned, from the free air of the soil.

V. M. SHOESMITH.

### What Ails the Alfalfa?

Will you please tell me what is the matter with my alfalfa? I send you a sample by mail to-day. Field was sown September 11, 1901, cut three good crops last year. First crop this year was not as good as any crop last year, and since cutting first crop crab-grass and foxtail have come in thick, and alfalfa has not made much growth. It is on bottom land and I think it is good soil for alfalfa, at least it is good for corn, wheat, clover, etc.

Please examine the roots of sample to see if they show the presence of bacteria in the soil. T. H. NOBLE.

### Anderson County.

Your alfalfa is undoubtedly suffering from the disease which is very common in Kansas this year. This disease is generally spoken of as the leaf-spot disease. Little brown spots appear on the leaves and soon they turn yellow and fall off, and the plant stops growing. Not much has been done in the way of experimenting with this disease.

I notice, however, that cutting the alfalfa early seems to have a beneficial effect. We are having the same difficulty with our alfalfa, but after it is cut, it comes up each time fresh and green. Whenever alfalfa begins to bloom or stop growing it should be cut, as this has a decided effect on the growth and health of the plant.

Some also advise disking as a remedy, but I can not say whether this would have a beneficial effect at this time, although I think it is a good thing for the general health and vigor of the crop. We are experimenting with alfalfa in the hope of finding the best remedy for this disease. We are trying the disk and harrow in the way of cultivation, and will also notice the effect of mowing.

I am not able to discover any tubercles on the roots which you sent, however this does not prove that your field is not fairly affected with alfalfa bacteria. By the appearance of the roots it would seem that you dug them up, perhaps partly pulled them up, and shook the dirt off by hand. If this was the case, I would hardly expect to find any tubercles on the roots unless the roots were well covered. You can very easily make the examination yourself, or if you wish you may send me another sample. Take up several plants, retaining the soil about the roots, and in case of the large, well matured plants, dig down far enough to be certain of getting some of the fibrous roots and root-hairs. Place these plants and soil upon some boards or a platform, and pour water over them until the soil is entirely washed away. In this way the tubercles will not be broken off and left in the soil, and if the plants are affected you will be able to see these little tubercles or bunches on the smaller roots. These may vary from the size of a small pin-head to a good sized pea.

V. M. SHOESMITH.

### Time to Sow White Clover and Alfalfa.

Will you kindly inform me as to the best way and time to sow white clover and alfalfa, also can they be sown with small grain such as wheat, oats, etc., with success. J. N. ECKERT.

### Linn County.

White clover and alfalfa may both be sown, either in the spring or fall. If sown in the fall, I would advise sowing early, say some time in September. [The editor advises sowing in August.] And if sown in the spring I should also sow as early as the soil could be prepared. It is quite essential to have a thoroughly firmed seed-bed, hence a subsurface packer should be used after plowing, or some time allowed, before the seed is put in.

If the soil is in good condition and free from weeds, it can be well prepared for seeding these legumes, by use of the disk harrow and other sur-

face implements. It is quite important to have the surface of the soil in a good tilth, as the seed is very small.

The most satisfactory implement for seeding, is the wheelbarrow seeder, which will place the seed on the surface of the soil and will do it more evenly than any other implement. The hand seeders also do very satisfactory work, but do not distribute the seed as evenly as the wheelbarrow seeder. The seeder attachment on the grain-drill usually gives good satisfaction also. The seed may be put in with the main drill itself, but the objection of this manner of seeding, is that the seed is usually placed too deep.

In the North Central States, clover is often seeded successfully by sowing with wheat or oats. But as a general rule, a nurse crop does not seem to be a good thing in this State, unless the soil blows badly. Ordinarily, the nurse crop produces too much shade, and when removed at harvest leaves the young plants exposed to the sun during the very hottest part of the summer. If a nurse crop is used, it would be better to cut it two or three times during the season and use it as a hay crop, and thus obviate the objection just mentioned.

I do not quite understand from your card, whether or not you intend sowing white clover and alfalfa together. I would hardly think this would be advisable, as the alfalfa would crowd the clover out, if it once gained a foothold in the soil. Alfalfa is often considered a hard plant to seed, and would be hindered rather than helped by the clover.

I have mailed you Bulletin No. 114, of this station, entitled "Growing Alfalfa in Kansas."

V. M. SHOESMITH.

### Pasture Grasses for Land Subject to Overflow.

I wish very much to find some kind of grass that will do well for pasture on bottom land that is subject to an occasional overflow. If you can recommend something that is likely to succeed, I should be very glad to get it.

The Iowa Seed Company advertises a mixture composed of perennial ryegrass, water meadow-grass, water-fescue, meadow foxtail, orchard-grass, meadow soft-grass, tall meadow oat-grass, alsike, etc. What do you think of such a mixture for Neosho River bottom?

I should also like to have a meadow on the same kind of land. If you can help me out I shall be truly grateful.

The Iowa Seed Company advertises a mixture differing but little from the one recommended for the pasture. But it is all new to me.

I should also like a hog-pasture on high bottom land that seldom overflows. I had a stand of alfalfa on this land, but the water got over it this year and killed it. This is the first time it has been under water for eighteen years. But if I can find something that will take the place of alfalfa, I do not wish to reseed. My experience with alfalfa has been costly.

Would it do to sow red clover early in the fall?

R. W. RUSHER.

### Labette County.

I have sent you Press Bulletins numbers 62, 63, and 125.

A good mixture of grasses for sowing on the land you have described would be, English blue-grass, meadow foxtail, redbud, Bromus inermis, and alsike clover.

If your soil is comparatively dry most of the time, sow, also, orchard-grass. Perennial ryegrass is too short-lived for a permanent pasture. Tall meadow oat-grass is better adapted to the high and dry land rather than to the low and moist. I would not sow meadow soft-grass unless the soil is wet a considerable part of the season. I am not acquainted with water meadow-grass or water-fescue, but understand they will do well on rather wet soil. These two latter grasses are very little grown.

The mixture given above would also do for a meadow, to which you might also add fowl meadow-grass. This is a good grass for moist soil, but it does not stand pasturing well, hence I have not recommended it for the pasture mix-

ture. If you soil is well adapted to the growing of alfalfa, I know of nothing better for the high bottom land. If this land overflows only once in eighteen years on the average, I think there would not be much objection to the growing of alfalfa, as your alfalfa-field should be renewed twice at least during this length of time. However, if you do not care to grow alfalfa, you might try a mixture of orchard-grass, English blue-grass, alsike clover, and red clover. Other grasses or clovers might be added.

I should prefer to sow red clover in the spring; however, you could probably get a good catch in the fall if the season were favorable. Take a good deal of pains to have a firm seed-bed, finely pulverized on the surface.

V. M. SHOESMITH.

### How Kill Hedge and Trumpet Creepers.

Is there any known time in the summer or fall when either hedge or weeds can be killed by cutting?

I have a large patch of trumpet-viners, or creepers, as they are commonly called. How shall I destroy them?

CLARK HOOVER.

### Osage County.

I know of no time in the summer or fall when hedge or weeds may be entirely killed out by cutting. They may be materially hindered in their growth, but I think would require a more rigorous treatment to destroy them.

Trumpet-creepers may be killed without much difficulty. Mow off the vines, and plow and cultivate the land.

V. M. SHOESMITH.

### Soy-Beans and Crimson Clover.

I am interested in growing soy-beans and crimson clover. If you have had any experience with them I would be glad to know what you have learned as to their growth and their value as feeds and soil-improvers. Would be glad to have publications relative to them.

RICHARD HAWORTH.

### Cherokee County.

We are growing a crop of crimson clover on the station farm this season, but I can not recommend it as a universal crop to be grown in Kansas. It is possible that your conditions are such that you would obtain satisfactory results with it. Still I think you are too far north to get better results from this crop than from some of the other legumes. This plant is an annual and you must get your crop the year it is seeded, if you get any at all. That which we are growing is of rather thin stand and is seven or eight inches high. It would make scarcely any crop at all as compared with some of the other legumes and grasses.

If you are able to get a good growth of crimson clover, it would make an excellent soil-improver if turned under and of course would improve the soil anyway.

If crimson clover becomes overripe before being cut for hay, it is dangerous feed for horses, as the bristly hairs of the heads will accumulate in the stomach or intestines in spherical balls, and after a time the ball reaches a sufficient size to stop up the intestines, thus interfering with the vital function and causing death. This difficulty can be avoided by curing the hay at the proper stage.

In regard to soy-beans, will say I have mailed you Bulletin No. 92 of this station, entitled "A New Drouth-Resisting Crop—Soy-Beans." Soy-beans may be grown in almost any locality in the eastern half of the State. The beans are a highly nitrogenous product and are very valuable for balancing a corn or other carbonaceous ration. They contain more digestible protein and fat than linseed-meal, and I believe in ordinary circumstances can be produced at a lower figure than linseed-meal can be purchased. The soy-bean is also a valuable soil-improver.

This season the Experiment Station has seeded several different grasses and clovers, on a field, one-half of which has grown corn for the last two seasons, the other half soy-beans and cow-peas for two seasons. When the first cutting of these grasses was made this season, we found that the timothy was on an average about eleven inches higher on the soy-bean land,



than on the corn land. The clover was about ten inches higher.

A similar difference was also noticed in the Bromus inermis, orchard-grass, English blue-grass, and mammoth clover.

I think this is a good illustration of what a leguminous plant will do for the improvement of soil.

V. M. SHOESMITH.

#### Macaroni Wheat.

Please give me some information concerning macaroni wheat. Where can I procure some seed?

Lincoln County. M. G. MCKINSTER.

Macaroni wheat belongs to the Durum group of wheats, which have been considerably introduced into this country during the last few years by the United States Department of Agriculture. These wheats are especially adapted to arid or semi-arid districts, often growing in some parts of Russia with only ten or twelve inches of rainfall per year. Macaroni wheat has been tried considerably on the Western plains and seems to be well adapted to that region. We have grown two varieties, the Gharnovka and the velvet Don, at this station for the first time this year. We have secured a fair yield, which was 40 per cent better than the average of nine varieties of the ordinary spring wheats. Macaroni wheat is generally sown in the spring, but is also recommended to be sown in the fall. It is not probable that you could find sale for macaroni wheat in your local markets, but it could be sold in carload lots in some of the larger cities. Van Dusen, Harrington County, Minneapolis, Minn., advertised in 1902, to take all of the macaroni wheat that the farmers of North Dakota could grow.

If you would write to M. A. Carlton, Cerealist, United States Department of Agriculture, Washington, D. C., I think he would be glad to furnish you with information in regard to market and also as to the best varieties, and where they could be obtained.

V. M. SHOESMITH.

#### An English Blue-grass Question.

EDITOR KANSAS FARMER:—Please give me, in your next issue if possible, your opinion on how a crop of English blue-grass should be divided between landlord and tenant where the crop can not be pastured after the seed crop is taken off but the landlord prefers making hay of it.

T. S. ZIMMERMAN.

Douglas County.

This inquiry was referred to Hon. J. S. Gilmore, of Wilson County, whose excellent discussion of English blue-grass before the Kansas State Board of Agriculture, a few years ago, has caused him to be recognized as an authority on the subject. Following is Mr. Gilmore's reply:

No one could intelligently or fairly answer without seeing the field, and probable yield, and noting other circumstances. Would say, the man who cuts or harvests the seed ought to get two-thirds of the yield if he pays for everything. I do not think blue-grass worth cutting for hay alone. Funny the way some people talk about hay, when it sends up only naked stems, excepting in very good seasons and in wet spots, when the plant makes a heavy but low undergrowth, rather short to be raked up. I do not assume that this is an answer to your friend's unanswerable inquiry.

JOHN S. GILMORE.

#### Bisulfide of Carbon for Ants.

To exterminate the ants that make large mounds in cultivated fields in middle and western Kansas the most successful method is to suffocate them by the use of carbon-bisulfide gas, generated from the liquid placed in an open dish under some hood or cover, as nearly gas tight as possible, over the mouth of the ant-hill. The success of the operation will depend on the destruction of the queen or mother of the colony, and the unhatched young, and as these are found deeper in the hill, a single application of the liquid may not always suffice. The work is easily done, however, and a second trial, the mouth of the burrow being

opened out, should commonly finish the work.

E. A. POPENOE.  
Kansas Experiment Station.

#### Preventive Work Against the Hessian Fly.

The crop season just past has seen much damage from the Hessian fly in the Kansas wheat region, and the correspondence of the office of the entomologist of the Kansas State Experiment Station has shown that too many farmers are still unacquainted with, or do not practice, the widely published modes of lessening the destructive abundance of this, one of our chief wheat pests. As preventive measures for the preservation of next year's crop, if they are to be effective, must be undertaken at once, and as the season seems in every way to give promise of abundance of the fly in the fall planting, unless all possible measures are taken to avoid it, wheat farmers should be warned, and should enlist neighborhood cooperation to the greatest possible extent, in putting into practice such means against the pest as are warranted by experience.

As the last brood of the fly remains in the pupa or flaxseed state in the straw until near the time of the growth of the newly sown grain, it is the practice of many to burn off the stubble as soon after the grain is cut as possible. Where the wheat has been cut with a header this will kill the pupae remaining in the stubble, practically all in the field. If this is done throughout an entire neighborhood, the number of adult flies left to deposit eggs in the growing wheat will be reduced to the minimum. It has been claimed for this practice that by it all field pests are destroyed, and that a valuable coat of fertilizer in the form of ashes will be left on the field. With respect to these, the first claim is much too broad, as few insects except the fly and its own parasites will be burned, since they are not in the stubble at this time; and no one can rightly claim that the ashes left by burning are superior to the whole stubble turned under to add to the humus content of the soil, the reverse being true, and one of the most important of the manurial elements, the nitrogenous, being dissipated by the burning. It will thus appear that of the two methods, that of plowing under the stubble is the better; but to be of avail against the fly, it must be done early, and the ground should then be well leveled by the use of the harrow or disk.

The exact appearance of the mother fly after harvest is determined by moisture conditions, continued dry weather tending to retard the change from the pupa. But moisture sufficient to cause the growth of volunteer wheat will also bring to maturity many of the flies, and these will proceed to deposit their eggs in the volunteer growth. While we have no evidence of a third brood in the State, it is not at all unlikely to occur if conditions favor. As the first developed flies show such a partiality for the volunteer growth, it is possible to cause them to exhaust their egg-laying capacity by providing an early growth in which to deposit, by sowing early strips around or through the fields to be resown to wheat, the growth on these strips to be thoroughly covered under before the main crop is put into the ground. The destruction of this growth should be deferred to the latest moment, that all mature flies may have the opportunity to deposit eggs therein; and this provision for the early exhaustion of the females in egg-laying is the particularly important feature of the practice of trap-strip sowing.

The experience of Kansas growers has abundantly confirmed the argument that late-sown wheat is safer from the fly. The basis of this argument is that the adult insect is very readily destroyed by a sharp frost, and that wheat appearing above the ground after the first sharp frost of the season is not infested. While it is impossible to determine the proper date in advance, observing farmers can readily approximate very closely to it for their own locality, and it is ordinarily safe to seed to wheat at such a date that the new growth shall ap-

#### The Old Way—Kicking Corn With Knife Fastened to Boot



#### FARMERS DON'T KICK NOW!

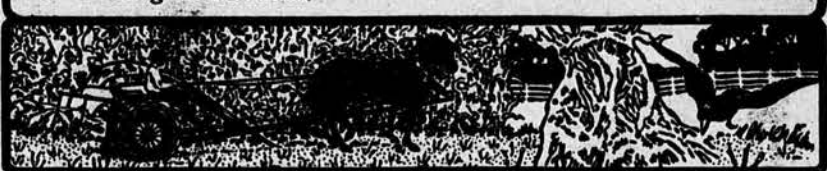
Their corn is cut with

### DEERING IDEAL CORN BINDERS

Deering Corn Binders gather all of the corn. They do not waste. They are constructed on the grain binder principle; the corn is bound while in a horizontal position in the same manner as a sheaf of wheat. They do not knock off ears.

#### Deering Corn Binders, Corn Shockers, Huskers and Shredders

are money-makers for the farmer. Ask the nearest Deering agent for a "Deering Corn Annual."



#### The New Way—DEERING CORN BINDER in the Field

pear after the average date of the first frost, as shown by the weather service records for a given region. The records of the college station, for example, show this average to be October 5, and this date is doubtless not far from the true one for the central counties. To the north and west it will be somewhat earlier, and to the southward of this station, somewhat later than the date named. The practice of late seeding is the chief reliance of some of the most intelligent farmers in the Kansas wheat region, and should be given a much more general trial by growers throughout, whether in connection or not with the other suggestions given above, for there is nothing to be gained by early growth if the plants are to be practically killed by the fly before winter, as has been often the case. E. A. POPENOE.  
Kansas Experiment Station.

#### The Farmer Must Be a Scientist.

SECRETARY OF AGRICULTURE JAMES WILSON.

There's a new era in store for the farmers of the United States, and those of New York and the Mississippi Valley in particular. It will be the new-fashioned farmer who will bring it about. He is the Moses of modern agriculture.

The farmer of the future must be a practical scientist. The man who does not understand the science of the soil has no business on the farm; if the boy wants to be a farmer it is just as necessary that he take a course at an agricultural college as it is for the boy who wants to be a lawyer, a doctor, or a preacher to have a university education.

The great need of the agricultural college has been instructors who could instruct. Why, out in Iowa we could send to Chicago and get a carload of chemists, if we wanted to put up the money for them, but we could not find a man who could teach the student the science of making butter and cheese. The Government can endow agricultural colleges, the more that is done the better, but it can not furnish instructors, because there have not been any. We are going to give a few young men a chance at the department to learn the scientific features of instruction in agriculture, but we can only help a few.

The only way that these instructors can be made is through the agricultural colleges. We do not want the student taught the theory, but we want the practical facts put before their eyes.

There is no lesson so good as an object lesson. The boy who sees experiments in dairying carried on from day to day knows when he sees the result how it all came about—and it is not because some one else told him that it was thus and so. He knows the science of dairying and has been taught it in the most practical way. The dairy farmer of the United States

is going to be a great factor in the future. He is a factor at present, to be sure, but nothing to what he will be, and I will tell you why—because we have learned the secret of Denmark's butter and cheese keeping so well in tropical climates.

The farmers of New York State and those of the Mississippi Valley make as good butter as is produced anywhere. Denmark makes good butter. We send our butter to China, and it can not compete with the butter from Denmark. Why? Because it won't keep. There is a splendid market in the Orient, but we are shut out of it practically because our butter will not stand exportation to that sort of a climate. Mind you, in all other places we never had any trouble, but the minute we struck the tropics with butter and cheese it was very different.

It is in everything the farmer has to cultivate and grow that the reason for his being an agricultural scientist is found. If he knows the reason why things don't grow or do grow, or his crops are large or small, he gains a wisdom that will help him to increase his crops the next year, and so make his income greater.

The scientific farmer has a better chance of making a big income than any farmer ever had. But the man who insists on following the old-fashioned methods of never learning anything that his father did not know is going to have trouble to make both ends meet.

There is no place that the farmer needs to apply scientific methods more than out West where they irrigate their land. I am going to have the matter looked into. Hundreds of acres of fine land are being ruined because the men who irrigate them do not understand the scientific facts about it. They let too much water run on the land, this brings the alkali to the surface and the result is that there is no use trying to grow anything. Now, what should be done is to study the science of the soil so as to know how to apply the water and in what quantity. If scientific reasoning had been employed in the beginning, this land would not have been comparatively worthless to-day.

The new-fashioned farmer, the scientific farmer, must study the feeding of cattle. Not a pound of cottonseed was fed to the four hundred thousand cattle we exported last year, although the South raised 600,000 tons of it. That cottonseed was mostly wasted, or made fertilizer of. Think what it might have amounted to if it had been fed to beef cattle. The trouble with the farmer is that he don't know how to make the best of what he has got, and he has got to learn the science of agriculture to know how to.

#### Low Rates West.

The Chicago Great Western Railway will on August 1st to 14th, inclusive, sell tickets to Seattle, Wash at greatly reduced rates. For full information apply to Geo. W. Lincoln, T. P. A., 7 West 9th St., Kansas City, Mo.



## The Stock Interest.

### THOROUGHbred STOCK SALES.

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

September 1, 1903—Horses and Jacks, L. M. Monson & Son, Smithton, Mo.  
 September 1 and 2, 1903—100 head of Herefords, at Hamilton, Minn. C. R. Thomas, Secretary.  
 September 3, 1903—Central Missouri Hereford Breeders' Association, Moberly, Mo.  
 October 2, 1903—Poland-Chinas, J. R. Killough & Sons, Ottawa, Kans.  
 October 6, 1903—A. E. Burleigh, Kansas City, disperson sale Polled Durham.  
 October 7 and 8, 1903—Combination sale of Poland-Chinas and Shorthorns. Poland-Chinas on the 7th, Shorthorns on the 8th. James P. Lehr, Sabetha, Kans., Manager.  
 October 9, 1903—Sabetha Combination Sale Co., Sabetha, Duroc-Jerseys.  
 October 9, 1903—John Cameron, Lebanon, Kans., Poland-China swine.  
 October 12, 1903—C. O. Hoag, Centerville, Kans., Poland-China hogs.  
 October 13, 1903—Shorthorns at Wellington, Kans. D. H. Robinson, Jamesport, Mo.  
 October 14, 1903—A. G. Lamb, Eldorado, Poland-Chinas.  
 October 15, 1903—Central Missouri Hereford Breeders' Association, at Salisbury, Mo. S. L. Brock, Secretary, Macon, Mo.  
 October 16, 1903—W. S. Wilson, Manager, Shorthorns and Herefords, at Monroe City, Mo.  
 October 19, 1903—Oak Grove, Mo., Poland-Chinas. E. E. Axline.  
 October 19-24, 1903—American Royal, Kansas City, sale by Galloway Breeders' Association.  
 October 22, 1903—100 head of Herefords, at Kansas City, Mo. C. R. Thomas, Secretary.  
 October 24, 1903—Newton Bros. Whiting, Kans., Duroc-Jersey swine.  
 October 27, 1903—Duroc-Jerseys, Peter Blocher, Richland, Kans.  
 October 30, 1903—Swine Breeders Combination sale, Clay Center, Kans.  
 November 3, 1903—O. B. Smith & Son, Cuba, Kans., Poland-Chinas.  
 November 5, 1903—Breeders Combination Sale, Westmoreland, Kans.  
 November 10-11, 1903—Marshall County Hereford breeders' annual sale at Blue Rapids, Kans.  
 November 13, 1903—Central Missouri Hereford Breeders' Association, annual sale; S. L. Brock, Macon, Mo., Secretary.  
 November 17, 18, 19, 1903—Armour Funkhouser, Herefords, at Kansas City, Mo.  
 December 2, 1903—American Galloway Breeders' Association sale, at International Exposition, Chicago.  
 December 3, 1903—100 head of Herefords, at Chicago, Ill. C. R. Thomas, Secretary.  
 February 4, 5, 6, 7, 1904—Percherons, Shorthorns, Herefords, and Poland-Chinas, at Wichita, Kans., J. C. Robinson, Towanda, Kans., Manager.

#### Breeding for Improvement\*

I introduce at the beginning of this article, copy of a chart that I used in the Farmers' Institute lecture course. It is simply suggestive of steps necessary to be taken in the road to successful breeding. The concept is that from the lower level of primitive forms, corresponding to the "scrub" of to-day, the prominent breeders have brought our domestic animals to the present high standards. It will be noted that on the lower plain "natural selection" and the "survival of the fittest" were the determining factors. Under domestication improved environment was provided, which embraced a number of conditions, discussed briefly in a former paper; it also included rational and liberal feeding. These of themselves began to produce decided improvements in a general way and to promote very

able variation should reproduce the type with constancy. In other words, the problem was how to counteract atavism. There is a principle that "like produces like," but the question is to determine what is the entire make-up of the animals not only as to their external conformations, but the latent and internal characteristics. Traits of character and even marked variations of a favorable or unfavorable nature may be apparently eliminated, remain dormant and obscure for generations and then suddenly reappear through atavism. The question of so mating animals as to continue the good qualities of sire and dam and avoid the baneful influences of atavism descent has been and still is a perplexing problem.

The breeder of to-day has before him the results of the accumulated improvements wrought in the past by skillful breeders, yet it not infrequently happens that fatal errors are made. Darwin said: "Not one man in a thousand has accuracy of eye and judgment sufficient to become an eminent breeder. If gifted in these qualities, and he studies his subject for years, and devotes his lifetime to it with indomitable perseverance he will succeed. If he lacks any of these qualities, he will assuredly fail."

Much progress has been made since Darwin penned these lines fifty years ago. To-day a much larger per cent of breeders are expert judges and have the educated "accuracy of eye" insisted upon. But selection by the eye is not enough. Outward conformation to type is not sufficient. The breeder who strives to be if not really eminent, yet successful, will scrutinize the family history of the animals selected. He will insist on knowing all the relations they bear as to line breeding, etc., then carefully weigh the probable bearing these several points in their history will have upon their offspring through heredity and atavism.

There often appears to be some strange inconsistency, as well as inconstancy when matings are injudiciously made, for sometimes the offspring of animals of the choicest breeding and of the very highest individual development are disappointing, while on the other hand, the sire or dam, or both, may be of far less apparent excellence, and yet the progeny be of surprising excellence. Take two individuals of identically the same breeding, and of equal merit as to form and development and the one may be a good breeder and the other a poor one. This is not an uncommon observation and the fact applies to both sexes alike.

John O. Wood & Son, of Monroe, Mo., owned a pair of twin Hereford cows, which were as nearly exactly alike as any I ever saw. Usually there was less than five pounds difference in their weight. In head, horn, neck, and other points even to the minutest color markings they were so nearly the same that their herdsmen could scarcely distinguish them apart, and yet the one produced among the very best calves of their herd and the other among the poorest; each has done so for six successive years, when bred to the same sire. As a producer, the one was worth ten times as much as the other, and yet the best living judge could not tell, by observation, which was the better cow.

But how about different matings? From personal interviews and extensive correspondence, I have sought to learn what the secret is of judicious mating so as to produce the best results. I asked the following question: "Have you any rule or principle that you consider an unerring guide in mating animals for best results?" Out of the number of answers to the question made by leading breeders of Missouri, Iowa, and Maine, I quote two as typical of all:

D. F. Risk, of Missouri, once a leading breeder of Poland-China hogs, was questioned as to this matter in breeding the noted boar "Free Trade." He said, "There is plenty of experience and evidence to justify the statement that no one, however expert, can foretell what two animals will produce, without experiment. Careful judgment of their merits and breeding may lead us to believe they will cross well, but as often as otherwise disappointment is the result. \* \* \*

In breeding Free Trade, I had no especial lines in view. He was the result of experiment. His dam, as bred for first litter, was a failure, so that in fact I came near sending her to the market. The hog she was bred to was partly the same line of blood as 'Royalty 1666' to whom she was bred for every succeeding litter, and which produced Free Trade."

Benton Gabbert, of Dearborn, Mo., a breeder of Hereford cattle, said: "We are too often misled by one excellent animal in a family to overlook the bad points of that family \* \* \* The best sire of Herefords, Old Horace, was as an individual, not at the top, but Grove 3d, his son, was both a show animal and an excellent sire. But we find that very few of his calves, excepting those whose dams were of the Spartan family, became show animals. Perfection in breeding is an impossibility from the fact that prepotency, while more marked in some individuals than in others, is not a constant quality. In the same individual it may be much more marked in one mating than in another."

These two cases, and a great number of other instances, indicate that there are some obscure or latent forces that exist in different individuals, not observable on the exterior, and which can not be easily computed in advance. At the same time there exists a general principle, worthy of note; one which though not always readily discernible, yet will aid materially in marking judicious selections for mating purposes, and upon the average produce a progeny of greater uniformity of type and excellency of development. This principle is "harmony of blood," and a discussion of it involves such subtopics as "line breeding," "in-and-in breeding," "cross breeding," etc.—G. W. Waters, in Inland Farmer.

#### Points in Judging Mules.

In speaking of the quality of mules and how to judge and select them, a Kentucky mule-raiser has this to say:

The ideal mule is a mare, fat, blocky, stylish and smooth finished. I say a mare, because they are worth \$10 to \$15 more than a horse mule in the market. About as poor a sale as one can have is a thin, leggy, rough-coated horse mule. It is wise in buying mules for market to buy as near the same size as possible. Of course, this is not always easy, but it is poor policy to buy 14- or 17-hand mules to sell in a load of 15-hand mules. Let the mule out of stable and always examine in the open air. For shipping, buy animals from 2 to 10 years old, but they sell best when ages range from 4 to 7 years. As a general rule 2- to 3-year-old mules are thin, leggy, and of lank development. Well-developed, chunky mules of this age are not objected to, and sell fairly well.


To tell the age of a mule, inspect the six front teeth of lower jaw; at 1 year the cups will disappear from the middle teeth or nippers, at 2 years the middle nippers will disappear; the second pair at 3; and the third or corner ones at 4; at 5 a full new set. We reckon the age of the 6-, 7- and 8-year-old mules by the disappearance of the deep, black spots from the teeth; these disappear at 6 from the middle pair, at 7 from the second; at 8 from the corner pair; now look at the nippers of the upper jaw; at 9 the spots disappear from the middle pair; at 10 from the second; at 11 from the third.

Buying for farm use more care

## 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 CAUTERY OR FIRING. Impossible to produce scar or blemish. 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.



**Lump Jaw**  
**Spavin**  
**Ringbone**  
**Fistula**  
**Poll Evil**  
**Knee Sprung**

**Cure Them All**  
 You can cure all these diseases and blemishes easily, thoroughly and inexpensively. You can also cure Curb, Splint, Sweeney and softening of every description. If you have any such cases to treat, write us. We will send you two big booklets giving you all the information you need. No matter how old the case or what has failed, we will guarantee a cure by the methods the books tell of—methods now employed by over 140,000 farmers and stockmen. Write today.  
**FLEMING BROS.,**  
 Chemists,  
 212 Union Stock Yards,  
 Chicago, Ill.

## CAR-SUL CATTLE DIP

CURES Mange and Itch; KILLS Lice, Ticks and Sore-Worms; HEALS Cuts, Wounds, Galls and all Sores.  
**GUARANTEED** to do the work without injury to eyes or other parts of animal. At dealers or by express, prepaid, \$1.50 per gallon. 25 cent cans—dealers only. Special price in quantities. Write to-day for book and free trial Car-Sul. Address  
**MOORE CHEMICAL CO.,**  
 1501 Genesee St., Kansas City, Mo.

## CAN YOU AFFORD IT?


You certainly cannot afford to have horses lamed from Spavin, Ring Bone, Splint, Curb, when they may be cured by simply using  
**Kendall's  
Spavin  
Cure.**



It cures all these and all other forms of lameness. Think about it and then act. Price \$1; 6 for \$5. As a liniment for family use it has no equal. All druggists. Book "A Treatise on the Horse" mailed free. Address  
**DR. S. J. KENDALL CO., ENOSBURG FALLS, VT.**

## 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.**



**YOU will make MORE Money**  
 from your breeding and feeding of live stock if you mix more brains with the labor of your hands. Our courses cover "Judging Live Stock for the Market and Dairy" and "Breeding, Feeding and Care of Animals" prepared by such eminent men as Prof. W. J. Kennedy, Dr. A. T. Peters, etc., etc. You study at home, thus saving time and money. Special courses in "Veterinary Science" and "Sanitation and Prevention of Diseases." Ask for "The 100% Farmer" which we mail free.  
 Correspondence April College, 421 N. 3rd St., Sioux City, Ia.

**PREPARED ROOFING FELTS.**  
 We can save you money on your wants in this line. We offer you Two-Ply Tarred Roofing Felt, 108 square feet to the roll, complete with caps, nails and cement, per roll \$1.15. Three-ply complete, per roll \$1.85. Vulcanite, the highest grade on the market, complete as above. Price per roll, \$1.50. We have all kinds of Roofing. Write for Free Catalogue No. 61 on material bought from Sheriffs and Receivers' Sales. CHICAGO HOUSE WRECKING CO., W. 35th and Iron Streets, Chicago.

\*This paper is No. 3 of a series in the Inland Farmer contributed by Col. G. W. Waters, of Canton, Mo. No. 2 of this series appeared in the Kansas Farmer of July 18. No. 1 is in the nature of an introduction and has not been printed in the Kansas Farmer. We shall probably reproduce the remainder of the series. Colonel Waters is a Missouri Institute lecturer and is father of Prof. H. J. Waters, dean of the Missouri Agricultural College.



should be exercised than when buying to ship. Ascertain the animal's pulling qualities. In buying colts or yearlings avoid a starved or stunted animal, they seldom grow out satisfactorily. Avoid a milk-fat colt, as it is almost impossible to keep them from drifting badly when weaned. Avoid a very leggy animal; they will be in this condition when your well proportioned mules are ready for the market. This is generally the case with a green mule at 2 years old.

For measuring the height a standard tape-measure is used. The standard is the most accurate and popular. The standard is simply a long, straight strip of wood on which the hands are marked in inches. With a tape, measure from the middle of the shoulder at the mane, straight down to the middle at the upper edge of the hoof. The distance from here to the ground is meant to counterbalance the curve the tape makes over the shoulder. The reason the tape is not accurate is that this is altered by the amount of curve here. A mule very fleshy in the shoulder, under the tape would consequently measure higher than he really is.—Exchange.

#### Scours in Pigs.

EDITOR KANSAS FARMER:—Just now the papers are full of articles about "Scours in Pigs," thus showing that it is quite a serious thing with the hog-grower. Scours in pigs is simply indigestion caused by over-eating or improper diet. It is very fatal and those that recover are wonderfully set back, so it is important to use great care with the little pigs. One of the largest hog-growers in the United States lost 500 pigs in ten days before he learned by experience to be more careful. Nearly every hogman has had a costly experience in this line, and if he could be induced to tell it, it would make interesting reading.

The first eight or ten days of the pig's life should be watched through the dam. The slightest indigestion or fever in the dam will set the pigs to scouring, and great care should be used with her feed. Sows with pigs should never have the house slops, for there might be some ingredient in it that would be injurious. I have in mind one of my best sows that had ten choice pigs while I was away at the fair. My boy fed her rather strong on corn, and as my wife was canning apples the cores and peelings soured the swill-barrel and this sour swill killed every one of the ten pigs. As soon as I drove in the yard, I smelled vinegar or sour apples and I asked the boy, at once, if he had slopped the sow out of that barrel. He had and the pigs were all alive, but in spite of radical treatment they all died. Since that, I never use slop out of the slop-tub for sows that have pigs, but give it to the other sows that have not yet had pigs, reserving the skim-milk, well-diluted, in another barrel on purpose for the sows with young pigs. After the pigs will eat some, they may be fed grain in large quantities without any danger, but be careful how you slop them. If they all come at once, it is all well enough to slop them provided you only give them a small quantity each. It will never do to pour in the slop with no pigs present and then have the first ones that come gorge themselves on the slop, for if they do, you are bound to lose those pigs if the practice is kept up. It is far better to never feed young pigs any slop by themselves until after they are 8 or 10 weeks old. Feed them all the grain they can possibly eat in their "pig creep," but slop only the sows and what slop the pigs get while their dams are drinking will not be apt to hurt them. Of course the sows are not to be fed too much slop. One-half water-bucket full of slop to each sow twice a day is plenty. Hogs do not take kindly to slop at noon. They hate to be disturbed. What the pigs get to drink with their dams is plenty of drink, together with what milk the dams give them. When the pigs are weaned they have lost all fear of you and are always on hand at feeding time and they can be fed slop then without danger if the quantity is limited to not over a quart to



### Dr. Hess Stock Book FREE

A complete treatise on stock and poultry diseases, written by Dr. Hess (M. D., D. V. S.) and sent free, postage paid, if you will write Dr. Hess & Clark, Ashland, Ohio, and say what stock you have—how many head of each kind; what stock food you have fed, and mention this paper.

Prof. W. S. Goss, Dean of Talladega (Ala.) College, says of it: "I think Dr. Hess' Book a little gem. I shall keep it near me for reference."

each pig, and they should now have the slop three times a day, but never try to keep slop constantly before pigs.

It is easy to follow these suggestions if one gets started right. I used to slop pigs by themselves; but with all my care, one of my best pigs got an over-dose and died. This is all the loss I have had from scours this year and the litter of ten was the only loss last year. There are many suggested remedies for scours in pigs, but the only safe way is not to allow them to have scours.

To feed the sow correctly from conception to weaning of the pigs is a great trade, and only very few breeders understand it. Scarcely one of the sows put up at public sale has been fed right, and disappointment is sure to follow. They are fed for the showing, as the sale-ring is nothing but the show-ring. Careful breeders will not buy at public sales. They buy of careful feeders who have fed the sows correctly from conception on the best foods for the growth of the pig.

Moran, Kans. J. C. NORTON.

#### How to Prevent Hog Cholera.

1. By keeping feeding floors, sleeping places, tanks, and vessels in which swill is mixed, scrupulously clean.
2. By breeding from mature sires and dams, which will give us litters of very much more constitutional vigor than where immature sires and dams are used.
3. By avoiding inbreeding, which will invariably reduce the stamina and invite disease.
4. By avoiding fall litters. The second litter invariably reduces the mother's vitality at just the time that cholera is abroad in the land, which leaves her and her litter easy prey for disease. More than 90 per cent of cholera outbreaks are among the sows that raise fall pigs or their litters.
5. By avoiding overfeeding or any sudden changes in feed, especially from dry feed to green. Anything that will derange the stomach and cause indigestion will derange and weaken the whole system.
6. By feeding (especially the growing pigs) a part ration of feed rich in protein, such as wheat, middlings, or ground oats, and avoiding an all-grain ration of corn. They need something to help build up bone, nerve, and muscle, which corn will not give. Nothing is better for this purpose than a good run on clover pasture.
7. By taking all the care possible, that the disease germs are not carried to your herd. Dogs are believed to spread the disease in the majority of cases. The germs are found in the ex-

## Pigs At Weaning Time

Stand a chance of slow development for a time. Grain or sour milk is harder to digest than the milk of the dam. The digestive organs require special aid at this time. As the feeding period of the hog is short—and the shorter the better—it is expedient to strengthen and build strong every digestive organ while the pig is young. Dr. Hess Stock Food, the great hog tonic, makes pigs grow fast, healthy and strong; expels worms, aids digestion and assimilation and causes all of the nutrition to be applied to bone and muscle building. Stewart, the great American authority on feeding, says:—"The mother is supposed to impart to the young her own digestive system." It is, therefore, important that even sows should be fed this scientific compound that they may impart perfect digestion to the offspring. A penny's worth feeds 8 hogs. Feed Dr. Hess Stock Food regularly as directed disinfect the pens and feeding places with Instant Louse Killer, and we guarantee that your hogs will be free from disease. E. C. BURLINGAME Co., Walla Walla, Wash., write: "Enclosed find check for \$25.00. Please send us 500 lbs. of Dr. Hess Stock Food. We want something to start our young pigs when they are being weaned. We used 300 lbs. lately and liked it very much."

## DR. HESS Stock Food

is the only scientific compound for hogs, cattle, horses and sheep. It is formulated by Dr. Hess (M. D., D. V. S.) If the medical and veterinary colleges know of nothing better it must be good. No unprofessional manufacturer can equal it.

Our Information Bureau.—For any disease or condition for which Dr. Hess Stock Food is not recommended, a little yellow card enclosed in every package entitles you to a letter of advice and a special prescription from Dr. Hess (M. D., D. V. S.). In this manner you are provided with a universal treatment for all stock diseases, either in the Stock Food itself or in the special prescription to which the little yellow card entitles you.

Dr. HESS & CLARK, Ashland, Ohio.

Also manufacturers of Dr. Hess Poultry Pan-a-cia and Dr. Hess Healing Powder.

Instant Louse Killer Kills Lice.

Cremoline

## Cremoline AS A LINIMENT

#### What Heavy Dealers in Horses and Mules Say:

"We have used Cremoline very successfully, largely as a Liniment. One case of a severe injury to a mule records a remarkable cure, which we have never known to be equalled. It was hurt on a sharp foot step on a doubletree, tearing a hole 4 inches in size and very deep. No one would have given Five dollars for her, but after about six weeks' treatment with Cremoline the wound healed perfectly. She is sound as a dollar and her sale value is not impaired. E. D. PENDLETON SON & CO., Nat'l. Stk. Yds. E. St. Louis, Ill."

Send for Special Circulars of our full line of Cremoline Preparations.

For Sale by General Dealers, in 25c bottles and 1, 5, and 10 gallon cans; but if not kept in stock by your storekeeper, we will ship promptly on direct orders.

Sample Gallon Can, \$1.50, Express Prepaid. Five Gallons, \$6.25, Freight Prepaid.

Made only by: The Cremoline Mfg. Co., 1729-31 Olive st., St. Louis.

Cremoline

## BLACKLEGGOIDS

#### 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 a minute. 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.

crement of the hogs, and are carried on the boots or clothing of men, or on the feet of animals and birds. It is not safe to allow stock-buyers or any one that is around stock cars or stock yards to be around where hogs run. Doves and crows are also instrumental in spreading disease, and should be shot whenever they come onto the premises. A little care in these particulars will often save your herd. 8. Admit all the sunlight possible into your hog buildings and onto your feeding floors. One minute, yes, one second, of bright sunlight will kill the liveliest hog-cholera germ in existence. No amount of cold will do this. See that your herd are always supplied with plenty of pure water and plenty of shade. Salt and ashes should always be at their disposal. In short, anything that will help build up a strong, healthy body will be a safeguard against hog cholera.—Forest Henry, before Minnesota Farmers' Institute.

Pro. D. H. Otis, of the State Agricultural College, who has had him in charge, says that the young Hereford

bull, Soldier Creek Columbus 4th (son of the \$5,050 bull Columbus), which Frank Rockefeller presented to F. D. Coburn for the college, has made a gain from 495 pounds, his weight January 27, to 985 pounds July 31. This is a gain of 2.64 pounds for each day, or 490 pounds between the dates mentioned. Professor Otis says, "This bull promises to become a first-class animal, and for him the college and the State should express their sincere thanks to Mr. Coburn and Mr. Rockefeller."

#### No Fees or Stall Charges at the World's Fair.

The chief of the World's Fair Department of Live Stock announces that no charges will be made for entries, stalls, or pens in any division of the Exposition live-stock shows. This applies as thoroughly to poultry, pigeons, and dogs as to horses, cattle, sheep, and swine. It has been approved as a general rule of the live-stock department.

It is the intention to make the exhibits of live stock at next year's World's Fair entirely worthy of the



Exposition management's desire to show the world the best that the first years of the twentieth century have to offer, come from where it may, and to treat exhibitors on a corresponding basis. Doing away with all entry fees and space charges is in furtherance of this idea.

Chief Coburn also states that all prizes will be awarded by individual judges or the "one-judge system." Judging will be by comparison throughout. Concerning the selection of judges he says:

"The judges will be chosen for their especial qualifications and their intimate knowledge of the characteristics and qualities that make valuable the breeds upon which they will give judgment and their awards will be final."

#### Other Side of the Oleo Law.

The producer of beef cattle does not always see the beauties of the oleo law in the roseate light of the producer of butter. As reflecting the beef-producer's views the Drovers' Journal presents the following:

"Press dispatches from Washington give the statistics of the oleo business during the past year. It does not require any editorial assistance to point out where the decreases have occurred. By the enactment of the law restricting what good authorities believe to be a legitimate use of oleo as a food, the records upon which the report of the commissioner of internal revenue will be founded show that during the year there has been a decrease of \$2,207,709 in the receipts from oleo as compared with one year ago. In other words, the receipts this fiscal year amount to \$736,783. This can have but one meaning—transactions in oleo have been reduced. Marked instability in the oleo market is the result. Packers can not secure a market for their surplus, so they are obliged to turn it into a cheaper product than oleo—tallow. Instead of realizing from 10 to 11 cents, they realize from 5½ to 6 cents. The problem is well summed up in a statement issued from a leading firm at this point, as follows:

"Federal legislation and restrictions by many States regarding the manufacture of oleomargarine have so lessened the productive value of beef suet that the packers are compelled to make tallow from this product, which is worth perhaps 5½ to 6 cents per pound, instead of oleo oil, formerly worth nearly double that. Oleo oil, as is well known, is an absolutely pure animal produce made from prime beef suet, and is used in the manufacture of oleomargarine. Before the restrictive measures were taken oleo oil sold at 10 and 11 cents per pound. As a result of the decreased value of beef suet, cattle sold by the producers in the live-stock markets of the country are worth from \$3 to \$5 per head less than they were prior to the enactment of laws against oleomargarine."

"Packers feel the decline first, but the final reaction ends with the farmer and feeder. The products of his steers are not worth so much, consequently the value of the steers decline. Let the reader bear in mind that during the year 1902 cattle sold in Chicago to the amount of \$159,114,000, not including calves to the value of \$3,148,000. The farmers supplied these, making an increase over the year of 1901 of \$13,606,992. Does this vast value count for nothing? All unfavorable legislation toward oleo means a blow to the beef-raising farmer and feeder."

#### Local Breeders' Associations.

The remarkable success which has been attained by the Marshall County Hereford Breeders' Association; the Forest Park Improved Stock-Breeders' Association; and the Wheat-Belt Improved Stock-Breeders' Association is proving an incentive to breeders in other sections of the State to emulate their example.

Recently we learn that there is a strong sentiment in Crawford and adjacent counties to organize a like association. There are many portions of the State where breeders with small herds would be willing to join in combination sales for the disposal of a few animals annual or semi-annually. Many of these breeders have as yet small herds and the number of their surplus animals is not large. Others with larger herds do not have enough surplus to hold an individual sale and they dislike to combine with other breeders for fear the difference in quality of stock or a possible difference in breed would operate against obtaining the best results. With an association of this kind

all these difficulties are removed and the small breeder is on the same footing with the larger grower. The small breeder can contribute one or two head, bear his share of the expense and net much better prices at a less cost than without it. Mr. Wilkie Blair, Ed R. Dorsey, and Wm. McDonald, of Girard; J. W. Wampler, of Brazilton; and Zeigra Bros., of McCune, we understand are all interested, with others, in the organization of this much-needed association.

#### Education by Correspondence.

A home course in scientific farming is the offer that is made to the subscribers of the Kansas Farmer through the medium of the Correspondence Agricultural College, 421 Nebraska St., Sioux City, Iowa, their advertisement appearing in another column. With a well-equipped faculty, the college seems admirably well fitted to take up the work of educating the farmers, at the same time permitting them to carry on their farm work. The work that the college has outlined will be of incalculable benefit. It includes a course in "Judging Live Stock for the Market and Dairy," and another on "The Breeding, Feeding and Care of Animals," topics that certainly no farmer can be too well informed upon. There are also special courses on Veterinary Science and on Sanitation and the Prevention of Diseases.

All of these courses have been prepared by such well-known authorities as Prof. W. J. Kennedy, of the Iowa Agricultural College, at Ames, Iowa; Dr. A. T. Peters, of the chair of Veterinary Science of the Nebraska State University, Lincoln, Neb., and others equally prominent in their respective lines. The fact that these men have been secured for this work shows that they do not only indorse its aims and purposes but that they are willing to do what they can for the promotion of general farming science. The boy upon the farm who wants to become informed upon these subjects and can not afford the expense of a trip to college, thus has a college course brought to him. The value of the correspondence school is no longer open to question. Just how much value it is to the individual depends, as in every other instance, upon that individual. The boy who takes it can learn just as much as if he were at school and the teacher's back turned all the time he is in the class room.

#### A Good Auctioneer.

The sale season is shortly to begin again, and much interest will be felt by those who have good stock to sell in the choice of a capable auctioneer. Of course, Kansas breeders will choose a Kansas auctioneer, provided he suits them, and we think Col. J. N. Harshberger, of Lawrence, will pretty nearly suit. He tells the writer that the prospects for this year's business are good. The late rains have insured a corn-crop and breeders and stockmen have taken on new life. He is now booking dates for sales to be made by breeders for whom he has sold five years in succession, and surely no better recommendation could be offered than this. Last year he was hampered in his business relations by the long continued illness of his wife, but with her return to health and strength the Colonel will be able to fill all dates in his usual efficient and satisfactory manner. The work he did last year was so successful and satisfactory that we predict for him an increase in business this year. Being an old breeder of pure-bred live stock himself and thoroughly posted on pedigrees, the Colonel is able to offer services to his patrons that should fill all his dates very early in the season. His advertising card has been placed on page 859.

#### The Cooper County Shorthorn Breeders' Association.

One of the active breeders' associations of Missouri, which has had great influence in exploiting the merits of Shorthorn cattle, and which has done an immense amount of good for the improvement of live stock generally, is the Cooper County Shorthorn Breeders' Association, with headquarters at Bunceton, Mo. Recently this association held its annual election and selected the following named officers: President, Chas. E. Tutt; secretary, J. M. Freeman; treasurer, W. H. H. Stephens. The membership embraces some of the best-known breeders of Shorthorn cattle in Missouri and also represents about the largest and best aggregation of good Shorthorn cattle to be found in any State in the West.

#### The Southern Kansas Fair.

The Southern Kansas Fair, which will be held at Wichita on September 23 to October 3, has gone beyond the bounds of a county fair and includes a large section of Oklahoma, Kansas, and Indian Territory. Mr. C. M. Irwin, the big Poland-China breeder, is president of the association and Mr. L. H. Resing the very efficient secretary. They have promised the choicest exhibit of stock ever held at Wichita and the fair will be attended by the breeders, farmers, and ranchmen from the South and West. An efficient superintendent and capable judges have been selected and \$5,000 offered in live-stock premiums. The Southern Kansas Fair is an assured success.

#### A Good Stock Book.

One of the good books sent out free of charge by our advertisers is that of the Prussian Stock Food & Remedy Company, St. Paul, Minn. We can not see why it should not appeal most strongly to every live-stock owner, whether he keeps horses, cattle, sheep, hogs or poultry. Primarily its purpose is to bring to the attention of stock owners the valuable line of remedies which the company manufactures, as Stock Foods, Poultry Food, Heave Powders, Lice Powders, etc. The book is all the more valuable on that account, for all these preparations have proven their worth and have an established place with up-to-date owners. Leading breeders all over the country use and recommend Prussian Stock Food and Remedies. Mr. E. J. Hurst, breeder of pure-bred Poland-China hogs, Macy, Ind., owner of the \$5,000-bred, "Majestic Perfection," writes as to the Prussian Stock Food: "I have been using it since I started in the business of breeding hogs and I am highly pleased with it. I have

**PRUSSIAN  
HEAVE  
POWDERS**

**IT FINISHES THE HEAVES.**  
Time was, about fifteen years ago, when heaves were thought incurable. Not so any more. The famous old Prussian veterinarian got to the bottom of the matter. His formula is embodied in  
**PRUSSIAN HEAVE POWDERS.**  
Unequalled for Coughs, Pink Eye, Epistaxis, Distemper, etc. Read this:  
Gentlemen—I have been using the Prussian Heave Powders the past eight months, and in that time have cured 11 horses of heaves, 14 of distemper, and 9 of chronic cough. The Prussian Remedies have paid a great reputation in this section.  
PRUSSIAN REMEDY CO., St. Paul, Minn.

**DIP**

GOVERNMENT DIP ORDER ISSUED June 18, 1903, covers entire territory west of Mississippi river and demands that "Lime and Sulphur Dip Shall Be Used." No Other Dip is Approved. Rex Official Lime and Sulphur Dip is the BEST of Dips. Costs less than half what other Dips cost. Dip, wash, or spray for lice, scab, mange, scurvy, ticks, etc. For all stock. Write to-day for free copy of "VITAL POINTS ON DIPPING."  
**REX STOCK FOOD CO.,**  
Dept. 9, Omaha, Nebr.

been feeding it regularly and have never lost a hog by any disease. I think the Prussian Stock Food will do all that is claimed for it to do." The book is more than an advertisement of remedies. Much valuable information is gathered together in concise form and many hints are to be had as to the cause of past failures and valuable suggestions for the care and treatment of animals that may be well put into practice in the future. We believe our readers are falling to lay hold of a valuable privilege if they do not avail themselves of the offer in the advertisement and write and have the book forwarded to them. All that is necessary is to write how many head of stock you have.

#### Killing Lice and Disease Germs.

The late James Riley, the famous breeder of Berkshire hogs and who had so much to do with the improvement of seed-corn, once wrote: "A solution made of one part zenoileum and thirty parts water will destroy hog-lice. A solution made of one part zenoileum and one hundred parts of water will destroy mites and chicken-lice, and render the poultry-house clean and pure. To use it in the poultry-house, spray all over the inside. It is a good idea to dip the poultry. Follow this idea each week during the summer, and you will have no mites or lice to destroy the poultry. Every time the pig-pen is cleaned out, take a bucket and make a solution of one part zenoileum to fifty parts of water, spray all over the pigs and the house. Also disinfect the swill-barrel, trough, and the places where the pigs are fed."

"If every farmer and breeder in the United States would use this disinfectant freely and give up trying to drug hogs with cholera remedies, we would stamp out the dreaded swine plague and hog cholera. The germ of swine plague is very easily destroyed by zenoileum, but it is impossible to destroy the germ after it enters the circulation; therefore, the preventive idea is the best policy."

#### The Missouri State Fair.

##### Speed Contests.

The speed program is one of the best ever offered to the people of the State. Four events are provided for each of the six days. Four \$1,000-purses are offered. The best and most sensational performers will be entered throughout the circuits leading up to the State Fair. No book-making or pool-selling will be permitted on State-Fair races. Trials of speed, tests and endurance, and the development of the horse are the objects to be attained. A regulation mile track kept in superb condition, fair treatment and the prompt payment of premiums will induce such entries as will offer entertainment to the most enthusiastic admirers of the horse and furnish unbounded sport for those interested in exciting contests of speed.

A large number of the best horses in this and adjacent States are now in training on the fair grounds. All the other good ones, throughout the Mississippi Valley are coming. There will be four great contests each day, commencing with Monday. Every day will be a big day so far as speed is concerned.

#### Convincing Testimony.

The following letter, which forms a very strong testimonial for this wonderful preparation, was received by the proprietors this week, and coming from a firm of stock owners of such well-known standing, is especially valuable to all readers who do not know of the unequalled qualities of Cremoline Cholera Cure, or any of the other remedies included under the line of Cremoline preparations:

"Mexico, Mo., August 6, 1903.

"The Cremoline Mfg. Co.  
"We take this opportunity of saying that your Cremoline Cholera Cure worked like a charm for us. We had about one hundred and twenty-five head of hogs, pigs, and sows. About sixty head died before trying Cremoline Cholera Cure. After drenching the live ones thoroughly with it we lost only six more and they were so infected with cholera that nothing would have done them good.

We have had such quick and satisfactory results we take pleasure in recommending Cremoline Cholera Cure without being solicited for a testimonial. One

### BUY THE DOUBLE Dewey Hog Waterer

From Your Dealer, or Write Us.

Every  
Fountain  
Guaranteed



If not satisfactory, return and get another or your money back. We make this guarantee to every dealer. Very cheap this year. The B-B Mfg. Co., 71 Masonic Tem., Davenport, Ia.

fair trial will convince the most skeptical.

GEO. A. MORRIS, SR., & SON,  
Note advertisement.

#### Used It Constantly for Fifteen Years.

Dalton, Mo., April 15, 1903.

Dr. B. J. Kendall Co., Enosburg Falls, Vt.  
Gentlemen: I have been a constant user of your Kendall's Spavin Cure with my stock and family for fifteen years; always keep it on hand.

I see you say you will send free of charge to your customers one of your "Treatise on the Horse and His Diseases." I used to have one, but it got burned. Will you be so kind as to send me another one, as it gives so much valuable information?

Yours respectfully, W. E. MORGAN.

#### Bunch Went Away.

Chippewa Falls, Wis., May 8, 1902.

Last fall when Watkins' agent was here I bought a box of Watkins' Veterinary Ointment to use on one of my horses, which had a bunch on one shoulder, which was as thick as my hand and very sore. I had tried a good many so-called gall cures but they had done me no good and after using Watkins' Veterinary Ointment for one week, the whole bunch went away and the sore healed up; have worked the horse ever since but the bunch never came back.—Jim Parent.

#### Gossip About Stock.

J. J. Rogers, the old-time Angus breeder of Abingdon, Ill., has organized an Angus baseball team which he says are as hard to beat as the Angus themselves. The new team has rented the old Angus park and now solicits contributions from Angus breeders with which to purchase uniforms and for the improvement of the park.

W. M. McDonald, of Girard, owns a choice herd of registered Galloway cattle, from which he has made a selection of three representative bulls which he offers for sale. One of these is his present herd-bull and another is old enough for use. Information as to the pedigree, etc., may be had by addressing him. See his card in the special want column of the Kansas Farmer.

Among the new public sales which announce their claim dates in the Kansas Farmer are the following: November 12, 1903, Purdy Bros., Harris, Mo., Shorthorns; November 21, 1903, Henry Kuper and W. D. Elmore, Humboldt, Neb., Shorthorns; December 10 and 11, 1903, Sunny Slope Farm, C. A. Stannard, Emporia, Kans., Hereford cattle and Berkshire swine; December 18, 1903, Plainville Breeders' Association, Plainville, Kans., combination sale cattle and swine.

Mr. E. S. Myers, of Chanute, Kans., is a man who will be welcomed to this State. For some years past he has been a breeder of Shorthorns of the best quality in Iowa, and recently moved with a choice selection from his old herd to his present location. Formerly he was the owner of Godoy, the great bull which stands at the head of the W. P. Harned herd at Vermont, Mo. Mr. Myers now has one of the best sons of Godoy on his farm and one, too, which will give

## Platt's Commercial College

Fall Term Opens September 1, 1903.

COMPLETE AND PRACTICAL COURSES IN—

BOOKKEEPING, PENMANSHIP, COMMERCIAL ARITHMETIC,  
COMMERCIAL LAW, TELEGRAPHY, STENOGRAPHY,  
AND TYPEWRITING.

Thorough Training for Business Life. Our students occupy the most responsible positions. Charges very reasonable. Board cheap. Address

Platt's Commercial College, Ballinger Building, St. Joseph, Missouri



the old bull a merry chase for his reputation. While Mr. Myers has practically nothing to sell at this time in individuality and breeding lines, he has one of the choicest herds to be found in the State. He is very welcome to Kansas.

Parrish & Miller, of Hudson, Kans., who have the distinction of owning the largest herd of home-bred Aberdeen-Angus cattle in the United States, are making ample preparations to carry away the prizes offered at the American Royal this year. With Sunflower Gay Lad 48974 at the head of the herd, and with the Prince Ito calf bought with dam at the International last December, they will have good company for their remarkable home-bred stuff. They have a great herd.

The Kansas Farmer received a call this week from N. F. Shaw, owner of the Plainville Shorthorn Herd, Plainville, Kans., who places his annual card in this issue of the paper. Mr. Shaw has been exceedingly careful for a number of years in laying the foundation of this splendid herd of cattle, and every animal selected has been with reference to desirable breeding and individual quality. He has now for sale twenty-five well-bred males and a number of choice cows and heifers at quite reasonable figures. Mr. Shaw announces that they have organized the Plainville Breeders' Association, which includes Shorthorn, Hereford, Poland-China, Berkshire, and Duroc-Jersey breeders who will hold a combination sale at Plainville, December 18, 1903.

The Chicago Daily Live-Stock World, one of the best daily live-stock papers in the United States, has the following advice to offer to the cattle men: "Just

keep your eye on the big feeders and see what they do in the next few months. Last fall fat cattle were high, so were feeders, and the big fellows either stayed out of the game entirely or only put a few steers on feed. This year there is a prospect that corn will be high but young cattle relatively cheap, and we will miss our guess if you do not see the big men men who have made fortunes in feeding cattle, taxing the capacity of their feed-lots. There might be a valuable pointer in this to the small feeder who lost money during the past year by paying boom prices for cattle and is now rushing into sheep."

Mr. A. E. Bureleigh, who has long been known as a breeder of Polled Durham cattle at Edgewood Farm, Knox City, Mo., has decided to disperse his great herd and has fixed the date for his dispersion sale on October 6, 1903. Mr. Bureleigh is one of the seven charter members of the Polled Durham Association, and for the past twelve or fourteen years he has adhered rigidly to his mottoes of quality, constitution, prepotency and pedigree. The offering will be high-class, double-standard and number forty-five head. During the past three years he has added more than \$4,000 worth of the best Polled Durham blood to Edgewood herd, and there is no place known to the writer within easy reach where one can buy such quality and in such numbers as will be offered at this sale. His advertising card will be found on page 860, and a letter addressed to him will bring detailed information and catalogue.

J. R. Young, Richards, Mo., who is the breeder of more prize-winning Poland-China swine than any man we now re-

member, places his breeder's card on page 855 this week. He is the owner of Chestnut Grove Stock Farm which was made famous by Missouri's Black Chief and Missouri's Black Perfection, and has yet greater honor in store because of the superior excellence of the animals now on the farm. His present herd-head is Mascot by Missouri's Black Perfection 26517 out of Winnie Sunshine who is a full litter sister to Business Sunshine, whose get made such a wonderful showing in the Macy sale the last week in July. The type Mr. Young is breeding is long-bodied, good bone, magnificent back and loin, with the finest of finish, and we predict that Mascot will be the sweepstakes boar of the Missouri State Fair. Owing to unavoidable delay we reserve the detailed information about this herd until next week. This will be watched for with pleasure because Chestnut Grove Herd is one of the great herds of Poland-Chinas of the United States.

During the Missouri State Fair, which will undoubtedly be one of the biggest and best in the West, there will be a notable sale of Berkshires. Fifty head of the choicest breeding from the well-known herds of N. H. Gentry, J. T. Pollard, C. A. McCue, M. C. Bettridge, C. F. Merrett, and Harris & McMahan. The reputations of these breeders is such that buyers can go to the sale with the assurance of getting the best. The sale will be under the management of T. A. Harris, of Lamine, Mo., who will furnish catalogues and other information. Reduced rates have been secured on the railroads, and the State fair at Sedalia will be a very attractive and convenient point for Kansans to make. It is on the main line of the Missouri Pacific and the M. K. &

T. railways. Besides having one of the greatest live-stock shows in the West, the fair will offer exceptional advantages for the purchase of good breeding stock in the series of sales, the most important of which is the Harris Berkshire sale mentioned in the card on page 860.

The business of raising hogs is one that the whole world is interested in, as consumers and the demand for the product of the hog-raiser's skill is constantly growing. Not only are more people becoming civilized enough to eat pork, but more people are able to afford it and enjoy it, because of the fact that under our present system of Government inspection the old dread of diseases arising from eating pork is entirely done away with. Breeding hogs requires less investment of capital and brings quicker and larger returns in proportion than any other line of live-stock breeding. It is a safe proposition and will remain so as long as men like pork-chops. The increased demand for pork products is such that taken together with the fatalities which occur annually among young pigs, must necessitate increasing the business of the small army of new pork-raisers each year. This being true, it is necessary that the young breeders secure the best with which to start. Among the owners of good Duroc-Jersey hogs advertised in the Kansas Farmer, we call special attention to Mr. J. E. Imhauser, Sedalia, Mo., whose card appears on page 858. He is the owner of Maplewood Herd, with Missouri Champion 16349 at the head. He has an exceptionally fine lot of spring pigs that have been doing well during the season and are now offered for sale. Write him and get next to a good thing.

# Kansas State Fair and Exposition

## SECTION 2.—DUAL-PURPOSE BREEDS.

M. S. Babcock, Nortonville, Superintendent.  
Dr. J. P. Kaster, Director in Charge.

### Lot 5.—Polled Durhams.

Ring No.	1st Prem.	2d Prem.
81 Bull 3 years or over.....	20	\$10
82 Bull 2 years and under 3.....	20	10
83 Bull 1 year and under 2.....	20	10
84 Bull under 12 months.....	20	10
85 Cow 3 years or over.....	20	10
86 Cow 2 years and under 3.....	20	10
87 Heifer 1 year and under 2.....	20	10
88 Heifer under 8 months.....	20	10
89 Four animals the get of one sire.....	25	10
90 Two animals the produce of one cow.....	25	10
91 Exhibitor's Herd—Consisting of one bull 2 years or over, one cow 3 years or over, one 2-year-old, one yearling, and one heifer calf.....	30	15
92 Breeder's Young Herd—Consisting of one bull under 2 years, two yearling heifers, and two heifer calves. Heifers must be bred by exhibitor.....	30	15

### Senior Champion.

93 Best bull over 2 years.....	Diploma
94 Best cow over 2 years.....	Diploma

### Junior Champion.

95 Best bull under 2 years.....	Diploma
96 Best heifer under 2 years.....	Diploma

### Grand Champion.

97 Best bull any age.....	Diploma
98 Best cow or heifer any age.....	Diploma
Note.—Base date for computing age September 1. One-half of the above premiums will be paid by the American Polled Durham Breeders' Association.	

### Lot 6.—Red Polled.

99 Bull 3 years or over.....	10	5
100 Bull 2 years and under 3.....	10	5
101 Bull 1 year and under 2.....	10	5
102 Bull under 12 months.....	10	5
103 Cow 3 years or over.....	10	5
104 Cow 2 years and under 3.....	10	5
105 Heifer 1 year and under 2.....	10	5
106 Heifer calf under 12 months.....	10	5
107 Four animals the get of one sire.....	10	5
108 Two animals the produce of one cow.....	10	5
109 Exhibitor's Herd—Consisting of one bull 2 years or over, one cow 3 years or over, one 2-year-old, one yearling, and one heifer calf.....	25	10
110 Breeder's Young Herd—Consisting of one bull under 2 years, two yearling heifers, and two heifer calves. Heifers must be bred by exhibitor.....	25	10

### Senior Champion.

111 Best bull over 2 years.....	Diploma
112 Best cow over 2 years.....	Diploma

### Junior Champion.

113 Best bull under 2 years.....	Diploma
114 Best cow under 2 years.....	Diploma

### Grand Champion.

115 Best bull any age.....	Diploma
116 Best cow or heifer any age.....	Diploma

## SECTION 3.—DAIRY BREEDS.

M. S. Babcock, Nortonville, Superintendent.  
Dr. J. P. Kaster, Director in Charge.

### Lot 7.—Jerseys.

Ring No.	1st Prem.	2d Prem.
117 Bull 3 years or over.....	\$10	\$ 5
118 Bull 2 years and under 3.....	10	5
119 Bull 1 year and under 2.....	10	5
120 Bull under 12 months.....	10	5
121 Cow 3 years or over.....	10	5
122 Cow 2 years and under 3.....	10	5
123 Heifer 1 year and under 2.....	10	5
124 Heifer under 12 months.....	10	5
125 Four animals the get of one sire.....	10	5
126 Two animals the produce of one cow.....	10	5
127 Exhibitor's Herd—Consisting of one bull 2 years or over, one cow 3 years or over, one 2-year-old, one yearling, and one heifer calf.....	25	10
128 Breeder's Young Herd—Consisting of one bull under 2 years, two yearling heifers, and two heifer calves. Heifers must be bred by exhibitor.....	25	10

### Senior Champion.

129 Best bull over 2 years.....	Diploma
130 Best cow over 2 years.....	Diploma

### Junior Champion.

131 Best bull under 2 years.....	Diploma
132 Best heifer under 2 years.....	Diploma

### Grand Champion.

133 Best bull any age.....	Diploma
134 Best cow or heifer any age.....	Diploma

### Lot 8.—Holstein-Friesians.

135 Bull 3 years or over.....	10	5
136 Bull 2 years and under 3.....	10	5
137 Bull 1 year and under 2.....	10	5
138 Bull under 12 months.....	10	5
139 Cow 3 years or over.....	10	5
140 Cow 2 years and under 3.....	10	5
141 Heifer 1 year and under 2.....	10	5
142 Heifer calf under 12 months.....	10	5
143 Four animals the get of one sire.....	10	5
144 Two animals the produce of one cow.....	10	5
145 Exhibitor's Herd—Consisting of one bull 2 years or over, one cow 3 years or over, one yearling and one heifer calf.....	25	10
146 Breeder's Young Herd—Consisting of one bull under 2 years, two yearling heifers, and two heifer calves. Heifers must be bred by exhibitor.....	25	10

### Senior Champion.

147 Best bull over 2 years.....	Diploma
148 Best cow over 2 years.....	Diploma

### Junior Champion.

149 Best bull under 2 years.....	Diploma
150 Best heifer under 2 years.....	Diploma

### Grand Champion.

151 Best bull any age.....	Diploma
152 Best cow or heifer any age.....	Diploma

C. H. SAMSON, Secretary, Topeka, Kansas.



## The Young Folks.

Conducted by Ruth Cowgill.

### ROOM AT THE TOP.

There's ever a crowd in the valley,  
For the lower a soul descends,  
The more it finds of the smaller minds  
That seek but their selfish ends;  
There's companionship in the valley,  
With others your lot is thrown;  
But the man who tries for the larger prize  
Must travel the heights alone.

He must make for himself a pathway,  
Where no other foot e'er trod,  
Till he grows complete in contentment  
Sweet.

As he learns to walk with God;  
There is glory upon the mountain,  
Though the summit is cold and bleak,  
Yet the radiant burst of the dawn falls  
First,  
Like a blowing rose on the peak.

Then dare the paths of the mountain,  
Oh, spirit with God-like fire,  
Whose depths are stirred by an inward  
Word.

To struggle and to aspire,  
Be not content with the sluggard,  
In the valley of life to stop,  
But with purpose bold heed the adage old:  
"There's always room at the top."  
—J. A. Edgerton.

### Our Pilgrimage.

Think of living in a house two centuries old! One such it was my great pleasure to see a few days ago. Descendants of the original owners still possess it, and use it as a summer house, and a most charming place it is. It is on the slope of a breezy, orchard-crowned hill, from whose top you can see the Neponset River like a lazy serpent laid flat on the ground, and far off in the hazy distance the mysterious dimness of the ocean. I wish I could tell you how the distant sea looks. It is like nothing else in the world—a cloud, a mist, a hazy Indian summer sky—like all these, yet different as you stand and look and wonder. There is a sense of vastness, mystic grandeur that one can not forget, yet can not describe.

But to return to—earth. In the seventeenth century King James II of England made a grant of land to one of his faithful subjects who was adventurous enough to wish to cross the sea. This quaintly-worded grant provided that the new possessions should consist of two square miles of land, from a certain point, in what is now Dorchester, and as much further as it was safe to go.

So the faithful subject arrived safely, took possession of his land, and built a house. This house consisted of two rooms, the one above the other, and these two rooms still remain, the sturdy nucleus to which succeeding generations from time to time have added.

Stout beams stretch across the ceiling, and there are numerous little wooden-doored cubby-holes built in the walls. One such secret-looking closet was guarded by wooden-pannelled doors. It was about eighteen inches deep, perhaps, and possibly four feet wide, and we were informed to our bewilderment, that here was kept the bed in ye olden time. Beds then were made like the folding campstools that we sometimes see, so that in the morning when the family had arisen, the bed was folded up and shoved into this small closet. I am afraid bed-clothes were not so well aired then as we consider proper. Another cubby-hole was much smaller than this and consisted of small shelves set in the wall, and, of course, hidden by those unobtrusive looking little doors. This was the family medicine closet.

The fireplace was very interesting, also. It is now smaller than it used to be, but you can see how far it extended, and the place at one side where the great oven used to be.

Candles are used here instead of lamps or electricity, and the furniture is unostentatiously ancient. Everything breathes of the past, so that one feels that he is part of it and that makes it difficult to analyze and pick out one thing here and another there to tell about. Atmosphere is so hard to describe!

I said the original house had been builded to, and that makes another charming feature in a quaint picture. It adds the element of unexpectedness. There are winding stairs in unimaginable places, and rooms where you had

not thought it possible. There is an undecided-looking chimney wandering up through an attic bed-chamber and behind it a bath-tub lurks invitingly. Sometimes the stairs stagger downward in a peculiarly whimsical fashion. They pretend to be a winding stair, but they are not. They lead you to think they are going to turn, and even take one step aside, then suddenly they change their mind and go straight on.

Another set really does wind. You take a few steps and suddenly you are confronted with a blank wall with but one step between. You take that one step and before you lies a silent white room whose air is one of settled repose. It is certainly a charming house—one in which to live the life beautiful, far from care and strife, a lot denied to most of us, fortunately or unfortunately. And here, indeed, is lived the life truly beautiful, for as I have reason to know, the presiding spirit of the place reaches out her hand to the weary and city-worn and in sweetest charity bestows her gifts of peace and restfulness or of sympathy and inspiring cheer. One might generalize and philosophize here if one wished—but one does not wish.

From sunny Dorchester to bustling Copley Square is a far cry, yet it is all Boston and a matter of only an hour's ride in the trolley. Copley Square is one of the most important squares in the city, and now I must explain to you what a Boston square is. In fact, it is almost always a triangle. I have never seen one yet that really is a square, and I shall be grievously disappointed if I ever do, for I think it is such a good joke on Boston. Where several streets come together, that is called a square, and as the streets run in all kinds of directions they are constantly meeting, so you can see there must be a good many squares.

On Copley Square are many buildings well worth seeing. There are two churches, and the Old South.

Trinity Church is called very beautiful by those who know. To me it was beautiful, certainly. From the outside, it has a certain stateliness and a high-bred grace with its several small towers and minarets and the one large tower crowning it. Within is dim light and wonderful windows, and softly-cushioned pews. The Episcopal service is not always, from an artistic point of view, beautiful. Incongruous elements sometimes enter to mar the harmony. Here the machinery works so perfectly that one forgets it is machinery. The singing is excellent. Young boys take the high part, and their sweet treble voices are exquisite. You sit in the vague half-light and listen enchanted, while in the high, arched, richly-gorgeous windows the prophets of Israel look down upon you.

The pulpit here is like no other that I have seen. It is a round, fenced-in platform high above and far removed from the audience. Perhaps this accounts for the impression of vagueness and intangibility which the sermon left upon me. At any rate, I much prefer a common Kansas pulpit. And, in very truth, while the outward beauty of these old churches sinks into one's soul, it is really a half-pagan delight in mere beauty of form and color. One can worship God with as true a zeal in our little plain Kansas churches, where the free prairie breezes may wander through open, undecorated windows, and the pastor, known and beloved of all his flock, preaches simply and vigorously the truth as it is to him. The place wherein one worships can make no difference in the sincerity of one's prayer, and, so that one worships the one God, what matter differing creeds and sects?

The new Old South Church is a charming place. It has one tall square tower soaring high above the rest of the building. On the front side it is overgrown with the lovely English ivy, which we see here on so very many of the buildings. It has two alcoved entrances, in one of which is this inscription, on a stone tablet, "Old South Church, Preserved and blessed of God for more than two hundred years, while worshipping in its original site, corner of Washington and Milk streets,

whence it was removed to this building in 1875, amid constant proofs of His guidance and loving favor. In transit it sustained." In this same alcove are two very ancient-looking leaden tablets, remnants of the grave-stones of the John Adams family.

I dropped into the church one hot day in mid-week, and sat down in the cool dimness. The great organ was rumbling some triumphant harmonies through the empty chapel and from the windows holy faces looked down so patiently and a reverence fell upon me.

### Hints on the Selecting of a College.

#### A BRIEF CHAPTER OF "DON'TS."

REV. D. M. FISK, D. D., PROFESSOR OF SOCIOLOGY IN WASHBURN COLLEGE, TOPEKA.

1. Don't submit to dictation in deciding where to go to college: accept advice with open mind, weigh the evidence with candor, but do your own deciding.

2. Don't accept at face value the highly colored inducements offered by any unendowed school where all, or the most of the support of the faculty and administration comes from the tuition paid by the undergraduates. However poor you are, you can never afford to patronize such a school. Why not? For this weighty reason: In every endowed college the larger part of the cost of teaching, laboratory equipment, etc., is borne by income from the endowment, and not by you and your classmates. In an endowed college possibly you pay from one-tenth to one-twentieth of what your schooling actually costs. In an unendowed school you pay all, which must mean that you get inferior service.

3. Don't go to some confessedly inferior school because it chances to be geographically near to your home. The swift, formative, four years of your college life come to you but once, and they are the most potent and revolutionary period of all your life. In that brief series of shaping years you can't afford to sacrifice quality of instruction and possible wealth of ideal enrichment to save even a hundred-mile railway fare twice or four times a year. Mileage is far cheaper than poor schooling. Better imitate President Fairchild's Oberlin method of years ago—"foot it" (barefoot to save shoes for college wear) a hundred miles, but when you get to your destination—get something!

4. Don't even think of going to a provincial college located in some isolated hamlet or village where the school will unavoidably take on the narrowness and small outlook of its petty surroundings. The conceded advantage that a small village has as the seat of an academy or preparatory school is reversed for a college. Adolescence needs quiet, but the college man ought to have come to a point when he needs to begin to adjust his life to the real complexity of an enlarging world. No inconsiderable part of the advantage of a college education consists in this "making connections" with the eager, contentious, wider life of man. You are too late A. D., and too far from medieval cloisters to choose a hermitage for your scholastic cradle.

5. On the other hand, if you are for the first time leaving a rural or village life don't make too wide a break with your past environment. Don't plunge at first into the roar and distractions of a vast metropolis, where ten thousand novel sights will rob you of time for study. All this may properly come later, but you will be better prepared for it. The very conditions that are a valid argument for pursuing post-graduate work in a great city, as Chicago or New York, are contra-indicated for the undergraduate college student, especially if he be country-bred.

6. Make very sure that you have mental maturity enough to know quite definitely what you want, and how to get it, or don't go directly from a high-school to some great university where the multitudinous and bewildering elective courses will confuse. All this is wealth. When you are ripe enough to be the master of such complexity

attack it, but don't make it the first step. This is the unqualified advice of Professor Albion Small, head professor of sociology in Chicago University. He says: "I congratulate you [college students] that you are in a college rather than in any university, even my own, for this training is better for you now. When you are ripe and ready go to the university."

7. Don't imagine that every Western student is shut up to the necessity of going away from the section where he hopes to do his life-work for a higher education. Eighty-seven per cent of all Kansas students found in any American college remain for their education in Kansas. They might go further and do worse.

8. Don't be lured by the lustre of a few great names on some university faculty-roll until you ascertain whether these brilliant men are actually teaching, or whether they are writing books for the public while their classroom work is being done by a small army of under-tutors who alone will teach you. Many a medium college actually faces its students with maturer teaching (from this reason) than some more highly endowed schools.

9. Neither bricks nor books alone make a college, but as well, men, atmosphere, spirit. Fine buildings and generous equipment are of vast value, but don't make them first. Choose rather, able, consecrated teachers, and a school where you can become a part of a generous fellowship of select, earnest undergraduates. It is a life-deprivation to be robbed of the unconscious social energizing of a fairly numerous student comradeship. It may not be a great achievement to be "honor man in a junior class of two." Professors do not do all the teaching in a college, nor is it all confined to the classrooms. Eager, talented classmates are as truly a spur to achievement as college prizes.

10. Don't forget this: You will never get away from your college life: it will always follow you, and that too whether as a help or a hindrance; therefore, pick out a college that you firmly believe will give you the rich, personal touch on men of power and heart, ample tools to work with in laboratories and class-room, a college spirit that you can grandly allow to permeate your deepest self, and a college aim with which you can exultantly identify yourself. Such schools breed men, not pedants, or phillistines.

11. If you are a daughter, give your dear mother this excellent advice and see that she, and her daughter take it, viz., not to send you (as a young girl without experience) into any school that makes no full provision by the hands of some solicitous, Christian faculty of women to put at your constant call any advice and helpfulness that you may need. Feminine maturity, under dire economic compulsion, may have to face alone the problem of self-defence, plunging into a strange city with no close confidant, or loving counsel, but don't unnecessarily invite such a hazard. It will be a long day before thoughtful mothers will prefer schools lacking a faculty of Christian women, officially responsible for the manners and morals of inexperienced daughters, to foundations that frankly exist for the purpose of completing the whole personality and not merely sharpening the intellect.

12. If you are a self-respecting girl (whom your mother can trust out of her sight) then don't forego the immeasurable advantage of getting your education in a co-educational school. We live in an uneasy time when "the return to the medieval and monastic" is just now the especial eddy in the stream of progress. Don't be greatly disturbed by it. This reversionary nun's dream of the moral immunity of the cloister won't obtain long. God made the home co-educational, the Nation has made the public school co-educational and it has worked pretty well where the populations are homogeneous. "The normal, casual contact between young men and women in their daily tasks" under conditions of highest moral healthfulness will eventually completely vindicate the sober, common-sense verdict of the



many in regard to the superior training for either son or daughter of a school of both sexes.

13. Don't minimize the intellectual and moral advantages of a confessedly "Christian college." Sectarian narrowness may well be avoided. There is, indeed, an in-and-in breeding denominationally that often imperils, but in a school that is nobly catholic in its corps of instructors and instruction, hospitable to all evangelical faiths, but insistent on no sectarian shibboleths there is great advantage. Secularism is always intellectual paralysis. The dynamic of the world is spiritual not economic, or speculative. A school that makes little of the ethical and religious will dry-rot any shaping manhood. Be glad to put yourself into the warm atmosphere of a cordial, liberal, unapologetic righteousness that makes for manliness, self-devotion and world-weal. In your deepest conscience you know this is your chief need. It is for all youth. Honor it. The decisive choice of "Which school?" has meant potential success or moral shipwreck to thousands. Don't make a mistake.

14. Last, don't go to any college with merely an ambitious, self-seeking spirit—to see only how much you can get out of a college, and not rather to see how much also you can put into the great (and always mutual) culture-process—of idealized personality, of genuine service to your fellow-students, of cooperation with the whole spirit and task of the college, to see (in short) how fully and worthily you can build yourself into the ever-enlarging dignity of a great educational foundation whose work colors all after time. Don't skip your divine opportunity to enroll yourself as one of the (possibly unnamed and untitled) teachers who shall beneficently re-shape the world.

#### Trained Home-Makers.

Woman may go out into the world and battle for a living; she may meet with success and high honors, but yet she is not at her best nor is the restless, unsatisfied longing of her heart of hearts stilled. She has been created for the home and in the home she longs to reign, living up to her best and holiest ideals and perpetuating in other lives her own beauty of character. To every woman at some time comes the opportunity to help in founding a new home. There may be excellent reasons why she must let the opportunity pass and still struggle on by herself. But in most cases the womanly nature in woman asserts itself and cries out for a home and loved ones of her own, and in her heart she feels that at some time in the far-away future her dream of an ideal home will be realized. To this end woman should train herself. She can not step from a business position into the new home and expect with untrained mind and unskilled hands to make her home the spot of happiness which it has been in her maiden dreams. To accomplish this she must have previous training which will prepare her to assume the responsibilities of the homemaker and the housekeeper in an intelligent manner. The number of divorce cases and unhappy families will rapidly decrease when woman devotes the same amount of time, money, and energy toward learning how to build a home which she willingly gives toward preparing herself for a salaried position. The necessity of this is felt by our leading educational institutions and now the training of young women for their own special calling goes hand in hand with Greek and trigonometry.

Of the nine courses which the Household Science Department of the Illinois University offers none is more interesting than that which takes up the building and decoration of the home. There the students are first taught how to build a home. The plans of architects are carefully studied, building materials are examined and criticised, and the work of sanitary plumbing studied until the young woman is capable of intelligently planning a house. Then she takes up in detail the furnishing of the home. She becomes familiar with all grades of furnishings from the richest to the

cheapest and well understands which articles are to be highly preferred above others and the reason for the preference. Her studies in color schemes enable her to select everything with the eye of an artist. Even with a very small expenditure of money she can arrange a room which pleases and rests the eye. Harmony prevails everywhere and every picture is hung, every statue placed in position which brings out its greatest beauty. No salesman nor friend can induce her to buy unwisely. She is a well-informed and intelligent purchaser and the salesman must look elsewhere for the disposal of undesirable wares.—*Prairie Farmer.*

#### A Wonderful Dog.

A citizen of South McAlester is the owner of a remarkably smart dog called Sunbeam. Sunbeam is a water spaniel about two years old, and has always been a great pet in the household. About six weeks ago a brood of chickens was hatched, their mother dying soon after. Sunbeam at once began to manifest great interest in the little orphans and took them in charge. At first its owner was afraid he would injure them, but he would bark and carry on so that he was at last given the whole charge of them, and his joy knew no bounds. No stranger dares to touch his newly adopted children, and all day he follows them from place to place all over the yard. If one of them happens to wander off a short distance from the rest he is uneasy until it is back again. At night the little chicks find a roosting place in Sunbeam's shaggy coat, and if they are not to bed by a certain time Sunbeam goes after the tardy ones. The tiny chicks seem to realize that Sunbeam is their protector, and will peep long and loud if they lose sight of him. They are thriving under Sunbeam's care just as well as if their mother were alive.—*Kansas City Journal.*

#### An Unfortunate Letter.

"E" is the most unfortunate letter in the English alphabet because it is never in cash and always in debt, and never out of danger. Yet the aforesaid letter is never in war, but always in peace; it is the beginning of existence, the commencement of ease and the end of trouble. Without it there would be no gospel, no father, no mother, no brother, no sister, no home, no heaven, no hell.

### For the Little Ones

#### LITTLE DEEDS OF KINDNESS.

Suppose the little cowslip  
Should hang its golden cup,  
And say, "I'm such a little flower,  
I'd better not grow up."  
How many a weary traveler  
Would miss its fragrant smell!  
How many a little child would grieve,  
To lose it from the dell!

Suppose the little dew-drop  
Upon the grass should say,  
"What can a little dew-drop do?  
I'd better roll away!"  
The blade on which it rested  
Before the day was done  
Without a drop to moisten it,  
Would wither in the sun.

Suppose the little breezes  
Upon a summer's day,  
Should think themselves too small to cool  
The traveler on his way?  
Who would not miss the smallest,  
And softest ones that blow?  
And think they made a great mistake  
If they were talking so?

How many deeds of kindness  
A little child may do,  
Although it has so little strength  
And little wisdom too!  
It wants a loving spirit,  
Much more than strength to prove  
How much a feeble one may do  
For others by her love.

—Selected.

#### Roy's Fire.

At Roy's home, there is a field not far from the house, which is the boys' playground. Here they can play leap-frog, or crack the whip, spin tops or fly kites, or do any of the things that boys like to do.

But the thing they like best to do is to make furnaces. They make a hollow place in the ground, and put a flat piece of tin or something over a part of it, leaving a hole over which they put a piece of pipe (when they have it) for a chimney. Then they build a



## Highland Park College

DES MOINES, IOWA

**FALL QUARTER OPENS SEPTEMBER 1, 1903**    **THIRD QUARTER OPENS FEBRUARY 16, 1904**  
**SECOND QUARTER OPENS NOVEMBER 24, 1903**    **FOURTH QUARTER OPENS MAY 11, 1904**  
**WINTER TERM OPENS JANUARY 4, 1904**

More than 1,800 students enrolled this year—School the entire year—Students may enter at any time—Fine College Buildings and Equipments—Excellent accommodations for students—All expenses reduced to the minimum.

**COLLEGES AND SCHOOLS**

**LIBERAL ARTS** Classical, Philosophical, Scientific, The Academy—Full college courses. College year, 48 weeks. Four year courses completed in 8 years. Academy and Elementary preparatory course, in which students of all degrees of advancement are admitted. See Elementary preparatory course in catalogue.

**NORMAL** Didactic, State Certificate, County Certificate, Primary Training—The most complete Training School for teachers in the West. Students of all degrees of advancement admitted.

**ENGINEERING** Electrical, Steam, Mechanical, Civil—Also a special one-year Electrical Engineering course. A special 24 weeks course in Steam and Traction Engineering. Shop work from the beginning.

**PHARMACY** Regular Ph. G. Course, Special Course to Prepare for Examinations—One of the largest and best equipped Colleges of Pharmacy in the United States. Lowest expenses.

**LAW** A large and competent faculty. Every graduate this year passed the bar examination in Iowa. Special privileges granted law students desiring preparatory or college work.

**MUSIC** A complete College of Music—Piano, Voice, Violin, Orchestra, Band, Chorus, Harmony, Mandolin, Guitar, in fact a full course in all grades of Music. Thirty pianos, four grand pianos. A fine faculty of teachers—each an artist in his line.

**ORATORY** A thoroughly equipped College of the most competent teachers.

**BUSINESS** The largest and best equipped Business College in the West. Not a department of a literary college but a thoroughly equipped Business College, with the finest Business Exchange in the United States.

**SHORTHAND** As large and complete a College of Shorthand and Typewriting as is found in the country. Every graduate sent to a paying position. Forty dollars for full course, time unlimited.

**TELEGRAPHY** The largest and best equipped College of Telegraphy in the United States. Every graduate sent to a paying position. Forty dollars full course, time unlimited.

**PEN ART** A thoroughly established School of Penmanship, Pen Art, and Public School Drawing.

**CIVIL SERVICE** A full course in Railway Mail Service. Examination by government next October. Enter at once and prepare for the examination.

**HOME-STUDY** Over 3,000 students enrolled in the Correspondence School. Any subject you wish by correspondence. Send for Prospectus and Home Study Courses.

**EXPENSES** All expenses have been reduced to the minimum. Tuition in College, Normal and Business courses \$12.00 a quarter. Board \$1.50, \$2.00 and \$2.50 a week.

Send for free catalog and views of college. Mention work in which you are interested  
**O. H. LONGWELL, President Highland Park College, DES MOINES, IOWA**

## SPALDING'S

Free Employment Bureau. 64-page Illustrated Catalogue 27 sent free on request.

## COMMERCIAL COLLEGE,

New York Life Bldg., KANSAS CITY, MISSOURI.

36th Annual Fall Term begins September 1. Bookkeeping, Shorthand (Pitman and Gregg), Typewriting, Telegraphy, and English Branches at low rates. 20 rooms. 16 teachers and lecturers.

**J. F. SPALDING, A. M., President.**

fire in the hollow and bake apples and potatoes and peanuts.

One day they had been having a jolly good time in this way, when one of the boys said, "Let's go to the barn and play hide-and-seek." Roy was always ready for any fun, so he ran off toward the barn at once, the others coming afterward, as soon as they had put out the fires in their furnaces. But Roy did not stop to put out his fire, and that is the way he got into trouble. For his fire began to creep out of the hollow, while he was away playing hide-and-seek. It caught a few dry leaves, then it passed on to the dry grass. A wind was blowing, and soon the fire was spreading rapidly toward the house.

Roy happened to run to a big lilac bush where he was going to hide, when he saw the flame creeping up. Dear me, he was frightened! He called, "Boys, boys! help! help!" and seized one of his mother's rugs that she had hung out to air, and began to beat the flames.

The other boys came running as soon as they saw what was happening, and soon there was a big force at work fighting the fire.

"Oh, work hard, fellows!" panted Roy. "It's trying hard to get to the house."

As soon as Roy's mother found out what was the matter, she began to help too. But still the fire kept burning, breaking out in another place when beaten out in one. It came quite up to the kitchen wall, and blackened the boards. Then Roy rushed in and got buckets of water and dashed them out of the window upon it, till at last, the fire was conquered when the boys were all ready to drop from weariness.

You should have seen those boys then. They were black with smoke, and dripping with perspiration. Some of them had used their coats to beat the fire, and they were burnt and dirty.

"Thank you very much, boys, for helping!" said Roy. "This was my fire—it started from my furnace, and I am the only one to blame. \* \* \* Say, a fire is worse than a colt to break, isn't it?"

And they all agreed.

It is better to fight for the good than to rail at the ill;  
I have felt with my native land, I am one with my kind,  
I embrace the purpose of God, and the doom assign'd.

—Tennyson.

### SEVEN GREAT COLLEGES

Chillicothe Normal College  
Chillicothe Commercial College  
Chillicothe Shorthand College  
Chillicothe Telegraphy College  
Chillicothe Pen Art College  
Chillicothe Musical College  
Chillicothe College of Oratory

For free Catalog, address  
**ALLEN MOORE, Chillicothe, Mo.**  
 CAR FARE PAID.


### The Kansas Wesleyan Business College.

Largest and best equipped Business College west of the Mississippi; highest standard, national reputation. Seventeen professional teachers. Positions guaranteed to all competent Stenographers and Book-keepers from our school. Graduates sent to all parts of the world. Tuition low. Board cheap. For Journal address  
**T. W. ROACH, Supt., Salina, Kans.**

## KANSAS CITY Business College

N.E. CORNER TENTH AND WALNUT STS.

Bookkeeping, Shorthand, Typewriting, Telegraphy, Penmanship and all English and Commercial branches thoroughly taught by experienced teachers. Highest endorsements. Elegant apartments. For illustrated catalogue and list showing hundreds of pupils in positions. Address C. T. SMITH, Principal.



## Gem City Business College

affords its students every advantage and adopts the modern practical idea in giving

**A BUSINESS EDUCATION.**  
 Attendance last year 1150 students. 16 teachers, a \$100,000 specially designed building, fully equipped. Thorough courses in Shorthand and Typewriting, Book-keeping, Actual Business Practice and Banking. Good openings await its graduates. Write for free large annual catalogue giving detailed information.  
**D. L. MUSSELMAN, President,**  
 Gem City Business College, Quincy, Illinois.

## THE UNIVERSITY OF KANSAS

(The State University.)

Possesses superior facilities for instruction in Liberal Arts, Law, Engineering (civil, electrical, mechanical, chemical, and mining), Pharmacy, Medicine, the Fine Arts, the school for graduates. Over 500 distinct courses of study. Surrounds students with high ideals of Christian culture.

A faculty of 101 members. Library of 42,000 volumes. Business and equipment worth \$1,200,000. 1,300 students in 1902-03. Expenses moderate. Fall term opens September 9. For catalogues and information concerning rooms, board, ing, places, etc., address

Geo. O. Foster, Registrar, Lawrence, Kans.



## The Home Circle.

Conducted by Ruth Cowgill.

### THE BRIDGE OF LIFE.

Up the Bridge of Life I go,  
Flushed with Spring's bright laughter;  
Birds are flying on before,  
Butterflies dance after.  
There are roses 'neath my feet—  
Oh, for the world so fresh and sweet!

O'er the Bridge of Life I go—  
Behind the sun, before the snow;  
Rain—it falls upon my heart;  
One long look back at the setting sun.  
One tear for the past, ere I swiftly run  
By the place where lovers part!

Down the Bridge of Life I go,  
Bowed with Winter's sorrow,  
Ah, for the joys I have left behind,  
And, alas, for the dread to-morrow!  
There is ice beneath my feet—  
Before me flows a river fleet.

A boat is anchored near the shore,  
It sails to the lake of Evermore.  
Stands at its prow a boatman tall,  
Clothed in a shadow that touches all,  
'Tis hard to leave love, friends, and home,  
But I must go when he calls to me  
"Come!"

Into the shadowy boat I step,  
With tears in place of laughter,  
Doves fly out from the misty clouds,  
Nightingales follow after;  
There is music in the air,  
Flowers are falling white and fair,  
And where is Death? I can only see  
An angel rowing my boat for me!  
—H. M. Beckingham.

### A KANSAS FARMER IN THE OLD COUNTRY.

#### IX. Rome.

No other place in the whole world can have the absorbing interest for the general traveler that "The Eternal City" commands for each visitor who enters its gates. While it is generally believed that no city or building can exist forever, yet the nearly three thousand years which Rome has existed, would give an appearance of truth to the title given it of the everlasting city, especially as it is now in better condition generally, as to its buildings and streets, than at any time during its whole history. Its mighty temples and palaces of two thousand years ago have disappeared or are in ruins, but other mighty churches and handsome stone structures are on the banks of the Tiber to give tone to its claim for eternal honors. Once it had over one million inhabitants, of whom, however, a vast majority were but little better than slaves. It now has a population of half a million citizens who are far happier and more prosperous than their predecessors of a millenium ago.

A visit to St. Peter's church, the largest one in the whole world, is perhaps the best beginning for the tourist. To give the figures of its measurements could scarcely convey to the mind the magnitude and grandeur of the edifice. The cost of all the church buildings in the State of Kansas, added to nearly all that Missouri possesses, would about represent the many millions of dollars expended in the erection of this cathedral and its maintenance to the present time.

Among its many beautiful alters, one is sure to find, at one or more, a mass being sung at any hour of the day, and at all hours a constant stream of visitors can be seen.

While a devout congregation of worshippers are kneeling before the holy images, another congregation of visitors less devout are wandering around and among them, viewing the rich furnishings and church statuary. Near the center of the immense interior is situated the statue of St. Peter, and it is surely very amusing to the secular wanderer to see the constant flow of religious ones as they reverently approach it, place the right hand on top of the right foot, with the left wipe the toes and then kiss them, then bowing the head to touch the toe they again kiss and leave, their lips moving in prayer.

From the church one goes into the Vatican galleries to see the vast store of rich paintings and statues. At the entrance he finds a company of Swiss guards in handsome uniforms. A description of the many beautiful pictures and marbles to be seen can not be undertaken in this letter, but there are enough to keep one viewing and studying for a full week.

A special permit obtained will enable one to go up several flights of

stairs to the Sistine chapel, where the celebrated works of Raphael and Michael Angelo can be seen. The guide tells you that the Pope lives in that wing of the Vatican, pointing from a window as one ascends to the chapel. To the right are pointed out the gardens of the Holy Father. But the Pope is very old, 93 years of age, and it is reported that he is dying, but the general visitor would not be apt to see him, even if he were well and strong. [This was written before the death of the Pope.]

From St. Peter's an easy walk to the bank of the Tiber brings one to a very noted structure, known as the Castle of St. Angelo; this was built 1767 years ago by the Emperor Hadrian, to be his tomb, and to serve the same purpose for his successors. It is a mammoth circular stone building 240 feet in diameter, and in height 165 feet. The place where Emperor Hadrian was entombed is pointed out, but that gentleman did not occupy his tomb in peace, as the Roman wars caused this tomb to be converted into a fortress. The view from the top gives one an excellent idea of the city, as to the location of noted places, and the seven hills which formerly constituted ancient Rome.

A carriage ride across the city, from St. Angelo, brings one to the Colosseum, a name familiar to nearly every school-boy in America. Here Spartacus made his speech to the gladiators, chariot races were indulged in and thousands of Christian martyrs were torn into pieces by wild beasts in the arena, for the amusement of the wealthy folks of the city. Of the ancient walls erected 1823 years ago, over one-half have disappeared, though enough remains to give the traveler a fair idea of its former size. On July 4, a party of forty American ladies and gentlemen met at the Colosseum, in the evening, to view the place by moonlight, and to celebrate America's National holiday. A couple of speeches were made, our National hymn sung, and then for two hours all enjoyed wandering among the ruins and viewing them by the light of the nearly full moon which was furnished brilliantly for our benefit.

The pilgrims to Rome in the eighth century were pleased to say:

"You all do know this mantle,  
I remember well the time, first, Great  
Caesar put it on."

Money being the great article of value and measurement of size, it might be mentioned that the material in the Colosseum ruins is worth for building purposes, about two and one-half millions of dollars.

The Triumphal Arch of Constantine is located a few hundred yards from the Colosseum walls, and only a short distance away is the Arch of Titus, which was built in honor of Vespasian's victory over the Jews and the destruction of Jerusalem; and from this Arch one enters the ruins of the ancient Forum of Rome. A complete description of all that can be seen here would be too lengthy for the columns of the KANSAS FARMER. To the beholder, while viewing the broken columns and ruined temples, comes the thought of Caesar who was killed here, and then cremated in the Forum after the famous speech of Mark Antony, in which he held up the cloak and said (according to Shakespeare):

"While stands the Colosseum, Rome shall stand,  
When falls the Colosseum, Rome shall fall,  
And when Rome falls, with it shall fall the world."

A short distance away from the Forum the visitor comes to the ruins of the baths of Caracalla. To view a bath-house of the present day is not a sight of much moment, but when one sees the mighty ruins of walls, and the remnants of mosaic pavements, the arena for chariot races, the traces of the libraries, etc., he can not but realize that the most extravagant of building enterprises in 1903 are but as pigmies in comparison with what Rome had 2,000 years ago.

The Palatine Hill near by claims the attention next. Here the ruins of the Palace of Tiberius, the house of Claudius Nero, the temple of Magna Matre, and many other ruins can be seen. The place where the Emperor Caligula was murdered is shown, and the guide

is eloquent enough to demonstrate with his arms and body, about how the deed was performed.

To see all that Rome has for exhibition would require not less than a month of time. Our party were all of the opinion that it is a beautiful city at present, and that its churches and ruins are exceedingly interesting and well worth the week we spent there in viewing them. N.

#### Seasonable Recipes.

**Soup.**—Season one pint of thick stewed tomatoes with salt, paprika and a little butter. Scald one pint of milk and thicken it with two tablespoonfuls of flour. Press the tomatoes through a sieve, stir into them one-fourth teaspoonful of baking soda, add the boiling milk and serve immediately.

**Stuffed with Corn.**—Cut a thin slice from the tops of as many tomatoes as will be required, and carefully remove a spoonful of the pulp. Fill the hollows with well-seasoned cooked corn, cover with buttered crumbs, and bake half an hour in a moderate oven.

**Scalloped with Corn.**—Put a thick layer of stewed tomatoes in the bottom of a buttered pudding dish, cover it with a layer of cooked corn, cut from the cob and nicely seasoned; add a tablespoonful of butter cut in little bits; then another layer each of tomatoes and corn. Strew buttered crumbs over the top, and bake for twenty minutes in a moderate oven. This makes a most delicious dish.

**Curried.**—To each quart of stewed tomatoes allow one cupful of well-washed rice, salt to taste, and one teaspoonful of curry powder. Put a layer of the tomatoes in the bottom of a pudding dish, then one of uncooked rice, another of tomatoes, and so on until the dish is full, having the top layer of tomatoes. Sprinkle with buttered crumbs, and bake in a moderate oven for half an hour or longer.

**For Breakfast.**—Scald and peel ten medium-sized tomatoes, slice them in a saucepan, add two tablespoonfuls of butter, and seasoning to taste. Let simmer until cooked, then stir in five well-beaten eggs, stir and cook for three minutes, and serve at once on hot buttered toast.

**Deviled.**—Select six large, solid, ripe tomatoes. Peel them, and cut into slices half an inch thick. Dust with salt and pepper, dip in fine crumbs and fry in butter. When cooked, lift each slice out carefully with a cake turner, and lay on a hot dish. Pour over them a sauce made as follows: Cream half a cup of butter, add four teaspoonfuls of powdered sugar, two teaspoonfuls of mustard, half a teaspoonful of salt, a dash of cayenne, the yolks of two hard-boiled eggs rubbed to a paste, two raw eggs slightly beaten, and a quarter of a cupful of vinegar. Cook the sauce in a bowl over a boiling teakettle while the tomatoes are frying. When thickened pour it over the tomatoes and serve at once. A very nice way is to place two or three slices of tomatoes on a small round of hot buttered toast, and pour the sauce over all.

**Peach tapoca:** Soak a cupful of tapoca for twelve hours, add a quart of water and cook in a double boiler until transparent. When cooked add a cupful of sugar, a teaspoonful of lemon extract and six large, mellow peaches pared and cut into very thin slices. Stir gently together and set away to harden.

**Peach pie:** Peel, stone and slice the fruit. Line a plate with crust and fill with fruit. Sweeten well and add a little water with a teaspoon of flour sifted over. Bake with an upper crust and serve with sugar and cream.

**Peach short-cake:** Make a rich biscuit dough, putting together with the least possible handling, roll into sheets, one-half inch thick, place one sheet on top of the other and bake in a well-greased pan. When baked separate and butter them. Then spread between the crusts and also on top a thick layer of mellow peaches, sliced and well sweetened. Serve hot with sugar and cream.

**Steamed peach pudding:** Sift two cupfuls of flour, two teaspoonfuls of baking powder and a pinch of salt.

## Journal of Agriculture

328 Pages Cook Book 2,000 Receipts

This Book was written by Farmers' Wives for other Farmers' Wives. It is the simplest and most practical Cook Book ever sold

FOR 60 CENTS.

Sent post-paid to any address.

ST. LOUIS JOURNAL PUB. CO.  
St. Louis, Mo.

Add enough milk to make a thick batter, beat thoroughly and put a spoonful of the batter into each of six buttered cups. Then add a thick layer of sweetened peaches, fill the cups with batter and set in a steamer over boiling water for thirty minutes. Serve hot with peach syrup.

#### The Return of Beauty.

The beauty and health you so much desire will never be yours if you begin each morning with worry and hurry and a useless waste of the nerve strength which is essential to good looks. If you wish a return of your youthful beauty or wish to retain your girlish appearance, be careful of your diet and exercise and then see to it that you have the happy heart of a child. Happiness is the greatest beautifier known, and if every tired woman could abandon herself to pleasures in the same care-free way she did as a little child, the wrinkles would soon disappear, the cheeks would become plump and rosy and the eyes would dance with joy. A happy face is never ugly. If the disposition has become soured and the heart feels like lead then the woman must take lessons in being light-hearted and force herself to learn them well. If you have forgotten how to play, learn how. When you have a few spare moments, forget every care and trouble and go out and frolic with the children with an abandon that will make you, for the time being, one of them. A merry-hearted friend of mine has now a grown-up son and daughter, yet I very often see her playing games with her boys and girls which she seems to enjoy as much as they do. Her pretty, happy face is an inspiration. Help the children blow soap bubbles; many beauty-seekers spend hours in this sport, as it removes the wrinkles from the eyes and about the mouth and gives a roundness to the cheek. Skip rope, run races, play tag, and in a few weeks you will feel ten years younger and probably look it. You haven't time? You would call a woman foolish who refused to invest one dollar now, were she sure of having it increase to one hundred in a few months. And you are just as unwise if you refuse to devote a few moments each day to the recreation of your health and beauty. Your investment will result in a life prolonged by many years and they will be years of brightness, happiness, and health.—*Prairie Farmer.*

#### Booker T. Washington and the Florida Colonel.

An old Florida colonel recently met Booker T. Washington, and in a bibulous burst of confidence said to the negro educator:

"Suh, I'm glad to meet you. Always wanted to shake your hand, suh. I think, suh, you're the greatest man in America."

"Oh, no," said Mr. Washington.

"You are, suh," said the colonel, and then, pugnaciously: "Who's greater?"

"Well," said the founder of Tuskegee, "there's President Roosevelt."

"No, suh," roared the colonel. "Not by a jugful; I used to think so, but since he invited you to dinner I think he's a blank scoundrel."—*Everybody's Magazine.*

Proclaim not all thou knowest, all thou owest, all thou hast, or all thou canst.



## Miscellany.

### TILLAGE AND FERTILITY.

The following papers are from members of Prof. A. M. TenEyck's class in "Agriculture," and are a part of the regular class work:

#### Points to Be Observed in the Selection of Seed-Corn.

C. E. HAZEN.

Every cultivated crop which grows from the seed as does Indian corn, is improved by careful selection of the seed. If no attention were paid to the selection of seed-corn, it would in the course of time degenerate to almost the original form which had a small cob with few kernels and was low in percentage of protein. If, however, careful selection is continued from year to year the desired qualities can be secured and a high standard of perfection maintained.

The model seed kernel is a long, almost rectangular, rather thick grain, having a large germ. The depression at the crown should be wide and about one-eighth of an inch deep. A large kernel shows vitality and a kernel wide at the germ end and having a large germ is richer in protein and hence of more feeding value than a kernel with a narrow tip. A few years of careful selection will breed out the rounded, flinty kernels, and greatly increase the feeding value of the crop. Rather soft corn is easily eaten and gives better results when fed. As each variety of corn is originated by selection, a standard of perfection for that variety should be procured and by selecting such seed as most nearly approaches the standard, the valuable properties become more fixed, and the qualities tend to become permanent.

In selecting seed-corn, take a good-looking ear, shell off the kernels at the ends, and notice if there is any space between the kernels at the germ end and whether they fit snugly all the way up to the cap, where a furrow not greater than one-sixteenth of an inch wide should be left between the rows. A furrow only one thirty-second of an inch wide is even more desirable. The cob should be rather small, a cross-section occupying about one-third of the area of the cross-section of the ear. Do not discard the end kernels, because to discard them means to raise corn which does not have the end kernels well developed. They also grow stalks valuable because they supply a superabundance of pollen as well as developed kernels on the ends of their ears. (Some hold the above to be true, many do not.)

The model ear of a general-purpose corn should be almost cylindrical or very gradually tapering; about ten inches long and seven in circumference near the middle of the ear. The shank should be strong and about one-half as large in diameter as the cob. Too large a shank means hard shucking. The rows of kernels, eighteen to twenty-two in number, should extend from the junction of shank and cob straight to the other end of the ear, terminating in a cap kernel on the tip, no cob being visible except where the shank is broken off. If the rows wind about the cob or run out before reaching the end, and a half-inch or so of cob is exposed on the tip, although the kernels be good, the ear is not desirable.

In buying corn in Kansas, it is best to buy seed grown in Kansas because it has become acclimated and can stand the extremes of wet and dry better than the more tenderly nurtured corn from Iowa and Illinois. It is noticed that seed-corn from central and western Kansas has a larger germ than Eastern corn, therefore greater vitality. The farmer who buys Western seed does not always get the large, perfect ears that his neighbor does who buys from Iowa, but he gets seed that will grow and produce more feed than the others.

Some of the fine, heavy yielding corn in the East which is such a boon there will not do anything when exposed to the Kansas hot, dry winds. It is a good plan, however, to buy pure-bred corn from the East or North and grow a small patch each year for five

or six years when it will become acclimated. Always buy seed-corn on the cob, then will be seen to better advantage what the value of the seed is. Pure-bred corn is always best when the right variety is procured, the one that does well under certain circumstances. The best corn to use as seed is pure-bred corn which has yielded well in the vicinity for several years. A farmer can do nothing better than get seed which has been grown in his vicinity under adverse circumstances for some time and yet yielded well. Hardiness is bred in every fiber of such corn.

#### Points to Observe in Selecting Seed-Corn.

CLARENCE H. WHITE.

The proper method of selecting seed-corn is not very well known by most of the farmers of Kansas, and in fact, I think I would be safe in saying that many of them have not even heard of the modern ways of selection.

Most farmers will go to the corn-crib and pick out the largest ears they can find, and those having the largest cobs, believing there is a larger percentage of corn on a large cob, and pay no attention to the shape of the ear, the tips and butts, the shape of the kernels, and the value of the corn in regard to the oil and protein. This is a poor method of selecting seed-corn.

A good seed ear should be of medium size, about ten inches long and seven to seven and one-half inches in circumference. The butts should be well covered with corn clear to the shank and in rows that run lengthwise with the ear. These butt grains should not differ so very much from the other grains. In the perfect ear the tip should be completely covered, having a "cap grain" on the end. An ear of corn with the cob not well covered with kernels at the end is a poor seed ear.

The shape of the ear is important. It should be too tapering, still a slight gradual tapering toward the tip is considered a good shape in some varieties. The kernels on the ear must come up to the standard shape and the rows should not be too far apart. A good grain is one that is deep (or long), straight edged, fairly broad at the top, and at bottom of grain not too pointed, as the lower part of the grain contains the most protein and oil and hence should be well developed, thus increasing the feeding value of the corn. As a rule, grain well dented at the top is considered best, as the dent indicates a large growing capacity. However, this dent in the kernel depends a great deal on the kind or breed of the corn. Some corn is not dented at all and the kernels are usually hard, hence known as flint corn. Most flint corns are early maturing varieties, but a few are late. The varieties not dented usually have a wide space between the rows of kernels, which is very undesirable, as this space filled up would mean more corn to the ear.

The cob must not be too large. True, it does give a larger surface for the kernels to grow on, and hence more rows of corn sometimes, but there is a tendency in large-cobbed ears to have short kernels, thus the cob is covered with a shallower depth of corn. This condition is not desirable, as it can readily be seen that longer, deeper kernels mean a larger per cent of corn.

Ears that have grains with large germs in them are most desired, as this not only indicates great vitality and a thrifty plant, but also an ear that contains a great deal of oil and protein, since the germ part of the kernel is richest in protein and oil.

The ears intended for the selection of seed-corn should be picked or gathered while husking corn in the fall, or when it is entirely ripe or dry. It is well to take into consideration the stalk from which the ear comes, if you wish to breed up your corn properly. Note the foliage and see whether the stalk produces too much fodder and not enough grain, or vice versa. See also that the ears of corn are the proper height from the ground and breed for that standard. In this way, in a few years you can have corn growing that has the amount of foliage neces-

sary for the conditions required, and the ears of corn at such a distance from the ground that you do not have to reach down or up for them when husking. By proper selection of seed-corn while in the field corn can also be bred so there will not be too long a stem or shank to the ears.

I think in the future, as the farms become smaller, that the old theory of "more land more corn" will die out, and more attention will be directed toward less acreage and better breeding, and thus larger and better crops will be obtained.

#### A Good Ear of Corn.

W. W. STANFIELD.

A good ear of corn must possess a combination of such qualities as make it valuable. There are two considerations that determine largely the value of an ear of corn. There are many standards of perfection by which an ear of corn may be judged dependent upon the use to which the corn is to be put.

The primary purpose of corn, as of all living things is the perpetuation of its own species. The ear of corn that has not the vigor and prepotency to produce other corn true to its type is not a good ear. While corn and its by-products have been put to many uses, its chief use after seed purposes is for feed. These two are so closely related that a consideration of the one involves the consideration of the other. As in all classes of animals there are common characteristics, so in all varieties of corn there are characteristics common to all.

In selecting a good ear of corn one naturally chooses the largest, other things being equal. The size of the ear varies chiefly with the type and the locality. The ordinary length of a good ear of corn is from 9 to 11 inches, and the average circumference is from 7 to 8½ inches. An acre of land is capable of supporting a limited number of plants and as each plant tends to produce one ear of corn and one only, it is highly important that the ear should be large and well developed.

The proportion of corn to cob is a very important consideration. The cob is comparatively worthless and the ear that is 90 per cent corn is much more valuable than the one that is 80 per cent corn.

The ears should be uniform in size, the tips and butts well filled out with regular rows of well-shaped kernels, and the color should be uniform. The kernels should be wedge shaped and of the same size. The wedge shape permits the largest number of rows to the cob and makes possible the utilization of all the space on the cob. Chemical analyses have shown the germ and the hull to contain the largest per cent of protein and oil, hence the kernels that have the largest percentage of germ and hull are the most valuable and therefore the best and the most desirable.

#### Improved Seed-Corn.

A. D. COLLIVER.

Systematic seed selection is a problem which has been taken up by corn-growers in the last eight or ten years, although such men as Mr. Leaming, Mr. Reid, and Mr. Riley began to improve seed-corn as early as 1875.

The value and possibilities of an extended and systematic selection of seed-corn will be made apparent by a few statements. In Illinois it was found that about one-third of the corn-stalks were barren. These barren stalks are weeds and may be considered even worse than weeds for they not only sap the soil of plant-food and moisture but their undesirable qualities are spread throughout the field by their pollen, fertilizing the kernels of ears on the producing stalks. However, this large per cent of barren stalks is not found in Kansas corn. We seldom have 10 per cent, even in unfavorable seasons, and it is often less. One reason for this is perhaps that our seasons are generally unfavorable in some respects, so that only the healthiest, most vigorous stalks mature their ears. In Illinois, by careful selection the per cent of barren stalks has been reduced from about

### HEALTH INSURANCE

You can insure yourself against disease and save big doctor's bills by keeping in the house a supply of

### Watkins' Standard Remedies

Buy of our agent, the bonded representative of the largest medical laboratory of the kind in the world. Capital stock \$500,000. He guarantees all our Remedies. Watkins' Home Doctor and Cook Book (100 illustrated pages) gives safe home treatment for all diseases of man or beast. 15¢ free. Write to-day for it.

The J. R. Watkins Medical Co.  
25 Liberty St. Winona, Minn.

Always look for this Trade Mark.

## PIANO

Do You Want a Genuine Bargain

Hundreds of Upright Pianos returned from renting to be disposed of at once. They include Steinways, Knabes, Fishers, Bechsteins and other well known makes. Many cannot be distinguished from new. All are offered at a great discount. As \$100. Also beam-organ at \$125, \$150, \$175, \$200, \$250, \$300, \$350, \$400, \$450, \$500, \$550, \$600, \$650, \$700, \$750, \$800, \$850, \$900, \$950, \$1000. Write for list and particulars. You make a great saving. Pianos warranted as represented. Illustrated Piano Book Free.

## FROM

## LYON & HEALY

29 Adams St., CHICAGO.

World's largest music house; sells everything known in music.

## "SUNFLOWER CURE."

For Chigger and Mosquito Bites.

Relieves the Itching and Burning by killing the poison of these or other insects. Will not burn or stain the flesh.

DIRECTIONS:

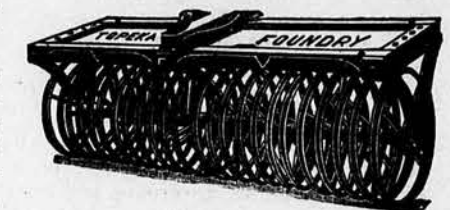
Shake and apply to affected parts with cork or cloth.

At Druggists, or by mail on receipt of 25 cents.

THE SUNFLOWER CO.,  
Atchison, Kansas.

## PACKER PULVERIZER ROLLER.

A full stand of wheat guaranteed.



A good stand means a full crop.  
You cannot fail if you use our Packer.  
Write for circulars.

..Topeka Foundry..  
Topeka Kansas.

30 per cent to 10 per cent. As it takes the same amount of labor and expense to plant and cultivate a field of corn in which 30 per cent of the stalks are barren as it does one in which only 10 per cent are barren, the difference of 20 per cent, or from 10 to 15 bushels per acre, is pure profit to the farmer. By careful selection at the Illinois Experiment Station the per cent of oil has been increased from 6 to 10 or 16 per cent. A bushel of unimproved corn contains about 3½ pounds of oil, while a bushel of specially improved corn contains about 5½ pounds of oil. The Chicago Glucose Sugar Refining Company make the statement that they are willing to pay 5 cents more per bushel for corn that contains one pound more per bushel of oil, than the average 3½ pounds. This company buys annually about 50,000,000 bushels of corn. If the oil constituent is increased one pound per bushel it will add \$2,500,000 to the value of the corn bought by this one company. If the oil constituent can be increased to such a large extent it is possible and

(Continued on page 856.)



## NO PANIC THIS TIME.

(Continued from page 837.)

amount of that community's money went to New York and will not return. The bank loaned it at a time when cattle-feeders and others had their money on deposit and expected it returned by the time these would want to withdraw their balances and to borrow a few hundreds or a few thousands for their usual operations in live stock or other commodities. If the supposed speculator's operations were large, his losses and inability to return the borrowed money to the bank might make it necessary for the bank to require payment from his endorser. This would cripple the endorser, who, if doing business in the ordinary way, owes a good deal on his goods. His creditors find that he is "shaky." Their investigation shows that he was mixed up in the Steel Trust losses. While he could easily pay, they were in no hurry for their money. Now that he is embarrassed, they all must have settlement immediately. His property goes under execution and those who were in any way connected with him are affected.

In cases where the dabbling in Wall Street's game have been extensive, whole communities have been involved. In some cases the evil has been so widespread that the entire country has been affected. The money of the country has been drawn to New York and panic has been the result. Properties have lost in value and everybody was afraid to invest in them.

At the present time, immunity of the country at large from the dire effects of the "slump in Wall Street" results chiefly from the fact that people throughout the country have bought far less of the paper "properties" than the makers of the same had hoped they would take. In the proportion of the disappointment of the promoters is the immunity of the country from harm.

There are other factors which have worked powerfully against the creation of a panic. Among these is the increase in the money in circulation. The official reports of the U. S. Treasury state the amount per capita to have been \$22.82 in 1890, while the amount for August 1, 1903, is \$29.55. The increase has been steady for several years. This tends to advancing prices for things bought and sold. Panics are not easily brought on while this condition continues.

## KANSAS HORTICULTURISTS IN LINE.

The Kansas commissioners for the World's Fair have selected Mr. W. F. Schell, of Wichita, to create and have charge of the horticultural exhibit. It is understood that a liberal allowance from the State appropriation will be placed at Mr. Schell's disposal so that with Mr. Schell's well-known ability it needs only the cordial cooperation of the horticulturists of the State to assure an exhibit of which all Kansans will be proud.

It has been widely published that Mr. Schell is not a member of the State Horticultural Society. So confidently was this statement made that even his friends accepted it as true. This turns out to be a mistake, however. Mr. Schell is a member whose dues are paid for the current year and has the secretary's receipt therefor.

The trustees of the State Horticultural Society will meet to-day to consider with Mr. Schell plans for obtaining and making the State exhibit. Without doubt Kansas will make a great display.

## Drainage Questions.

EDITOR KANSAS FARMER:—I am calculating on putting in some drain tile to drain wet land and would be pleased to have the following questions answered in the FARMER:

Is it practical to put main tile on a level or should it have a certain amount of fall? How much fall should the lateral branches have? If there is alfalfa sowed on the ground, will the roots grow in and stop it up?

Jefferson County. E. M. RECKARDS.

In his excellent work on "Physics of Agriculture," Professor Henry says: "Generally drains should be given as

much fall as the conditions will permit and the gradient should not be less than 2 inches in 100 feet if this can be secured. Cases will occur where less must be accepted and then careful leveling must be done to secure the largest fall available.

"Effort should be made to secure throughout the course of a main or lateral drain a uniform fall, and never, where it can be well avoided, change from a steeper to a less steep grade, because if this is done there is danger that sediment may lodge where the fall is less and close up the drain. The case is different where a change can be made from a small fall to one which is greater, for then whatever sediment is carried by the water along the flatter slope will be carried down the steeper one."

The editor has seen no account of experience with tile drains under alfalfa.

## How Big Is the Kansas Wheat Crop?

The Kansas City Star has collected and compiled the following report of the Kansas wheat crop of 1903:

"The thrashing of the Kansas wheat crop has progressed far enough to show that the total yield will not fall far short of 100 million bushels. Replies to 200 inquiries sent out by the Star, asking millers and grain-dealers for reports as to the actual thrashing results, suggest a total of 93,426,000 bushels. Comparatively little thrashing has been done in the western part of the State, where the largest crop was raised, and later reports may raise the figures closer to 100 million bushels. The average yield for the whole State, as indicated by the reports received by the Star is 16.36 bushels.

"It is the biggest wheat crop ever raised by Kansas or any other State. The largest crop prior to this year's was 90,333,095 bushels in 1901, and the next to that, 77,339,000 bushels in 1900.

"Nearly 60 per cent of this great wheat crop—the largest in the State's history—is in the western half of the State. The estimated yield in the counties west of the center is 19.5 bushels per acre, while the average for the counties in the eastern half is 13.36 bushels.

"The big western wheat counties report many fields yielding 30 to 40 bushels per acre and comparatively few below 15 bushels, the latter being on fields carelessly planted on stubble land.

"Thirty-four counties raised over a million bushels each, and four more reached so close to that figure that final returns may place them in the million-bushel class.

"The frequent estimates of a moderate wheat crop in Kansas this year have arisen from the fact that wheat was badly damaged in a few of the important counties and yielded poorly in most of the unimportant counties in the eastern part of the State. For example, Dickinson County reports only 12 bushels per acre. Harvey County produced only 8 bushels per acre, McPherson 10, Marion 9, Rice 14, Saline 13, Sedgwick 12, and Sumner 11. All these are counties that usually have high average yields, but this year, on account of Hessian fly damage, or because of excessive rains, or in some cases on account of a short dry spell at a critical time, they fell short.

"The quality of the crop is generally very fine in the western half of the State. Most of the wheat in that section will be No. 2. In some of the big central counties, on the other hand, there is much thin, lightweight grain. McPherson, Mitchell, and Ottawa Counties report very little No. 2 wheat; Dickinson, Cloud, and Rice correspondents think one-third will grade No. 2; Harvey County, with the lowest average yield, reports nearly all the crop No. 2; "a most unusual circumstance—small yield and fine quality," remarks one correspondent. Over half the entire crop is No. 2 wheat. Some big southern and western counties report all No. 2. Even the lightweight wheat is of good milling quality and excellent color.

"The reports upon which this estimate of the crop is based are believed to be from the most reliable men that

could be chosen in their respective localities.

"The following table gives the area, estimated yield per acre, and crop of each county:

	Acres.	Average per acre bus.	Total yield bus.
Allen	6,893	15	103,000
Anderson	2,271	12	27,000
Atchison	23,840	12	286,000
Barber	54,472	20	1,090,000
Barton	249,375	18	4,488,000
Bourbon	5,760	10	57,000
Brown	41,915	12 1/2	524,000
Butler	23,075	10	230,000
Chase	4,324	10	43,000
Chautauque	16,658	10	167,000
Cherokee	36,208	7	253,000
Cheyenne	3,863	20	77,000
Clark	8,049	20	160,000
Clay	56,960	16	911,000
Cloud	102,436	17	1,741,000
Coffey	3,773	10	37,000
Comanche	13,845	18	250,000
Cowley	87,508	11	962,000
Crawford	27,238	8	218,000
Decatur	81,288	25	2,022,000
Dickinson	92,951	12	948,000
Doniphan	37,886	10	378,000
Douglas	22,415	12	269,000
Edwards	37,597	18	1,576,000
Ellis	11,198	10	112,000
Ellsworth	173,526	20	3,470,000
Finney	129,763	18	2,336,000
Ford	2,964	20	59,000
Franklin	54,231	20	1,085,000
Geary	4,702	12	56,000
Gove	13,490	17	229,000
Graham	28,654	18	516,000
Grant	78,776	22	1,733,000
Gray	11,680	20	233,000
Greeley	209	20	4,000
Greenwood	2,519	15	37,000
Hamilton	226	20	4,000
Harper	153,854	16	2,461,000
Harvey	79,931	8	639,000
Haskell	2,646	20	53,000
Hodgeman	33,397	15	501,000
Jackson	4,990	13	58,000
Jefferson	12,898	15	193,000
Jewell	46,404	14	650,000
Johnson	18,916	14	265,000
Kearny	276	20	5,000
Kingman	139,943	12	1,679,000
Kiowa	43,463	18	783,000
Labette	41,794	8	334,000
Lane	41,049	18	738,000
Leavenworth	30,553	12	366,000
Lincoln	100,069	20	2,000,000
Linn	8,229	10	82,000
Logan	19,149	18	345,000
Lyon	2,543	16	40,000
Marion	75,575	9	680,000
Marshall	39,126	15	587,000
McPherson	168,788	10	1,687,000
Meade	11,375	18	205,000
Miami	7,608	15	114,000
Mitchell	132,315	16	2,117,000
Montgomery	34,274	7	240,000
Morton	2,823	15	42,000
Morris	317	16	5,000
Nemaha	10,786	14	151,000
Neosho	13,445	10	134,000
Ness	87,201	20	1,744,000
Norton	66,539	22	1,464,000
Osage	2,771	13	36,000
Osborne	124,593	20	2,491,000
Ottawa	95,922	15	1,439,000
Pawnee	156,863	20	3,137,000
Phillips	97,088	17	1,650,000
Pottawatomie	3,848	11	42,000
Pratt	135,720	19	2,579,000
Rawlins	64,597	20	1,291,000
Reno	191,452	16	3,063,000
Republic	43,343	19	823,000
Rice	168,798	14	2,355,000
Riley	7,069	25	84,000
Rooks	159,085	25	3,975,000
Rush	152,315	20	3,046,000
Russell	13,264	16	212,000
Saline	110,282	13	1,433,000
Scott	5,872	18	106,000
Sedgwick	153,504	12	1,842,000
Seward	770	20	15,000
Shawnee	4,772	15	71,000
Sheridan	59,685	20	1,193,000
Sherman	3,307	20	66,000
Smith	99,351	20	1,987,000
Stafford	170,110	16	2,721,000
Stanton	156	20	3,000
Stevens	290,301	11	3,193,000
Sumner	49,057	20	980,000
Thomas	63,723	20	1,274,000
Trego	9,732	15	146,000
Wabaunsee	58	22	2,000
Wallace	52,283	16	837,000
Washington	15,392	18	277,000
Wichita	11,548	7	81,000
Wilson	3,077	12	36,000
Woodson	8,548	15	128,000
Wyandotte	8,548	15	128,000
Totals	5,709,485	16.36	93,426,000

## Movement of Products.

Internal commerce conditions in the United States as reported by the Department of Commerce and Labor through its bureau of statistics show that the first half of the current year compares favorably with the corresponding period in 1902 or 1901. With a few exceptions, the volume of trade thus far this year equalled, if not exceeded, that of last year, though occasionally falling below the high level of 1901. There is no evidence of a general recession in commercial activities, corresponding to the extraordinary shrinkage in speculative values.

Western staples for this year have gained materially over last year, receipts of live stock at five markets having amounted to 15,126,661 head, compared with 14,958,345 head in the first six months of 1902, and 15,710,300 head in 1901. The numerical decrease from 1901 occurred in hogs, which have been averaging equal to, or heavier than in, 1900, and much heavier than in 1902. Coincident with this, the trend of prices for hogs has been downward. The price at Chicago on July 1 was \$5.79 per hundred, against \$7.61 a year ago.

## Wanted to be Heard From!

If there is an invalid woman, suffering from female weakness, prolapsus, or falling of womb, or from leucorrhea who has used Dr. Pierce's Favorite Prescription without complete success, the undersigned proprietors and makers of that world-famed medicine would like to hear from such person—and it will be to her advantage to write them as they offer, in perfect good faith, a reward of \$500 for any case of the above maladies which they can not cure.

\$3,000 FORFEIT will also be paid if they cannot show the original signature of the individual volunteering the testimonial below, and also of the writers of every testimonial among the thousands which they are constantly publishing, thus proving their genuineness.

WORLD'S DISPENSARY MEDICAL ASSOCIATION, Proprietors, Buffalo, N. Y.

A Massachusetts woman, Mrs. Carrie P. Hanaford, of No. 69 Hale Street, Beverly, Mass., who is well known socially there, being Treasurer of the Order of the Eastern Star, wrote her experience as follows: "Your 'Favorite Prescription' is, without a doubt, the finest remedy on the market to-day, for female difficulties. I suffered for four years with pains every period, and I dreaded the approach of the time as I knew it meant two or three days' misery. Tried several different widely-advertised remedies, and found that they did me no good whatever. One day a friend called, who had suffered as I was suffering, and who told me that she had been cured through the use of Dr. Pierce's Favorite Prescription, so I purchased a package. I found that the real value of your medicine was greater even than my expectations, and the next month I had hardly any pains. The following month had none at all, and found that my general health was much better and new life and strength had come to me."

"Favorite Prescription" makes weak women strong, sick women well. Accept no substitute for the medicine which works wonders for weak women.

The Common Sense Medical Adviser, 1008 large pages in paper covers, is sent free on receipt of 21 one-cent stamps to pay expense of mailing only. Address Dr. R. V. Pierce, Buffalo, N. Y.

Wheat receipts at eight interior markets for the crop year ending June 30, 1903, were 236,675,669 bushels, compared with 221,766,387 bushels in 1902, and 217,058,743 bushels in 1901. The total shipments of provisions from Chicago and Chicago points for the first twenty-six weeks of 1903 were 621,138 tons, against 653,217 tons in the same period of 1902, and 566,029 tons in 1901. Shipments of flour from Minneapolis were 8,379,625 barrels, 7,683,708 barrels, and 7,218,721 barrels, respectively. Six months' shipments of grain from Buffalo by rail were 44,453,900 bushels in 1903, 37,259,404 bushels in 1902, and 39,098,624 bushels in 1901.

On the Great Lakes the tonnage of coastwise traffic shipped from ports reporting to the end of June this year has totaled 20,113,227 tons, compared with 19,439,458 tons in 1902, and 12,621,977 tons in 1901. Coal tonnage for the half year amounted to 7,833,809 tons, of which 5,500,936 was shipped to domestic ports, and 2,322,873 tons to foreign points. Domestic iron ore shipments were 7,936,177 tons, of which 3,922,074 tons were shipped in June. The registered tonnage for six months this year in the domestic trade of the Lakes reached 25,570,757 net tons compared with 25,342,698 net tons in 1902. The freight tonnage via the Sault Ste Marie Canals was 11,994,934 tons in 1903, 11,486,501 tons in 1902, and 6,767,120 tons in 1901.

At the North Atlantic seaboard, grain receipts, including flour reduced to bushels, were as follows for six months:

New York, 62,053,140 bushels in 1903 and 48,831,490 bushels in 1902; Boston 16,867,234 bushels in 1903, and 13,876,398 bushels in 1902; Philadelphia, 20,442,659 bushels in 1903 and 16,865,078 bushels in 1902; Baltimore 16,190,924 bushels in 1903 and 16,069,077 bushels in 1902. Officially inspected receipts at the port of Portland, Me., totaled 6,806,879 bushels, of which 1,653,193 bushels were of American origin and 5,153,686 bushels of Canadian origin.

Figures of coastwise shipments of coal are available for five months from the four ports of New York, Philadelphia, Baltimore, and Newport News. In this period New York has reported 8,073,714 tons shipped, Philadelphia 2,288,331 tons, Baltimore 673,962 tons,



and Newport News 769,306 tons. Receipts of coal at Boston in six months this year were 3,056,972 tons compared with 2,177,732 tons in 1902.

In Southern territory the cotton crop movement covers the first ten months of the current commercial year. Out of a total available supply of 10,739,877 bales, 7,669,716 bales were port receipts, 1,064,140 bales overland shipments and 1,813,500 bales shipments to Southern mills. The total American spinners' takings were 3,899,127 bales, compared with 3,727,737 bales in 1902, and 3,245,559 bales in 1901. New Orleans shipped 21,914,545 bushels of grain, including flour reduced to bushels, in the first six months of 1903, and 5,954,109 bushels in 1902. Galveston's figures were 9,713,131 and 1,178,786 bushels respectively.

On the Pacific Coast 115,284,134 feet of redwood lumber were shipped from California points in the first six months, compared with 110,784,276 feet in 1902, and 102,218,403 feet in 1901. Citrus fruit shipments from southern California for thirty-five weeks were 19,860 cars to July 2, 1903, 15,316 cars in 1902, and 22,387 cars in 1901. The cargo tonnage movement at Tacoma for this half year amounted to 511,882 tons and 714,806 tons for the first half of 1902.

River and canal traffic covers the Monongahela River, on which 5,228,856 tons were reported this half year against 4,677,587 tons in 1902; at Louisville, Ky., 1,161,571 tons and 1,10,930 tons respectively. The New York State canals report a tonnage to the end of June, this year, of 1,031,130 tons, 902,098 tons in 1902, and 915,732 tons in 1901.

Anthracite coal shipments aggregated 31,884,952 tons for six months in 1903, 18,731,880 tons in 1902, and 27,435,952 tons in 1901.

#### Bud-Grafting in the Summer.

Our method of top working large trees is by summer bud-grafting between June and October or as soon as we can find well-ripened terminal buds. For most work we prefer a plump shoot about three inches long but we use scions from one inch to six inches long. We make a long, sloping cut according to the size of the scion and push it under the bark of the stock. We use little scions at the top end of the limb where the bark is thin, using longer and thicker shoots as we work downward into thicker bark, until at the ground, if we wish to replace a tender or injured tree with one on hardy roots, we use a growth from three to six feet and push the scion into the bark several inches below ground where it takes root. Some of these shoots are three-fourths of an inch thick at the base, have side branches and wood two or three years old. The large scions are not so apt to be bitten off by rabbits or smothered by weeds and we gain a year or so by their use.

If we are top-working in sorts slow in coming into bearing or naturally unproductive, we invert the scion upside down, pushing it upward under the bark with the terminal bud hanging downward. In exceedingly wet weather it is best to set all the scions reversed, as too much water in the cut will rot the scions. July and August if not too hot and dry is the most favorable time when the trees are making rapid growth and the descending sap is full of food. This manner of bud-grafting without string or wax proves a success upon everything I have tried. Apples, pears, peaches, nut- and forest-trees, apricots, cherries, and plums must be worked earlier in the season. The most profitable cherry orchard I have is all worked on plums. Our children have begun grafting as soon as allowed to carry a knife, and now at the ages of 7, 8, 11, and 12, have a good idea of natural affinities in grafting and are capable of directing unskilled labor.

In our orchard there are now living probably more than 6,000 grafts set by them last summer. In their regular work if they are asked to put Jonathan on crab, they go to the most profitable Jonathan tree for scions. One of them cuts the ripest twigs, allowing them to drop to the ground; another

one picks them up and takes them to the others, who sit in the shade and strip off the leaves by taking the shoot by the terminal bud between the thumb and finger of one hand and drawing it between the thumb and finger of the other hand. Enough are taken for a few hours' work, laid in a basket and covered with a damp cloth. The smaller child carries the basket and whetstone and hands the scions to the others, who, each with a tree to himself, takes a keen cutting knife and a handful of scions and begins work at the top of the tree.

One long, sloping cut is made on the scion and two cuts on the bark of the stock, the last one raising the bark enough to admit the scion, which is pushed in with one hand, while the thumb of the other rests on the bark to steady the progress of the scion downward, until all the cut surface of the scion is below the bark and resting on the sap wood. Without wax or tying a boy can set two scions a minute and have 95 per cent live. Setting 500 scions is a good day's work for a boy. After the scions are growing the trees are pruned enough to allow the grafts light and air. No severe pruning is done until the grafts have grown enough to absorb the sap and prevent light. Where there are two sorts of apples grown on one tree, they cross pollinate, bear and hold fruit better, but to avoid mixture in picking they should be very distinct sorts, as Northwestern Greening and Winesap, Ben Davis and Patten, Missouri Pippin and Jeffries.—T. Williams, in Field and Farm.

#### Dips for Sheep.

The contention with reference to the relative merits of certain dips for the eradication of animal parasites is waged with continued vigor. As is usually the case, some of the professionals are opposed to what are called commercial dips. These are much liked by many practical stockmen because they require no expert to prepare and use them. In a recent issue of the Michigan Farmer the editor enters into the controversy as follows:

"The Department of Agriculture has issued a bulletin on this subject, prepared under the direction of Dr. Salmon, Chief of Bureau of Animal Industry. It is quite lengthy, and illustrated with cuts of the mite insect in various stages of development, and also of ticks and lice which afflict the sheep.

"The bulletin says that by far the most rational, satisfactory, and cheapest method of curing scab is by dipping the sheep in some liquid which will kill the parasites. It then goes on to tell how to select a dip, and again, after years of experiment and practical use have proved its injurious effects upon the fleece, favors the use of lime and sulfur and so far as he is able, discredits the use of prepared dips which have carbolic acid as a base. This is in the face of years of practical use in this and other States by thousands of wool-growers, who have yet to report any ill-effects from their use. Dr. Salmon, however, is compelled to admit that the carbolic dips have special points of value, and says:

"To summarize, the position of the Bureau of Animal Industry on the lime and sulfur dips is as follows: When properly made and properly used, these dips are second to none and equaled by few as scab eradicators. There is always some injury to the wool resulting from the use of these dips, but when properly made and properly used upon shorn sheep it is believed that this injury is so slight that it need not be considered; on long wool the injury is greater, and seems to vary with different wools, being greater on a fine than on a coarse wool. This injury consists chiefly in a change in the microscopic structure of the fiber, caused by the caustic action of the ooze. When improperly made and improperly used, the lime and-sulfur dips are injurious and dangerous, and in these cases the cheapness of the ingredients does not justify their use."

"The bulletin acknowledges, however, that Professor Gillette did not get the same results as to loss of weight from dipping as did the Bu-

reau. Perhaps the fact that Gillette did his own experimenting while Dr. Salmon did his at long range and through a subordinate, may account for differences in results. Certainly in this State, where carbolic dips are in general use, constant inquiry among flock-owners have failed to bring to light a single instance where the flock was injured by their use. As these dips are also used as vermicides on swine, cattle, and poultry, if there was anything in Dr. Salmon's criticisms it would have become public in the ten or twelve years in which they have been in use. The Doctor then defines his position on the lime-and-sulfur dip, the use of which he has been advocating for years:

"The advantages of carbolic dips are that they act more rapidly than the tobacco or sulfur dips, and that the prepared carbolic dips are very easily mixed in the baths. They also seem, according to Gillette, to have a greater effect on the eggs of the parasite than either the sulfur or tobacco dips. The great disadvantages of this class of dips are, first, in some of the proprietary dips, that the farmer is uncertain regarding the strength of the material he is using; second, the sheep receive a greater set-back than they do with either lime and sulfur or tobacco."

#### Farm Wagon Only \$21.95.

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon, that is only 25 inches high, fitted with 24- and 30-inch wheels with 4-inch tire, and sold for only \$21.95.



This wagon is made of the best material throughout, and really costs but a trifle more than a set of new wheels and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

#### KANSAS FARMER'S NEW WALL ATLAS.

The KANSAS FARMER has arranged with the leading publisher of maps and atlases to prepare especially for us a New Wall Atlas, showing colored reference maps of Kansas, Oklahoma, Indian Territory, the United States, and the world, with the census of 1900. The size of the New Wall Atlas is 22 by 28 inches and it is decorated on the outer cover with a handsome design composed of the flags of all Nations.

Tables showing products of the United States and the world, with their values, the growth of our country for the last three decades and a complete map of the greater United States are given. This is an excellent educational work and should be in every home.

The retail price of this New Wall Atlas is \$1.

Every one of our old subscribers who will send us \$1 for two new trial subscriptions for one year will receive as a present a copy of this splendid New Wall Atlas postpaid, free.

Any one not now a subscriber who will send us 50 cents at once will receive the KANSAS FARMER for five months and will be given a copy of our New Wall Atlas free and postpaid.

#### Business Opportunities for All.

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 creamery men and millers. Good locations for general merchandise, hardware, harness, hotels, banks, and stock-buyers. Correspondence solicited. Write for maps and sample leaflets. W. J. Reed, Industrial Agent, 604 Endicott Building, St. Paul, Minn.

When writing advertisers, mention KANSAS FARMER.

## Thomas County, Kansas

offers exceptional advantages for the home-seeker. I have some choice farms in Thomas County, at prices, which considering the prosperous conditions, are the best bargains to-day on the market.

Write me for Land Buyers' Guide, giving list of many choice farms.

80 acres, level land, 9 miles from town, Thomas County, ordinary improvements; 30 acres cultivated. Price \$700.

160 acres, Thomas County, mostly smooth, 7 miles from Rexford, 10 acres cultivated, balance grass. Price \$1,400.

320 acres, 60 acres cultivated. Price \$3,000.

240 acres, house and barn, good well and windmill; 3 miles from town, all cultivated. Price \$3,000.

480 acres, mile and half from town; 4-room house, stable, sheds. 200 acres cultivated. Price \$5,500.

HILAND P. LOOKWOOD,

102 Bryant Bldg., Kansas City, Mo.

## FINE DAIRY ..AND.. STOCK FARM FOR SALE.

240 acres located on Badger Creek, Lyon County, Kansas, divided as follows:

150 acres in cultivation (100 acres bottom land), 10 acres orchard, 20 acres good timber, 60 acres pasture and meadow land. Good improvements. Eight-room house in nice grove, new creamery building (cost \$750), two good barns, cattle sheds, chicken house, hog house, coal house, two ice houses, two silos (100 tons each), never-failing water, pond and three wells, elevated tank and windmill, underground water pipes with hydrants, two stock tanks with floating valves and tank heater, 40 acres in alfalfa. Three miles from railroad station, 8 miles from Emporia (county seat), 10,000 population. Long-distance telephone connecting with Emporia exchange and all parts of the State goes with the farm. Fifty cows kept on this farm at present. Would like to lease creamery building of purchaser and will contract to take all milk produced on farm by the year. Price \$50 per acre. Easy terms. Address owner,

G. W. PARKMAN, Emporia, Kansas.

## Glad to be Alive

There's all the difference in the world between Colorado air and the air of the plains.

Colorado air is full of "snap" and vigor. It is clear and dry and pure. It tempts you out of doors. It sends the blood tingling through your veins. It makes you glad to be alive

Splendid service from Topeka to Denver and Colorado Springs via the Rock Island System. Information and literature on request.



Low rates daily, June 1 to September 30. Only \$17.50 for the round trip from Topeka.

A. E. COOPER  
D. P. A.,  
Topeka, Kansas.



## In the Dairy.

Conducted by George C. Wheeler, Kansas Experiment Station, Manhattan, Kans., to whom all correspondence with this department should be addressed.

### Profitable and Unprofitable Cows.

"Good judges believe that in the entire country one-third of the cows kept for milk do not pay the cost of their keeping and nearly a third more fail to yield annual profit."

The above rather startling statement was made in the Year-Book of the Department of Agriculture several years ago by a competent authority on the subject.

It hardly seems possible that our farmers would maintain such a proportion of unprofitable cows, certainly not for the mere pleasure of their company. If true, and every investigation along that line indicates that it is, we can only attribute it to ignorance on the part of the professed dairyman as to what cows are making him a profit.

Many experiment stations have carried on work with their farmer constituents and in all cases have found wide variation in the profitability of the cows of the herds.

The Kansas Station investigated eighty-two herds in the leading dairy sections of the State and found that the average annual yield per cow was only 3,441 pounds of milk and 104.5 pounds of butter-fat, valued at \$19.79, an amount yielding little if any profit. For the year 1902 the average value per cow of milk, butter, and cheese sold from Kansas cows was \$10.79. These figures are calculated from the last biennial report of the State Board of Agriculture.

There is some encouragement in the fact that this is the highest average per cow of any year covered in the biennial reports, which would indicate that the Kansas cow is improving at least, but what farmer can afford to keep cows producing only \$10.79 in products annually?

The following is from the New Jersey Station which has been testing a grade herd along these lines: "With milk at \$1 per 100, the best cow gave a profit of \$49.72, while the poorest cow gave a profit of only 13 cents. With butter at 20 cents per pound the best cow paid for her feed and \$46.64 additional, while the poorest cow gave only \$5.84 in addition to cost of feed.

Similar results have been arrived at by other stations and these various reports indicate that there is little profit from a cow that does not produce at least 200 pounds of butter-fat per year.

The prize herd which recently completed a carefully supervised year's record at the Kansas State Agricultural College shows some wide variations in productiveness. These cows are without doubt far above the average Kansas cow.

The following table gives the actual prices received for the products of each cow and the actual cost of grain and roughness at market prices shows very clearly the difference in profitability of a herd of cows which any dairyman would regard as a very even lot:

No. of cow.	Butter-fat value.	Skim-milk value 15c 100.	Total value products.	Cost of grain.	Cost of roughage.	Total cost feed.	G.-in.
242.....	\$66.34	\$9.23	\$75.57	\$18.93	\$23.65	\$42.58	\$32.99
236.....	57.54	8.52	66.06	20.63	23.65	44.28	21.78
244.....	66.19	12.03	78.22	20.88	23.65	44.53	33.69
238.....	42.70	8.02	50.72	13.36	23.65	37.01	13.71
245.....	43.52	7.73	51.25	13.37	23.65	37.02	14.23
241.....	57.88	8.80	66.68	16.06	23.65	39.71	26.97
240.....	55.95	9.68	65.63	16.30	23.65	39.95	25.68
246.....	55.38	6.16	61.54	14.43	23.65	38.08	23.46
242.....	64.61	7.23	71.84	20.27	23.65	43.92	27.92
Total.....	\$510.11	\$77.40	\$587.51	\$154.23	\$212.85	\$367.08	\$220.43
Av.....	\$66.68	\$9.60	\$76.28	\$17.14	\$23.65	\$40.79	\$24.49

The table should be studied in connection with the one published in the KANSAS FARMER of March 19, 1903. It will be noticed that cow 241, standing sixth in amount of butter-fat produced, moves up to fourth for profit over cost of feed; 236, standing fourth on amount of butter-fat produced, dropped down to seventh for profit over cost of feed.

In the column showing value received for butter-fat, cow 243 stands above 244, although 244 produced 10 pounds more butter-fat for the year. This shows that the cow producing the highest yield of butter-fat at the time the highest prices are paid is more profitable than the one producing the

largest quantity at the time of lowest prices. It will be noted in the column showing the total value of products, however, that the larger amount of milk produced by 244 puts her back at the head again, allowing 15 cents per 100 for skim-milk. By taking the six most profitable cows we raise the average profit over cost of feed from \$24.49 to \$28.45 per cow annually. Two cows in the herd barely paid the cost of keeping.

With these figures before us we can only urge the Kansas dairyman to wake up and make a study of the cows. You must keep records and test your cows if you would get down to fundamental business principles. No merchant would carry a line of goods which he could only sell at a loss, and farmers must learn to apply more good business principles to their work. Send your boys to the Kansas Agricultural College and when they return full of enthusiasm and new ideas and methods, encourage them by giving them an opportunity to work some of them out. You need them on the farm, and if you persist in sticking to the same old ruts and will not let the light shine upon your methods you can not expect to keep the boys; they will go to the cities and to other occupations.

It is not such a difficult task to weigh the milk from each cow. It will require a little ingenuity in preparing records and a place to hang them and various other little details. The sampling can be done once a month and if you are near a creamery or skimming-station your operator will tell you how to take samples and will also undoubtedly test them for you. Persistence is required more than any one quality in this work. As you begin to detect the boarders among your cows get rid of them. The profits of the good cows will be more in evidence as you thin out the poor ones.

Some plan of grading up your herd must be adopted. The college "scrub herd," as it is called, has been headed with good dairy bulls, and now has some good half Guernsey heifers which are far better producers than their mothers. If any of them are failures they will have to go with the rest of the poor cows.

A striking example of what may be done in this line is afforded by the dairy herd of the New York Cornell Station. The herd now consists of about twenty cows, mostly grade Jerseys and Holsteins. It has been developed from the ordinary stock of the neighborhood by the use of pure-bred bulls. In 1874 the average milk yield of this herd was a little more than 3,000 pounds. In 1897-98 the descendants of these cows produced an average annual yield of over 7,500 pounds of milk per cow.

E. W. Allen, of the United States Department of Agriculture, writes as follows on this herd: "For seven years past the average annual yield of butter-fat for this herd has been over 275 pounds, which would be equivalent to nearly 325 pounds of butter. The heifers selected from the best cows are milked at least one year, and only such as give promise of being profitable are retained. This process of selection is

still going on. The difference in cost of production is still very large. For instance, the cost of 100 pounds of milk varied from 44 cents to \$1.48, the average being 62½ cents; and the cost of butter-fat ranged with different cows from 11 cents to 27 cents, the average being 15.8 cents. Results along similar lines have been obtained at a number of other experiment stations and the practicability of raising the standard of production by careful selection and intelligent breeding is attested by a large number of progressive dairymen throughout the country."

What the Kansas dairymen need is a better class of cows and this must of course, be preceded by better and

more intelligent care of the cows already owned. The results obtained with the Kansas Experiment Station herd of scrub cows shows what can be done by improved methods in care and breeding. It also shows how useless it was to lavish care and feed upon cows which simply have not the capacity to turn it into valuable products.

We hope the dairymen of Kansas who read this page of the FARMER will forgive us for playing so much on this one string, but we feel very strongly on this subject of improving the dairy cows of the State and believe each individual farmer must apply these principles and methods to his work if he would improve his conditions and raise the standard of production of the Kansas dairy cow. G. C. W.

### Pasteurizing Plant.

A charter has recently been granted for the building of a milk-clarifying and pasteurizing plant to Nissley & Co., of Topeka. This company and some leading dairymen have arranged a consolidation of their interests as regards the milk supply of the city and are planning to meet the demand for an article which will be as free as possible from the danger often lurking in the milk supplied to city consumers.

Pasteurization on a large scale has not as yet been successfully established in this country, so the above-mentioned venture may be regarded as somewhat of an experiment.

There seems to be a difficulty in convincing the American public that pasteurized milk is worth the advance in price required to cover the additional expense. In Europe where a number of the cities are being supplied with pasteurized milk on a large scale, the product is sold as low as ordinary milk or at a very slight advance. Tuberculosis and foot and mouth disease are so prevalent among European milk-cows that the pasteurization of the milk supply would naturally make more rapid progress there than with us.

The fact remains, however, that something must be done to more care-

## DE LAVAL CREAM SEPARATORS

For twenty years the World's Standard  
Send for free catalogue.  
The De Laval Separator Co., 74 Cerilanti St., N. Y.

fully guard the milk supply of our large cities.

Two distinct lines of work are being followed in this effort to protect the consumers of milk; the protection of the source and the treatment of the milk. The first method has resulted in the establishment of a few sanitary dairies in which such extreme precaution is taken that a really safe milk is produced. These dairies usually sell their milk under a special name and of



**A Valuable Cow**

You can add value to any cow with a

**National Hand Separator**

because it will save over 80 per cent. of the loss resulting from the old method of setting. It will separate warm or cold milk, light or heavy cream, and skim clean. We send the National and let it prove its worth right in your own home dairy.

**10 DAYS' USE FREE.**  
Costs nothing if you don't buy—costs nothing if you do, for it pays its cost in what it saves. Send for catalogue.

National Dairy Machine Co.  
Newark, N. J.

**Uncle Sam Knows a Good Thing**

When he sees it, which is the reason he takes so much pride in the

**U. S. CREAM SEPARATOR**

The U. S. has many points of superiority, but the following three are sufficient to make it

The most desirable to own:

- Clean Skimming.**—Holds the World's Record.
- Safety.**—All gears entirely enclosed in iron case.
- Durability.**—Most thoroughly and substantially made.

For further information, write for illustrated catalogues.

For Western Customers, we transfer our separators from Chicago, La Crosse, Minneapolis, Sioux City, and Omaha. Address all letters to Bellows Falls, Vt.

**Vermont Farm Machine Co., Bellows Falls, Vt.**



## Davis Cream Separators

**BEST IN THE WORLD  
EASIEST CLEANED  
MOST DURABLE  
CLOSEST SKIMMER**

CATALOGUES

**DAVIS CREAM SEPARATOR CO.,**  
54 to 64 North Clinton Street,  
CHICAGO, ILL.

Save time and freight by ordering from

**PIONEER IMPLEMENT CO.**  
Council Bluffs, Iowa.



**SHARPLES TUBULAR CREAM SEPARATOR**

Buckets, Buckets, A Multitude of Buckets.

Buckets full of radiating gratings, buckets full of discs, buckets full of vanes, buckets full of blades, buckets full of contraptions. All separators have these "bucket bowls" except just one, the Tubular; a distinct type, an improved separator entirely different from all others. Simple, convenient, safe, durable and efficient. Skims closer and requires less power to run than any other separator. Free catalogue No. 165.

THE SHARPLES CO., Chicago, Illinois. P. M. SHARPLES, West Chester, Pa.



course must receive a much higher price as the precautions taken are expensive. This kind of protection can probably never be brought to have any practical bearing on the milk supply for the masses.

A somewhat less expensive method has been tried in which a board of experts make occasional examination of the milk of a dairy and if it is up to a certain standard issue a certificate. The chief fault of this method is that the one examination must necessarily cover the milk delivered over a considerable period. A modification of this course is a board making careful examination of the source of the milk and issuing a certificate to the dairy thus certifying to the source.

Pasteurization consists of subjecting the milk to a temperature of from 140° to 175° F. These temperatures destroy most of the dangerous bacteria and have very slight physical effects on the milk. Milk may be heated to 155° F. without being changed in taste and that temperature renders the milk comparatively free from bacteria. With the perfecting of apparatus for cheaply and effectively pasteurizing milk in commercial quantities its use will undoubtedly increase in the near future.

This plant which is to be put into operation in Topeka will be watched with considerable interest. G. C. W.

#### Wants a Cheap Dairy Barn.

I am contemplating building a small dairy barn and am at a loss as to plans and specifications. I am on an eighty-acre farm and want to run a small dairy in connection with the breeding of thoroughbred hogs.

I want to build a barn that will accommodate about twelve cows with plenty of room above for hay. I do not want anything expensive but would like to have it as convenient as possible. I do not care to put more than \$175 or \$200 into it.

I expect to run the cows on pasture in summer and feed alfalfa hay in winter. Can have a barn with or without basement. Have a hand-separator and raise the calves by hand on skim-milk.

Do you consider the cow-tie or stanchion the best for confining cows at night? J. R. RICHARDS.

The above letter is referred to, the readers of the dairy page of the KANSAS FARMER. The editor of this page is so much occupied with various college duties at present as to be unable to give much thought to our correspondent's request.

We should be glad to hear from some of our readers who have had experience with plans suitable to the needs of our correspondent. G. C. W.

### The Apiary.

Conducted by A. H. Duff, Larned, Kans., to whom all inquiries concerning this department should be addressed.

#### Starting.

EDITOR KANSAS FARMER:—I am thinking of starting an apiary but have never handled bees. Would it be better to wait until spring or start now? Please describe a frame hive and how handled. Where can one get bees?

F. W. KURTENBACH.

Dickinson County.

You can begin apiary work at any

time in warm weather, but perhaps you will get along better to begin in early spring. You can buy bees much cheaper just now than you can next spring, as prices are always the highest in early spring. It is very good policy to begin with but few colonies, and your apiary will grow as fast as your knowledge in management will. It is always a mistake for one beginning, unless pretty well posted on the subject, to buy a large number of colonies. It is no trouble to find plenty of bees for sale, for almost every beekeeper makes it a part of his business to sell and ship bees all over the country. They will sell you bees in the latest standard hives all in first-class condition and usually guarantee safe delivery. Every beekeeper of note keeps the Italian bees in their purity, and if you purchase from any of these beekeepers, you will get good stock, in good hives, and all in first-class shape so that when they arrive all you have to do is to locate them on the spot of ground selected for them. You should first procure a good work on the management of bees, and at present there are a number of books gotten up by different authors, but all agree on the principal points of management, and all advocate the same kind of hives so that any one of these books will give you about the same instructions. There are also several monthly journals treating exclusively of bees, also a weekly or two. All these are extensively advertised through the agricultural press and may be readily found.

It would be a difficult matter to here describe a frame hive and how handled without the use of illustrations. The circular matter, sent out by all the supply dealers and beekeepers is extensively illustrated and would give you more correct information in a minute than I could here give you in a day. The American Bee Journal, Chicago, Ill., and Gleanings in Bee Culture, Medina, Ohio, are two leaders in their line. A postal card to either will bring you a sample copy, and in these everything in the line of bee culture is advertised, including all the standard books.

#### How to Arrange the Section Boxes.

EDITOR KANSAS FARMER:—Will you kindly give me a reply to the following questions concerning bees? Is it necessary to put anything between the frames of the hive and the crate holding the section boxes? I have one colony of bees that is very strong and the bees come out and hang on the sides and bottom of the hive. Will they swarm again? What do Italian queens cost? ALLEN CROCHETT.

Miami County.

There should be nothing placed between the crate holding the section boxes and the frames of the hive. All standard hives and section holders are so constructed now that no honey board is used, except that in some cases a tin or zinc honey board with slots perforated in it so as to exclude the queen from getting up in the surplus department. The slots are large enough to admit of the bees, but not the queen or drones. While this honey board or partition is used to some extent, yet largely nothing is used.

Your bees lying out over the hive during the day is an indication that they are not gathering much honey, and are idle. In this case they are not likely to swarm again this season. This condition always occurs after the honey season.

The price of Italian queens is governed according to quality. The prices run from \$1 to \$50, and we sometimes hear of \$100 queens. Ordinarily, the price of good queens is from \$1 to \$3. Young laying queens are sold by most breeders for \$1. These are not tested queens, but may be warranted by the dealer to produce pure bees. It takes about thirty days to test a queen, as her first laying begins hatching in twenty-one days, and a few days later you can tell by the color of the bees as to her purity. A queen, even if reared from choice Italian stock, may mate with a native drone, so that her progeny will be a mixture. Tested queens that usually sell for \$2 are well tested in this respect. A choice tested queen and a first-class breeder usually sells

## Two Thousand Witnesses

All happy, contented and satisfied Cream Shippers, testify every day to the merit of our system of shipping a can of cream. Do you want to join this happy family? Are you going to continue to keep the cows, or do you want the cows to keep you? For 360 days we have enrolled on an average five new members every day. Who is next?

Don't Wait. Commence Now.



Empire Separator.

## Blue Valley Creamery Co.

ST. JOSEPH, MO.

at from \$3 to \$5. There is a great difference in stocks of bees as to their business qualities in gathering honey, not only in the different varieties, but in stock of the same varieties.

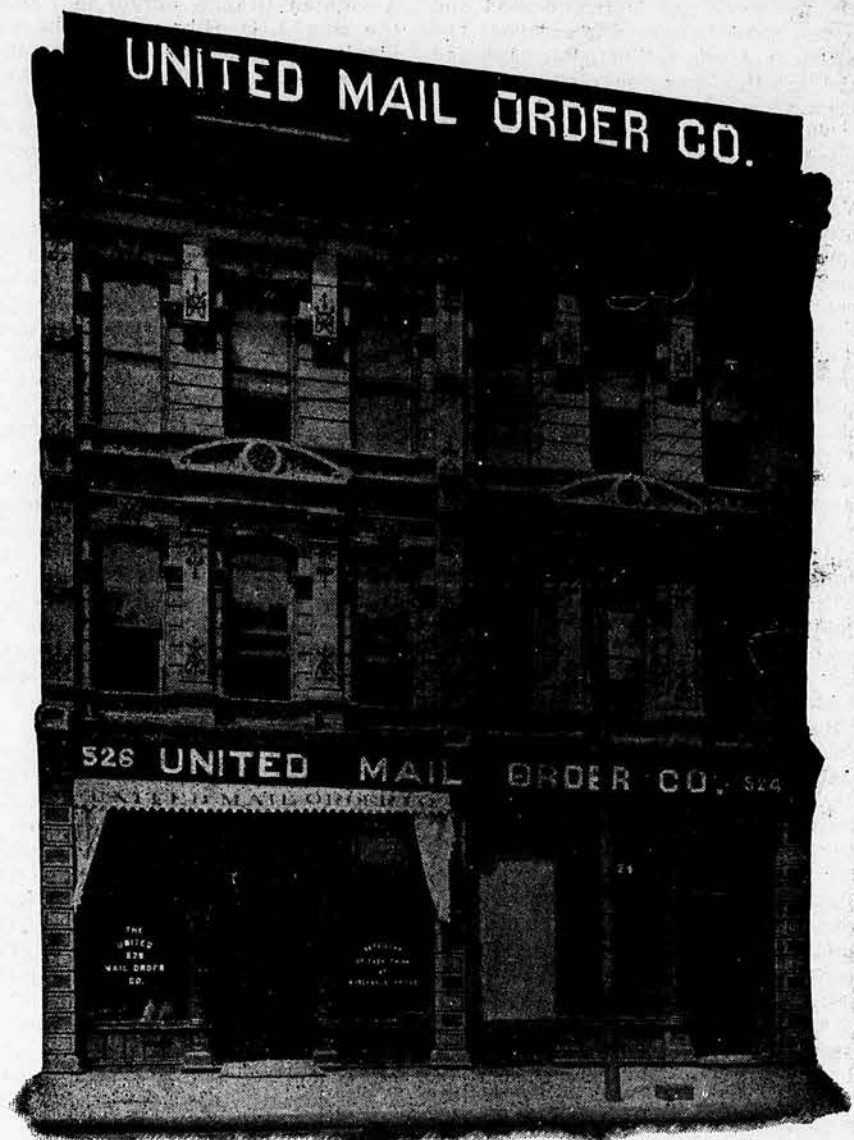
#### Read the Advertisements.

EDITOR KANSAS FARMER:—Will you kindly inform me where I can get the A B C Book of Bee Culture, and what it costs? Which kind of bees are the best to start with? I am a beginner

and any information on the subject will be thankfully received.

Marshall County. GEO. B. HOLMES.

The A B C Book of Bee Culture is kept on sale at about every station where the supplies for the apiary are kept. If you examine the advertisements of the KANSAS FARMER you will doubtless find it. The cost of the book is \$1.25. The best kind of bees to start with, and the best kind to keep are the Italian bees.



The United States Mail Order Company was incorporated by several leading business men of Kansas City last February. They began business at that time on east Twelfth Street, and their business has steadily increased so that they were compelled to seek larger quarters. They now occupy a three-story double brick building at 524 and 526 Delaware Street. They have shipped goods to every State in the Union and are keeping an army of clerks busy filling orders and mailing their 500-

page catalogue. This catalogue is the most complete ever published, and almost everything you could want is listed in it. There are three reasons for this growth which are the principles upon which they are building their business. They have good goods at lowest prices and satisfaction guaranteed. This catalogue is free for the asking, and we advise our readers to get one for reference. Mention the Kansas Farmer.



## Grange Department.

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

Conducted by E. W. Westgate, Manhattan, 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  
Overseer..... J. C. Lovett, Bucyrus  
Lecturer..... Ole Hibner, Olathe  
Steward..... E. C. Post, Spring Hill  
Chaplain..... W. E. Coultas, Richland  
Assistant Steward..... Mrs. M. J. Ramage, Arkansas City  
Treasurer..... Wm. Heary, Olathe  
Secretary..... Geo. Black, Olathe  
Gate Keeper..... G. F. Kysar, Lone Elm  
Ceres..... Mrs. M. J. Allison, Lyndon  
Pomona..... Mrs. Ida E. Filer, 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

Governor N. J. Bachelder, of New Hampshire, in Kansas.

On Monday, July 20, I commenced a week's engagement, attending Grange field-meetings or as they are sometimes called, Grange picnics, in the State of Kansas.

I was met at Topeka by Hon. E. W. Westgate, of Manhattan, Kans., who accompanied me during the entire trip. Our first engagement was at McLouth, the home of A. P. Reardon, past master of the State Grange and at present member of the executive committee. The exercises were held in a schoolhouse grove in connection with a G. A. R. reunion. Brother Reardon presided with dignity and grace and welcomed the National Lecturer and State Master in cordial and eloquent words. The G. A. R. was represented by State Department Commander Smith, who delivered an able and comprehensive address.

State Master Westgate spoke for the Kansas State Grange in an able and forceful manner. James Butler, of Topeka, spoke in the interest of the Cooperative Grain-shipping Association. Music was furnished by the Grange choir and McLouth band and a fine picnic dinner was enjoyed. The attendance was estimated at 2,000 and the meeting was regarded as a success.

The meeting and picnic on Tuesday were held in a fine grove at Madison under the auspices of Madison, Rock Valley, and Willow Creek Granges. A procession, headed by the Madison cornet band, was formed in the city and marched to the grove, where 3,000 people assembled. Banners of the different granges represented, a delegation of children, and decorated wagons representing various business houses made an interesting and imposing display. The business places in the city were closed from 10 o'clock until 4 in order to allow every one to attend the meeting. State Master Westgate occupied the forenoon in an extended address upon the work and achievement of the Grange. Professor Roberts, of the Kansas State Agricultural College, and several local speakers were heard in the afternoon session, and the grange choirs provided enlivening music.

Brother A. W. Filer, master of Rock Valley Grange, presided, and Bro. J. T. Lincoln, a member of the executive committee of the State Grange, was present and contributed much to the success of the meeting. On Wednesday the meeting was held at Lone Elm, where the picnic feature was enjoyed, in a beautiful catalpa grove, and the speaking and literary exercises were in the Methodist church, which was filled to overflowing. The pastor of the church delivered a cordial address of welcome, the children sang charming songs, and Worthy Master Westgate discussed Grange principles in an able and convincing manner.

On the following day the meeting was held at Bucyrus, the home of Brother J. C. Lovett, overseer of the State Grange, where the picnic feature was enjoyed in a charming grove and the exercises held in the grange hall occupied by Weir Grange No. 445, which was packed to the doors with an interested company. The forenoon was occupied with addresses by Broth-

er J. C. Lovett and State Master Westgate, and the afternoon by the National Lecturer and singing by the Grange choir. We greatly enjoyed looking over the fine farm owned and tilled by Brother Lovett, which he homesteaded many years ago, and upon which he has erected a fine set of farm buildings, including the comfortable home of himself and his interesting family. Brother Lovett is an enthusiastic member of the Grange and a progressive farmer.

On Friday the meeting was at Wellsville, in a magnificent grove owned by Brother J. R. Harrison, master of Walnut Creek Grange No. 60, and whose charming home, surrounded by trees, shrubbery, flowers, and vines, we were permitted to enjoy over night. A special attraction at this meeting was the attendance of the Wellsville ladies' band of eighteen pieces, furnishing fine music for the occasion. In addition to the State Master and National Lecturer, State Organizer W. G. O'Bryhim, of Overbrook, was present and delivered an earnest address. With solos, Grange songs, base-ball games, and social greeting, the day was made an interesting and enjoyable one.

The closing meeting of the week was held on Saturday at Olathe, in Johnson County, the banner Grange county of the State. It is here that the most successful Grange cooperative business association, known as the Johnson County Cooperative Association, and the Patrons' cooperative bank are located. This was the twenty-seventh anniversary of the organization of the former and the twentieth of the latter. We enjoyed exceedingly inspecting these successful and noted Grange financial institutions. We met here Bro. Henry Rhoades, past master of the State Grange and present member of the executive committee. The meeting was the largest of the series, some 3,000 or more being present. The mayor of the city delivered the address of welcome, and addresses were made by the State Master, the National Lecturer, Brother A. P. Reardon, and State Lecturer Ole Hibner. A veteran Grange worker in Kansas, the Hon. I. D. Hibner, presided with dignity and grace, and a Grange choir furnished fine music. The National Lecturer spoke for about an hour at this and the other meetings during the week and was everywhere accorded courteous attention and hospitable treatment.

The Grange in Kansas is in a vigorous, prosperous condition under the leadership of the faithful, zealous State Master, sustained by a corps of earnest officers and enthusiastic members. We look for great progress in Grange work in the future in this famous agricultural State.

N. J. BACHELDER.

—We give above Governor Bachelder's report of the field-meetings attended by him recently in Kansas, and it will be noticed that he is very modest in telling of his part of the proceedings. It goes without saying that he was the magnet that drew and the personality that by his conversation and speeches charmed and entertained all who came in contact with him or within sound of his voice. He expressed to us the belief that more good would result from his work here than in any other State where he had spoken. Applications for membership were received at nearly every meeting and at least one new grange will be formed as a result of his work here. But increase in membership is not the only result desired or obtained. The good will and favorable consideration of those outside our gates is desirable. In one locality where National Master Jones spoke last year a new grange was organized, and the business men of the city who last year refused any assistance, or acknowledgement of the presence of the National Master, this year gave liberally for the support of the meeting and closed their places of business for six hours so that all might attend the picnic and hear Governor Bachelder. E. W. W.

If you would not be forgotten as soon as you are dead and rotten, either write things worth reading or do things worth the writing.

Collier  
Missouri  
Red Seal  
Southern

**C**ONSIDERING the cost of labor, of applying it, and its great covering capacity, Pure White Lead is not only the cheapest Paint in the first cost, but because of its extreme durability is by far the cheapest in the end.

Furthermore, no scraping or burning will be required when repainting becomes necessary.

If interested in paint or painting, address,

National Lead Co., Clark Ave. and Tenth Street, St. Louis.

## National Encampment

# G. A. R.

## San Francisco

# \$45.00

THERE AND BACK.



DIVERSE ROUTES. ∴ SPECIAL TRAIN.

Visit California at a pleasant time of the year. Tickets may be issued to read returning via same route as that used going, or via any other direct route. For return via Portland, an additional charge will be made.

Special train for California, stopping at Santa Fe, Laguna, Grand Canyon of Arizona, (\$6.50 additional for side-ride, Williams to Grand Canyon and return,) and many other points of interest en route, will leave Kansas August 11, 1903.

Pullman palace and tourist sleepers, and free chair cars.

For free descriptive literature, reservations, information about rates, etc., apply to

T. L. KING, C. P. & T. A.,

The A., T. & S. F. Ry. Co.,  
TOPEKA, KANS.

Mention Kansas Farmer when writing advertisers



## Horticulture.

### Marketing Fruit.

After a wide experience in raising, and varied experiments in marketing fruit, the writer has become convinced that growers must radically change their methods of fruit-marketing if they are to get their fair share of the rewards of their toil.

During some years past, while temporarily located in and visiting several of our chief cities, a good opportunity has been afforded for studying present ways of handling and selling fresh fruits and other produce, after they have reached these centers of trade. Improved methods of cold storage and rapid refrigerated transportation have practically extended the season for staple fruits, as the apple, pear, orange, lemon, etc., from harvest to harvest, while the season for the better keeping sorts of stone- and vine-fruits has been extended in like proportion. The retailers can now receive and place on sale fruits from the refrigerator depots that approach very closely in appearance and quality to the fresh gathered article, at a season of the year when it would formerly have become wholly or very nearly worthless. These improvements have widely extended the use of what was formerly considered perishables, and thereby largely increased their consumption. Notwithstanding this increased use, the majority of growers are reaping but little or no benefit from the changed conditions.

The average fruit-grower, now as formerly, carefully gathers and selects his fruit, and must needs at once dispose of it to agents of and buyers for the great storage plants; otherwise, he finds it so deteriorated by holding with his, at best, unfavorable facilities, as to result in a losing venture.

After watching the sale and distribution of fruits at both ends of the business, it has become impressed upon the writer that the storage plants are located at the wrong end of the route. In other words, the producers should have the storage plants within fairly convenient hauling distance of their farms and orchards, where their perishable fruits and other produce could be stored, and shipped in large or small quantities to individuals or wholesalers throughout the season, as market conditions demanded. In a few of the citrus fruit-growing centers, notably in California, something has already been accomplished in this direction by fruit associations. Cooperative storage plants have been erected and put in operation with encouraging results. It seems but reasonable to believe that by this method of storing, a fair share of the profits now absorbed by speculators and middlemen could be retained in the hands of the growers themselves.

As a single illustration of the difference in the price realized by the producer and that paid by the consumer, but one staple fruit will here be cited. The writer has repeatedly seen apples from the city storage plants retailed by grocers, not fruit stands, at the rate of \$8 per barrel, for which the grower was compelled to take \$1 per barrel a few months earlier, merely for lack of proper storage facilities where he could hold his fruit until the early glut of the market had been relieved. In these cases, a modest (?) difference of 700 per cent went for transportation, storage, and speculator's and dealer's profits. Does it not seem possible to so conduct the marketing of perishable products that a considerable share of the present wastage shall remain in the hands of the producers, and a further portion remain in the vicinity as an income from the storage that now goes to swell the finances of the city exchequers? The initial cost of building and operating storage-plants in country districts could certainly be kept considerably below that of those located in large cities. The cost of sites, much of the building material, labor, and operating expenses would all be in favor of country storage.

It would, of course, in the case of the ordinary small grower, be necessary to make the storage-plants coop-

erative in character, or else secure their establishment as purely business enterprises, as many of them are at present conducted in the cities. In either case, perishable produce can without doubt be stored and distributed at less expense than where city stored. In the latter-named storage, produce has frequently to be reshipped back over routes to supply the trade near where it was produced. Producers are now carrying and supporting a vast number in the centers of population, the expense of which must and can be eliminated before prosperity can be continuous.—B. F. W. Thorpe, in the Country Gentleman.

### Apples and Other Fruits in the United States.

EDITOR KANSAS FARMER:—How many other States in the Union have a better prospect for apples than Kansas? Osage County. CLARK HOOVER.

Following are reports of correspondents of the United States Department of Agriculture for the week ending August 3, 1903:

New England.—Some apples blown off by high winds, otherwise condition unchanged; pears and plums uneven; latter somewhat damaged by blight.

New York.—Apples improving, but less than average yield promised; grapes declining.

New Jersey.—Cranberry bogs in Ocean County full of blossoms, prospects excellent for large crop; peaches not promising.

Pennsylvania.—Apples fair quality, light crop; peaches scarce.

Maryland and Delaware.—Apples promising.

Virginia.—Apple harvest beginning, crop good.

North Carolina.—Early apples ripening; late apples in west more promising than heretofore.

Florida.—Rain needed in some portions of citrus belt.

Arkansas.—No improvement in peaches and apples.

Tennessee.—Apples and grapes fair prospect.

Kentucky.—Apples good in west section, scarce elsewhere.

Missouri.—Apple crop very light.

Illinois.—Light crop of apples of in-different quality promised.

Indiana.—Apples promise light to fair crop of generally inferior quality.

West Virginia.—Very little fruit except some apples; grapes quite promising.

Ohio.—Apples growing well; plums, grapes, and blackberries plentiful; peaches and pears poor.

Michigan.—Apples continue fairly promising; peaches ripening nicely.

Wisconsin.—Apples light crop.

Iowa.—Apple crop doing well.

Kansas.—Apples fair in south, very light in north.

Colorado.—Fruits doing well.

New Mexico.—Peaches, plums, pears and apples giving irregular yields, but of fine quality.

Oregon.—Prunes and pears doing well; early apples ripe.

California.—Heavy crop of deciduous fruits being gathered; canning and drying progressing; grapes thrifty, large crop probable.

### Harvesting Celery on a Large Scale.

In harvesting celery on a large scale and to do it in an economical manner, three men to a gang are used and as many gangs as we have men for. Celery must all be pulled before the hottest part of the day, for the earlier it is pulled, the more brittle and crisp will it be. Then, too, this condition is easier maintained afterward than if it is pulled when wilted. After the celery is pulled the men are used to set out plants, weed others, board up, or at any other work that needs doing.

In working the men, No. 1 goes along and loosens the boards which are used to bleach the crop. Nos. 2 and 3 on opposite sides of the row take the boards and lay them between rows, or if the second crop is already planted, on a row that has been pulled. When enough boards are down, No. 1 pulls the celery while No. 2 strips all dead and discolored leaves from the stalk, after which No. 3 cuts off the roots, leaving a four- or five-sided point and

J. G. PEPPARD, MILLET CANE SEEDS  
1101 to 1117 West 8th St. CLOVERS  
(Near Santa Fe St.) TIMOTHY  
Kansas City, Missouri. GRASS SEEDS

## Plant Trees For Posts

Catalpa, Osage, and Russian Mulberry Seedlings, one year old for planting. The Catalpas are from seed selected from known Speciosa trees. Write for prices stating number wanted.

Peters & Skinner, North Topeka, Kansas.

## SEED WHEAT FOR SALE.

Two varieties of Beardless Winter Wheat, "MAY KING" and "RED AMBER."

Both are hardy, yield well, have a stiff straw, and do not lodge or break down like bearded wheat.

Price \$1.00 per bushel. Send for samples.

LOUIS DUEHN,  
Farm one mile south of Clements, Chase Co., Kans.

then places the celery in bushel boxes or baskets.

A fourth man takes the filled baskets from all the men and loads them on a wagon, at the same time keeping the men supplied with empty baskets. When the wagon is loaded it is taken to the washing house, where the celery is emptied into a large receiving vat full of water.

The two men in the washing house now begin their work. One washes and rinses the celery and places it on a large table. All large washing houses are supplied with water delivered at a pressure, either from the city mains or from an elevated tank. The force of the water washes more quickly and also more thoroughly, by forcing all sand and dirt from between the leaves. This can not be done without pressure water. No. 2 takes it from the table and sorts into the number of grades desired, after which he ties in bunches of a dozen stalks each, sometimes putting in one or two extra stalks to make the bunches all of one size for each grade.

In tying bunches, a form is used, which is nothing more than a box without top or bottom, the top being cut out in a half circle. The dimensions are: Ten inches wide by 12 long, and eight or 10 high. This simple contrivance enables a man to tie the double the amount he could without it.

After the celery is graded and tied it is packed in boxes, 6 by 12 ends, 20-inch sides for first shipments. For No. 3 celery, later shipments, 6 by 12 by 23; for firsts, 6 by 14 by 23. For very largest celery, boxes 10 by 11 by 23 are used in a limited way.

The boxes are marked with the number of dozen each contains, and stenciled with the commissionman's name. In packing, the tops of bunches are laid together with the butts out. Of grade No. 1, one to three dozen fill a box; grade No. 2, from three to seven dozen, depending on the season of the year. If three grades are made then No. 1 runs one to two; No. 2, two to four; and No. 3, four to seven dozen to a box.

The majority of growers still sell through commission houses in Chicago and Milwaukee, shipping by boats which leave Michigan at 9 o'clock at night and arrives at 5.30 or 6 o'clock the next morning. The celery after being packed is allowed to stand in the washing house until evening, when it is hauled to the docks.—George C. Brock, in American Agriculturist.

STARK TREES best by Test—75 Years  
LARGEST NURSERY.  
FRUIT BOOK free. We PAY CASH  
WANT MORE SALESMEN Weekly  
STARK BROS., Louisiana, Mo.; Huntsville, Ala.; Etc

TREES kept dormant till May 15th. Peach  
trees one year from bud, 1 and 2 cts.  
each. Also pear, quince, Japan plums. Circular free.  
R. S. Johnston, Box 17, Steckley, Delaware.

## SEED WINTER WHEAT FOR SALE.

Ten varieties to select from; thoroughly tested catalogue and samples free. Address, J. M. MAHEIT, Fremont, Neb.

## SEED WHEAT

It always Pays to plant the Best. Our varieties grown from pure stock imported by us, cost but little more than common sorts, but will yield 45 to

### 60 Bushels Per Acre

Write for our Free Seed Wheat Catalog with full descriptions of our New "MALAKOFF," the grandest new variety of wheat ever introduced; requires less seed per acre; stools better; stands up better; gives larger yield and better quality of grain; stiff straw; rust proof and never attacked by fly; as hardy as Eye. Price, \$1.50 per bushel. Turkish Red, \$1.10 per bu. Bags Free. Mammoth Winter Eye, 90c per bu. Ask for prices on Timothy, Clover and other seeds.

RATKINS' SEED HOUSE, Shenandoah, Ia.

160 ACRE  
FARMS IN  
WESTERN  
CANADA  
FREE

## Western Canada

Has Free Homes for Millions.

Upwards of 10,000 Americans have settled in Western Canada during the past five years. They are Contented, Happy and Prosperous and there is room still for Millions. Wonderful yields of wheat and other grains. The best grazing lands on the Continent. Magnificent climate, plenty of water and fuel. Good schools, excellent churches, splendid railway facilities.

## FREE HOMESTEADS

OF 160 ACRES

(the only charge being \$10 for entry) in Manitoba, Assiniboia, Saskatchewan and Alberta. Send to the following for an Atlas and other literature as well as for certificate giving you reduced rates, etc. Superintendent of Immigration, Ottawa, Canada; or to the authorized agent of the Canadian Government—

J. S. CRAWFORD,  
214 West Ninth Street, Kansas City, Mo.

Write for  
Prices and  
Catalogue.

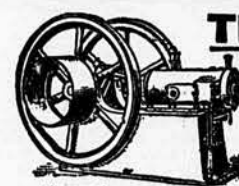


## SOROSIS - RELIABLE - PEERLESS

FARM AND STOCK SCALES.  
Standard Scale and Foundry Company, Manufacturers.  
Scales of Every Description. KANSAS CITY, MO.

3 FEEDS TO THE GROUND ADM'AL HAY PRESS CO. SELF FEEDER.

2 PROFITS IN HAY BALING WRITE TODAY FOR OUR FREE CATALOGUE



## THOMPSON-LEWIS Gasoline Engines

furnish the greatest possible power at the lowest possible cost in time, labor, fuel and money. They are so simple that any body can run them without expert training or experience. Our Volume Governor gives uniform speed. Our Acme Mixer is the most positive and economical on the market. Our Hand Starting Lever starts engine with least effort. All bearings of Iridium Bronze. Best material and workmanship throughout. Many sizes from 4 (actual) h.p. up. Best for all farm work—cutting and grinding feed, sawing wood, pumping water, separating cream, churning, etc. Send for free catalog before you buy. It may save you time, money and annoyance.

J. THOMPSON & SONS MFG. CO., 117 BRIDGE STREET, BELLOIT, WIS.



## WEEKLY WEATHER-CROP BULLETIN.

Weekly weather-crop bulletin for the Kansas Weather Service for the week ending August 11, 1903, prepared by T. B. Jennings, Station Director.

## GENERAL CONDITIONS.

While the average temperature was but slightly above normal, there were some high temperatures, the maximum reaching 100° and higher in the southwestern counties and in Dickinson, Geary and Riley. Much rain has fallen in the State during the week, being heavy in the central counties east and west, and very heavy in the eastern division, reaching 8.47 at Topeka. The rainfall was quite light in the northern tier of counties.

## RESULTS.

## EASTERN DIVISION.

Corn has improved very materially; early corn is well eared and the ears are fit for table use, while the earliest is too far advanced for that purpose; late corn has grown rapidly and that planted the third week in June is beginning to tassel; both early and late promise good crops. Wheat, oats and some flax yields are disappointing. Haying was stopped by the rains in the central and southern counties, while pastures and prairie-grass were much benefited. Potatoes are poor in Brown and a light crop in Woodson. Apples are a small crop in Bourbon, almost a failure in many orchards in Brown, a large per cent were blown off in Cherokee, but they are fine in southern part of Shawnee. The ground is in fine condition and plowing for fall wheat has begun north, stopped by rain south.

Allen.—All farmwork delayed by excessive rains.

Anderson.—Both early and late corn promise well; fall plowing and other field work interrupted by the rains.

Atchison.—Plowing for wheat, in progress; corn looks well but more than half of it is so backward that it will not make much more than fodder.

Bourbon.—Early corn in roasting-ear stage and recent rains will make a heavy yield; later planted corn is growing finely; hay harvest retarded by rains; apples will be a small crop.

Brown.—Favorable week for thrashing; late corn is generally laid by and growing well; ground in good condition for plowing; potatoes poor; apples almost a failure in many orchards.

Chase.—Corn conditions improving; some corn blown down; most of alfalfa that was intended for seed is being cut for hay; considerable ground being prepared for alfalfa seeding; ground in good condition and plowing for wheat is in progress.

Chautauqua.—All growing crops are doing well; some corn is very fine, other fields small but growing well.

heavy; apples fine; pastures good and cattle doing well.

Woodson.—The rains have benefited the corn but delayed haying; thrashing about finished; cabbage and potatoes very plentiful; potatoes are a light crop; corn planted the third week in June is beginning to tassel; stock doing well.

## MIDDLE DIVISION.

Corn has been greatly helped by the rains, though in Barber it still needs it; early corn is generally in good condition now and is well eared, giving very good promise; late corn is growing rapidly and is giving good promise. Thrashing has been retarded by the rains. Some wheat was damaged in the shock in Cloud and Ottawa by wet weather and some is sprouting in the stack in Lincoln. Forage crops and grass are doing very well. The second crop of alfalfa is being cut in the northern counties and third crop is ready in the southern; native grasshoppers have injured it in some localities. The ground is in fine condition and plowing for fall seeding is progressing. Apples and peaches are short in Kingman and there is not much fruit in Dickinson. Potatoes are taking second growth in Lincoln.

Barber.—Corn and all growing crops badly in need of rain; third crop of alfalfa ready to cut; ground too dry to plow; water for cattle becoming scarce in some places; thrashing continues.

Barton.—Corn growing well with prospects for a good crop; showers still interfere with thrashing; some stacks of grain are getting very wet; grasshoppers very bad on alfalfa.

Clay.—Early corn promises well; late corn where well cleaned is growing rapidly; thrashing delayed by rains; wheat now in sweat; hay harvest under way, quality good.

Cloud.—Much wheat damaged, owing to manner of shocking; corn in excellent condition and promises a heavy yield.

Dickinson.—The general condition of corn is good, but in some places it was badly damaged by hail Friday night; not much fruit in this vicinity.

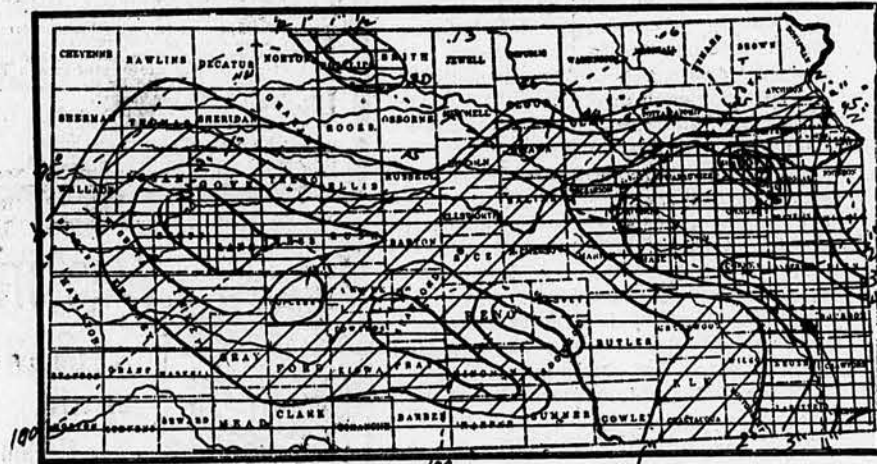
Jewell.—A fine week for growing crops; second crop of alfalfa is being cut.

Kingman.—Thrashing progressing; corn hurt by the drought but the later planting has been helped some by the rains; there is a fair crop of good hay; apple- and peach-crops short.

Lincoln.—Another bad week for thrashing; all shocked wheat has begun to sprout; pastures good and all stock looking well; potatoes are making a second growth.

McPherson.—Fine weather for corn; fine roasting ears; prospects for large corn crop;

Rainfall for Week Ending August 8, 1903.



SCALE IN INCHES.

Maximum temperature shown by broken lines.

Less than 1/4. 1/4 to 1. 1 to 2. 2 to 5. Over 5. T, trace.

Cherokee.—Conditions favorable for plowing, but too much rain and cloudy weather for haying; corn doing finely and now promises a fair crop; yield of wheat, oats and flax continues disappointing; the recent storms have blown off many apples.

Coffey.—Thrashing and haying at a standstill on account of the rains; corn is growing finely, but some has been blown down.

Crawford.—Corn damaged by high winds on the 8th and 9th; pastures fine and stock doing well; farmers are preparing to sow a large acreage of wheat this fall.

Elk.—Another fine growing week; corn and all crops doing well.

Jackson.—A good week for the corn; early corn is eared out well and late corn growing nicely in the central part, but much of the late corn is still very yellow in the northern part; thrashing progressing rapidly; oats and wheat turning out rather poorly.

Jefferson.—Excessive rains with a heavy wind storm and some hail characterize the week; many hay stacks blown over, and soaked with rain; much corn broken off and blown down; ground too wet.

Johnson.—A fine week for corn; showers were needed; ground now in fine condition for fall plowing.

Leavenworth.—Rains have helped growing crops; harvest ended and thrashing begun; second crop of alfalfa ready to cut; haying in progress, a good crop; early potatoes ripe, a poor crop; pastures medium; stock in fair condition.

Linn.—Corn growing rapidly; just begun cutting prairie-hay which is a good crop; oats are light weight and only fair yield; pastures are fine and stock look well.

Lyon.—Very favorable week for corn and vegetables; late corn and alfalfa making rapid growth.

Marshall.—Early corn in roasting ear and promises a good crop; late corn though backward is growing very rapidly; second crop of alfalfa and English blue-grass cut and stacked; thrashing progressing rapidly; wheat and oats turning out well; pastures good; ground in fine condition for plowing.

Miami.—Corn is growing well; fall plowing has begun; ground in fine condition.

Montgomery.—A good week for corn; Kafir-corn and forage crop in fine condition.

Pottawatomie.—A fine growing week; corn doing well; late planting will make part of a crop; pastures good; stock doing well.

Riley.—Corn still in fine condition; rains have improved pastures; fall plowing has begun.

Shawnee.—Rain interfered with oats stacking; wheat thrashing is well under way, and the crop is fine; corn much benefited by the rain; haying has begun; the crop is very

thrashing delayed; third crop of alfalfa growing finely; vegetation freshened by the rains.

Ottawa.—Wheat damaging in the shock; large growth of weeds in some wheat fields; fine weather for corn, forage crops, and alfalfa; thrashing stopped by the rains; prospects for a large corn crop.

Phillips.—Corn in good condition.

Reno.—Plowing for wheat in progress with ground in fine condition; corn much improved by the rain; thrashing in progress.

Republic.—Corn is doing well and promises a large yield; no rain this week, and people are mostly done stacking and are thrashing again, yield fair; native grasshoppers are doing considerable damage to young alfalfa, preventing the second crop from seeding by cutting off the heads.

Russell.—Thrashing delayed by damp weather; corn and forage crops growing finely; plowing the order of the day.

Saline.—A splendid corn week; thrashing and plowing delayed by wet weather.

Sedgwick.—A good third crop of alfalfa is ready to cut; corn looks much improved; pastures very good.

Smith.—Thrashing progressing slowly on account of rains; corn growing rapidly.

Stafford.—Too wet for thrashing; corn greatly benefited by rain.

Sumner.—Favorable weather for all growing crops; thrashing stopped by rain; plowing for wheat in progress on every farm; ground in fine condition; weeds growing rapidly.

Washington.—Early corn promises a good crop, but the late planting is uncertain; late-sown millet is very heavy; wheat is a light yield but of fair quality oats yield rather light; grass and alfalfa good.

Western Division.

Thrashing has progressed, where not interfered with by rains, and the yields are good.

The wheat is stacked in Wallace and being stacked in Trego. Rye and barley are also stacked in Wallace. Corn is doing well; the early is in the ear and the late is beginning to tassel and silk. Forage crops are doing well, though in Thomas it was needing rain. Millet is being cut in Wallace and is a good crop. Grasshoppers are damaging the seed crop of alfalfa in some counties. The range

in the central counties is very good. The ground is in fine condition in Lane but becoming too dry for plowing in Thomas. Flax is a good crop in Ness but rain prevented cutting.

Clark.—Only enough rain to lay the dust; grasshoppers are pretty bad; corn badly burned; Kafir-corn still growing well.

Dectur.—Stacking and thrashing in progress; forage crops growing finely; corn making rapid growth and promises a heavy crop.

Ford.—Corn fodder, Kafir-corn, and cane resuming growth under influence of rains; poor outlook for corn crop, though some early planting has been in roasting ear for a week and will make a fair yield; alfalfa in about average condition for the time of year, but grasshoppers are damaging the seed crop; thrashing of wheat progressing rapidly with good results.

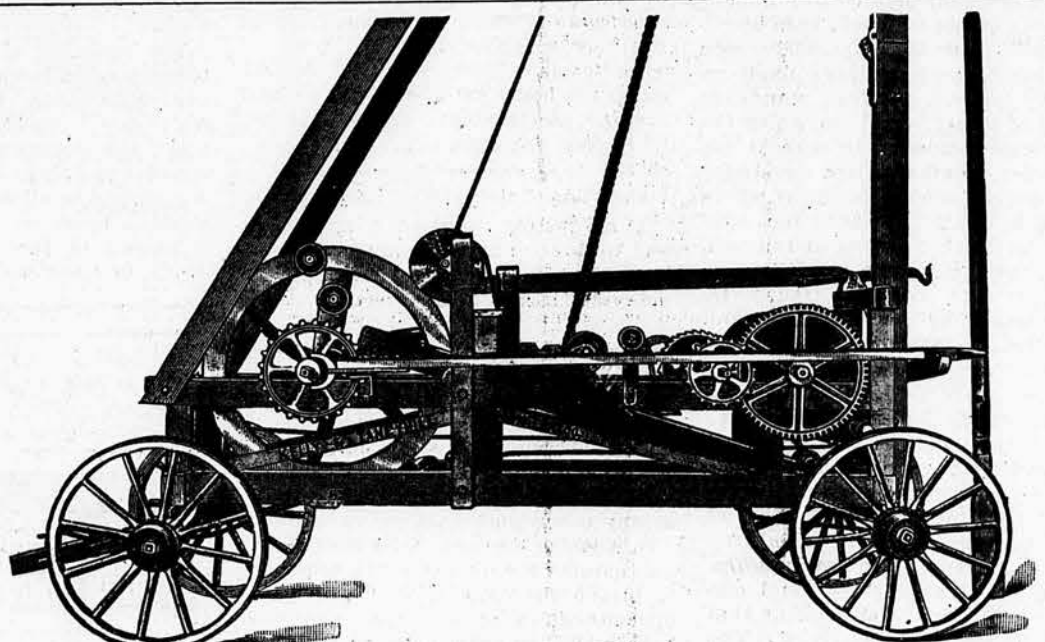
Lane.—The damage done by last week's hail was slight; ground in fine condition for plowing; worms are bad in the corn, and grasshoppers are working in alfalfa to some extent.

Ness.—Thrashing retarded by rain; wheat yielding well; corn and forage crops making good growth; early corn in roasting ear stage; corn short but eared well; late corn tassel-ing and beginning to silk; some damage by hail last week but crops have recovered from it; flax is a good crop, but rains hinder harvesting it.

Thomas.—Thrashing has begun; wheat yield fair to good and of good quality; yield and quality of barley good; corn is tassel-ing and silking but needs rain; cultivation of forage crops completed, they need rain; some cane is firing; getting too dry for plowing.

Trego.—Farmers are stacking bundle wheat and alfalfa; thrashing has just begun.

Wallace.—Seed crop of alfalfa is being cut, but it has been too wet for a good crop; barley, wheat, and rye stacked; a fine crop of millet is being cut; corn is growing finely; range-grass is fine and cattle are doing well; a good crop of wild hay is being cut.



The "Climax" Well-Drilling Machine.

Kelly & Taneyhill, Waterloo, Iowa, are the well-known and popular manufacturers of well-drilling machinery at Waterloo, Iowa. Their new advertisement in the Kansas Farmer this week is intended to exhibit their kind of all well-drilling machines—the "Climax." This machine absolutely embodies every known improvement in the manufacture of well-

drilling machinery. It is the result of a long term of experience in the building of such machinery by the most skilled workmen in the world. Its strong point is its simplicity of construction. There is nothing about it to break. It is practically a new departure in the line of well-drilling machinery. It runs lightly, hence requires less power. With breakage re-

duced to the minimum it has everything to recommend it. If you will write Kelly & Taneyhill at Waterloo, Iowa, they will be glad to quote you prices on the machine, showing a complete list of articles required in its equipment, all of which are sold as part and parcel of a complete machine. See illustrated advertisement, and mention Kansas Farmer when you write.



Think It Over.

As the season advances it becomes more and more apparent that the country is in a humor to switch and fill feed-lots with sheep instead of cattle this fall. With all due respect to the sheep as a farm animal that has earned a title to prominence in livestock husbandry, we seriously fear the country is making a mistake. Several instances have come to our notice of late where orders have been placed for sheep to fill feed-lots that have heretofore carried cattle. Market conditions of the past eight months have, of course, brought about this condition. As a rule, cattle-feeding operations since last fall have lost money, while sheep have been a paying investment. But conditions are largely reversed compared with a year ago. Feeding sheep are fully 25 cents higher now than they were a year ago, while cattle fit for the feed-lots are, taken on an average, close to \$1.25 lower. A year ago fat cattle were selling at boom prices and a break was absolutely certain; at present fat cattle are selling close to a normal level with all signs indicating that any lasting change will be towards higher prices. Feeding cattle are selling at lower prices than they have for several years and are nearer at par with fat cattle values than they were at any time last year. While feeding sheep are selling higher than they were a year ago the mutton grades are lower. Of course the corn-crop prospect is still a big factor but the situation does not suggest to us that this is a time to abandon cattle in favor of sheep for the feed-lots. It occurs to us that a little judicious thinking will go a long way toward avoiding a stampede to get out of the sheep business six or eight months hence. Think it over!—Live Stock World.

National Live-Stock Shows.

American Royal, Kansas City, Mo., Oct. 19-24.  
International, Chicago, Ill., Nov. 23 to Dec. 5.

Western State Fairs for 1903.

Missouri State Fair, Sedalia, Aug. 17-22.  
Iowa State Fair, Des Moines, Aug. 21-29.  
Minnesota State Fair, Hamline, Aug. 31-Sept. 5.  
Nebraska State Fair, Lincoln, Sept. 4-11.  
Kansas State Fair, Topeka, Sept. 14-19.  
Kentucky State Fair, Owensboro, Sept. 21-26.  
Illinois State Fair, Springfield, Sept. 26-Oct. 3.  
Texas State Fair, San Antonio, Sept. 28-Oct. 11.  
St. Louis Fair, Oct. 5-11.

Kansas Fairs for 1903.

Following is a list of fairs to be held in Kansas in 1903, their dates, locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary F. D. Coburn:

Ailen County Agricultural Society: J. T. Tredway, Secretary, Iola, September 22-25.  
Barton County Fair Association: Jas. W. Clarke, Secretary, Great Bend; August 25-28.  
Brown County—Hiawatha Fair Association: Elliott Irvin, Secretary, Hiawatha; September 8-11.  
Butler County Fair Association: H. M. Balch, Secretary, Eldorado; October 5-9.  
Chautauqua County—Hewins Park and Fair Association: P. N. Whitney, Secretary, Cedar Vale.  
Coffey County Agricultural Fair Association: J. E. Woodford, Secretary, Burlington; September 8-11.  
Cowley County—Eastern Cowley Fair Association: Ed. E. Reed, Secretary, Burden; September 8-11.  
Cowley County Agricultural and Stock Show Association: W. J. Wilson, Secretary, Winfield; September 8-11.  
Finney County Agricultural Society: A. H. Warner, Secretary, Garden City; August 5-7.  
Franklin County Agricultural Society: Carey M. Porter, Secretary, Ottawa; September 15-18.  
Harvey County Agricultural Society: J. C. Nicholson, Secretary, Newton; September 22-25.  
Jackson County Agricultural and Fair Association: S. B. McGrew, Secretary, Holton; September 1-4.  
Jefferson County Agricultural and Mechanical Association: Geo. A. Patterson, Secretary, Oskaloosa; September 1-4.  
Jewell County Agricultural Association: H. R. Honey, Secretary, Mankato; September 14-17.  
Marshall County—Frankfort Fair Association: J. D. Gregg, Secretary, Frankfort; September 8-11.  
Marshall County Fair Association: E. L. Miller, Secretary, Marysville; September 15-18.  
Miami County Agricultural and Mechanical Fair Association: W. H. Bradbury, Secretary, Paola; September 8-11.  
Mitchell County Agricultural Association: H. A. Phelps, Secretary, Beloit; September 30-October 3.  
Morris County Exposition Co.: M. F. Ambrine, Secretary, Council Grove; September 22-25.  
Nemaha County Fair Association: W. R. Graham, Secretary, Seneca; September 1-4.  
Neosho County Fair Association: H. Lodge, Secretary, Erie; September 23-October 2.  
Neosho County—Chanute Agricultural Fair, Park and Driving Association: A.

E. Timpone, Secretary, Chanute; September 1-4.  
Ness County Agricultural Association: I. B. Pember, Secretary, Ness City; September 2-4.  
Norton County Agricultural Association: C. J. Shimeall, Secretary, Norton; September 1-4.  
Osage County Fair Association: E. T. Price, Secretary, Burlingame; September 1-4.  
Reno County—Central Kansas Fair Association: Ed. M. Moore, Secretary, Hutchinson; September 14-19.  
Rice Agricultural Fair and Live-Stock Association: W. T. Brown, Secretary, Sterling; September 1-4.  
Riley County Agricultural Society: E. C. Newby, Secretary, Riley; September 1-4.  
Rooks County Fair Association: Olmer Adams, Secretary, Stockton; September 8-11.  
Saline County Agricultural, Horticultural and Mechanical Association: H. B. Wallace, Secretary, Salina; September 8-11.  
Sedgwick County—Southern Kansas Fair: H. L. Resing, Secretary, Wichita.  
Smith County Fair Association: E. S. Roer, Secretary, Smith Center; August 18-21.  
Stafford County Fair Association: Geo. E. Moore, Secretary, St. John; August 19-21.  
Sumner County—Mulvane Agricultural Association: Newton Shoup, Secretary, Mulvane.  
Wilson County—Fredonia Agricultural Association: J. T. Cooper, Secretary, Fredonia; August 25-28.

THE MARKETS.

Kansas City Live Stock and Grain Markets.

Kansas City, Mo., August 10, 1903.  
The total supply of cattle here to-day was liberal at 8,500 head but these ran mostly to grassers, less than 500 corn-fed calves being among the offerings. Receipts at five markets were 53,000 head against 45,000 head last Monday. The general market was slow with prices averaging steady to strong. Some very good Nebraska steers topped the market at \$5.05. Cattle receipts here last week were 48,000 head, constituting the biggest run of the season and of the year. Trade was featured by the small supply of corn-fed offerings and a world of grassers. Buyers took advantage of the liberal arrivals by bearing down on prices, and the week saw a general decline of 25¢ to 50¢. In the worst instances plain grass steers broke as much as 60¢ per cwt. Cow and heifer stuff also declined sharply. Good to choice steers are now worth \$4.80 to \$5.10, fair to good kinds \$4.25 to \$4.75; best heifers \$3.75 to \$4.50; fat cows \$3.50; stock cows and heifers \$2.25 to \$2.75; feeding bulks \$2.00 to \$2.25.  
Among those bringing in droves of good cattle last week were: U. S. Campbell, Bates City, Mo.; John Whittier, Bucyrus, Kans.; \$4.75; R. D. Arnold, Louisville, Kans.; heifers, \$4.60; Argentbright Bros., Adrian, Mo.; \$5.30; F. S. Spurck, Nelson, Neb.; \$5.30; F. E. Bottenfield, Nelson, Neb.; \$5.25; Andrews Bros., Elsmore, Kans.; \$5.05; J. G. Christy, Odessa, Mo.; \$5.25; Altman Bros., Chase County, Kans.; \$5.35; J. T. Call, Ft. Scott, Kans.; \$5; Dan Saylor & Son, Morrill, Kans.; \$5.30; W. J. Tod, Maple Hill, Kans.; \$4.85; J. G. Walker, Amsterdam, Mo.; \$5.  
The hog market advanced 5¢ to 10¢ to-day under the impetus of lighter receipts. Arrivals here last week amounted to 35,600 against 24,700 this time a year ago. Five markets had 258,600 head against 223,300 last year. In spite of the liberal supplies the market exhibited a very healthy tone all week, prices making a net advance of 15¢ to 25¢. To-day top lights brought \$5.55 and the bulk of sales was \$5.25 to \$5.40. Hog-traders are now taking a much brighter view of the future swine market. They do not count on prices again soaring upward, as there are apparently too many hogs in sight to encourage this hope, but the impression prevails that the backbone of the big decline has been broken.  
Sheep arrivals to-day were heavy, amounting to 8,500 head, half as many as got in all last week. Five markets had over 50,000 muttons in sight and buyers were inclined to act decidedly bearish. The movement was slow and prices ranged from steady to 10¢ lower, top lambs bringing \$5 and native sheep \$3.50. The bulk of the supply consisted of Idaho hogs that commanded \$3.10 to \$3.25. Horse receipts to-day were light at 200 head and the auction showed less than 100 head on sale. Trade was fairly brisk at steady prices with last week, the bulk of sales ranging from \$75 to \$125. The first inquiry of the season was had for rice mules to-day. Good 15 to 15½ hand rickers are bringing \$100 to \$140.  
Wheat sold active and strong to a little higher to-day. Receipts were about the heaviest of the season at 450 cars, but the demand was fully equal to the supply. No. 2 wheat is worth 72¢ to 75¢; No. 4, 68¢ to 71¢. Corn was in firm request at 45¢ to 46¢ for No. 2 and 42¢ to 44¢ for No. 4. Oats were steady to strong. No. 2 commanding 31½¢ to 34¢; and No. 4, 29¢ to 31¢.  
The produce market was generally dull. Prices, however, held their own. Compared with a week ago eggs show a slight advance and potatoes are averaging 10¢ to 20¢ a bushel higher. Light receipts of potatoes are causing dealers to be somewhat bullish on tubers. Quotations are: Eggs 11½¢ to 13¢; potatoes 70¢ to 80¢; hens 8½¢; broilers 10¢; turkeys 10¢; ducks 8¢; geese 9¢. Hay receipts were light and prices went up a peg, most grades of hay selling 50¢ to 55¢ above the dull period last week. Tame hay is worth \$5 to \$10; prairie, \$4 to \$8; and alfalfa \$5 to \$10. H. A. POWELL.

New York Butter Market.

The New York butter market for the past week has been as follows:  
Monday, August 3, 19c; Tuesday, August 4, 19c; Wednesday, August 5, 19c; Thursday, August 6, 19c; Friday, August 7, 19c; Saturday, August 8, 19c; average for week of August 3 to 8 was 19c.

Low Summer Tourist Rates via Chicago Great Western Railway.

\$15.00 Kansas City to St. Paul and Minneapolis and return, \$19 to Duluth, Superior and Ashland. \$13 to Madison Lake, Waterville, Fairbault, and other Minnesota resorts. Tickets on sale daily to September 30. Good to return October 31. For further information apply to Geo. W. Lincoln, T. P. A., 7 West 9th St., Kansas City, Mo.

Special Want Column

"Wanted," "For Sale," "For Exchange," and smaller special advertisements for short time will be inserted in this column without display for 10 cents per line of seven words or less per week. Initials of a number counted as one word. Cash with the order. It will pay. Try it.

CATTLE.

FOR SALE—Two double standard Polled Durham bulls, one my herd bull three years old, one yearling. A. L. West, Garnett, Kans.

FOR SALE—Three choice, registered Galloway bulls, one my herd bull, two ready for service. Address, Wm. M. McDonald, Girard, Kans.

FOR SALE—Shorthorn herd bull, Lord of Independence 170889. Good individual and breeder. Address Gerald A. Otwell, R. R. 1, Independence, Kans.

FOR SALE—Five head of pure bred Hereford bulls of serviceable age. Address, A. Johnson, Clearwater, Kans., breeder of high-class Herefords.

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

FOR SALE—Ten registered and ten high-grade Jersey cows, from 2 to 5 years old; most of them will be fresh next month. Will be sold worth the money to anybody wanting some good cows. M. S. Babcock, Nortonville, Kans.

HORSES AND MULES.

FOR SALE OR EXCHANGE for sheep or cattle, one imported registered Percheron stallion, black. One black Missouri-bred Jack 2-year-old—will make a large Jack. Can be seen one-half mile south of city limits. J. C. Hentzel, Rural Route No. 6, Topeka, Kans.

WANTED—To buy or trade, a Clydesdale stallion for a span of good mules. H. W. McAfee, Topeka, Kans.

PROSPECT FARM—CLYDESDALE STALLIONS, SHORTHORN CATTLE AND POLAND-CHINA HOGS. Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kans.

SWINE.

OH, SAY! Want a Poland-China sow? Stock selected from five counties and two states, 10 October gilts, 6 yearling sows, 4 herd sows all bred, 20 spring shoats. Write me. Price low, quality guaranteed. F. H. Harrington, Spring Creek, Chautauqua Co., Kans.

DUROC-JERSEY PIGS—Recorded; also herd boar, Victor Chief. L. L. Vrooman, Hope, Kans.

FOR SALE—Pure bred Duroc-Jersey pigs, April farrow. Some very choice pigs of either sex. F. A. Hill, Durham, Kans.

FOR SALE—Duroc-Jersey boar, ready for service. He is from the famous Blocher-Burton stock. February pigs now ready for sale. J. P. Lucas, 118 West 23rd St., Topeka, Kans.

SEEDS AND PLANTS.

WANTED—New crop alfalfa, red clover, timothy, English blue-grass, and other grass seeds. Correspond with us. Kansas Seed House, F. Barteldes & Co., Lawrence, Kans.

ENGLISH BLUE GRASS SEED—For fall sowing, at \$1.25 per statutory bu. of 22 pounds, f. o. b. Seaside, Amer. "A" sacks 18 cents, capacity 3 bushels. Jno. S. Gilmore, Fredonia, Kans.

WANTED—To buy 20 bushels of alfalfa seed. Riverside Stock Farm, Topeka, Kans.

FOR SALE—English blue-grass for fall sowing. Write to D. O. Buell, Robinson, Kans.

BLUE GRASS—If you mean to sow this fall, write to J. G. Hinsh, Eureka, Kans.

FOR SALE—Golden Yellow popcorn, very productive, excellent for popping, very tender. Packet 6 cents; 7 pounds 50 cents. J. P. Overlander, Highland, Kans.

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

FARMS AND RANCHES.

FREE Farm list, information; Sales, trades. State map 10c. Buckeye Agency, Agrioola, Kans.

FIRST THE GENERAL—Then the particular. We have been giving you the first, now for the latter. We offer a farm of 200 acres in Clark County, Wis. 100 acres cleared. Soil dark clay loam. Good farm house and barns. Stream on one corner of farm. Fine water for stock. Fuel cheap. Stock, machinery, tools, and other personal property go with farm. Write for particulars. Hiles & Myers, A60, Matthews Bldg., Milwaukee, Wis.

FOR SALE—Wheat and stock farm. For next 30 days only will offer 480 acres deeded, and leases on 1,400 acres; 7,000 bushels of wheat raised on place this year. Price \$4,000 cash. J. D. Hayer, Colby, Kans.

A CHEAP FARM—240 acres, 90 acres river bottom, 60 acres alfalfa, hog tight, 110 acres in cultivation, 15 acre orchard, 5 room house, good barn and out buildings, a fine spring, well and river. 10 acres of timber, telephone and R. F. D. Price \$5,500. Any sized farm cheap. Try us. Garrison & Studebaker, Florence, Kans.

5,000 ACRES VIRGIN TIMBER LAND in Lamar county, Texas, in the Red river valley near the "Frisco System." Soil very rich and never overflows. Fine saw mill and the proposition. Black, White, Red and Post Oak, Ash, Hickory, Walnut and Bou D'Arc. Will sell in small tracts to suit purchaser. Address, Chas. Lee Requa, Eureka Springs, Ark.

RANCH FOR SALE—1360 acres, 1120 acres of creek bottom, with model improvements, 140 acres alfalfa, 600 acres pasture, balance number one farm land. For further information address G. L. Gregg, Real Estate Dealer and Auctioneer, Clyde, Kans.

SOME BARGAINS in farm lands in Anderson County, Kansas, in farms ranging from 80 acres up. S. B. Hamilton, Welda, Kans.

FOR SALE—Farms and ranches in central and western Kansas. We have some great bargains in western ranches. Write us. R. F. Meek, Hutchinson, Kans.

PATENTS.

J. A. ROSEN, PATENT ATTORNEY  
418 Kansas Avenue, Topeka, Kansas.

MISCELLANEOUS.

WANTED—A good farm hand on ranch. \$25 per month for two months work. Apply to A. C. Geer, Waldo, Kans.

ALFALFA BACTERIA—I can supply earth thoroughly inoculated with alfalfa bacteria from one of the most successful fields in Kansas. 40 cents per 100 pounds f. o. b. Whiting. Large quantities at a less rate. Address, A. Monroe, Whiting, Kans.

WANTED—Buyers for pure bred Scotch Collie pups. Cheap. Write soon. W. T. Walters & Son, Emporia, Kans.

FOR SALE—1,000 trained ferrets at \$3 per pair. Farnsworth Bros., Elk Falls, Kans.

TO EXCHANGE—Square piano for horse or young stock. Miss F. L. Knox, (Potwin), Topeka, Kans.

WANTED—Oil agents, reliable, energetic men to sell on commission our high grade line of lubricating oils, greases, also roof, barn and house paints, etc., locally or travelling. Specially to the threshing trade. Address, The Lion Oil & Grease Co., Cleveland, Ohio.

WANTED—Position as agriculturalist or farm foreman. 25 years experience. Address W. A. Kimble, 1019 Seward Ave., Topeka, Kans.

TWO more litters of those high-bred Scotch Collie pups, only one week old, but you will have to book your order quick if you want one. Walnut Grove Farm, H. D. Nutting, Propr., Emporia, Kans.

WANTED WOOL—Send us samples of your whole clip, we will pay market price. Topeka Woolen Mills, Topeka, Kans.

CREAM Separators Repaired at Gerdon's Machine Shop 820 Kansas Ave., Topeka, Kans.

WANTED—Money to get patent on a quick-selling toy. Will give 25 per cent of what it sells for. Henry Bolte, Webster, S. Dakota.

The Stray List

Week Ending July 30.

Riley County—C. M. Brees, Clerk  
MARE—Taken up by Chas. Isaacson, in Randolph, in Jackson tp. May 13, 1903, one brown mare, 2 years old, white star in forehead; black tail and mane, valued at \$30.

English Blue-grass Seed

FOR SALE BY

JOHN G. HINSH, EUREKA, KANS.

BIG MAGAZINE one year free to quickly introduce it. As good as Harper's, Munsey's, Ladies' Home Journal or McClure's. Send 10 cents to help pay postage.  
AMERICAN STORIES, Dept. 8, F., Grand Rapids, Mich.

U. S. LANDS under irrigation in Wyoming along Union Pacific Railroad. Water rights on 10 years' time. Write David C. Patterson, Sole Agent, Omaha, Nebr.

Two Missouri Farm Bargains,

40 acres well improved. Fruit and water. Near Odessa, 30 miles of Kansas city, only \$35 per acre. 80 acres, fair house, two large barns, plenty water, fruit. Close Independence, 10 miles east of Kansas City. Worth \$125, can sell for \$90. Geo. W. Webb, Independence, Mo.

Chestnut Grove Herds

Poland-China Swine.

The prize-winning Mascot by Missouri's Black Perfection 26517 out of Winnie Sunshine at head. Best of Missouri's Black Chief and Sunshine blood. Young prize-winning stock, both sexes, for sale.

Shorthorn Cattle.

Pure Scotch Orange Blossoms with Orange Prince 182870 by Butterfly Prince 155109 out of Orange Princess at head. A splendid young Scotch-topped Young Mary bull by Lochiel's Waterloo 149108 out of Lochiel's Craggs for sale, with others of like quality.

J. R. Young & Richards, Mo.

Plainville Shorthorn Herd.

Herd headed by Strawberry Baron 149498

FOR SALE—Twenty-five Bulls of serviceable age, 5 Bull Calves, and choice Cows and Heifers out of choice dams and sired by herd bull, Waterloo Duke of Hazelton 11th 130723, or Potiphar 124998. Prices reasonable. Inspection and correspondence invited. Address,

N. F. SHAW, Plainville, Kans.

FREEDOM HERD  
PURE-BRED POLAND-CHINAS

Choice spring and fall pigs, both sexes, by Belleville Chief 29123; Kansas Chief 23250; Lamplighter 28890; Park's Spot 28829; Best on Earth's Chief 27037 and Royal Tecumseh 242314. Royal Tecumseh 24 for sale. A snap.

F. C. SWIERCINSKY,

'Phone 803. R. F. D. 1, BELLEVILLE, KANS.

BERKSHIRES.

The best imported blood that money can buy, crossed on the finest native blood. For bargains write,

T. J. PUGH, Fullerton, Nebr.

RED POLLED CATTLE

For Sale in large or small lots. Twenty years a breeder of these surely dual-purpose cattle. A. Z. BROWN, Guilford, Wilson Co., Kans.

DUROC-JERSEY SWINE.

CHOICE PIGS FOR SALE. ADDRESS  
G. W. BAILEY - - BEATTIE, KANS.

DUROC-JERSEY—Large boned and long bodied kind. Choice spring pigs for sale—both sexes. Prices reasonable. E. S. Cowee, R. F. D. 1, Carbondale, Kans.



## TILLAGE AND FERTILITY.

(Continued from page 847.)

also probable that corn alone may be bred into a perfectly balanced ration for any domestic animal.

When we consider what a very small amount of the improving of live stock was accomplished in the first five years, we see that the breeding of corn will take likely many years of work before great improvement is accomplished.

Buying seed-corn from a seed-house is very unsatisfactory in its results because the selection there is generally done by the scoop-shovel method. There are several reliable corn-breeders whose sole business is breeding pure-bred corn. In buying seed-corn always insist on getting corn on the ear as this is the only way of telling the quality of corn you are purchasing.

## Points to Be Observed in the Selection of Seed-Corn.

J. MYGARD.

Anything as important as the selecting of seed for the most important farm crop in the United States, deserves great attention, especially from those interested in the growing of such crop, and whose livelihood is earned by its cultivation. The first requisite of successful corn-growing is the planting of good seed.

The selecting of good seed-corn is attended with more difficulty, and demands more attention than most growers bestow upon it. Generally, if any attention at all is paid it is limited to picking out the longest and largest ears. This is decidedly a mistake. That corn may be improved by intelligent selection, both in yield and feeding value, has been demonstrated beyond a doubt. Not only should the ear as a whole be considered, but also the stalk upon which it grows.

To secure uniformity, which is an essential feature in good corn-growing, selection must be in the field. In going through a field there is no great difficulty in marking the stalks of desirable type, and upon which the ear is properly carried. These general requisites should be observed, no matter what type of ear, kernel, or stalk is desired, and is absolutely necessary for best results.

A second requisite is to pick out only the choice ears from the chosen stalks. No diseased or ill-filled ear should be used, and those which are not of the type desired should be discarded, even though they be otherwise good ones. This is necessary for uniformity. Only hardy, well-matured ears of cylindrical form, having deep, slightly wedge-shaped kernels, but not so wedge shaped as to allow a vacant space between rows at tips. If breeding to create a new or special type of corn, ears with mixed or discolored kernels should not be used.

Corn yields readily to the hand of man, and only a few years are necessary to breed poor corn up to comparatively good quality, simply by selection, and if every farmer would but seek to better our native Kansas corn, by selecting ears with the best kernels and cobs, from model stalks, and store the seed in the proper manner, it would not be long until we would have a Kansas corn, which would unite beauty, nutrition, resistance to drouth, and production of good fodder crops. Let us look into it, for it is well worth while.

## How to Score Corn.

E. A. MORGAN.

Take a sample of ten ears of the variety, and with the score-card in hand showing the perfect score for that special variety proceed as follows:

**Uniformity.**—The ears should be similar whatever the kind, shape, or size. In scoring for uniformity, the ears should in all characteristics be true to the variety which they represent. In cases of slight differences cut according to the best estimates of the judge.

**Shape of Ears.**—Ears must be true to variety shape, or in general cylindrical, which will secure uniform size of kernels from butt to tip, and a large proportion of corn. Rows of kernels should be straight and parallel with cob. If rows run out or turn to right

or left, cut as per judgment of the judge. For a poorly shaped ear, not true to type, cut one-half point.

**Color of the Ears.**—The color of grains should be uniform. Yellow corn should have red cobs and white corn white cobs. Notice whether the red cobs are light red or dark red. If they vary it means a cut. For white kernels in a yellow ear or yellow kernels in a white ear, or shaded kernels, cut one-fourth point for every two mixed kernels. If there is one full point cut on any one division of the score, that throws the ear out on that score. That is in a score of ten points on ten ears each ear is value at one point and can not be scored off more than one point.

**Market Condition.**—The ears should be thoroughly matured, sound, firm, and free from mold, rot, or worm or insect injuries. Note ripeness, soundness, brightness of color, cut one-half point for each loosekerneled or chaffy ear. The vitality of seed may be found

**Uniformity of Kernels.**—The kernels should be uniform in size, color, and shape and size of germ, and they should be true to the variety type. They should be of such shape that their edges touch from tip to crown. Compare two kernels from each ear, taken from near the middle parts of the ear. Mark off one point for ear with kernels not uniform. In general, kernels should be wedge shaped, with straight edges. Mark according to the proportion of well-shaped kernels. Also consider the greatest percentage of corn to cob.

**Length of Ears.**—The length of ear should conform to the standard of the variety. It is important for the novice to notice here that an ear one inch longer than the standard is cut just as much as an ear one inch shorter than the standard. Measure from extreme tip to extreme butt. For every inch not conforming with the standard cut one-half point.

## SCORE CARD USED IN JUDGING CORN AT THE KANSAS STATE AGRICULTURAL COLLEGE IN 1903.

## FORM FOR INDIVIDUAL SAMPLE.

Date.....  
Number of Exhibit.....  
Name of Variety.....

## STANDARD OF VARIETY.

Length.....  
Circumference.....  
Proportion Grain of Cob.....

POINTS.	Perf. Score.	A	B	C	Av.	Corr. Score.
Uniformity of Exhibit: Uniform type, size, shape, color, and indentation.....	10					
Shape of Ears: Cylindrical, straight rows, proportional length to circumference.....	5					
Color of Ears: White kernels, white cob; yellow kernels, red cob.....	10					
Market Condition: Soundness, freedom from injury, maturity.....	5					
Tips of Ears: Filled out with regular sized kernels.....	10					
Butts of Ears: Kernels swelled out about shank regularly.....	5					
Uniformity of Kernels: Uniform type, shape, color, etc.....	5					
Shape of Kernels: Wedge shaped, straight edges.....	5					
Length of Ears: Conformity to the standard.....	10					
Circumference of Ears: Conformity to standard.....	5					
Space Between Rows: Furrows between rows of kernels narrow.....	10					
Per Cent of Corn: Conformity to standard.....	20					
Total.....	100					

Rank of Ears..... 1..... 2..... 3.....  
Rank for Protein and Oil..... 1..... 2..... 3.....  
Student's name.....

out by germination test. Ninety-seven per cent germination is considered equivalent to perfection in vitality.

**Tips of Ears.**—The ears should not taper too much near the tip. They should be well filled out with regular uniform kernels close up to the rounded kernels which always cover the extreme tip end. There should be no projection of the cob. For every exposed tip one inch long, cut one point, for less exposed tips and irregular kernels make smaller cuts.

**Butts of Ears.**—The ear should hold its size at the butt, a swelled butt being objectionable. The kernels should extend in regular rows and be uniform up to the last two kernels, and the cob should show a depression when the shank is removed. For a poorly filled butt in which kernels do not cover the cob, but are flat, shallow, and irregular, cut one-half point. In case kernels swell out in irregular manner cut one-fourth point. A medium shank is desired.

**Circumference.**—The circumference of ear should be uniform with the standard of the variety shown. Measure circumference toward middle of the ear but nearest to the butt. Add excess and deficiency of all ears and cut one-half point for every inch thus obtained.

**Space Between the Rows.**—When noticing space between rows, look well both at the edge and side of ker-

nels and also see if kernels are close together at the point as well as at the cap. For furrows less than one-thirty-second of an inch wide, no cut; one-thirty-second to one-sixteenth inch, cut one half point; for more than one-sixteenth, one point for each ear. This measurement to be taken from the width of furrows between the top of the rows of kernels.

**Per Cent of Corn.**—The proportion of corn to cob is determined by weight. The depth of kernels, size of cob and maturity all effect the proportion. Select one or more ears from the pile similar to the one you are scoring, weigh ears, shell and weigh corn and cob, find percentage of corn. The proportion of corn to cob is usually obtained by shelling every alternate ear of the exhibit and weighing the corn and cobs separately. Divide the weight of the shelled corn by the weight of corn and cob, which will give the per cent of corn to the ear. For each per cent short of the standard a cut of one-half point should be made.

When a red cob is found in an exhibit of white corn, or a white cob in yellow corn, a cut of 10 per cent is made. For one or two kernels of another color in an ear, a cut of one-fourth point is made; four or five more mixed kernels cut one-half point; kernels missing from an ear, except from the extreme butt or tip, should be counted the same as mixed. Differences in shade of color, as light and dark color in yellow varieties, white or cream color in white varieties, must be scored according to variety characteristics.

It will take some time for the new beginner to decide as to the number of points which he should score any variety. It is practically impossible to score any variety of ten ears of any exhibit, where all would be perfection in any single characteristic, and therefore they could not be scored the full number of points.

**DIETZ LANTERNS**  
are everywhere noted for shedding strong clear, white light. Hand lanterns, street and driving lamps, etc., many sizes and styles for all purposes. Send for free illustrated catalogue.  
R. E. DIETZ COMPANY, 25 Laight St., NEW YORK  
Established 1845

**BRICK AND DRAIN TILE** for your cash or in exchange. Write, **PELLA DRAIN TILE COMPANY**, Pella, Iowa.

**NICKEL RATE.** NO EXCESS FARE ON ANY TRAIN  
The New York, Chicago & St. Louis R.R.

Three Express Trains East Every Day in the Year. Pullman Drawing Room Sleeping Cars on all Trains. Trans-Continental Tourist Cars leave Chicago Tri-Weekly on Tuesdays and Saturdays at 2:30 p. m. and Wednesdays at 10:35 a. m.

**CHICAGO TO BOSTON WITHOUT CHANGE.**

Modern Dining Cars serving meals on Individual Club Plan, ranging in price from 35 cents to \$1.00, also service a la Carte. Direct line to Fort Wayne, Findlay, Cleveland, Erie, Buffalo, Rochester, Syracuse, Binghamton, Scranton,

**NEW YORK CITY, BOSTON AND ALL POINTS EAST.**

Rates Always The Lowest.

Colored Porters in uniform in attendance on all Coach Passengers. If you contemplate a trip East call on any convenient Ticket Agent, or address,

**JOHN Y. CALAHAN, Gen. Agt.,**  
118 Adams St., Chicago, Ill.



We are anxious to introduce our household remedies in every home throughout the Americas, and are doing so by sensational advertising to do this quickly and thoroughly. Will you order home remedies from us, either for yourself and relatives, or to sell among friends, and get a beautiful dinner set FREE?  
Send us your name and address and we will send you eight boxes of remedies, sell each box for 30c. and return the money. When we have received the money for the medicine, which we will send you immediately upon receipt of your order, without the payment of a single cent more than for eight boxes, after you have sold the \$1.00 worth and returned the money, we will without any further work on your part or payment of any kind whatsoever send you a beautifully decorated 12-piece CHINA dinner set, exactly as per out, with either brown, blue or gold decorations. FULL size for family use. This set is genuine CHINA, and has absolutely no trade-mark or advertisement of ours on it; all we ask you to do is to show it to your friends and tell them how you got it. Absolutely no other conditions. Dishes packed and shipped addressed to you free of charge. Our No. 2 box of remedies contains \$10 worth, and you can also secure many other valuable premiums therefor. \$1.00 REWARD to any one who will prove we do not do exactly as we say.  
**NEW YORK MEDICAL ASSOCIATION, Dept. 9111 Broadway, New York.**



# The Poultry Yard.

## Feeding for Size.

Thomas F. Riggs, of Iowa, not long ago gave it as his opinion that the reason the English produce birds of larger frame and heavier bone than we do in this country is because they feed, and always have fed, a ration of oats and other foods which are rich in blood- and bone-making qualities, and that corn enters but slightly into the food supplies of English fowls.

The subject has been discussed in several poultry journals, and in answer Mr. Riggs writes the Poultry Herald as follows:

In the first place the fact that very little Indian corn is fed in England is because corn there is comparatively expensive. It is a commercial condition. In the United States, especially in the great Mid-west, corn is very cheap, as a rule, and is the most available poultry food. Hence its use on the farm and in towns to the exclusion, almost, of all other poultry foods. With us, too, it is a commercial condition.

Please bear in mind this important fact: The English fanciers have taken the two greatest of all American poultry productions, the Wyandotte and Plymouth Rock, and by their system of feeding have greatly increased the size of these breeds and varieties without impairing in a single degree the great egg-yielding ability of these fowls. How have they accomplished this? Why, simply by feeding foods strong in blood- and bone-producing elements. In a very few years comparatively they have accomplished this result by this system of feeding. No thoughtful man will say this is not true.

This is a serious matter, and one which should receive the earnest consideration of every American fancier. Now is the time to consider this matter, now that the chicks are with us. I know that chicks which are given bone-making and muscle-making foods from the time they are hatched, develop into larger boned, stronger of muscle and stronger framed fowls than those fed largely on corn in its various forms. I know that a fancier who feeds as recommended here, can in a very few years, develop a strain which will, in that length of time, be far larger and more vigorous than fowls of the same breed or variety in the hands of a man who makes corn his chief food. I positively know this for I have accomplished the desired result. And one fact demonstrated is worth all the theory ever advanced by the corn-feed advocates and all others combined. We could go into the subject and explain the why and the wherefore scientifically, but this, it seems to me, is not necessary, for it is such a self-evident fact. It is a matter in which I am much interested, for I want to see the fowls of America the best in the world in every respect, as they are in nearly every respect. We have all the advantages, but too long have most American breeders been feeding with no thought of the scientific principle involved.

In a word the fancier who feeds foods rich in bone-, muscle-, and blood-making properties will in a few years build up a race of fowls large in bone and frame and of wonderful vigor. The fancier who feeds a ration lacking these elements and which is almost exclusively a fat-producer, as is corn, will produce a race of fowls of small bone and frame and of weak constitution. This is a law of nature, and it is invariably sure and consistent in its operation. Are your growing chicks receiving proper food rations?

## Better Hens.

To have more eggs in winter we must have hens bred to lay better. These hens must be so cared for and looked after as to be in proper shape to lay more eggs, and, above all, they must be properly fed to produce more eggs. Well or properly-bred hens that are well cared for and rightly fed are the ones to give the best returns in winter eggs. To have them bred for the purpose, hatch only from the hens

that are the best egg-producers. Don't hatch your chicks for laying pullets from inferior egg-producers. Use the trap-nest at least enough to be able to select your best laying hens and from these save the eggs from which to hatch your next winter-laying pullets. If this method be followed year after year vast improvement in the egg-yield will be gained. It is just as necessary to cultivate the egg-yield as to cultivate the milk-yield, or speed in the horse. It is all much a matter of breeding, training, and feeding, mixed in with a lot of good care and attention.—The Feather.

## The Greatest on Earth.

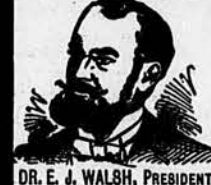
"Poultry," a poultry paper published in London, England, says that the American hen is a far better layer than the English hen.

A number of English poultrymen are importing cocks from America from superior laying strains of American poultry.

In competitions held in England and in Australia, the American hen has proved her superiority.

The American White Plymouth Rock variety of fowls are to-day right on top of the wave of popularity. They are recognized throughout America as one of the very best general purpose varieties bred.

As producers of both quality and quantity of meat and eggs, they have no superiors, being great layers and weighing when full grown from seven to ten pounds. Their size, white plumage, yellow legs and skin makes them at once the ideal farmer's fowl.



**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 stamps. All letters answered in plain envelope. Virocure cured in five days. Call or address

**Chicago Medical Institute,**  
518 Francis Street,  
ST. JOSEPH, MISSOURI.

**WARM YOUR HOUSE**  
at low cost by using the LEADER Steel Furnace. Saves coal, time, trouble. Send for free booklet No. 22 Home Warming and Ventilating Co., Chicago, Ill.

## POULTRY BREEDERS' DIRECTORY.

**BLACK LANGSHAN EGGS** for sale, 5 cents a piece. Minnie M. Steel, Gridley, Kans.

**BARRED ROCKS ONLY**—Heavy boned, vigorous stock, unlimited range. Eggs carefully and securely packed. 100, \$4, 15, \$1 Adam A. Wier, Clay Center, Neb.

**SUNNY NOOK POULTRY YARDS**—S. C. B. Leghorn eggs, from vigorous, good layers, \$1 per 15. John Black, Barnard, Kans.

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

**EGGS FROM GEM POULTRY FARM** are sure to hatch high-scoring Buff Plymouth Rocks. No other kind kept on the farm. 15 for \$2; 30 for \$3.50. Satisfaction guaranteed. M. B. turkey eggs, 11 for \$2. C. W. Peckham, Haven, Kans.

**COLLIE PUPS AND B. P. ROCK EGGS**—I have combined some of the best Collie blood in America; pups sired by Scotland Bay and such dams as Maudsone Nellie and Francis W. and others just as good. B. P. Rock eggs from exhibition stock; none better; 15 years' experience with this breed. Eggs \$1.50 per 15. Write your wants. W. B. Williams, Stella, Neb.

**Rose Comb Brown Leghorns**  
Exclusively. Farm raised. Eggs per setting of 15, \$1. Incubator users write for special prices in 100 lots. F. H. MAHON, R. D. No. 3, Clyde, Cloud Co., Kans.



**DUFF'S POULTRY**

During the summer months we will sell all our fine breeders, consisting of over 400 one-year-old birds, from our breeding pens of this season. Birds costing us from \$5 to \$25 will all go at from \$1.50 to \$5 each. We will also sell spring chicks all summer. Our stock can not be excelled by any in standard requirements and hardiness. Barred Plymouth Rocks, White Plymouth Rocks, Buff Cochins, Partridge Cochins, Black Langshans, Light Brahmas, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs and S. C. Brown Leghorns. Single birds, pairs, trios and breeding pens. Circulars Free. Write your wants.

**A. H. DUFF, Larned, Kans.**

## HORSES.

# Percheron Horses

HENRY AVERY & SON, WAKEFIELD, KANSAS.

## Registered Stallions For Sale

15 HEAD AT SPECIAL PRICES CONSISTING OF

Five Percherons, 2 to 5 years old—all black but one, and that a black-grey; two black yearling Percherons; four Shires, 3 to 7 years old; three trotting-bred horses, 3- and 4-year-olds; one registered saddle stallion. All but two at prices from \$200 to \$1,000 each. Come at once for bargains.

SNYDER BROS., WINFIELD, KANSAS.

# ROBISON'S PERCHERONS AND SHORTHORNS

Percheron Herd headed by Casino (45462) 27830. Prize-winner Notional Show of France 1901. Winner of first prize at Missouri and Kansas State Fairs 1902. Shorthorn herd headed by Airdrie Viscount, a son of the great Lavender Viscount, champion of America in 1900 and 1901. Stock for sale. Address

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

## THE AMERICAN

# Percheron Horse Breeders & Importers Association

Capital Stock, \$10,000.00. Shares, \$10.00 Each

Incorporated under the laws of Illinois.

No proxies can be used in this Association and no person or firm allowed more than ten votes. Our legal rights are fully and finally established by the courts. ONLY PERCHERON ASSOCIATION IN AMERICA RECOGNIZED BY THE UNITED STATES GOVERNMENT. It is the objects of this Association to have its stock as widely scattered as possible, that the Percheron interests of the whole country, may be represented in its membership. We are now ready to sell stock and receive applications for registry. For application blanks, stock and full information, address,

**GEO. W. STUBBLEFIELD, Secretary,**  
Bloomington, Ills.,



## America's Leading Horse Importers

At the Great Annual Show of France held at Evreux June 10 to 14, our stallions won first, second, third, and fourth prize in every Percheron stallion class; also won first as the best collection.

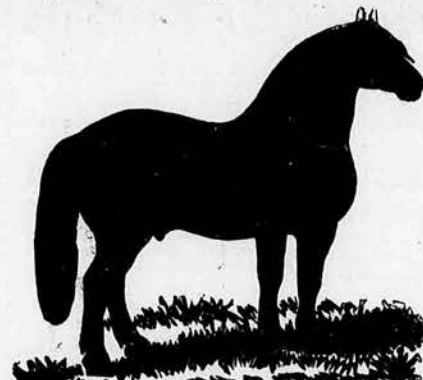
At the Show of the Societe Hippique Percheronne De France held at Nogent-le-Rotrou from the 18th to the 21st of June, our stallions won every first prize, over forty prizes in all. Two groups were made up of our exhibit, on which we won first and second.

This prize-winning importation consisting of a hundred and nine stallions arrived home July 28, and is by far the best lot of horses ever imported to America.

Call on us if your neighborhood needs a good stallion. A catalogue and calendar sent on application.

**McLAUGHLIN BROS., Columbus, Ohio,**  
Emmetsburg, Iowa. Kansas City, Mo.

## Cheyenne Valley Stock Farm.



F. H. Schrepel, Ellinwood, Kans.

Breeder of  
**PERCHERON HORSES and  
POLAND-CHINA HOGS**

For Sale—Fifteen young stallions and a few mares. Inspection and correspondence invited.

## Prospect Farm



H. W. McAFEE, Topeka, Kans.

Breeder of  
**CLYDESDALE HORSES,  
SHORTHORN CATTLE**

FOR SALE—Two Clydesdale Stallions, one 5 years old, weight 1,750 pounds, the other 2 years old, weight 1,400 pounds; registered and sound.

Inspection and correspondence invited.



Passenger Service Exclusively  
**MANITOU STEAMSHIP CO.**

For the Tourist who desires to unite pleasure with comfort at moderate cost.  
For those Seeking Health in the balmy and invigorating Lake Breezes.  
For the Business Man to build up his shattered nerves.  
Three sailings each week between Chicago, Frankfurt, Charlevoix, Petoskey, Harbor Springs and Mackinac Island, connecting for Detroit, Buffalo, etc. Booklet free.

**JOS. BEROLZHEIM, G. P. A.,**  
Chicago.

# CREAM

"I have found it much more profitable to sell cream to you than to make butter or to ship cream to any other creamery, and I have tried others."

S. A. HAGUE, Lyons, Kans.

It pays others to patronize us and it will pay you. We furnish cans free. Write for price.

**O. F. CHANDLER CREAMERY CO.,**

416 West Sixth Street, Kansas City, Mo.



## DUROC-JERSEY SWINE.

**D. M. TROTT** ABILENE, KAS., famous Duroc-Jerseys, Poland-Chinas.  
Registered Stock. DUROC-JERSEYS, contains breeders of the leading strains.  
N. B. SAWYER, CHERRYVALE, KANSAS.

**MAPLE AVENUE HERD** **J. U. HOWE,**  
**DUROC-JERSEYS,** Wichita, Kansas  
Farm 2 miles west of city on Maple Ave.

**FAIRVIEW HERD DUROC-JERSEYS**  
Combination Sale July 9. At Sabetha, Oct. 28, sale of males at the farm. February 5, 1904, bred sow sale at farm. J. B. DAVIS, FAIRVIEW, KANS.

**DUROC-JERSEYS.**  
Duroc-Jerseys for sale. Choice 1903 pigs, both sexes. Prices \$20 and \$25, 125 head in herd to select from. NEWTON BROS., Whiting, Kans., and Goffs, Kans.

**DUCK CREEK HERD OF**  
**Duroc - Jersey Swine.**  
200 head to choose from. Write us your wants.  
Mitchell Bros., Buxton, Wilson Co., Kans.

**ROCKDALE HERD OF**  
**Duroc - Jersey Swine.**  
Has for sale 100 head of spring pigs of fashionable breeding, and good individuals. Correspondence and inspection invited. Free rural delivery and telephone from Frankfort. J. F. Chandler, Frankfort, Kans.

**MAPLEWOOD HERD OF**  
**DUROC - JERSEYS.**  
Our herd is headed by our fine herd boar, Missouri Champion 18349. Our spring pigs are doing excellently and we will be able to fill orders promptly with the very best, as we make it a specialty to select to please our customers. If you want some heavy-boned pigs with extra good length, send in your order.  
J. R. IMHAUSER, Mgr., Sedalia, Mo.

**Rose Hill Herd**  
**DUROC - JERSEY HOGS.**  
I have some choice February and March pigs for sale out of large, old sows of the most prolific strain and best breeding, sired by four good, well-developed boars. I can supply old customers with new blood, or pigs not related. I have the kind that will please you.  
S. Y. THORNTON, Blackwater, Mo.

**Standard Herd of Registered**  
**Duroc-Jersey Swine, Red Polled Cattle,**  
**and Angora Goats.**

Swine herd headed by Big Joe 7968 and Ohio Chief. Cattle herd headed by Kansas 8808. All stock reserved for October sale.  
PETER BLOCHER, Richland, Shawnee Co., Kas.

## POLAND-CHINA SWINE.

**East Side Herd Poland-Chinas**  
Combines the best strains of blood in the breed. 24 spring litters. Royal Blue 27642 by Big Chief Tecumseh 2d, first boar in service. Write for list of sires and dams in herd. W. H. BARR, ELLIOTT, IOWA.

**Shady Lane Stock Farm**  
HARRY E. LUNT, Proprietor,  
Burden, Cowley Co., Kans.  
A few choicely bred Poland-China Boars for sale; also fine B. P. Rock poultry.

**Kansas Herd of Poland-Chinas**  
Has some extra fine sires bred; also some fall boars. Will sell Sen. I Knew, he by Perfect I Know. Address—  
F. P. MAGUIRE, - - HUTCHINSON, KANS.

**Elmdale Herd of High-Class**  
**POLAND - CHINAS**  
Shawnee Chief 28502 at head of herd. A few choice fall boars for sale.  
W. L. REID, Prop., R. R. 1, North Topeka, Kas.

**SHADY BROOK STOCK FARM**  
**POLAND-CHINAS.**  
I keep constantly on hand all sizes and ages of high-class Poland-China pigs. Quality high, prices low. Write for description and price to  
H. W. CHENEY, - - North Topeka, Kans.

**PECAN HERD OF**  
**Poland-Chinas**  
Will you want a few Bred Sows or Glits for fall farrow, bred to Model Tecumseh or American Royal? Also fall Boars, sired by Model Tecumseh 64183.  
J. N. WOODS & SON,  
R. F. D. No. 3. - - Ottawa, Kans

**...THOROUGHbred...**  
**Poland-China Hogs.**

I am cleaned up on boars and bred glits. I have some nice open June glits and can spare a few yearling bred sows. Orders booked for spring pigs by Keep On 61016, Imperial Chief 2d 28778, Black Perfection 27183, and Corwin Improver 25768. On Missouri Pacific R. R., one mile west of Kickapoo, Kans.  
JOHN BOLLIN,  
R. F. D. No. 5, Leavenworth, Kans.

**..Oak Grove Herd..**  
**OF PURE-BRED**

**Poland-Chinas**  
For Sale—A few choice Boars and 50 Glits, some bred for early spring farrow. Write, or come and see.  
R. F. D. 5,  
Gus Aaron, Leavenworth, Kas.

## POLAND-CHINA SWINE.

**FOR SALE** Poland-China Hogs, Holstein-Friesian Cattle; either sex. Best strains represented. H. N. HOLDEMAN, Rural Route No. 2, Girard, Kansas.

**Dietrich & Spaulding, Richmond, Kas.**  
For Sale—Imperial Chief 3d, litter brother to our great show sows. Some choice fall boars and glits. Place your order for glits—bred for fall farrow.

WAMEGO HERD  
...OF...

## Poland-Chinas

With Black Tecumseh 25116 at head, he by Big Tecumseh 24422, a grand individual and sire of large, strong, growthy fellows, nearly perfect in color, coat, and markings. Large M. R. turkeys and B. P. chickens for sale. Correspond with me at Wamego, Pottawatomie County, Kansas. C. J. HUGGINS.

Providence Farm  
Poland - Chinas.

Correct by Corrector, Perfection Chief 2d by Chief Perfection 2d, Jewell's Silver Chief, and Kron Pring Wilhelm, herd boars. Up-to-date breeding, feeding qualities, and large, even litters in this herd. Young stock for sale.  
J. L. STRATTON,  
One - Mile - Southwest - of - Ottawa, Kans.

Closing Out  
ROME PARK POLAND-CHINAS  
AND BERKSHIRES.

Strictly choice show animals of Glit Edged breeding. Established 20 years. For Sale—100 sows and glits bred and not bred, 20 short yearlings and aged boars. Summer and fall pigs of all ages. Reduced prices before sale.  
T. A. HUBBARD, ROME, SUMNER CO., KANSAS.

## CHESTER WHITE SWINE.

**PLEASANT VALLEY HERD**  
**OF CHESTER WHITE SWINE**  
The kind that raises large litters of strong, healthy pigs. Sows have no trouble at farrowing time. Young stock of both sexes for sale. Pedigrees with every sale. A. F. Reynolds, R. R. 4, Winfield, Kans.

**D. L. Button, N. Topeka, Kas.**  
**BREEDER OF**  
**Improved Chester Whites**  
Stock For Sale.  
Farm is 3 miles northwest of Reform School.

**The Crescent Herd**  
**O.I.C. The World's Best Swine.**

Bred Glits all sold. A few choice boars large enough for service left. The best crop of springs we ever raised for sale. B. P. Rock and Pekin Duck eggs for sale, and prices right. Write today for catalogue prices.  
JOHN W. ROAT & CO.,  
CENTRAL CITY, NEBRASKA.

## BERKSHIRE SWINE.

## Large English Berkshires

Sold out of bred glits; only a few fall pigs. Orders booked for spring farrow.

Manwaring Bros., R. R. 1, Lawrence, Kans.,  
Telephone 222-2.

## Knollwood Farm Herd

**B** LUE BLOODED  
IG BONED  
ROAD BACKED  
ERKSHIRES...

**A Fancy Lot of Spring Pigs.**  
**E. W. MELVILLE, EUDORA, KANS.**

## Large English Berkshires

A choice lot of extra good young boars and glits of the most popular families. ROME PARK CHIEF 64775 head of herd. Headlight, Crown Imperial, and other equally good blood lines represented. Large herd to select from.  
W. H. S. PHILLIPS, CARBONDALE, KANSAS.

## ...THE...

## WILLOWDALE

## Berkshires

ROYAL BARON 58846, the Greatest Show Boar in the World, at head of herd. Home of the Winners.

**SPECIAL OFFER FOR 80 DAYS**—Fall pigs, both sex sired by Royal Baron, Baron Lee 8th, and Baron Duke by Lord Premier, the boar that headed the sweepstakes herd at Kansas City last October. Special prices to make room for big spring crop.

**G. G. Council,**  
Williamsville, Ill.

## BERKSHIRE SWINE.

## ...EAST LYNN...

## Champion Berkshires.

Our herd won the Kansas State prize at the American Royal Show at Kansas City in 1902.  
ONLY THE BEST.

Imported and American-bred stock for sale. A few choice sows bred, at prices that will move them. Inspection invited six days in the week.

WILL H. RHODES, Tampa, Marion Co., Kans.

## East Reno Berkshire Herd.

Best Imported and American Blood. My herd is headed by Elma King 66056, a son of the high prices sow Imp. Elma Lady 4th 44688. Choice spring pigs by three grand boars for sale. Also bred sows and glits. Send for free circular.

G. D. Willems, R. F. D. 3, Inman, Kans.

## TAMWORTH SWINE.

REGISTERED  
Tamworth Hogs

Twenty-five pigs of April, May, and June farrow for sale at reasonable prices to make room for fall pigs. Must take them this month. A few sow pigs for sale. Write, ☐

C. W. Freeloove, Clyde, Kansas.

## HEREFORD CATTLE.

MODEL BLUE GRASS FARM  
HEREFORDS

**STOCK FOR SALE.**  
**OVERTON HARRIS, - - Harris, Mo.**

Weston Stamp Herd  
REGISTERED.....

Anxiety 4th females with Ambercrombie 85007 at head.

WM. ACKER, VERMILLION, KANSAS.

**J. A. CARPENTER,**  
Carbondale, Kans.  
**Breeder of Pure-Bred**  
**HEREFORD CATTLE**  
Special—For sale, four long yearling bulls, good condition.

VERMILLION HERFORD CO.,  
VERMILLION, KANSAS.

Boatman 56011 and Lord Albert 131557 head of herd. Choice young stock of both sexes for sale.

E. E. WOODMAN, Vermillion, Kans.

## Registered Herefords

**THOS. EVANS, BREEDER,**  
Hartford, Lyon Co., Kans.  
Five bulls from 12 to 20 months old, nine 2-year-old heifers bred, and 16 yearling heifers old enough to breed.

## SUNFLOWER

## Registered Herefords.

200 Head in Herd. Herd Bulls now in use are sons of Don Carlos 88734. Twenty-four Young Bulls ready for service for sale.

D. L. Taylor, Sawyer, Pratt County, Kansas.

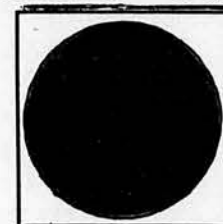
## ...Hazford Herefords...

Herd headed by the young show bull, Protocol 2d 91715, assisted by Major Bean Real 71621, a nephew of Wild Tom. Females largely the get of Bernadotte 2d 71634. A few choice young bulls for sale.

Robt. H. Hazlett, Eldorado, Kas.

**STEELE BROS.,**  
BELVOIR, DOUGLAS CO., KANS.,  
**BREEDERS OF SELECT**

## Hereford Cattle.



Young Stock For Sale. Inspection or Correspondence invited.

## RUBY RED HEREFORDS.

100 REGISTERED CATTLE FOR SALE  
WE BREED, BUY, AND SELL

Our individuals are low, blocky, dark red, with drooping horns mostly. Their ancestry is the richest: Lord Wilton, The Grove 3d Anxiety, Earl of Shadeland 2d, and Hesiod. Three extra yearling Bulls and 7 good. Twenty yearling Heifers. Seventy Cows and Calves.

**POLAND-CHINA SWINE.**  
Choice Registered Stock of both sexes for sale.  
R. J. SIMONSON, Mgr, Cunningham, Klamath Co., Kas

## HEREFORD CATTLE.

The Wayside Herd of Registered  
HEREFORDS

"ANXIETY WILTONS." Bulls in service are Printer 65854, March On 14th 106676, and Good Sign 140857. Next public offering at Sioux City, Iowa. Watch for date. You had better get some Printer heifers while you can. They will be higher than a cat's back after this year. Paste this in your hat. Savey?  
W. W. GRAY, FAYETTE, MO.

SOLDIER CREEK HERDS OF  
Herefords, Shorthorns,  
Polled Shorthorns

**SERVICE BULLS:**  
**HEREFORDS**  
Columbu 17th 91364, Elvina's Archibald 75998, Jack Hayes 2d 119761, Jack Hayes 3d 124109.  
**SHORTHORNS**  
Jubilee Stamp 126017, Orange Judding 149469  
**POLLED**  
Scotch Emperor 133646, Ottawa Star 113109.  
Herd consist of 500 head of the various fashionable families. Can suit any buyer. Visitors welcome except Sundays. Address  
**JOSEPH PELTON, MANAGER,**  
Kiowa County, Belvidere, Kansas.

SCOTT & MARCH,  
BREEDERS OF  
HEREFORD  
CATTLE

## BELTON, MO.

**BULLS in Ser-**  
**vice:** HESIOD 29th,  
Imp. RODERICK, GILTEDGE,  
—son of Dale and Expansion.  
A car-load of Heifers bred to our best bulls, and a car-load of choice Bulls, 18 to 24 months old at private treaty.

## SHORTHORN CATTLE.

**MAPLE LEAF HERD OF THOROUGHbred**  
**SHORTHORN CATTLE and**  
**POLAND - CHINA SWINE.**  
Farm is 2 miles south of Rock Island depot.  
JAMES A. WATKINS, Whiting, Kans.

**FOR SALE MY HERD BULL,**  
Aberdeen Knight 165297.  
Got by Orange King 130761, out of Mary Aberdeen, tracing to imported Young Mary; 2 years old, deep red, a splendid breeder. A bargain for someone.  
HARRY EVANS,  
Pleasanton, Kan.

Rocky Hill Shorthorns  
and Saddle Horses

Sempstress Valentine 157771 and Mayor 129229 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.

## Valley Grove Shorthorns.

Bulls, bred heifers, and cows with calves at foot sired by Lord Mayor 112727, Knight Valentine 157068 and Golden Day for sale. Heifers bred to Golden Day and calves at foot by each herd bull.

**T. P. BABST & SONS, Auburn, Kans.**  
Telegraph Station, Valencia, Kans.

## Shorthorn Cattle.

For immediate sale, 12 bulls ready for service, and 12 bull calves. Also 20 cows and heifers, 1 to 7 years old. Give me a call, or  
..... Address .....

**H. R. LITTLE, - - - Hope, Kans.**

...THE...  
...N. MANROSE...

## Shorthorns

Rural Route 5, Ottawa, Kans.  
Giltepur's Knight 171591, at head of herd. Young bulls ready for service, for sale.

## HERD BULL

**FOR SALE OR TRADE.**

Having used my herd bull on my small herd of Shorthorn cows as long as practical I offer him for sale or trade. He is out of a pure Duchess cow and by a pure-bred Orickshank bull. Guaranteed a breeder and all right. For particulars, address DR. C. M. COE,  
916 Walnut St., Kansas City, Mo.



## SHORTHORN CATTLE.

**F. NORTON'S SHORTHORNS.**  
DUNLAP, MORRIS CO., KANS.  
Breeder of Pure-bred SHORTHORN CATTLE.  
Herd bull, Imported British Lion 133692.  
Young stock for sale.

## GLENWOOD HERDS

**SHORTHORN CATTLE**  
**POLAND-CHINA HOGS**  
VICTOR of WILDWOOD 126054, a pure Crutchshank-Orange Blossom in service. Females of highest Scotch quality. Choice bulls and females for sale.

**C. S. NEVIUS, Proprietor.**  
Chiles, - - Miami County, - - Kansas.  
40 miles south of Kansas City, on Missouri Pacific Railroad. Telephone at farm.

**PONY CREEK HERD**  
**SCOTCH AND SCOTCH-TOPPED**  
**SHORTHORNS**

Young stock by the roan champion bull John Ward 159491 and by the present herd bull Barmpton Knight 148795. Choice breeding, good individuals, and square dealing. Address **E. D. LUDWIG,**  
R. R. No. 2, Sabetha, Kans.

## ...GREENDALE RANCH...

BREEDERS OF  
**PRIZE-WINNING**  
**SHORTHORN CATTLE,**  
**BERKSHIRE SWINE,**  
**SHROPSHIRE SHEEP**

Great constitution and lung capacity gained in high altitudes. A few select young swine and sheep for sale. **ED. GREEN, MORRISON, COLORADO.**

## EUREKA VALLEY BREEDING FARM

CHOICE SCOTCH SHORTHORNS sired by 22d Earl of Valley Grove 142589. Herd headed by Gloucester's Best 178044. Young bulls for sale. Also breeders of Percheron and French Coach horses. Address **Warner & Odle, Manhattan, Kansas.**

**CHERRY CREEK HERD**  
**Pure Scotch and**  
**Scotch-topped ....**

**Shorthorns**

Imported Scottish Knight 133371 heads the herd.  
**H. W. WEISS,**  
Formerly of Sutherland, Iowa. Westphalia, Kas

**Mt. Pleasant Herd**  
**SHORTHORNS**

Herd Bull For Sale—Acomb Duke 18th 142177, is worth looking after; also 13 young Bulls ready for service, and eight young Cows with calves by Acomb Duke 18th. Inspection invited.  
**A. M. ASHCRAFT,**  
R. R. No. 3, Atchison, Kans.

## Sunflower Herd of....

**SCOTCH AND SCOTCH-TOPPED**  
**Shorthorn**  
**Cattle,**  
**Poland-China**  
**Swine.**  
Two Scotch bulls in service. Representative stock for sale. Address **Andrew Fringle,**  
Eskridge, Wabaucon County, Kansas.

## Glendale Shorthorns

Imp. Prince Lovely 153880 and Scotland's Charon 127254 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.

**C. F. WOLF & SON,**  
**OTTAWA, KANSAS.**

**SILVER CREEK**  
**Shorthorns**

The imported Missle bull, Aylesbury Duke 159763, and the Scotch bull Lord Thistle 129960 in service. A few Aylesbury Duke bull calves of most excellent individuality for sale. See our herd at the prominent Western shows this fall.

**J. F. Stodder,**  
BURDEN, COWLEY CO., KANS.

## SHORTHORN CATTLE.

**MEADOW BROOK SHORTHORNS**—Ten fine young bulls for sale—all red. Red Laird, by Laird of Linwood, at head of herd.  
**F. C. KINGSLEY,**  
Dever, Shawnee County, Kansas.

## COPELAND'S

**Shorthorns**

I have a few good Shorthorn cows and heifer calves for sale, also a few young bulls from 6 to 8 months old, the best for I ever bred. Herd headed by my fine Scotch bull, Minister 2d 150171.  
**J. M. COPELAND, Glasco, Cloud Co., Kas**

**Elder Lawn Herd**  
**Shorthorns**

Headed by **GALLANT KNIGHT** and Imp. Tilly Cairn  
Bulls, Cows, and Heifers, for sale at bargain prices. Can supply females in car-load lots if desired. Some show yard material.  
**T. K. TOMSON & SONS, Dever, Shawnee Co., Kas.**

## Pearl Shorthorn Herd.

**BARON URY 2d 124970 and**  
**SUNFLOWER'S BOY 127337**  
Head the Herd.



25 Non-Registered  
1-Year-Old Shorthorn Heifers  
of best quality  
and in extra condition, sired by such bulls as Marquis, King Pearl, and Dora's Knight.

Can ship via Rock Island, Union Pacific, Santa Fe, or Missouri Pacific Railways.  
Call, telephone, or write to

**C. W. Taylor**  
PEARL, DICKINSON COUNTY, KANSAS.

## ABERDEEN-ANGUS CATTLE.

**ABERDEEN-ANGUS CATTLE**  
**AND PERCHERON HORSES**  
FOR SALE. All stock recorded.  
**GARRET HURST, PECK, KANSAS.**

## Sutton's Doddies.

40 Bulls For Sale.  
Every one a good one and at farmers' prices. Elegant breeding and quality. The kind that sire my champion steers.  
**Chas. E. Sutton, Russell, Kansas.**

**ALLEDALE HERD OF**  
**Aberdeen - Angus Cattle.**

The Oldest and Largest in the United States.  
Splendid recently imported bulls at head of herd. Registered animals on hand for sale at reasonable prices at all times. Inspect herd at Alleddale, near Iola and La Harpe; address Thos. J. Anderson, Manager, Iola, Allen Co., Kans., R. R. 2, or—  
**ANDERSON & FINDLAY, Proprietors, Lake Forest, Ill**

**THE SUNFLOWER HERD PURE-BRED**  
**Angus Cattle**

Herd headed by **HALE LAD** 30645. Herd numbers 250 head, the largest herd bred by owner in America. Stock for sale. Address **PARRISH & MILLER,**  
Hudson; Stafford Co., Kans.

**Jim Creek Herd**  
**..Aberdeen-Angus Cattle..**

Reginal Doon 32728 and Gardner Mine 32240 at head of herd. 100 head of splendid bulls, 11 to 23 months old, weighing up to 1200 pounds, for sale. Prime condition, not registered. Guaranteed breeders and a snap in prices. Address

**C. H. Butler, Frankfort, Kansas**

## GALLOWAY CATTLE.

**CLOVER CLIFF FARM**  
Registered Galloway Cattle

Also German Coach, Saddle, and trotting-bred horses. World's Fair prize Oldenburg Coach stallion Aabo, and the saddle stallion Rosewood, a 16-hand 1,100-pound son of Montrose in service. . . . Visitors always welcome. **BLACKSHERE BROS.,**  
ELMDALE, CHASE COUNTY, KANSAS.

**VARICOCELE**

A Safe, Painless, Permanent Cure GUARANTEED. 30 years' experience. No money accepted until patient is well. CONSULTATION and valuable BOOK FREE, by mail or at office.  
**DR. C. M. COE, 915 Walnut St., Kansas City, Mo.**

## GALLOWAY CATTLE.

**E. H. WHITE, KOTHEVILLE, IOWA**  
...Importer and Breeder of...  
**GALLOWAY :: CATTLE**  
Herd Foundation Stock  
A Specialty.  
Few Choice Females and  
14 Bulls For Sale  
Inspection or Correspondence  
Invited.

**CLOVER HILL FARM.**

Breeders of CHOICE REGISTERED  
**Galloway Cattle.**  
Arnold the Great 15520 by King Hensol and Decoy of Waverline 17094 by Imp. Miro of Castlemilk at head of herd. Extra fine young bulls by Arnold the Great for sale. **GEO. M. KILLAM & SON,**  
Richland, Shawnee Co., Kans.

## RED POLLED CATTLE.

**ENGLISH RED POLLED CATTLE**—Pure-bred Young Stock For Sale. Your orders solicited. Address **L. K. HAZELTINE, DORCHESTER, GREEN CO., MO.** Mention this paper when writing.

**COBURN HERD OF RED POLLED CATTLE.**  
Herd now numbers 115 head. Young bulls for sale. **Geo. Greenmiller & Son, Centropolis, Franklin Co., Kans**

**Red Polled Cattle**

of the Choicest Strains and good individuals. Young animals, either sex, for sale. Also breeders of.....

Percheron Horses, Improved Chester White Swine, Bronze Turkeys, and Plymouth Rock Chickens. Address **S. C. BARTLETT,**  
R. F. D. No. 5, Wellington, Kans.

**PHILLIPS COUNTY HERD**

**RED POLLED CATTLE, POLAND-CHINA SWINE**  
**PARTRIDGE COCHIN CHICKENS,**  
**MAMMOTH BRONZE TURKEYS.**  
The herd bull, King of Valley Lawn 4989, for sale. Will book orders for young stock.  
**CHAS. MORRISON, Rural Route No. 2, PHILLIPSBURG, KANSAS.**

## SHEEP.

**Anoka Flocks**  
Cottswolds and Ramboulllets. Foundation for flocks a specialty. Correspondence and inspection invited.  
**GEO. HARDING & SON, WAUKESHA, WIS.**

**8 Years of Progress**

IN RICE CULTURE IN SOUTH TEXAS.  
Yr. Acres Barrels Yr. Acres Barrels  
1895. 2,000. 15,000 1896. 40,000. 425,000  
1896. 5,000. 50,000 1897. 70,000. 500,000  
1897. 10,000. 80,000 1901. 112,000. 1,000,000  
1898. 15,000. 180,000 1902. 120,000. 2,000,000  
The 1902 crop sold at from \$3 to \$4 per bbl. Any man who knows how to raise wheat or oats can raise rice. The profits are sure. "Texas," a 144-page book with full particulars, will be sent to anyone addressing "Katy," St. Louis.

**LADIES** My Regulator never fails. Box FREE. **DR. F. M. MAY, Box 51, Bloomington, Ill**

**BED-WETTING CURED.** Sample FREE. **DR. F. M. MAY, Bloomington, Ill**

**POLAND-CHINA PIGS.**

phone. If desired, express paid by me. I am not selling out, I am here to stay. Reference Kansas Farmer.

## LIVE STOCK AUCTIONEERS.

**J. M. SARE,**  
**LIVE STOCK AUCTIONEER**

Here to Stay.  
Pedigreed, Graded Stock, and Farm Sales made anywhere. Posted on pedigrees and values of all classes of stock. References: Bradford Miller, William E. Corbett, and others. Terms reasonable. Write for dates. New style cloth sale bills; stand wind and rain. Sale Register Free. A. F. Horner, office, manager, 534 Kansas Avenue, Topeka, Kans. Phone 301. Mention Kansas Farmer.

**JAS. W. SPARKS,**  
**Live Stock Auctioneer,**  
**MARSHALL, MO.**



Ten Years Successful Selling for the best breeders in America. Posted on pedigrees and values of all classes of pure-bred stock. Sales made anywhere. Terms very reasonable. . . . Write me before fixing dates.

**CAREY M. JONES,**  
**Live Stock Auctioneer**  
DAVENPORT, IOWA. Have an extended acquaintance among stock breeders. Terms reasonable. Write before claiming date. Office, Hotel Downes.

**JOHN DAUM,**  
**Live Stock Auctioneer**  
NORTONVILLE, KANSAS.

Fine Stock a specialty. Large acquaintance among Stock breeders. Sales made anywhere. Write or wire for dates.

**Live Stock Auctioneer.****J. N. HARSHBERGER,**

Lawrence, Kansas.  
Special attention given to selling all kinds of pedigreed stock; also large sales of graded stock. Terms reasonable. Correspondence solicited. Mention Kansas Farmer.

**R. L. HARRIMAN**  
**LIVE STOCK**  
**AUCTIONEER**

**BUNCETON . . . MISSOURI**  
Twenty years' devoted to breeding, handling, and selling pure-bred live stock.  
**SALES MADE EVERYWHERE**  
Well posted in pedigrees, quality, and values. Am selling successfully for the best breeders in the United States. Terms reasonable. Write before fixing dates.

**CRITERION HOTEL**

**BROADWAY AND 41ST STREET,**  
**NEW YORK.**  
**HANDY TO EVERYWHERE.**  
**EUROPEAN PLAN.**  
**G. T. STOCKHAM,**  
Formerly Manager Midland Hotel, Kansas City.

**WINDSOR-CLIFTON HOTEL....**

Monroe and Wabash Ave., Chicago.  
Centrally located; has 250 rooms \$1.00 up; also First-Class Restaurant at popular prices. **CHRIST HEIPP, Prop.**

**PUBLIC SALE OF 50 PURE-BRED HEREFORD CATTLE!**

By the Central Missouri Hereford Breeders' Association  
**AT MOBERLY, MISSOURI, THURSDAY, SEPTEMBER 3, 1903.**  
Good Cattle At Your Own Price.

MEMBERS OF THE ASSOCIATION  
Anderson Barnes, Clark, Mo.; W. J. Boney & Sons, Cairo, Mo.; S. L. Brook Macon, Mo.; Ernest Cottingham, Clark, Mo.; Evan Davies, Keytesville, Mo.; B. H. Downing, Clark, Mo.; E. B. & H. F. Dunivent, Clifton Hill, Mo.; J. J. Early, Baring, Mo.; Geo. E. Ess, Clark, Mo.; B. B. Fraser, Lexington, Mo.; Eugene Garven, Moberly, Mo.; Garnett & Matthews, Ewing, Mo.; W. W. Gray, Fayette, Mo.; S. P. Hulen, Clark, Mo.; T. C. Henderson, Hatton, Mo.; H. F. Lamb & Son, Cairo, Mo.; J. G. Littrell, Clark, Mo.; A. R. McCune, Clark, Mo.; N. E. Mosher & Son, Sallsbury, Mo.; J. M. Proctor & Son, Monroe City, Mo.; Payton Bros, Sallsbury, Mo.; D. B. Rogers, Brookfield, Mo.; P. E. Spelman, Clark, Mo.; M. A. Spelman, Clark, Mo.; J. E. Summers & Sons, Huntsville, Mo.; J. D. Switzer, Clarence, Mo.; Stewart & Hutcheon, Greenwood, Mo.; J. A. Stewart, Columbia, Mo.; J. N. Taylor, Huntsville, Mo.; H. C. Taylor, Roanoke, Mo.; J. L. Terrall & Son, Callao, Mo.; J. E. Vansickle & Sons, Macon, Mo.; Wardell & Gattay, Macon, Mo.; James Wren, Keytesville, Mo.; J. E. Wirt, Clark, Mo.; Alfred Wright, Atlanta, Mo.

A postal card with your name will bring you a Catalogue.  
**S. L. Brook, Secretary, Macon, Missouri**



**CORN HARVESTERS.** It cuts and throws it in pile. One man and one horse cuts equal to a corn binder. Price \$12. Circulars free. NEW PROCESS MFG. CO., Lincoln, Kansas.



**6,000 FARMER AGENTS** are now selling PAGE FENCE to their neighbors. PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

## WE SAVE YOU MONEY

on every rod of fencing you buy from us. Why? Because we sell you the

### ADVANCE FENCE

Direct From the Factory at Wholesale. Dealers cannot buy it any cheaper than you can. We save you the middle man's profit. Get a good fence at a low price. No close ends to unravel. All closely interwoven. Cross wires cannot slip. Write at once for our circulars and special discounts.

ADVANCE FENCE CO., 180 J St., Peoria, Ill.

## BALES 15 TONS A DAY HAY

The Gem Full-Circle baler, lightest, strongest, cheapest baler. Made of wrought steel. Operated by 1 or 2 horses. Bales 10 to 15 tons a day. Sold on 5 days' trial. Catalogue free. Address GEO. ERTZ CO., Quincy, Ill.

## WELL DRILLING Machines

Over 75 sizes and styles for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on sills. With engines or horse power. Strong, simple and durable. Any mechanic can operate them easily. Send for catalog.

WILLIAMS BROS., Ithaca, N. Y.

## \$10.00 A Sweep Grinder For \$10.00

We manufacture Wind Mills, Steel Towers, & Feed Grinders. All sizes & styles. Write for catalog & prices.

CURRIE WINDMILL CO., Topeka, Kansas.

## THE LARGEST AND BEST LINE OF WELL DRILLING

MACHINERY in America. We have been making it for 20 years. Do not buy until you see our new Illustrated Catalogue No. 41. Send for it. It is FREE.

F. C. AUSTIN MFG. CO., CHICAGO.



## Clark's Right Lap Cutaway Plows

Succeed where others fail; 24-inch disks, 8 1/2 inches apart, do the work. Heavy straight disks first out ground and act as landside. Address

J. C. CONLEY, Wichita, Kans.

## WE SELL DIRECT

Save our customers' two and three profits—Send for Catalog

20 Days Free Trial

One Years Guarantee \$39.50

Top Leather Quarter, Leather Cushion Back Wholesale manufacturers of Buggies, Road, Spring, and Farm Wagons, Harness, Saddles, Rural Mail Wagons, Buggy tops, and Cushions.

ERHARDT WAGON MFG. CO.

Third and Commercial Streets, ATCHISON, KANS.



Direct to Consumer at Wholesale Prices. Our Handsome Catalog Free, costing over \$5 each, contains 200 pages, with 5000 illustrations and 50,000 articles listed, on which we guarantee to save you from 15 to 75%. Only book of its kind in the world, sent for 50c. Booklet will be refunded with first special order of \$10.00. Valuable book of reference, should be in every household. Small booklet sent free for the asking. Heiler Chemical Co., Dept. 47 Chicago.

"The Only Mail Order Drug House in the World."

## FARMERS

who wish to better their conditions are advised to write for a descriptive pamphlet and map of Maryland, which is being sent out free by charge by

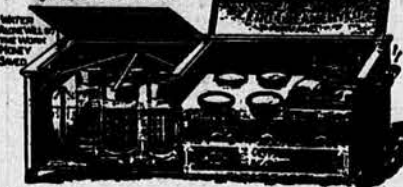
THE STATE BUREAU OF IMMIGRATION OF MARYLAND.

Address

Mr. H. Badenhop, Secretary, Merchants' Nat'l Bank Bldg., Baltimore, Md.

## ZERO CREAMERY WATER REFRIGERATOR

Used in Every State in the Union. PRICE IS THE LOWEST.



THE MOST COMPLETE CREAMERY AND REFRIGERATOR ON THE MARKET.

USED 365 Days in the Year. Every Farmer Recommends. Catalogue and prices free. Address

Zero Creamery Co., Peru, Indiana.

## NEW OXFORD BALL-BEARING CREAM SEPARATOR

The latest and best production in Cream Separators. They skim clean, are easy to wash, run easy, simple in construction, neat in appearance. The most durable machine on the market. Before you buy a Separator, see the New Oxford, or send for our Catalogue No. 187.

World Cream Separator Co. COUNCIL BLUFFS, IA. Office and Factory, 41-47 North Main Street.

## THE LUCKY "4-LEAF CLOVER"

Plymouth Cream Extractor is the CREAM of them all. Inner can quickly removable; water all around and under milk; has far greater cooling surface than any other. No water required 5 months in year. Special strainer chamber with ventilator. New and original faucet, impossible to leak or sour. Express charges prepaid. Catalogue free.

Plymouth Cream Separator Company, Plymouth, Ohio

## \$5 WILL BUY

Chandler's Cream Separator, which holds 10 gallons of milk. If not as represented money will be refunded. No water in milk. Its aerator removes "off flavors," leaving milk pure and sweet. You can make 3 to 5 lbs. more butter from milk of two cows. Quickest reasonable-priced separator in existence. Thousands in use. O. F. Chandler Creamery Co., 480 W. 8th St., Kansas City, Mo.

## A FREE CHURN

This offer is made to quickly introduce the ECONOMY TWO-MINUTE CHURN in every community. We would ask that you show it to your neighbors who have cows, knowing that when they find it simple and durable it is, also that it will make butter from sweet or sour milk in two minutes' time, they will order one. Send us today your name and name of your nearest freight office.

ECONOMY MFG. CO., 174 W. 7th, Kansas City, Mo.

## EYE BOOK FREE!

Tells how all Eye and Ear Diseases may be cured at home at small cost by mild medicines. It is handsomely illustrated, full of valuable information, and should be read by every sufferer from any eye or ear trouble. This book is written by Dr. Curtis, originator of the world-famed Mild Medicine Method, which without knife or pain speedily cures most hopeless cases. Dr. Curtis offers to send this book absolutely FREE to all who write for it. Address, Dr. F. Geo. Curtis, 350 Shubert Bldg. Kansas City, Mo.

## WELL DRILLING MACHINERY.

Established 1867

PORTABLE and drill any depth, by steam or horse power.

42 DIFFERENT STYLES.

We challenge competition.

Send for Free Illustrated Catalogue No. 88.

KELLY & TANEYHILL CO.

88 Chestnut St., Waterloo, Iowa.

## STEEL TUBULAR FENCE POSTS.

Absolutely indestructible. A permanent Fence Post suitable for fields, farms, pastures, etc. Made of a one-piece hollow tube. Costs no more than the ordinary cedar post. We have all kinds of wire for sale. Write for Free Catalogue No. 61. CHICAGO HOUSE WRECKING CO. West 35th and Iron Streets, Chicago.

## RUPTURE

Cured in 10 days by the world renowned Rupture Specialist, Dr. O. H. Riggs. No knife, no danger. The patient is required to come to the doctor's office, and by a novel process the rupture is closed and in 10 days he can return home sound and well. Call or write and enclose 2c stamp for booklet. Address,

DR. O. H. RIGGS, 205 Altman Bldg., Cor. 11th and Walnut Sts., Kansas City, Mo.

## HAY FEVER and ASTHMA

cured to stay cured. Symptoms never return. Cause driven out. Health restored. Over 52,000 patients. Write for BOOK L FREE, containing many interesting cases. Address, DR. HAYES, Buffalo, N. Y.

## 50-BERKSHIRES-50

### AT PUBLIC AUCTION!

During Missouri State Fair

At Sedalia, Mo., August 17-22



The Consignments are from the Well-known Herds of

N. H. Gentry, J. T. Pollard, C. A. McCue, F. C. Betteridge, C. F. Merrett, Mr. Bradford, and Harris & McMahan,

all to be not later than 1902 farrow, of good quality and breeding

WRITE FOR CATALOGUE TO

T. A. Harris, Lamine, Missouri.

COL. R. L. HARRIMAN AND COL. SAM W. KIDD, AUCTIONEERS.

## DISPERSION SALE! -Polled Durhams-

ON OCTOBER 6, 1903, AT KANSAS CITY, MISSOURI.

I will sell my entire herd of high-class Double-Standard Polled Durhams, numbering 45 head, having sold my farm and quit farming. More than \$4,000 of the best Polled Durham blood has been added to this herd during the past three years. Catalogue after September 1, 1903.

A. E. BURLEIGH, KNOX CITY, MISSOURI.

## Stock and Grain Ranch FOR SALE.

2,000 Acres, 400 acres in cultivation, balance divided in five pastures. All watered by continuous running streams. Eight-room residence—almost new, good barn and granaries. This is one of the best ranches in southwestern Kansas. Will sell very reasonable and on most liberal terms.

S. B. ROHRER, Topeka, Kansas.

## Consign Your Shorthorns to Our Sale.

There will be a Breeders' Sale of SHORTHORN CATTLE at Parsons the last of September. Parties wishing to enter stock for sale should do so by August 15, so as to get them in the catalog. We advertise and sell the stock. Charge 10 per cent commission.

COL. EDMONDSON, OF KANSAS CITY, AUCTIONEER.

PORTER MOORE, Manager.

PARSONS, KANSAS.

## WHY BUY A CORN-BINDER

When You Can Purchase a Sled-Cutter for One-tenth the Price.

Runs easy, and cuts and gathers corn, cane, Kafir-corn, or anything which is planted in rows.

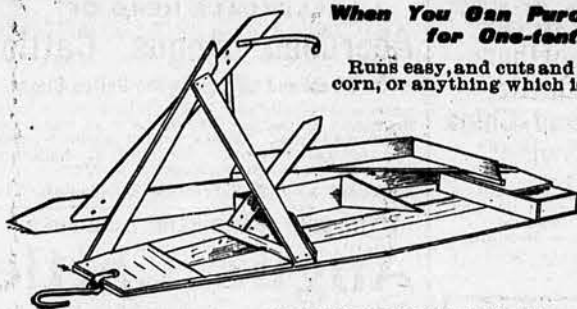
Ask your implement dealer for it, or send

\$12.00

—to—

Green Corn Cutter Company,

Topeka, Kansas.



Fully Protected by Patents.

## DODD, DOOLEY & CO

A. J. DOOLEY, Manager, Topeka, Kansas.

Manufacturers of PURE SOFT COPPER CABLE

## Lightning Rods

Endorsed by the Farmers' Mutual Insurance Company of Kansas. Prices the very lowest. Send for free booklet on the Laws and Nature of Lightning and how to control it. A good man wanted in every county to handle our goods. References—100,000 farmers in Iowa and adjoining states, and the Kansas Farmer, Topeka, Kans., Iowa

Dodd, Dooley & Co. Got There First.

Homestead, Live Stock Indicator, Wallace Farmer, of Des Moines, Ia., Cashier of Bank of Topeka, Kan., and The Mail and Breeze.



CASH OR CREDIT. Catalogue FREE.

PRICE \$33.50

## It will pay you

to send for our Catalogue No. 6, quoting prices on Buggies, Harness, etc. We sell direct from our Factory to Consumers at Factory Prices. This guaranteed Buggy only \$33.50; Cash or Easy Monthly Payments. We trust honest people located in all parts of the world.

Write for Free Catalogue. MENTION THIS PAPER.

DEPT 153, East St. Louis, Ill.

CENTURY MFG CO.