

# KANSAS FARMER

Volume XLI. Number 9.

TOPEKA, KANSAS, THURSDAY, FEBRUARY 26, 1903.

Established 1863. \$1 a Year

## KANSAS FARMER.

Established in 1863.

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

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

SUBSCRIPTION PRICE: \$1.00 A YEAR

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

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



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### BLOCKS OF TWO.

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

The March meeting of the Shawnee County Horticultural Society will be held at the horticultural rooms at the State House, March 5, at 1.30 p. m. Following is the program: "Varieties and Modes of Planting Small Fruits," B. F. Smith; "Spraying," Walter Wellhouse; "Education in the Home," Mrs. Ashpole; "Market Gardening," F. P. Rude. All who are interested in horticulture are invited to attend.

In Professor Cottrell's bulletin on alfalfa, a portion of which is reproduced in this number of the KANSAS FARMER, reference is made to Professor Lantz's bulletin No. 109 on "Destroying Prairie-dogs and Gophers." A later and better bulletin has recently been issued by Professor Lantz as No. 116. Every farmer who has prairie-dogs or pocket-gophers should write to the experiment station, Manhattan, asking for bulletin No. 116.

Strong letters protesting against a constitutional convention for Kansas are coming constantly to the KANSAS FARMER office. Were it not for the great press of other seasonable matters these would be published, notwithstanding the fact that the resolution providing for the submission of the convention proposition to the people was last week defeated in the House of Representatives by a very large majority. Legislators who voted against the resolution may congratulate themselves on the fact that their course is endorsed by nearly all thinking people in Kansas. The editor hopes that the many friends whose letters on this subject have not been published will appreciate the fact that to print their arguments now would seem like shooting at a dead wolf.

It is gratifying to note that the demand for first-class horses is improving as shown by the results realized by breeders who have been holding sales as well as by those who are advertising stock for private sale. All of these advertisers invariably report

splendid results. Mr. R. D. Ross, Carthage, Mo., who held a public sale of Percheron horses January 22, in remitting for the advertisement, states: "The KANSAS FARMER brought the most inquiries of any paper which we used in advertising our sale, and whenever I have stock to sell will be pleased to avail myself of the fine service given by the KANSAS FARMER." In this issue we call special attention to the recent sale of S. S. Spangler, Milan, Mo., which has broken all records for Percheron-horse public sales as shown by the detailed report in this issue. In the trotting-horse line we call attention to the dispersal sale of Robt. I. Lee and the illustration of Robert McGregor, the foundation of the Prairie Dell farm herd, and the sensational results achieved by his patrons in Topeka and Shawnee County. Horsemen will find much of special interest in the articles and items pertaining to the horse industry.

### THE ANTI HORSE-THIEF ASSOCIATION.

The daily press brings the information that two horse-thieves recently stole a bunch of 15 horses at Gray Horse, I. T., and drove them to Winfield, Kans. On the journey they picked up 27 more horses and landed in Winfield with 42 head. After attempting to sell these animals they were arrested by an United States marshal and taken back for trial. Their capture was due entirely to the efforts and eternal vigilance of the Anti Horse-thief Association.

This great association is now forty years old and is national in its character. It is a "secret order" in the sense that no one not a member is allowed to take part in its meetings. It is pledged to cooperate with civil officers in bringing to justice thieves, robbers, counterfeiters, incendiaries and all other criminals, and to care for and protect the families of members who may have fallen or been disabled in the discharge of duty. It now numbers thousands of members in the Central-West and has been the means of doing incalculable good in freeing the territory wherein it is organized of the criminal classes. To such an extent is this true that where once was anarchy, there is now peace and safety; where once no man's property or life was safe, now criminal acts are of comparatively rare occurrence and punishment is sure and swift. The principal field of operations of the order in Kansas has been along the southern border, and the report of the secretary for 1902 shows that, during the year which closed with the annual meeting in October, there were recovered 48 stolen horses valued at \$3,950. Other stolen property was recovered to the value of \$2,315. Eighty-six thieves were punished and eight are now awaiting trial out of a total of 101 captures. But perhaps the most significant fact in the report is the statement that 179 sub-orders in this jurisdiction reported no losses. This report is only a hint of the great good that has been accomplished by this fraternity. In its earlier years, when crime against property was more rampant, its opportunities for usefulness were much greater. And one needs but to look into the faces of the present officers to read that determination which makes for the success of the order, and the undoing of all criminals who come within range of its operations.

It never takes the law into its own hands. It is pledged only to assist the civil officers in the discharge of their duties. It is pledged to care for its members, their widows and orphans. It is pledged against all crime and

criminals and in support of all law, order and decency. The fact that it yearly redeems these pledges is ample excuse for its existence and a most potent argument for its rapid growth and extension in Kansas and the West.

Its present officers are: President, John W. Wall, Route 2, Parsons, Kans.; vice-president, N. J. Randall, Mineral, Kans., and secretary, G. J. McCarty, Valeda, Kans. Any of these or the former very efficient president, C. G. Horn, Welch, I. T., will be glad to supply information about this splendid order, the very existence of which is a prevention of crime.

### IMPORTANT QUESTIONS.

1. What is an egg composed of, and what food should be fed to get the best results in egg-production?
  2. What are the chemical ingredients of an apple, and what kind of soil-fertilizers are needed to produce large crops?
  3. With regard to the potato, I would like to ask the same question.
  4. How can hogs be cured of the habit of eating chickens?
- Osage County. INQUIRER.

### FEED FOR EGG-PRODUCTION.

1. According to recognized standard analyses, 100 pounds of eggs contain 10.5 pounds of shell, 66 pounds of water, 13.1 pounds of protein, 9.5 pounds of fat, and 0.9 pound of ash. The shell is composed largely of lime. The hen must get the lime from what she eats. The leaves of plants contain some lime, but poultry-keepers find ground shells, cut bones, and other articles containing much lime to be profitable as a part of the ration. The ingredient of the egg which requires especial care in providing it in the feed, is protein. The cheapest material in which to furnish protein is alfalfa leaves. Hens will, however, eat almost anything containing protein, especially while laying. Meat scraps, milk, etc., are excellent. Wheat is better than corn for laying hens because it contains more digestible protein. Soybeans are very rich in protein and ought to be good. The bran mash is often recommended for laying hens, and, since it contains considerable digestible protein, its use is rational. It will be well for poultry-keepers to study tables of composition of feeding stuffs and to select for their laying hens feeds rich in digestible protein.

### FERTILIZING THE ORCHARD.

2. One hundred pounds of apples contain about 25 pounds of waste, 61.5 pounds of water, 0.4 pound of protein, 0.4 pound of fat, 12.4 pounds of carbohydrates—sugars, starches, etc.—and 3 pounds of ash. The ash of the apple contains a good deal of potash. This potash and the nitrogen, which is an essential element of protein, are the minerals which first become deficient in the average apple orchard. An organic constituent of the soil which very frequently becomes deficient is humus. This is decaying vegetable matter. The reduction of the quantity of humus in the soil is accompanied by a tendency of the soil to be heavy when wet and to set like mortar when dry. Such a soil does not take in water rapidly, remains muddy longer than is pleasant unless it is sandy—and later, becomes very dry and hard to a great depth. Humus decomposes, and unless the supply is renewed by natural or artificial process becomes deficient in the orchard. Nature's usual method of replenishing humus is by the decay of grasses, weeds, leaves, etc. In cultivating the orchard we cut off this source of supply. Some

(Continued on page 232.)

## Agricultural Matters.

Speltz.

EDITOR KANSAS FARMER:—Having noticed some inquiries about speltz through the columns of the FARMER of late, I will try to explain what speltz is. It is a summer crop, sowed the same time as oats and barley, grows taller than barley and oats, and is a far better yielder. The straw is harder or stiffer than oats or barley straw, and therefore stands up better. It grows in a bearded head like Turkey-wheat, but the heads are larger than common wheat-heads. The grains grow two in a hull, and do not shell out in the thrashing. My experience has been that it is a far superior feed to oats or barley. In the old country it is hulled and then ground into flour, making a flour far superior to wheat. I think it would pay any farmer to give it a good trial, as it is a wonderful yielder and one of the best feeds I have ever found. W. M. B. UPDEGROOR.  
Byron, O. T.

### Keeping Kafir and Cane.

EDITOR KANSAS FARMER:—As I am a newcomer to Kansas, I would be pleased to have some information on farming. Some of my neighbors told me that Kafir-corn and cane would sour in the spring. Would stacking avoid this, or would it keep from souring in shock? It is cut with a corn-binder. I also have some cane hay. Would it be best to stack that and avoid the heavy rains? JOHN.  
Willowdale, Kingman County.

Kafir- and cane-hays are put up from plants cut at various stages of growth. These plants are sometimes planted so as to grow to considerable size and sometimes the seeds are sown so thickly that the cured product is hay according to the usual acceptance of the term. The cured hay keeps well and may be left in large cocks in the field until used with little loss on account of weathering and non-souring. On the other hand, saccharine sorghum especially when grown to large stalks, contains much juice. This juice is sweet and is liable to sour when the weather turns warm after hard freezing.

There are various degrees of condition between that of the cured hay and the juicy sorghum with corresponding degrees of uncertainty as to results. The safest way is to feed out the juicy canes early in the winter.

The writer has no experience with stacking as a preventive of souring. If any reader has such experience he will confer a favor by giving it in full with results for publication in the KANSAS FARMER.

### Bermuda Grass.

Charles E. Bessey, a central Kansas correspondent of the Breeder's Gazette, writes as follows to that paper: One of your Illinois readers thus submits questions:

"Will Bermuda grass make good pasture or hay in southern Kansas? Will it stand drouth well? Can it be plowed up and the field used for other crops? Will Bermuda grass become a pest? How does it compare with bromus? On what kinds of soil does it thrive best?"

Bermuda grass will not do well as far north as Kansas. It may be grown, but it will not develop into a grass which can be depended upon for pasture or hay. It is a good grass for the Southern States and is very largely used there, but for Kansas it has been found not to be desirable. I may quote from Professor Beal's book on grasses, in which the following statement is made by a Kansas man:

"Bermuda grass has been quite extensively introduced into Kansas from southern Missouri and Arkansas during the last two or three years, and the most extravagant claims have been made for it by interested parties. After five years' experience with this grass upon a considerable scale at the college farm (Manhattan, Kans.) we have no hesitation in saying that for this section, and we are confident generally throughout the State, these claims are totally unfounded. Bermuda grass has shown itself with us to be quite worthless for hay or pasture. Of all the tame grasses it is the latest to appear in the spring and the lightest frost cuts it off level with the ground."

Your correspondent will see from this that Bermuda grass has been tested sufficiently in Kansas to warrant my saying that it will not be a valuable plant to introduce.

Bermuda grass stands drouth well in the regions where it is fitted to grow. It is hard to get rid of when once it is in the ground. Of course I

refer now to the section of the United States where it grows to perfection, namely, in the Southern States. In some places in the South it is looked upon as a pest. This, however, is simply because it is a "stayer," and when once put into place remains there. Like all permanent grasses it is hard to get rid of. I remember that in northern Ohio we used to have great trouble in keeping Kentucky blue-grass out of places where we did not want it, and yet Kentucky blue-grass is without question the finest pasture grass that Ohio possesses. We must always remember, in speaking of grasses, that the grass which "remains put" is hard to get rid of. The very staying qualities which we desire turn out eventually to be troublesome to us when we no longer wish to have the grass in the field.

I certainly should recommend the sowing of bromus inermis in any part of Kansas excepting the far west dry portions. The ordinary rich soil of Kansas will grow a good crop of this excellent grass.

[If Kansas has any place for Bermuda grass that place is in the southern part of the State.—EDITOR KANSAS FARMER.]

### The Growing of Flax in Kansas.

J. C. NORTON, MORAN, KANS.

Flax has been successfully grown in southeastern Kansas as a regular rotation crop, for more than twenty years, and during that time has never been a total failure, but was very nearly so the past season in many places, so that on the whole, the past year's crop (1902) was quite discouraging. However some men made good money, while adjoining farmers lost all their seed and labor, which was caused by the destruction of pollen by a heavy rain-storm at the time of blooming.

In southeastern Kansas the flax-crop on the uplands has taken the place of wheat and oats in regular farm rotation for many years, so it is time that where flax is grown, a very small acreage of other small grains is grown; but this is beginning to change now, as most of the ground has been sown to flax so much, and manures are being used, and the great drouth of 1901 caused such a demand for wheat and rye pastures, that farmers are sowing considerable wheat instead of flax. The past good crop of wheat and poor crop of flax has had the effect of increasing the wheat-crop and lessening the flax-crop.

Flax does not demand a very rich soil, and will make a fair crop on soil that will not produce much of anything else; but the richer the soil, the better the flax, provided it has not had barn-yard manure on the soil. If it has, the weeds will always outgrow the flax just at the critical time and destroy all hope of harvesting and thrashing of the crop.

Flax is a sort of surplus or catch-crop for most farmers, as they work all the land in corn that the farm teams can possibly attend to, and put in from forty to sixty acres of flax extra, that could not have been put into any other crop with so little labor and expense; and if not in flax, would have laid over and grown weeds. Land that has been well cultivated the year before is selected, on account of freedom from weeds, and plowed in the fall if possible; if not, then the ground is not plowed at all, but simply given a good disking in the spring, harrowed smooth and sown to flax. "A man or boy will take four horses and disk ten to twenty acres of corn-stalks in a day, while a boy will harrow it smooth, then the endgate seeder will be put in the farm-wagon and from fifty to sixty acres sown in a day, and all teams will harrow it in, leaving all trash cut up and on the surface where it will not bother the reaper and will decay during the season. Thus it will be seen that a couple of hands and three teams will put in from thirty to forty acres of flax in two days if everything works well.

#### THERE IS ONE INVARIABLE RULE

that must be followed: "Mud in oats and dust in flax;" so it follows, if the soil is wet and heavy the farmer puts in oats, but if dry, he puts in flax.

Flax is not sown until all danger of frost is past, and usually at the beginning of farm work. It is a good job to gradually work horses into being used to the spring work. Often green colts are thus broken in on this disk among older horses. Nothing more is done to the crop until about July 8 when it is cut with a side-delivery table-rake reaper and left in gavels on top of the stubble for a few days to dry, when ev-

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ery third and fourth row is removed with a fork to allow the passage of team. This is called "rowing out."

#### WHEN AND HOW HARVESTED.

Flax is never stacked if a thrashing-machine can be had to thrash when wanted. As soon as the dew is off the grass in the long July days, six teams with six drivers and broad hay-wagons eight by sixteen feet, and usually on very low wheels, accompanied by three pitchers, pick up the gavels almost as fast as the team will walk—one on each side of the wagon—the driver acting as one pitcher, and the load is stowed from the ground, as flax is never tramped. It takes six to ten more hands at the machine and one team to haul away the sacked grain. The thrashermen are four in number and have one team to haul water, thus the farmer's wife has about twenty to twenty-four boarders, and as a rule the board is a regular picnic. The farmer is a believer in the eight-hour system; that is, he thrashes eight hours in forenoon and eight in afternoon and does two to four hours chores after dark. Many farmers here in the great natural-gas belt use gas to thrash with and light up the whole farm-yard at night with great torches. Sometimes stacked grain is thrashed out by torch-light. When flax is stacked, three teams are needed, with a boy to drive them to and from the field, while two men gather up and load the flax and two men unload and stack it, there being one wagon at the stack, and one in the field, and one on the way, out or in, all the time.

Farmers usually own their own reapers, but flax is sometimes cut by others at a cost of 40 cents per acre, all teams being furnished by owner of reaper.

Thrashing costs 9 cents per bushel, and all labor is usually paid back the same way. It takes about \$1.50 worth of coal to run a day of twenty to thirty acres. I have seen thirty-five acres thrashed out in one-half day of about ten hours length, with a yield of 500 to 600 bushels.

The crop is not sure, as a violent rain-storm just when blooming will destroy the chance of any seed from that night's blooming. A field blooms at night and the blooms drop off the next day. Usually it takes a week for all the buds to bloom; and if it is a week of violent storms as in 1902, the seed-crop is a failure. The straw is only used for field and bedding. There is a good opening for factories to use the thrashed straw. Small quantities have been baled and shipped to market, but I never learned what it was used for.

#### THE PROFITS

of the flax crop are not great, but with the exception of the wool crop, it is the first money crop the farmer has to turn off. The yield is usually an average of ten bushels per acre, and sells from 75 cents to \$1.50 per bushel. The Kansas flax crop of 1902 was 1,427,975 bushels, valued at \$1,713,570. Many farmers buy their seed on time at about \$1.50 per bushel and sign a contract agreeing to sell the flax to the dealer at so much less than Chicago prices. The big mills often have contracts out and seed is often sold by the farmer long before thrashed with the understanding that it must be delivered in July or August. It is changed somewhat now, because the land must not grow flax two years in succession, but there must be an intermission of from three to six years. Formerly a young man who wanted to get married had only to rent a farm that had not been "flaxed," go to some public sale and buy what teams and machinery he needed, put in forty to sixty acres of flax, getting the seed on time; also putting in forty acres of corn, and if the hens and cows that were bought on time failed to furnish money enough to run the young couple, they had only to contract the flax at, say, \$1 per bushel, and draw what money they needed; but when the grain was delivered it almost always would be 10 to 20 cents higher than contract price.

I have known young couples without a cent of capital to own good farms in six years by this method. The only start ever needed, was to get hold of some land that had never been in flax; however, such chances are now few and far between.



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Flax straw is worth about one-half as much as prairie-hay; or, say, \$1 to \$1.50 per ton, and was not reckoned in the above statistics. The straw usually makes about one ton per acre, but was much larger than this the past year, averaging nearly three tons per acre.

The heavy straw and lack of seed in 1902 caused the thrashermen to lose money; consequently many farmers could not hire them by the bushel as usual, but by the hour.

### Growing Alfalfa in Kansas.

FROM BULLETIN NO. 114, FARM DEPARTMENT KANSAS STATE EXPERIMENT STATION, BY H. M. COTRELL, M. S.

(Continued from February 12.)

#### ALFALFA IN CROP ROTATION.

When Kansas soil was first broken, it was thought by many to be inexhaustible. Farmers are beginning to notice the weakening in fertility on old lands, and our best farmers are rotating crops with the thought of improving their soil. Alfalfa is one of the best soil enrichers we have, but after a stand is once secured, good crops should be yielded for at least ten years. There is no field crop raised in Kansas that year by year, will yield as great a net cash income per acre as alfalfa, and for this reason the grower can not afford to plow up a good stand, even for the sake of securing a good rotation of crops.

We would recommend that, where a rotation of crops is desired, and this should be on most Kansas farms, alfalfa should be allowed to stand ten years, and that the rest of the cultivated land of the farm be put in such short rotation as will be found to be the most profitable in the section where the farm is located. Cow-peas, soy-beans and Canada field peas are good crops to be used in short rotations for enriching the soil, and a crop of any one of these can usually be grown between regular crops as a catch-crop without losing a single cropping of the regular crops.

#### THICKENING OF STAND.

When a poor stand of alfalfa is secured it is very difficult to reseed the bare spots. The number of alfalfa plants on the alfalfa field is always the greatest when the plants first start, and the numbers continue to decrease through the life of the stand. A stand of alfalfa is not thickened by self-seeding, as is the case with Red clover. The number of stems to a root may be largely increased by disking, but not the number of roots.

There are two difficulties in the way of reseeding the bare spots in an alfalfa field. Whenever the ground is moist alfalfa seed may be sown on these bare spots, and the young plants will come up thickly. If the spots are small the old alfalfa plants shade the young growth, and take moisture from them, and in a short time the young plants die. With large bare spots these difficulties do not prevent the growth of the young plants, but the young plants, being so much more tender than the older growth, and entirely destroyed by grasshoppers and other insects, which seem to come in all directions for quite a distance.

Each year for five years we have tried to thicken the stand in alfalfa fields by reseeding the bare spots, and every trial has been a failure, unless the spots were sufficiently large to be worth plowing and seeding, as on a



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large area. We have made these trials in both spring and fall.

A few farmers in various sections of the State have reported success under favorable conditions in thickening the stand by reseeding the bare spots in the spring and keeping them mown down close for two or three months, treating the old alfalfa as though it were weeds. We have not tried this method at this station. The moral is plain. Prepare the ground so thoroughly and take such good care in seeding that a good stand will be secured from the first seeding, and then protect a good stand when you get it.

**PROLONGING THE LIFE OF ALFALFA.**

Alfalfa does not reach full growth and maturity until at least three years after seeding. Often it takes a longer time. Alfalfa should be treated as a baby until it reaches maturity and full vigor.

Until it reaches full growth, alfalfa should not be pastured by any kind of farm animals. Pasturing young alfalfa does not always cause serious damage, but it always injures the stand to some extent, and sometimes entirely destroys it. This is a frequent cause of failure with alfalfa. In an eastern county in Kansas where not much alfalfa is grown, because farmers think it will not thrive, a farmer seeded alfalfa in April. Two months later he wrote us that he had a perfect stand, there was not a bare spot in the field, and the plants were from eight to ten inches high. He had just turned a large number of hogs and pigs into the field, and he would like to have us tell him whether the alfalfa would hurt the pigs or not. The almost certain destruction of alfalfa under such circumstances usually convinces the grower that alfalfa is not adapted to his farm.

A small area is often sown to alfalfa, and, after it has a year's growth, the fence is changed and it is thrown into a large pasture. When the pasture grass becomes dry in midsummer, the alfalfa is still green, and the entire herd feed on it until it is eaten close to the ground and the soil tramped hard. This shortens the life of the plant, if it does not end it summarily.

Alfalfa may be pastured severely after it reaches maturity, so long as the crowns are not injured, but, to prolong its life, do not pasture while young.

Cutting each crop when the first blooms appear invigorates alfalfa and adds much to its length of life. Disking helps the plant, conserves moisture for it, and keeps in check its weed enemies. Top-dressing adds to the supply of moisture and food. Alfalfa should have a good growth of foliage when the ground freezes, and if pastured close to the ground or mowed just before the ground freezes its life will be shortened.

Alfalfa is, first of all, a hay plant, and all the methods of protecting and invigorating it that have been suggested will profitably increase the yield of hay while prolonging the life of the plant.

**PLANT ENEMIES.**

The worst enemy of alfalfa in Kansas, plant or animal, is crab-grass. When this grass secures a foothold in an alfalfa field, no matter if it is a small one, it spreads rapidly, if unchecked, and in time will ruin the stand. Where alfalfa and crab-grass start together in the same field, it is usually impossible to keep the crab-grass in check, as the young alfalfa will be destroyed by any treatment that will eradicate the crab-grass. The best treatment, under such conditions, is to plow the ground, put in some crop that requires cultivation, and thoroughly clean the land of crab-grass before re-seeding to alfalfa.

When crab-grass does not get started in an alfalfa field until the alfalfa is two years old, the grass can be kept down by disking, so that it will do but little injury. The alfalfa should be disked early in the spring, and after each cutting, as described under the head of "Disking."

On lands that have been in cultivation for many years, fall seeding is the most practicable method of securing a good stand of alfalfa before crab-grass becomes troublesome, and on such lands fall seeding should be practiced wherever the right conditions for it can be secured. Sometimes the growth of crab-grass is so thick as to prevent the disk-harrow from doing good work in the spring disking. When this is the case, the old crab-grass can be burned, if a time is selected after a rain, when the grass is dry but the surface of the ground is wet.

Dodder is a parasitic enemy of alfalfa that in some fields in Kansas seriously reduces the yield, but this enemy is found but on a small proportion of the alfalfa of the State. Dodder is a small, vine-like plant, which encircles

the alfalfa and feeds on it through small suckers that pierce the stem of the alfalfa. It produces a mass of yellowish, wiry stems that, when cured, look like a bunch of fine excelsior stained reddish-yellow. Dodder starts from seed sown with alfalfa seed. As soon as the stem appears above ground and attaches itself to an alfalfa plant the root of the dodder dies, and all the nourishment is taken from the alfalfa. Alfalfa affected by dodder usually lives, but makes a sickly, weak growth and a light yield.

The best method of avoiding injury from dodder is to sow the best quality of alfalfa seed only, and this will not have dodder seed mixed with it. When dodder has been found to have secured a good start in an alfalfa field, the spot should immediately be mowed before it seeds, and burned. Straw scattered over the place will assist in burning, and, if the ground is damp, the fire will not injure the alfalfa roots. When a field has become badly affected with dodder, the only remedy is to plow up the alfalfa and put the land in cultivated crops for a few years.

**ANIMAL ENEMIES.**

The great enemies that destroy alfalfa in Kansas are, taken in the order of greatest destructiveness, the gopher, grasshopper, prairie-dog, and web-worm. The methods of combating these can be treated here only briefly, as the subject is handled by other departments of this station. The most destructive animal in alfalfa fields is the pocket-gopher. It occurs in all parts of the State, and is constantly increasing in numbers. The time is come when alfalfa-growers will have to plan as a part of the yearly expense the killing of gophers. Prof. D. E. Lantz, of this station, after an extensive investigation in 1901, estimated that, in that year, the gophers destroyed one-tenth of the entire product of the alfalfa fields of Kansas.

The most practicable method of destroying the gopher is by poison. Professor Lantz, in Press Bulletin No. 109 of this station, describes the method of poisoning, as follows:

"They are very fond of common potatoes, sweet potatoes, apples, raisins, and prunes. The presence of strychnine, arsenic or other poisons does not seem to deter them from eating the food, but if the poison is sweetened they seem to eat it more readily. In summer it may be desirable to sweeten the poison, but in the fall and early spring it does not seem worth while to do this. The poisoned food being introduced to the burrows below the surface, there is no danger of poisoning stock. It might be well, however, not to let swine run in the alfalfa fields for a time after the poison has been put out.

The following method of introducing the poison is recommended: Cut the potatoes, or other food, into pieces not more than three-fourths of an inch in diameter. Cut a slit in each piece with the point of a knife blade; insert a little sulphate of strychnine—as much as half the bulk of a grain of wheat, will answer the purpose. The moisture from the potato will cause the poison to adhere to the blade of the knife.

"Having prepared the bait in sufficient quantity, go to the field armed with a round, sharp-pointed implement an inch or an inch and one-half in diameter, and of sufficient length. The tools were made by a blacksmith for the writer. One is a shovel handle and the other a spade handle, and each is shod with a conical iron point. A bar is attached about fifteen inches from the point, to enable the operator to use the foot in pressing it into the soil. These tools have proved to be quite serviceable. With one of them, it is only necessary to find the runway of the gopher. The handle is sufficiently thick to make a hole large enough to permit one to drop the poisoned potato directly into the burrow. The operator then passes on to the next place, leaving the hole open. No digging with a spade or other hard labor is necessary. An experienced person can distribute poison to many acres of the alfalfa in a day, and, if the proper care is taken to rightly distribute the bait, it will not be necessary to go over the ground a second time.

"Some experience is required to enable one to find the burrows quickly. It is best to insert the food as near as possible to the freshest mounds of earth thrown up by the animals. Two or three pieces of potato at that place are worth many scattered in other parts of the runway. The operator should avoid the larger mounds and those that are not freshly made."

We have practiced on the college farm the method recommended by Professor Lantz for destroying the gopher,

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and for five years have found it satisfactory and practical.

The grasshopper is quite destructive of alfalfa, in some sections of the State, and in most fields keeps the edges of the fields eaten down. The grasshopper lays its eggs in a sac, in the firm ground, just below the surface. Late disking in the fall or early spring in the spring exposes these sacs to destruction by weather and birds, and greatly reduces the hatch. The most practical way of destroying the grasshoppers after they are hatched is with turkeys. A turkey to the acre will keep the grasshoppers reduced in numbers to a minimum, unless the alfalfa fields is a small one surrounded by fields of grass, when a greater number of turkeys will be needed. The conditions of climate which favor the growth of alfalfa are also suited to the needs of the turkey. When there is danger from wolves a portable house can be built, and moved from field to field, and the turkeys shut in at night. Turkeys that run on alfalfa and chase grasshoppers all summer make a good growth, and in the fall are tough and wiry, with enormous appetites. They can be closely confined and fed heavily on corn, and will fatten rapidly and make delicious, tender flesh. Turkey-raising is well worth adopting by the Kansas farmer who wants larger yields of alfalfa.

The prairie-dog is a serious pest in alfalfa fields in some sections of the State. The best methods of destroying the prairie-dog are given by Prof. D. E. Lantz, of this station, in Press bulletin 108, and are as follows:

"A tablespoonful of carbon bisulphide placed upon some absorbent material, as cotton, dry horse manure, or a piece of corn-cob, and rolled down the prairie-dog burrows, is effective in killing the animals. It is best to immediately cover the hole with a sod, and stamp down firmly.

"I found by experiment that four parts of gasoline, mixed with one part of carbon bisulphide, is about as effective as the carbon bisulphide alone, and is not nearly as expensive. The mixture is used in the same manner as

carbon bisulphide alone, but a somewhat larger dose is needed.

"**STRYCHNINE POISONING.** Formula No. 1.—Dissolve one and one-half ounces of strychnine sulphate in a quart of hot water. Add a quart of syrup—molasses, sorghum, or thick sugar and water—and a teaspoonful of oil of anise. Thoroughly heat and mix the liquid. While hot, pour it over a bushel of clean wheat, and mix completely. Then stir in two or more pounds of fine corn-meal. The quantity of corn-meal needed will depend upon the amount of extra moisture present. There should be enough to wet every grain of wheat, and no more. Care should be taken that there is no leakage from the vessel in which the wheat is mixed.

"Let the poisoned grain stand over night, and distribute it in the early morning of a bright day. Use a tablespoonful of wheat to each hole occupied by prairie-dogs, putting it near the mouth of the burrow in two or three little bunches. Do not put out the poison in very cold or stormy weather. It will keep for a considerable time, and is much more effective after a cold period, as the animals are then hungry, and eat the grain readily. A bushel of wheat should poison 1,000 to 1,200 holes.

"An excellent substitute for the oil of anise in the above formula can be made by soaking two ounces of green coffee berries in the whites of three eggs. Let this stand for about twelve hours, and use the liquid instead of the anise oil.

"Formula No. 2.—Through the efforts of Hon. S. E. Cave, of Lockport, Kans., the college has purchased the State right on a preparation patented by Mr. D. W. Staples, of Quanah, Tex. I have tested it in the field and found it entirely satisfactory. The inventor claims for it that it has the advantage of being effective at any season. The simple preparation of strychnine given in formula No. 1 is not successful while green food is plentiful.

"Formula No. 2 is protected by letters patent, and can not be used outside of Kansas without securing th.

right of the inventor. We have purchased the right of its use for all citizens of the State. As this bulletin circulates outside of Kansas, the formula is not here given, but it will be sent to any resident of Kansas upon application."

In the past five years we have had two attacks of the web-worm in alfalfa fields. In each case we have mowed the alfalfa as soon as the work of the web-worm was noticed, removed the hay from the land, and immediately double-disked the land, stirring it thoroughly. We had no further damage during the season. Whether the treatment was the means of stopping the damage or not, we do not know. Such treatment is always good for the alfalfa, at any rate.

(To be continued.)

#### Maple-syrup from Soft Maples in Kansas.

GEO. W. MAFFET, LAWRENCE, KANS.

In reply to a KANSAS FARMER inquiry, made too late last year, would say that I have been making from fifteen to thirty gallons of syrup yearly, from the sap of the ordinary soft maple, for the past nine years. I never heard of such a thing until I bought this small fruit farm and found maple-syrup was one of its products and had

gluing the pans down airtight upon the iron grate-bars and brick and the pipe chimney is also glued to brick with wet clay. The chimney end of the trench is made airtight, the other end (south end) left open. Our fuel consists of

gluing the pans down airtight upon the iron grate-bars and brick and the pipe chimney is also glued to brick with wet clay. The chimney end of the trench is made airtight, the other end (south end) left open. Our fuel consists of

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Sutton, Neb., March 23, 1902.  
Your agent left me one bottle of Watkins' Cough Cure and I used it for cough and I can say it is the best I have ever tried. All of Watkins' Remedies are good.  
ELMER E. PETERSON.



THE PERCHERON STALLION VENDOME 29938 (46416).

Two years old; weight, 2,000 pounds. Imported and owned by Dunham, Fletcher & Coleman, Oaklawn Farm, Wayne, Du Page County, Illinois.

been for years. A double row of soft maples from one to two feet in diameter surrounds a ten-acre tract upon which the home buildings are situated. With the exception of one year, when the trees had been severely taxed by an abnormally dry, late summer and fall, we have tapped from 50 to 100 trees according to convenience and press of other work. By experience we find that the ground must be well stocked with water and must thaw several inches deep during the daytime and freeze crisp at night the sap running up the tree in the thaw and running down again in the freeze. The ideal sap-weather consists of several inches of snow on the ground, which softens and runs some during the day and freezes at night. The sap commences to drip, drop by drop, about 9 a. m., and stops running between dusk and 9 p. m., according to mildness of night. When weather becomes to mild sap will drip all night but cease entirely in a day or two. A severe freeze will again restore the flow, and the season may last several weeks if prolonged warm days and cold nights exist. We find that sap will flow earlier in the day on high and comparatively dry soil; the season will begin and end sooner on such soil, but the sap will be less in quantity and stronger in sugar content. On water-soaked hillsides the daily flow will start later, be less rich but will greatly increase in quan-

with light taps of wooden mallet. Nature tries to close the hole with white woody fibre, which, if it checks the flow after a week's run, should be cleaned out by re-boring a half-inch deeper. If after flow has been stopped by a severe snap, the spouts do not run freely, bore a new hole. We rarely bore more than one hole a season in each tree.

We collect sap with a horse-sled and barrel, or else with wheelbarrow and ten-gallon milk-cans. If pails are small, rounds will have to be made every two hours to prevent overflow. We fill a barrel at furnace and fill the evaporating pans before starting fire; then run fire day and night until sap-supply runs low, then finish up and start anew.

Our furnace is a trench half in and half out of the ground, about one foot deep, rocked up with walls about eighteen inches apart, with row of brick on top. Old grate bars are obtained from some steam plant and used across trench to hold up evaporating pans and brick foundation of chimney. A galvanized iron reducer seventeen by seventeen inches is made to fit over brick chimney-hole and reduces it to stove-pipe size, the pipe going up about ten feet into the air and containing a damper. The evaporating pans are of galvanized iron, twelve by three feet, with a depth of six inches. The whole furnace is made by mixing clay with water and

grape cuttings, orchard trimmings, dead branches, hedge brush, dead trees, grubbed roots, old stumps, decayed posts, and other accumulations of the year on a fruit-farm.

With the pans full of cold sap we seal them down airtight with wet clay and start slow fire. When sap begins to evaporate a scum of resinous substance rises to surface and is skimmed off, together with all froth, with a long-handled perforated skimmer. As the sap boils away the pan nearest chimney is kept filled from the other pan by dipping, and cold sap is added to first pan skimmed, etc. At bedtime fires are filled with large wood or stumps, and abandoned for the night. When, after several days or sooner, the supply of sap runs out, the pan nearest to mouth of furnace is boiled down enough to empty into the other pan, and this latter kept boiling until strong enough to drip into long ropey drops when tested. It is then carefully continued until it resembles boiling molasses candy. The pan is then slipped off of the fire and the syrup dipped into pails and taken to the house where it settles for twenty-four hours, and is then finished in porcelain kettle on the stove. This is done because open air boiling causes charcoal, ashes, etc., to get into the pans. The product is put in Mason-glass quart jars or in half-gallon tins, corked and cemented tight with

plaster-of-paris. It is hard to hold maple-syrup in glass jars unless rubbers are extra good. The product is very delicate in flavor and rich and of a light amber color, and is a rare treat to visitors served with small spoon and dish. It is in eager demand at 40 cents per quart, \$1.50 per gallon. It takes twenty-five gallons of sap to make one gallon of maple-syrup. The proper season in Kansas is the mild weather of February with snow on the ground. Sap will sour if not kept moving and boiling on warm days. Sometimes the resulting ropiness will skim out of it, sometimes it will not.

No one can tell the difference between maple-sugar made from the hard and the soft maples. We have many discussions with old-time makers as to comparative taste of the soft maple and hard maple syrups. Some hold that while the syrup made from the soft maple is richly delicate, it lacks the full strength of the other. Most critics confess, however, that there is no perceptible difference.

There are evaporating furnaces made for this purpose to be had for about \$30. We have never taken it up commercially, but confine ourselves to a family supply, any surplus being in eager demand. Our sugar-season often lasts for ten days or two weeks, rarely for three weeks.

To our friends of western Kansas who have not the maple-trees to experiment upon we will say, make your "genuine" maple-syrup substitute as follows: Go to the corn-crib and get two red corn-cobs. Take ordinary white granulated sugar, add water and the two red cobs and boil to the proper consistency of sugar-syrup. The resultant "maple-syrup" is as good or better than the usual commercial article you buy in the highly decorated cans.

#### Farmers Who Never Farm.

The good farmer is one who has learned much about farming, and if he has written or published a book or books containing the substance of what he has learned, and others read and learn what the books contain, they become book farmers. But the greatest benefits agriculture has received have been from the book farmers who never farmed a day in their lives—men who have studied agricultural science and published important facts for the use of practical farmers. Southern farmers were saved not less than \$10,000,000 annually by the scientist who showed them the great value of cottonseed. The fruit-growers of California have received millions of dollars of benefit from the scientific farmer (who never farmed) who introduced from Smyrna the bug that fertilizes the famous Smyrna fig, and without which these figs can not be grown. The cream separator, the Babcock milk test, the various sprays, fungicides and insecticides, and the determining the value of feeds and fertilizers, all of which are of immense value to farmers, are contributions from strictly book farmers. All this knowledge is printed in books and papers, and is accessible to every farmer.—Farm and Ranch.

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March 3, 1903—L. M. Monsees & Son, Smithton, Mo., Jacks, Jennets, saddle horses, and Poland-China swine.
March 3 and 4, 1903—C. H. Gardner and M. A. Judy, Aberdeen-Angus cattle, at Chicago.
March 13, 1903—H. W. Wells, Westphalia, Kans., Shorthorns, at South Omaha.
March 19, 20, and 21, 1903—Combination horse sale at Riverdale Barn, Wichita, Kans., 300 high class horses. J. S. Lehr, Eldorado, Kans., and others.
April 1-2, 1903—Shorthorn cattle. H. O. Tudor, Hoiton, Kans.
April 22, 1903—Shorthorn Breeders' Combination Sale, Banceton, Mo. C. F. Tut, Secretary.

Tabulated Pedigrees of Shorthorn Cattle.

J. F. TRUE, NEWMAN, KANS., BEFORE THE CENTRAL SHORTHORN BREEDERS' ASSOCIATION.

In answer to the question given me by your secretary, "Should tabulated pedigrees be adopted in recording pedigrees?" I should answer positively, no.

If asked the question, "Should tabulated pedigrees be given in all transfers of ownership of Shorthorns?" I should answer as positively, yes.

The registration of pedigrees as now made is proper and sufficient, being a reference or citation where and how the pedigrees may be secured. This brief key to the pedigree occupies all the space it is desirable to use in our herd-books; but to hand to a person who is entitled to a statement of the breeding of an animal the lopsided, fractional part of a pedigree, as is conveyed in the old form of pedigrees for Shorthorns, is a travesty on business methods, a delusion and an imposition on the person entitled to the pedigree. I have stated that the old form pedigree was a fractional part only of a pedigree.

You will readily see just what the fraction is by looking at the tabulated pedigree printed herewith. The portion to the left and below the heavy line tells the whole story. It shows how small and insignificant the fraction is, only we must erase the names of breeders of all animals contained in this lower left-hand space to make it correspond in incompleteness with certified pedigrees sent out under the seal of our association. If you will take a pencil and erase the breeders' names in this space and then compare carefully the old form and the new, you will be at once converted unless case-hardened by forty or fifty years' experience as a breeder. In the first cross one-half the blood is named, in the second cross one-fourth, and in the third one-eighth. If carried to the fourth cross of course one-sixteenth would be the proportion.

In the old form all that is given of the sire's pedigree is his name and number. Some breeders in writing this form of pedigree give the breeder's name, so the victim has an opportunity to guess at what lines of blood the sire may, or may not carry if he is fortunate enough to know the breeder. But the worthy secretary of our association, in issuing certified pedigrees for 25 cents each, does not even give the clue to the breeding of the sire that might be suggested if he were to name the breeder.

Passing down to the dam of Golden Mayor—Duchess of the Plains, v. 45, p. 858—we are told she is by Mayor 129229, but no difference what his blood is, he is only grandsire to our bull. As we did not care to know the blood lines of Golden Mayor's sire,

what's the odds about the breeding of his grandsire? Just the same the breeding of the sire of grandam Red Duchess is not of sufficient importance to warrant the giving of her sire's blood lines. This is the funniest kind of a farce.

Let us now look at the tabulated pedigree of Golden Mayor; what do we see of his sire's breeding? That he is an all-around, extremely well-bred Scotch bull, being by a Linwood Golden Drop sire and out of a dam that is par excellence—having to her credit the great Lord Mayor, Baron Lavender 2d, of whom Sander's history says "He was probably the peer of any bull of the breed yet produced this side of the Atlantic." What do we see in the tabulated pedigree of our bull's grandsire on the dam's side? See—Cupid, Imp. Salamis, Lord Mayor. Are these names that need to be hidden under a bushel as is done in the old form?

The objection is raised to the tabulated pedigree by some critics that it requires too much printer's ink to make a catalogue. This objection is not well founded. A careful comparison of the old and new methods show the following results: We chance to pick up a sale catalogue of H. C. & Joseph Duncan and Geo. Bothwell's for their 1899 sale; other catalogues we have examined show about the same results. A careful enumeration of all the words contained in that catalogue showed the number to be 336 for each pedigree owing to the necessarily lengthy foot-notes.

The model little catalogue, tabulated form, of the Palo Duro herd of Hanna & Co. contains 260 words for each pedigree, and a late sale catalogue used by True & Son (tabulated form) had but 210 words for each pedigree.

In the old form catalogues it was thought necessary by the owners to use 256 words in the foot-notes to each pedigree, while the Palo Duro catalogue required for foot-notes 100 words only—more than two to one. The old form catalogue we have referred to contained more words in foot-notes exclusively than is required to print a tabulated pedigree containing thirty immediate ancestors including breeders' names and all necessary foot-notes. We have noticed that foot-notes under the old form almost always refer to bulls whose breeding is to be guessed at and not to cows, and often pertain to remote, rather than immediate ancestors. Of course the foot-notes omit any reference to undesirable blood the animal may contain. Quite exparte business this.

To print pedigrees in such form that it seems necessary to use 256 words to tell what the pedigree means, reminds me of the boy who after making the best picture he could of a cow found it necessary to write under the picture, "This is a cow," that it might not be mistaken for some other animal.

As it is a fact that all pure-bred animals but the Shorthorn as far as I know, are honored with an intelligible statement of their breeding, through their written pedigrees, why should not our noble cattle be thus honored? As it is a fact beyond controversy that not over one person in a thousand who owns one or more pure-bred Shorthorns, owns or has access to the American Shorthorn Herd-books, I would suggest that the secretary of the association when called on for a certified pedigree write that pedigree in tabulated form, containing four crosses or thirty immediate ancestors, with the name of the breeder of every animal, so it may convey the information desired and consequently have a value to the person making the order. Then the secretary will have the con-

sciousness that he has rendered some compensation for the fee charged. They may answer at headquarters that they have enough work on hand now for the force employed. Then put in another clerk to write these tabulated pedigrees. Who will doubt that the thousand dollars a year that this extra work will cost will be well spent?

Will not this \$1,000 spent for tabulating certified pedigrees to be sent to some thousands of persons, do more good than spending a like amount in duplicating premiums at two little local fairs which will be absorbed by one or two show-herds?

The arguments thus far made are for the purpose of securing better business methods in writing the pedigrees of our cattle, but a higher motive is, to insure more rational methods in selecting and mating breeding animals which will result in the improvement of the breed. Who will doubt that the general practice of writing pedigrees in tabulated form, showing at a glance the better and the worse elements in the near ancestors, will dispel the old illusion; that is, going back to an ancestor on dam's side, long since dead, that carried in his veins when living not the thousandth part of the blood of the animal we are tracing, and ignoring the more desirable blood that may come in on sire's side in near ancestors, because under the old form of pedigree we had no means of detecting it?

I fancy it was his detestation of the prevailing methods of prizing an animal more or less highly on account of the name of an animal almost beyond the recognition of relationship, that caused Col. W. A. Harris more than fifteen years ago to exclaim, "If the books could be closed for ten years it would result in the production of the grandest breed of cattle the world has ever known, confining ourselves, of course, to pure-bred cattle."

This was the Colonel's way of expressing his detestation of the prevailing practice in selecting breeding stock, rather than by considering well all the blood lines of the near ancestors and, above all in his estimation, the individuality.

Gentlemen of the Central Shorthorn Breeders' Association, after walking in this old rut for three-fourths of a century, let us take one step forward and try to be businesslike and consistent.

The Best Method of Selecting and Fitting Cattle for the Sale-Ring.

C. D. BELLOW, MARYVILLE, MO., READ BEFORE THE CENTRAL SHORTHORN BREEDERS' ASSOCIATION AT LINCOLN, NEB.

With the growth of the public sale-system as a means of disposing of the breeders surplus there has come a corresponding increase in the demand for information that would be helpful to the breeder in obtaining what every energetic, earnest, and ambitious breeder most desires, namely, "How to make a successful public sale."

As the making of a successful sale depends largely upon the class of cattle to be sold, and since the results of one's sale are potent factors bearing upon his future success and reputation as a breeder, it is apparent that the making of a good sale means much more than simply the amount of money obtained therefrom.

No one will question but that a breeder's reputation is more or less influenced by the kind of cattle he offers and the manner in which the business connected with the sale is transacted.

To be prepared to select cattle for an attractive offering and one that will

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A Safe, Speedy, and Positive Cure. The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUSTIC OR FIRING. Impossible to produce scars or blisters. 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.

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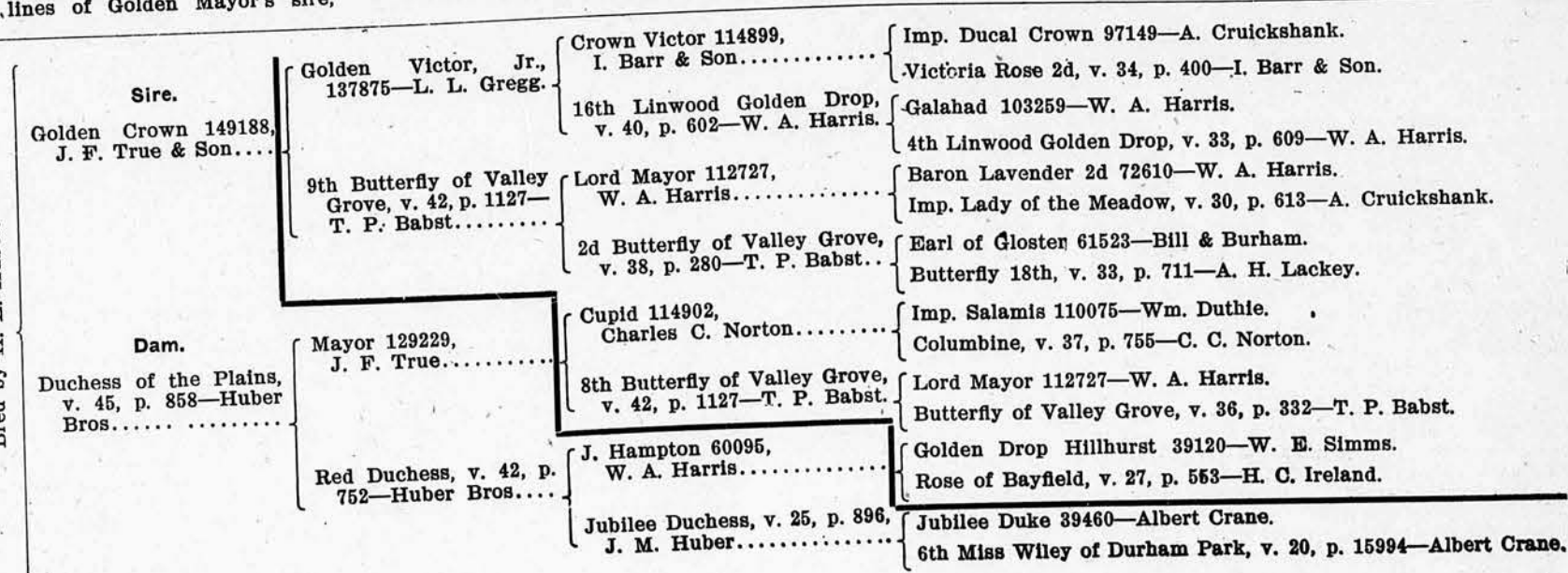
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Pedigree of Golden Mayor 191017. Red, March 28, 1902. Bred by H. E. Huber.



Tracing to Imp. Miss Hudson by Hermes (8145).

horns and Shorthorns; it is, therefore, imperative that we make no mistake in buying the foundation for our herd. In starting we should guard against the buying of cows simply because they can be secured for little money, or because they are "straight this" or "straight that," especially if they are lacking in individual merit. By all means do not buy such as have little else to recommend them than an "all red" color. We should first select a good individual, bred by a reliable man, and then if she belongs to a good family of known merit, and the pedigree shows the top sires to be among the high-class bulls of their time, she will do to buy at any reasonable price. My experience in these matters has demonstrated conclusively to my mind that in buying a cow of this description we will, in the course of a few years, view her produce with satisfaction and say to ourselves, "She was cheap, and we wish we had bought a half-dozen like her."

The "get rich quick" idea is one of the stumbling blocks in the way of many of our would-be successful American breeders. Too few of us are willing to make an investment in a strictly first-class cow and wait patiently five or ten years before we begin to declare dividends upon the investment. In the history of breeding Shorthorn cattle we find that the most successful breeders and as well those who reap the best financial results from their business, are those who are willing to wait for the accumulated results of a series of years of intelligent selection and breeding.

When the beginner is ready for his first herd-bull he has reached a point where he needs the advice and judgment of an experienced and reliable breeder who has been successful in his business. The buying of an inferior bull means not only a waste of money, but also a loss of valuable time. It is a familiar saying that "The bull is half the herd." If he is an inferior one, after two or three crops of his calves have been reared with little of quality and individual merit to recommend and help sell them, having to rely chiefly upon the fact that they can be registered, the breeder then begins to realize the mistake he has made, and that in reality the bull is much more than half the herd. If such a man is

not of a determined and persistent disposition, the failure to find buyers for his first young bulls will cause discouragement and induce him to sell his little herd, quit the business and go back to grain-farming and steer-feeding before he has reached the point where he would be able to hold a public sale. This is the dark side of the picture.

If, on the other hand, a strictly first-class bull has been used upon the class of cows heretofore mentioned, their produce will develop in a way to please and encourage their owner. The breeder who produces this brand of goods readily finds customers at paying prices and continues in the business.

As a rule, it is but a few years until such a breeder finds himself in possession of a good herd, the value of which it would be difficult to estimate in dollars and cents.

As soon as a man becomes a breeder of thoroughbred cattle he should buy a good private herd-book, be prompt and accurate in recording all pedigrees, and especially careful to record all breeding dates and when calves are dropped.

It is also advisable that one should be a constant reader of some of the leading farm and stock journals, and when anything is found in these pertaining to the history, show-yard records, etc., of the ancestry or descendants of cattle in his possession, a memorandum of such should be kept in the private record, or in a scrap-book conveniently arranged and kept for this exclusive purpose. Those who will follow out this plan will be surprised at the increased interest they will have in their own cattle and the business in general, and will also find themselves much better prepared to intelligently entertain visitors by being in possession of facts of interest pertaining to their cattle.

When a herd has been founded with such care and good judgment, and the young things properly developed under a system of liberal, practical feed and care until they have increased to sufficient numbers that a public sale is necessary, then the selection of the cattle will be an easy task and there will be little necessity to invest in a few animals, bred by some one else, to offer as special attractions. If the cattle are of this description, in nice, thrifty, breeding condition, and properly advertised, it will require more than an ordinary Nebraska blizzard to keep the people away from the sale, and the

cattle will sell at prices remunerative to the breeder.

In order to illustrate the advantage a breeder has over the man who buys his cattle to resell, I desire to call your attention to the career of a young cow I have been keeping track of for the past two years. Doubtless you have all heard of "the white heifer that traveled." My reference is to "the red heifer that traveled." She was sold by her breeder, when under 1 year old, for \$200. In two years she has passed through five public sale-rings at an estimated expense of approximately \$100, and during this time she has visited some of our large cities, and has traveled over 1,500 miles by railroad through five different States, all of which has been made at an estimated expense of not less than \$75. At the last sale she was purchased, with a nice calf at foot, for a trifle over \$300. She now has a good home where she is entitled to rest long enough to do her owner some good. She has made money for her breeder and some for the railroad companies, but very little for the speculators. If all Shorthorns were destined to do this much traveling we would be justified in selling our herds in order that we might invest in railroad stock.

The number of public sales held within the past two years, to the minds of some, might indicate a surplus of Shorthorns. This, however, is misleading to those unfamiliar with the facts. A study of sale reports for the past few years will show that the red heifer is not the only one that has traveled, but that many of them have passed through several sale-rings within a single year. Experience is a good teacher, and if you will pardon me for referring to my own experience in making public sales, I will say that in order to have a full sale, on one or two occasions I have bought a few cattle that I resold before they had been on the farm long enough to produce any calves. Some of them sold for less than first cost, to say nothing of feed and expense. On the other side, however, I have never yet sold a cow at public or private sale which I had raised, or bought and kept on the farm until she had produced one or two calves, that failed to make money.

In making up the list of cattle calculated for a public sale we should first consider how many can be spared and leave a good breeding herd on the farm. While none of us are willing to sell all of our best cows, I believe we owe it to our customers to give them a fair division of some of our best ones. Cows past 8 years old, and those with spoiled udders, are worth much more to stay on the farm and raise a few more calves, than they will bring in the sale-ring. Barren cows, doubtful breeders, or those which have recently lost calves, should be everlastingly barred from the sale-ring; because to offer such is nothing less than an imposition on the buyers and justly causes them to lose confidence in the seller. In my opinion the public sale-ring should not be debased to the extent that it becomes simply the means of disposing of a class of stock that could not be sold privately or in any other way. In order to establish a good reputation and hold the confidence of the public, we should not offer breeding stock at public sale lacking materially in the essential qualities necessary to fill the purposes for which they are sold. When a cow or a bull is led into the sale-ring for which some apology or explanation is necessary, they invariably sell for a low price and cause the sale to be slow.

In selecting bulls for a public sale we should guard against offering too many at one time. Free use of the knife will give us some good Shorthorn steers, for which there is a good demand at paying prices, and there will remain a much better set of bulls, which will not only bring us better prices, but will also raise the standard of the breed and add greatly to the reputation of the breeder.

Sale-cattle should be selected at least three or four months before the sale, then if they are in as good condition as thoroughbred cattle should be kept, it will be no trouble to gradually condition them in time for the sale.

My observation has been that Shorthorns in the herds of our most successful breeders are usually found in a fair condition. Where good blue-grass pastures can be had, with plenty of shade and water, there is no better place to fit a herd than while running on such pasture with a light feed of grain once a day up to about six weeks before the sale. Then they should be tied in a barn, well bedded and well ventilated, and given from this time on a liberal ration twice a day of a mixture composed of ground corn, oats,

bran and cut hay. If preparing for a fall sale the animals should be kept in the barns during the day and let out at night. If the sale is to be held during the winter or spring months, they should be kept in nights and allowed the privilege of lots during the day for sunshine and exercise. Each animal should be led out to water daily until all are thoroughly broken to lead. After they have learned to lead quietly from the barn to water and return, they should be led somewhat promiscuously around the premises until they are thoroughly accustomed to the halter.

Cattle unbroken to halter, or very thin in flesh seldom bring their value in the sale-ring. As a matter of fact buyers attending public sales care little to invest much money in an animal they would not feel proud to take home and show their neighbors. It is, therefore, important that the cattle should be presented in good condition and well broken, for breeders do not like to buy animals which do not look as well as those they have at home, while the beginner usually desires to buy only such as have the individual merit to show for themselves that they are better than the common cattle of the neighborhood in which he lives.

While I believe in liberal feeding, we should certainly guard against the use of too much corn for our breeding animals. It is never advisable to let the breeding herd get too thin, and for the benefit of those inexperienced, I wish to say, that a thin lot of breeding cattle can not be put in proper sale condition with six or eight weeks feeding of corn dumped in by the scoop-shovel full. In feeding breeding animals preparatory to a public sale, plenty of time should be taken, and, after they have been put in the barns, they should be fed separately, the feed for each animal being gauged according to its size and individual appetite. A comfortable bed of bright, clean straw, stables kept clean, well aired and free from foul odors are also conducive to thrift. It is so well understood that in order to be made successful a public sale must be well advertised that I will not devote any attention to this feature of the subject.

It is important that a properly compiled and well-edited catalogue should be issued. The appearance of the catalogue, the accuracy of the statements it contains and the unquestioned accuracy of the pedigrees which it shows as compared with the records, are all items of importance. The announcement should embody clear, concise statements, setting forth the seller's representations in such a way that they can not be misconstrued. Where it can conveniently be done I think it is advisable for the seller to personally proof-read every pedigree and footnote before the catalogue goes to press. I also think it advisable to abolish the custom of printing a footnote with reference to the imported cow, and substitute therefor facts of interest to the prospective buyer descriptive of the animal to be sold. Where footnotes are taken from former catalogues, care should be taken that they do not contain statements irrelevant or inappropriate to the occasion. A few such footnotes appearing in a catalogue carries with it the impression that the seller is inclined to be shiftless and careless about these little details which may be the means of creating an unfavorable opinion of the methods and accuracy of his breeding operations.

Before the time arrives for visitors and buyers to reach the sale the animals should be arranged in the stalls and classified according to size, color, etc. This classification helps to create a favorable impression upon first seeing the cattle. Before the sale is opened a program should be prepared arranging the order in which the cattle are to be sold. Considerable thought and judgment should be given to this matter, and those in charge of getting the cattle into the sale-ring should thoroughly understand the wishes of the seller, and a complete organization of the stable force should be secured that will be in perfect harmony with the plans formulated by the owner. It is poor policy to open a sale without having first made such plans, because the "cut and try" system in a public sale displays a lack of business tact and judgment which fails to command the respect and admiration of visitors.

While the sale is in progress the seller should be in the ring, conversant with the facts regarding each animal, ready to answer promptly all questions concerning them in a manner that carries with it conviction and inspires confidence in the prospective buyers.

The man who has founded a herd of Shorthorns along these lines, and cared for them in a way he can finally

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They burn fresh cold air and that means strong, pure white, steady light. For perfect convenience and safety, there is nothing that will so certainly suit your needs as

**The DIETZ Blizzard**  
It is the cold blast kind. It can't blow out. Just the right size, and its generous oil pot runs it 19 hours with one filling. It's the all-service, all-season lantern to go with you and make the way plain about a hundred household duties. Side lever raises the globe for trimming, lighting and extinguishing, and then lowers and locks it to the burner for the safe safety. Look for Dietz stamped on the globe when you go to buy. If it's not there, don't take it. The dealer will get you a Dietz. Write for our free catalogue to choose.

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make his first public sale a success and have a small breeding herd left, has not only made good money, but has thoroughly established himself in interesting and attractive business that will afford him a permanent remunerative income.

**My Experience in Feeding Alfalfa to Hogs.**

Extract from paper read before the Interstate Swine-Breeders' Association at Lincoln, Neb., January 20, 1903, by G. H. Payne, Omaha.

Alfalfa is a great subject. The more you see of alfalfa, the more you hear about alfalfa, the more you want to talk about alfalfa. It is one of the handsomest field plants that grows, being the first to show green in the spring and the last to lose its beautiful color in the fall. The sheep love it, the cattle live on it, the chickens grow fat on it, and pig will run for it. It is claimed that the Mormon makes tea of it and the Indian smokes it—but perhaps you can take the last two statements with a few grains of salt.

My experience in feeding alfalfa to hogs is not extensive, although I have studied the subject very carefully for the last few years, being interested for some time in a small ranch at Sidney, Neb., where we run about 2,000 cattle and put up from 1,000 to 1,200 tons of alfalfa per year; and also being interested in several farms at North Platte and Lexington, in the heart of the alfalfa belt.

Wishing to satisfy ourselves on the subject, we determined, a year ago, to make a thorough test of the value of alfalfa for hogs, on our farms at North Platte and Lexington. I can describe our progress no better than by quoting from a report we issued November 23, 1902, as follows:

**HOGS ON ALFALFA—EXPERIMENTS CONDUCTED ON THE SUMNER RANCH, NORTH PLATTE, NEB.**

On the above farm there is a small tract of land, 21 acres of old alfalfa, and 5 acres of new alfalfa sown in 1902; total, 26 acres.

The first crop of alfalfa was cut June 1, and from that time up to date has been pastured with an average of about 160 head of hogs all ages.

In addition to running 160 head of hogs on this 26 acres of land, the hay was cut three times, making a total of 88½ tons of hay. This was sold to a cattle company and fed out on the property, we doing the feeding at \$5 per ton, netting the owners of the property over \$13.50 per acre for the alfalfa, in addition to pasturing, as above stated, 160 head of hogs. The hogs were weighed on the 14th day of each month, with this result:

**EXPERIMENT WITH FIFTY-NINE STOCK HOGS.**

June 14, weighed an average of 108 pounds each; August 14, weighed an average of 144 pounds each.

This was a gain of thirty-six pounds each in sixty days, or six-tenths of a pound per day. These hogs were fed, as near as could be measured, one-half pound of shelled corn per day, the gain in weight per day being greater than the grain fed—a very satisfactory showing, the gain costing less than 1 cent per pound for grain fed.

**EXPERIMENT WITH THIRTY SHOATS.**

August 14, weighed an average of 131 pounds each. They were put in separate pastures and fed about four pounds of ground wheat and rye per day, with all the alfalfa they wanted to eat.

October 14, weighed an average of 190 pounds each.

This was a gain of 59 pounds in 60 days, or practically one pound each day. This experiment showed an unsatisfactory gain in comparison with the large increase in grain fed, but the only solution we can give is that the ground wheat and rye, fed with the alfalfa, was not as good a balanced ration as corn fed with alfalfa, and that where the grain was increased they ate that much less alfalfa.

**EXPERIMENT WITH TWENTY-TWO THOROUGH-BRED DUROC-JERSEY GILTS.**

September 14, weighed an average of 100.1 pounds each; November 14, weighed an average of 151.3 pounds each.

This was a gain of 51.2 pounds each in 60 days, or .8 of a pound per day. These hogs were fed one pound of ground wheat and corn each day, and alfalfa pasture.

This is considered the best gain of all the experiments, .8 of a pound per day being considered a very large gain with such a small grain-ration, the grain being wheat and corn. These

hogs were in excellent flesh and took very heartily to the alfalfa pasture. The small ration of grain named went direct to gain, almost pound for pound.

It is generally conceded that it takes from four and one-half to six pounds of grain to make one pound of pork. The above experiments prove, beyond all question of a doubt, that a gain of



Fig. 1.

one pound of pork can be made with from one to two pounds of grain and such alfalfa pasture as a hog will eat.

**IN CONCLUSION.**

First, we do not believe hogs will thrive on alfalfa hay alone, nor do we think it pays to expect young pigs to do well on alfalfa pasture only.

Second, we do believe that you can

**Muzzle for a Yearling.**

EDITOR KANSAS FARMER:—Take a tough board 11 to 14 inches long, 4 inches wide, and three-fourths of an inch thick, bore two three-eighths inch holes 4 inches from lower end. Bore two holes 1 inch from upper end. Put in three of four good brads. Pass

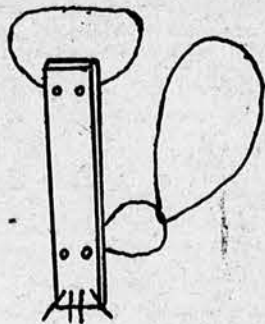


Fig. 2.

small rope as in Fig. 2. Adjust upon animal as in Fig. 1. After trying all the different muzzles ever made I found the above the best for an animal a year or more old. Almost any muzzle will stop a calf, but this for a steer or heifer is equal to anything Mr. Norton can get up.

J. B. WHITTAKER, Sylvia, Reno County.



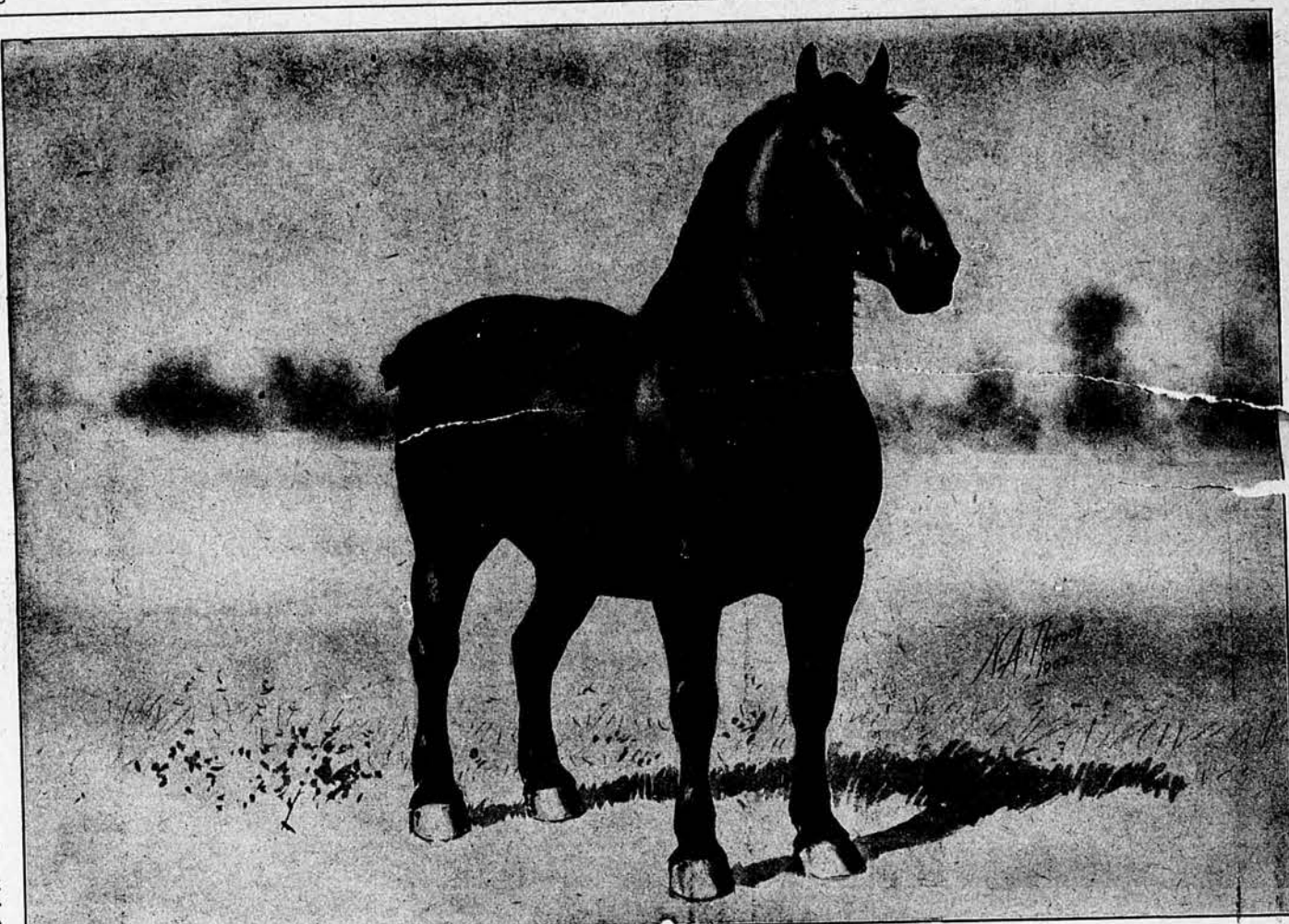
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FLEMING BROS., Chemists, 212 Union Stock Yards, Chicago, Ill.

bright. Wheat is just perfect to date, cattle fat and fine, and I wish to tell my Kansas chums how we feel down here in the sunshine-land without work.

To tell this right I will have to bring in "Dad" as we young cattlemen call



IAMS' BELLNET (44405),

Weight 2,060 pounds; Imported and owned by Frank Iams, St. Paul, Neb.

turn shoats on an alfalfa pasture in the spring and with one pound of corn per head per day make a gain of one-half to three-fourths of a pound per day, or from 125 to 150 pounds, during the six months grazing season, which is making pork at a low cost.

Third, we also believe from experiments we have made, that by chopping alfalfa hay (this must be good hay where the leaves have been preserved) and mixing this with ground corn, at the rate of about one pound of corn to five or six pounds of alfalfa, that it will make a ration that will carry stock hogs over the winter as satisfactorily to the owner as the ordinary ration, mostly of corn, at one-third the cost, and the animal will be in better condition to ward off disease.

**Cockle-Burs Injurious.**

EDITOR KANSAS FARMER:—In your issue of January 22, the cockle-bur is classed as a poisonous weed. I have lost five or six shoats, doubtless killed by it. In the spring when the burs are sprouting, pigs will eat them, and death is sure. I examined the stomachs of those that died, and found masses of chewed hulls, and in the intestines, bunches as large as a hen's egg, or one-third larger, with bloody mucus around them. They clog the intestinal canal and even the stomach, and are a deadly poison. Mitchell County. JAMES COTTINS.

**Shorthorn-Hereford Cross.**

The following letter from Prof. Thomas Shaw, of the Minnesota Agricultural College, is interesting to breeders of beef cattle:

"If beef is the object sought, I see no reason why a cross of pure Shorthorns upon high-grade and pure Herefords should not give results that are quite satisfactory. Such crossing is seldom advocated or practiced. Shorthorn grades had possession of the land before Herefords became numerous in the country. Because of this, the material on which to make the Hereford cross was plentiful, while the material on which to make the reverse was not plentiful. I have reason to believe that the Shorthorn cross on the Hereford would be quite satisfactory and it would tend somewhat to increase the weight of the average Hereford without effecting the meat produced."

**Cattle Business in Oklahoma.**

We have just gone through one of the loveliest winters—warm and

him, as what he says is law, and his years in Kansas and Oklahoma were full of experience as they are now of golden advice.

This man whom we all look up to, is C. H. Eldred, who, in years gone by, had 150 miles of fence, and 18,000 head of cattle to eat the mat of rich buffalo-grass that grew in his pastures, where he used to ride in his two-horse buggy from cowcamp to cowcamp, giving orders to his many cowboys to round up so many hundred steers, or repair so many miles of fence, or brand so many hundred calves, or move so many thousand head of cattle from the Cimarron River to the Salt Forks River, where our little city of Alva is nestled. I wanted his advice last week, and went over to visit him in his nice 3,000-acre home. I found him in not very good health, but he took me out to see a fine bunch of 2-year-old red steers of his own raising that he is roughing through; and I was surprised to see them as fat and sleek as moles. As we came to where the cattle were fed,

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**REX CONDITIONER**

25c, 50c, 75c, AND \$3.00 BAGS, GUARANTEED Stock Food, Rex Poultry Food and Rex Lice Killer.

For "wormy" or "out-of-condition" stock of all kinds, \$1.00 worth of Rex Conditioner will do more work than \$10.00 worth of any kind of Stock Food including our own. It is made expressly for "wormy," "poor-blood" or "run-down" stock of any kind and is endorsed by State Veterinarians. Insist on your dealers furnishing you "Rex" or write to us. We also make Rex Hog Remedy, Rex

REX STOCK FOOD CO., OMAHA, NEB.

I said, "Colonel, where are the corn-stalks, Kafir, and cane stubs? Nothing here but a little wheat straw; why are the cattle looking so well?" He laughed and said, "El, I have got through working so hard feeding cattle." Then he told me how he had fed them; and all those steers have a day is a load of straw and one and a half pounds to the head of cottonseed-cake, pounded up to about the size of a silver dollar and scattered around on the grass. I was astonished, and went home and made feeders, and put a car-load of Shorthorn bulls on the same feed, and they are just booming! I sell one nearly every day. Cottonseed-meal costs us \$27 a ton here, and city folks eat the oil in lard and butter at 15 and 20 cents per pound. Wheat pasture, cottonseed-cake, straw! Get on a stone and hurrah for Oklahoma. Alva, Okla. ELI C. BENEDICT.

**The Oklahoma City Shorthorn Sale.**

Perhaps it would be difficult to imagine other conditions more adverse to the holding of a successful sale of pure-bred live stock than those which existed at Oklahoma City last week. The rainy weather, the numerous entertainments given in connection with the cattlemen's convention and the lack of high appreciation of quality, all had their influence. Perhaps no better bunch of breeding Shorthorns was ever seen inside the limits of the territory than those contributed by Geo. Bothwell, Nettleton, Mo., and J. F. Stodder, Burden, Kans., for their sale on February 12. These were much appreciated by buyers and visitors, and the sale was satisfactory in all respects when considered as a missionary effort, except that the consignment of bulls was rather too large for the market at that time and place. The females sold well and the bidding was spirited, but the bull sale, especially on the young animals, dragged a little and served to reduce the average of the sale. By taking this high quality of stock into this new territory these two energetic breeders have made for themselves personal friendship and future business which was well worth the going after. The top of the sale was brought by Stodder's U-dora 17th, who went to L. A. Rockwood, Oklahoma City, for \$230. She was a 6-year-old cow, sired by Baron Waterloo 106362 and bred to Wild Eyes Duke 175663. The top of the bull sale was brought by Stodder's Prince Challenger 187953, a long yearling bull sired by Gwendoline's Prince which stood at the head of his show herd in the circuit of the principal county fairs, including the Kansas State Fair, during the last four months. J. S. Nelson, Lawrence, O. T., bid him off at \$200. A total of fifty-eight head were sold for \$7,311, average \$126.05. Of these thirty-seven were females which brought \$5,161, average \$139.48. Twenty-one bulls brought \$2,150, average \$102.40. The sale in detail is as follows:

Nonpartiel Braquet, F. J. Walter, Enid..... \$200  
Barrington Braquet 5th, G. W. McQuown, Weatherford, O. T..... 200  
Crystal Duchess of Goodness 28th, J. P. Corneliuss, Braman, O. T..... 160  
Crystal Duchess of Goodness 29th, H. J. Brown, Kremlin, O. T..... 100  
Crystal Duchess of Goodness 30th, J. P. Corneliuss..... 110  
Udora 17th, L. A. Rockwood, Oklahoma City..... 230  
Star Bright, C. S. Williams, North Enid, O. T..... 145  
Clara 10th, Fred Huffman, Cashion, O. T..... 125  
Lady Mary, Roy M. Felton, Hydro, O. T..... 75  
Bentona Sunshine, L. Allard, Yukon, O. T..... 150  
Della Ramsden, W. D. Phillips, Lamont, O. T..... 105  
Rose of Sharon 8th of Staked Plains, G. E. Hayden, Newkirk, O. T..... 100  
May of Meadowbrook, W. S. Combs, Yukon, O. T..... 165  
Maple Rose 2d of Hallsville, Roy M. Felton..... 110  
Hathine, W. I. Phillips, Lamont, O. T..... 120  
Lady Irwin, T. C. Bossart, Kremlin, Okla..... 105  
Nelle Wagner 3d, T. C. Bossart..... 120  
Rose of Slippery Hill, D. A. Casselman, Cashion, O. T..... 115  
Mayflower, T. C. Bossart..... 100  
Martha of Mapleton, L. Allard..... 160  
Sharon 8th, H. J. Brown, Kremlin, Mo..... 110  
Mary of Elmwood 25th, W. H. Jeffrey, Blackwell, O. T..... 215  
Beauty 3d, L. A. Rockwood..... 200  
Catharine of Willow Springs, D. A. Casselman..... 150  
Garland, C. S. Williams..... 100  
Mary Rose 4th, L. A. Rockwood..... 200  
Ortiz Fashion, J. P. Corneliuss..... 150  
Rhoda, W. H. Jeffrey..... 150  
Sallie Walker, W. E. Craig, Guthrie, O. T..... 90  
Lurlene, S. B. Stewart, Cashion, O. T..... 100  
Josephine of Elmwood 4th, Roy M. Felton..... 140  
Glen Dale Princess, W. S. Combs..... 185  
Crystal Princess 13th, C. S. Williams..... 120  
Acomb Duchess 28th, Roy M. Felton..... 120  
Western Lady, E. A. Castleman..... 110  
Carrie of Willow Spring, W. I. Phillips..... 225  
Geneva 2d, R. A. Rockwood..... 100

**BULLS.**  
Prince Challenger 187953, J. S. Nelson, Lambert, O. T..... 200  
Royal Harrington 186409, G. E. Hayden, Royal Red 180906, H. L. Lair, Mungen, O. T..... 100  
Mary's Prince, L. Allard..... 100  
Silver Creek Duke, J. P. Souisey, Pawnee, Okla..... 115  
Prince Fancy of Silver Creek, S. P. Stewart..... 100  
Prince's Lad, J. L. Worth, Augusta, O. T..... 110  
Burly Boy, Geo. W. Collett, Britton, O. T..... 100  
Orontes of Lake Farm 177998, H. J. Brown..... 110  
Prince Golden Drop, Geo. W. Crowl, Alva, O. T..... 90  
Prince Violet 182682, Allen Cash, El Reno, O. T..... 115  
Achronie Chief, G. W. Crowell, Alva, O. T..... 115  
Headlight, P. S. Watts, Arapajo, O. T..... 100  
Village 186582, G. W. Crowell..... 55  
Richmond, W. G. Moore, Oklahoma City..... 85

Golden Prince, G. W. Crowley.....	40
Cherry Box 3d 128338, G. W. Crowell.....	100
Prince Marshall, D. A. Castleman.....	85
Aguinaldo 146948, M. J. O'Connor, Edmond, O. T.....	100
Scamper Lad, Jno. H. Jones, Cashion, O. T.....	50
Kirklevington Lad 2d, J. A. Huffman, Kremlin.....	100

**The Oklahoma City Hereford Sale.**

On February 10 and 11, amid the distractions afforded by the truly western welcome which Oklahoma City accorded to the thousands of visiting cattlemen who were there to attend the annual meeting of the Oklahoma Cattlemen's Convention, and amid the jubilation of the city over the opening of her splendid new street-car system which occurred at the same time, and all this coupled with the excitement attending the broncho-busting and roping contests, and the innumerable band concerts, and other festivities was held one of the most notable sales of pure-bred Hereford cattle that ever occurred in the Southwest. Notable because it was composed of animals from the best known and most justly famous herds of America, and because of the quality of the animals offered. The breeders who contributed to this sale did so in a truly missionary spirit, in the belief that, while they might not realize much in ready cash from the offering, they would be sowing seed for future business. While the figures realized from this sale were not at all satisfactory, it is thought, as a whole, that the consignors have done a good stroke of business in bringing these good cattle to this new country and making new acquaintances for the good of the future.

The consignors to this sale were C. A. Stannard, Emporia, Kans.; Scott & March, Belton, Mo.; Gudgeon & Simpson, Independence, Mo.; Mrs. C. S. Cross, Emporia, Kans.; Alva G. Baldwin, Guthrie, O. T.; and W. N. Shellenberger, Oklahoma City, O. T.

The sale was opened in a large sale tent in the midst of a heavy and continuous downpour of rain which decreased the attendance and had a depressing effect upon those who were present. The animals were a good lot and in fine condition and constituted perhaps the finest offering of the breed ever made in the Territory.

A total of fifty-five animals was disposed of for \$5,965, average \$126.64. Of these sixteen were bulls which brought \$1,850, average \$115.62. Thirty-nine females sold for \$5,115, average \$131.15.

The top of the bull sale was brought by C. A. Stannard's Cavalier 2d 106072, who went to J. S. Dow, Reading, O. T., for \$270, which was considered about one-fourth his real value. The top of the female sale was brought by Gudgeon & Simpson's Bright Duchess 35th 144628, who went for \$200 to Jos. Madison, Karoma, O. T., though there were so many others that sold at nearly the same price that the sale could hardly be said to have any top.

The details of the sale were as follows:

**FEMALES.**  
Consigned by Gudgeon & Simpson.  
Bo Peep 126284, L. A. Ogden, Thomas, O. T..... \$105  
Bright Duchess 35th 144628, Joseph Madison..... 200  
Lucinia 8th 144656, J. J. Denton, Newport, Tenn..... 150  
Luzie 123779, C. H. Dresson, Moore, O. T..... 140  
Magdalene 2d 155417, Jos. Madison..... 95  
Alice 125171, John R. Green, Henderson, O. T..... 115  
Minnie Astor 153006, Herbert Kellam, Emporia, Kans..... 55  
Consigned by C. A. Stannard.  
Beauty 70850, J. W. Ellis, Guthrie, O. T..... 135  
Christmas Girl 126783, Thomas Bros., Tonkawa, O. T..... 140  
Cinderella 89338, De Vorack Bros., Medford, O. T..... 110  
Contentment 129768, A. S. Gilbert, Ponca City, O. T..... 140  
Damsel 70857, Thomas Bros..... 180  
Ellza 131041, T. G. Abercrombie, Cashion, O. T..... 145  
Esther Virginia 134463, A. S. Gilbert..... 150  
Helen 129764, S. B. Finley..... 110  
Isabel 129765, S. M. Gault..... 140  
Jennie Lind 14109, T. G. Abercrombie..... 125  
Lady May 2d 56815, J. W. Ellis..... 125  
Lady Real 54th 129654, F. M. Gault..... 180  
Lily 5th 69085, W. N. Shellenberger, Oklahoma City..... 120  
Little Rose 135889, S. B. Finley..... 125  
Maiden 126787, A. S. Gilbert..... 160  
Neni 127192, A. S. Gilbert..... 145  
Nora 127194, J. J. Denton..... 150  
Norma 2d 94995, Thomas Bros..... 165  
Olive 129767, F. M. Gault..... 170  
Queen Anne 102047, J. S. Dow, Reading, O. T..... 190  
Red Eyes 121315, J. J. Denton..... 130  
Rosamond 121708, De Vorack Bros..... 115  
Silver Leaf 2d 134057, F. M. Gault..... 125  
Wild May 135894, F. M. Gault..... 125  
Rosette 129769, J. J. Denton..... 130

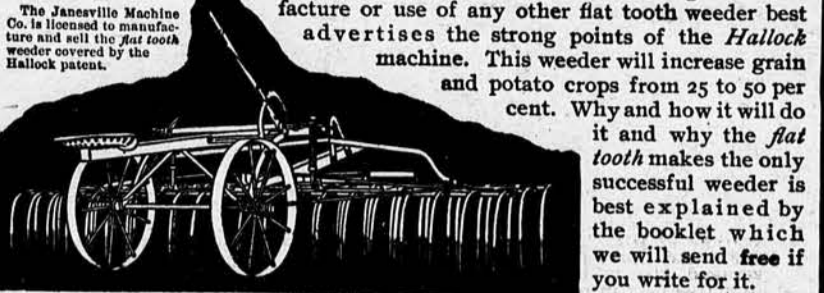
**Consigned by Scott & March.**  
Bonita 5th 121969, F. M. Gault, Oklahoma City..... 115  
Caroline 135114, F. M. Gault..... 120  
Daisy B. 135119, Robert Clark Weatherford, O. T..... 80  
Orinda 3d 135165, F. M. Gault..... 105  
Redempta 135179, De Vorack Bros, Medford, O. T..... 115  
Sabatha 135183, Jas. Madison, Karoma, Okla..... 80  
Janet 135147, F. D. Finley..... 100

**BULLS.**  
Consigned by Scott & March.  
Baron 135104, Robert Clark..... 90  
Bristol 135112, G. R. Brown, Miller, O. T..... 70  
Hero 150474, H. L. Simmons, Raymond, Tex..... 65  
Hustler 150475, Jas. Gibson, Sheridan, O. T..... 75  
Leader 135150, H. L. Simmons..... 140  
Red Signal 129913, F. M. Gault..... 80  
Regulus 135181, H. L. Simon, Lahoma, O. T..... 110  
Rochester 135182, H. L. Simmons..... 115  
Consigned by Gudgeon & Simpson.  
Baugham 144608, Jos. Madison..... 145  
Captain Jinks 155411, F. M. Gault..... 145  
Baugham 144608, Jos. Madison..... 145  
Captain Jinks 155411, F. M. Gault..... 115  
Consigned by C. A. Stannard.  
Cavalier 2d 105072, J. S. Dow..... 270  
Glaucus 126119, Robert Clark, Weatherford, O. T..... 140  
Consigned by R. C. Wilson.  
Sir Walter 136645, S. R. Finley, Oklahoma City..... 90  
Consigned by W. N. Shellenberger.  
SanchoPansa 94255, A. J. Sellers, Al-

# Hallock's SUCCESS Weeder

IT'S ALL IN THE TOOTH

For a number of years many farmers have known the advantages of the Hallock Weeder. Now everybody knows that the whole secret is in the flat tooth. The recent legal decision restraining the manufacture or use of any other flat tooth weeder best



JANESVILLE MACHINE COMPANY, 15 Center St., Janesville, Wisconsin.

Mo.....	90
John Helm 193915, B. H. Mehan, Tampa, Kans.....	40
Advance Lad 193912, Harry Smith, Carthage, Mo.....	37.50
Richard 193922, J. F. Reier, Hiawatha, Kans.....	40
Lano 193960, C. F. Wolf & Son.....	40
Roan Guard 193923, Brown Bros., Hackett, Kans.....	70
Royal Lavender 193924, Sanford McSmith, Carthage, Mo.....	75
Saint Valentine 193925, Tom Gallagher, The Last One 193927, C. F. Wolf & Son, Mo.....	55

**The Kellerman Shorthorn Sale.**

The dispersion sale of the famous Vineyard Herd of Shorthorn cattle, belonging to D. K. Kellerman & Son of Mound City, Kans., took place at the Kansas City Stock Yards sale pavilion on Tuesday, February 17. Sixty-five animals were catalogued, and they were pronounced by competent judges to be the best bunch of pure-bred Shorthorns that has passed through the sale-ring in Kansas City in many moons. The herd was established in Ohio in 1876 by the late D. K. Kellerman, and the sale to-day showed animals that are the results of the most skillful and scientific breeding along the most approved lines. Scotch blood predominated and it was good blood and well represented. It is with the keenest regret that we witnessed the dispersion of this remarkable herd, though the satisfaction remains that Mr. Geo. F. Kellerman has retained the American Royal prize-winner, Orange Lad, and a few of the Lavender Scotch heifers as the foundation stock for a new herd.

The sale stock was of such quality and finish that we more than once heard the remark made by experts that it was worthy of a \$200 average. Yet even a good breeder can not control the weather, and the sudden drop in temperature to 14° below zero of the preceding night kept many Shorthorn men away who had expressed their intention to be present. The result was the best cattle and the smallest number of buyers that had been brought together in a long time.

The top of the sale was reached by the show bull, Lavender Gloster 168056, who went to Samuel W. Cox, South Greenfield, Mo., for \$525.

Under the stress of weather conditions it was impossible for the audience to be comfortable and it was only by the skillful management of Colonels Woods, Sparks, Harriman, and Burger that as good results were obtained as were realized.

The 63 head brought \$3,327.50, average \$132.18. Of these 49 were females, which sold for \$6,970, average \$142.24. The 14 bulls brought \$1,357.50, average \$96.96. Many of the bulls were very young and, as the market was glutted, they sold cheap to some lucky individuals who were shrewd enough to buy.

The sales in details were as follows:

**COWS.**  
Scotch Josephine 9th and calf, Jas. Luke, Carthage, Mo..... \$240  
Lavender Duchess 11th (and calf) J. F. Finley, Greenfield, Mo..... 140  
Scotch Josephine 5th (and calf), C. S. Nevius, Chiles, Kans..... 155  
Vineyard Lavender, C. D. Bellows, Maryville, Mo..... 315  
6th Duchess of Vineyard, C. S. Nevius..... 145  
Lavender Duchess 6th, M. Sooter, Lockwood, Mo..... 195  
5th Duchess of Vineyard (and calf), C. D. Bellows..... 140  
Lavender Duchess 17th, James Luke..... 350  
Scotch Josephine 17th, T. K. Tomson & Sons, Dover, Kans..... 150  
Cozy Corner 2d (and calf), T. K. Tomson..... 125  
Scotch Josephine 2d, Meal Bros..... 55  
Scotch Josephine 4th, Ed. W. Cook, Spickard, Mo..... 65  
Lavender Duchess 18th, S. McSmith..... 75  
Scotch Josephine 20th, S. McSmith..... 90  
Miss Dorritt, Tom Gallagher..... 115  
Scotch Josephine 14th, C. S. Nevius..... 60  
Lavender Rose 20th, T. K. Tomson & Sons..... 60  
Scotch Josephine 3d, S. J. Hess, Marshall, Mo..... 80  
Vineyard Margaret, C. S. Nevius..... 70  
Rose Sharon, S. J. Hess..... 95  
Scotch Josephine 15th, C. F. Wold & Son, Ottawa, Kans..... 100  
Lavender Duchess 20th, T. K. Tomson & Sons..... 70  
Lavender Rose 6th, Frank Hunn, Arlington, Kans..... 130  
11th Duchess of Linn (and calf), Tom Gallagher..... 75  
Dorritt's Lavender, H. E. Hayes, Olathe, Kans..... 105  
Sugar Lavender, Tom Gallagher..... 110  
Scotch Josephine (and calf), C. D. Bellows..... 150  
Advance Rose 2d, Jas. Luke..... 130  
Advance Rose 3d, Tom Gallagher..... 90  
Lavender Duchess 10th, C. S. Nevius..... 135

**Garver's Poland-Chinas Average \$41.70.**

On Wednesday, February 18, was held the annual brood-sow sale of C. M. Garver & Son, at the home farm, near Abilene, Kans. In spite of the severe cold weather and other disadvantages, this sale proved to be one of the very best that was ever held in Kansas. There were no high prices and no very low ones. The hogs were splendidly bred and in fine condition, and Col. Harshberger pushed the sale through with a snap and vigor that was good to see.

Fifty-one head sold for \$2,127, average \$41.70. Fifty sows brought \$2,084.50, average \$41.69, and the herd boar, Hadley I Know 21402, farrowed in 1898, and of no further use in this herd, sold for \$42.50.

A bunch of four sows, out of a litter of ten pigs, sired by Hadley I Know, sold for \$173, and M. O. Kilmer, McPherson, who bought him, has reason to expect some good pigs from him.

The sale was a wonderfully even one and could hardly be said to have had a top. The highest price was \$58, brought by a Hadley I Know sow with a Lily U. S. Model dam. L. D. Arnold, Salina, bought her. The excellent dinner provided by the Garvers for the buyers helped to put the chilly crowd in a good humor and make the work of Col. Harshberger and Burton more successful.

The sow sale was as follows:

1. C. W. Strickland, Junction City..... \$43.00
2. L. D. Arnold, Salina..... 39.00
3. John Chase, Glasco..... 46.00
4. W. J. Hunniman, Madison..... 42.00
5. L. D. Arnold..... 58.00
6. F. H. Schimmelpennig, Belle Plaine..... 45.00
7. C. N. Hoyt, Bennington..... 31.00
8. H. K. Holsworth, Talmage..... 40.00
9. John Riley, Abilene..... 52.00
10. M. O. Kilmer, McPherson..... 56.00
11. F. H. Schimmelpennig..... 55.00
12. M. M. Kelm, Industry..... 56.00
13. W. A. Prewett, Asherville..... 52.00
14. O. Ball, Abilene..... 39.00
15. Frank Close, Abilene..... 40.00
16. J. H. Cutter, Junction City..... 38.00
17. O. Ball..... 42.50
18. L. D. Arnold..... 38.00
19. Thomas & Swank, Waterville..... 40.00
20. Joseph Page, Detroit..... 38.00
21. L. DeVault, Olathe..... 37.50
22. W. F. Goode, Lenexa..... 39.00
23. F. H. Schimmelpennig..... 40.00
24. J. H. Cutter..... 45.00
25. W. A. Prewett..... 57.00
26. L. DeVault..... 38.00
27. W. E. Hunter, Mitchell..... 40.00
28. Frank Close..... 40.00
29. W. Hollingsworth, Rhinehart..... 50.00
30. W. P. Goode..... 41.00
31. Thomas & Swank..... 39.00
32. Estes & Ball, Abilene..... 33.00
33. C. N. Hoyt..... 34.00
34. J. A. Middleton, Abilene..... 54.00
35. M. F. Osborn, Keats..... 50.00
36. Frank Close..... 55.00
37. C. W. Strickland..... 33.00
38. M. P. Ryan, Chapman..... 31.00

### 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. Explain Health and Happiness sent sealed in plain envelope for four cents in stamp. All letters answered in plain envelope. Varies cured in five days. Call or address

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breeders of his home State as well as Iowa, Kansas, Illinois and other States where the best cattle are bred. His work is especially strong in the cattle ring, though his long experience as a horse-breeder makes him an excellent salesman of horses as well.

What is claimed to have been one of the greatest fine-stock sales ever held in that portion of Iowa took place at Storm Lake on February 13. E. R. Sisson disposed of sixty head of Shorthorns, all the get of Young Hamilton. The sale aggregated \$15,000 and was very satisfactory to Mr. Sisson. The top of the sale was reached by Roan Phyllis and her 10-days-old calf who went to G. C. Glacey, Avon, Ill., at \$815. Mr. Sisson afterwards purchased the calf for \$500.

Right now is the time to put your horses in condition for spring work. Good feed, the curry-comb and brush, and exercise will do a whole lot; but your horses should be freed from worms and their digestive apparatus put into a proper and healthy condition. The Rex Stock Food Company's Rex Conditioner is prepared especially for this purpose. It will regulate their bowels, help them to shed off nicely and put them in splendid shape for spring work. Read their advertisement in this paper and write for their catalogue.

Mr. Geo. E. Ward, the big Shorthorn breeder of Sioux City, Iowa, has been ac-

and jacks, and all we can say is that any man who knows a good thing when he sees it should get next to S. A. Spriggs. If you feel like you can not handle pure-breeds as yet he will fit you out with some splendid grade stallions that would be a credit to any neighborhood.

There seems to be something doing in Franklin County. Lately there was organized at Ottawa the Forest Park Breeders' Association with a membership of fifty, for the purpose of holding annual and semiannual sales of pure-bred live stock. One sale will be held during the county fair in Forest Park which is considered one of the most beautiful in the State of Kansas. At the last meeting held in January, the board of officers of the Franklin County Agricultural Society, with twenty-five members present, adopted the following resolution: "Inasmuch as there has been held at Ottawa the only real State fair of Kansas for the last fifteen years, Resolved, That this society is in favor of a legislative appropriation for a State fair, and that it should be held at Ottawa, Kans."

At a public sale of Duroc-Jersey brood sows from the herd of Manley & Co., Lyons, Neb., the world's record of prices of this breed was broken. Fifty head were sold at an average of \$76.80 per head. The highest price for any one animal was \$300. E. H. Gifford, of Lewiston, Neb., paid that figure for the 2-year-old sow, Roberts' Profit. Buyers were present

of C. G. Proffitt, Raymond, Rice County, Kansas, for use in his herd. This bull was bred by Parrish & Miller, owners of the great Sunflower Herd of Angus cattle at Hudson, Kans. Bred as he is, and coming from such a home, Mr. Hurst has reason for his remark, and he expects something good from him. Mr. Hurst still has five bull calves that were dropped in January and April and are broke to halter and in good condition that can be had at very reasonable prices if taken at once. There are no culls on this farm. He might spare a few females also.

S. A. Spriggs, Westphalia, Kans., is a man who is 'onto his job.' As is well known, he is a breeder of Mammoth jacks and jennets and Percheron horses. At the Missouri State Fair in 1901 he won first on both jacks and jennets in the hottest kind of competition, and when a man can go into Missouri and win first on this breed of animals it means that there is something doing on his home farm. Some time since he sold this prize-winning jack to a customer at Shafter, Kans., and is now in possession of a letter from him saying that the best judges as well as the horse and mule buyers who come there unite in saying that he is the finest jack they ever saw. Mr. Spriggs still has a few of the same kind left that are for sale. He could also spare a few jennets if called for soon. Some extra quality grade Percherons will also be offered. There is money in the kind of stock Mr.

## HALE AND HEARTY

A VERMONT FARMER WHO FEELS  
YOUNG AT EIGHTY.

Rheumatism Once Troubled Him But  
Dr. Williams' Pink Pills for Pale  
People Permanently Cured It.

A fine specimen of the hardy Vermont farmer is Joseph Chase, of Readsboro, active and strong in body and mind at the beginning of his eightieth year. A few years ago an attack of rheumatism caused the old gentleman much suffering but Dr. Williams' Pink Pills cured that and he is now enjoying unusual health for one of four-score years. When recently interviewed, he said:

"I was not confined to my bed but I suffered a great deal of pain. My back and shoulders were lame and my arms were so sore that I could not get my coat on without assistance. When I sat down it was hard to get on my feet again, and every time I raised my arm sharp pains shot through my shoulders. Heavy farm work and exposure in all kinds of weather probably brought on the rheumatism and it was so stubborn that I couldn't seem to get rid of it.

"One day I saw Dr. Williams' Pink Pills for Pale People mentioned in a newspaper and I got some. I felt better after taking one box and took four or five boxes altogether. They cured me and the cure was permanent. I recommend Dr. Williams' Pink Pills to every one who is not well, and I know of other cases where they have given good results."

Rheumatism is a disease of the blood and it must be treated through the blood. External applications can give no benefit that will last. Dr. Williams' Pink Pills for Pale People are unlike other medicines because they act directly on the blood and nerves. This makes them invaluable in such diseases as locomotor ataxia, partial paralysis, St. Vitus' dance, sciatica, neuralgia, nervous headache, the after-effects of the grip, palpitation of the heart, pale and sallow complexions, and all forms of weakness either in male or female. Dr. Williams' Pink Pills for Pale People are sold by all dealers, or will be sent on receipt of price, 50 cents a box or six boxes for \$2.50, by addressing Dr. Williams Medicine Company, Schenectady, N. Y. Be sure you get the genuine; substitutes never cured anybody.



ROBERT MCGREGOR 2:17½

Sire of Cresceus 2:02¼, at the head of Ft. I. Lee's breeding stables at Wanamaker, Kans., for seven years and afterwards sold for \$35,000. This breeding in Mr. Lee's dispersal sale at State Fair grounds, Topeka, Kans., March 5, 1903.

tive in his efforts to secure a live-stock show at that point similar to the American Royal at Kansas City. He has just returned from a conference with the officials of the American Shorthorn Breeders' Association with the assurance that they will hang up a goodly purse for prizes at the Interstate Live-stock Fair when its organization is complete. The National Hereford Association will probably subscribe \$1,000 for prizes and the Interstate Breeders' Association will also contribute. As yet, the other organizations have not reported.

Our readers are cautioned against the buying of imperfect seed-corn this spring for the reason that very much of the Northern-grown corn failed to mature properly and consequently will not germinate. We have heard rumors to the effect that dealers have adopted the practice of kiln-drying their corn, which in itself would tend to destroy its usefulness. In buying seed-corn be sure of the man from whom you buy, and trust no one who has not a reputation to maintain. The advertisers in the Kansas Farmer are reliable men and will furnish what they agree to, and we hope our readers will deal with them exclusively.

During a recent visit to Westphalia, Kans., we had the pleasure of meeting Mr. S. A. Spriggs, breeder of Percheron horses and Mammoth jacks, and learned something of the business he is doing. His trade has been increasing right along, as it ought to do with such animals as imported Taiti (23693) 42584 and imported Groundswell (28685) 9477 at the head of his stud. There is money in both Percherons

and jacks, although most of the offerings were taken by Nebraska breeders. Manley & Co. are owners of Orion, the greatest and most popular breeding hog of this breed, and to that fact is due the high prices that ruled at this sale. The sale was a record breaker both in that it contained the highest price ever paid for a Duroc-Jersey sow at auction, and the highest average price ever made on Duroc-Jerseys at public sale.

The two-days' combination sale of Herefords which closed at Chicago on February 17, and which was contributed to by Illinois, Indiana, and Missouri breeders, proved fairly satisfactory. Sixty-six animals brought \$8,680, average \$132. Forty-eight females brought \$6,485, average \$135.10. Eighteen bulls sold for \$2,195, average \$122. The contributors to this sale were W. W. Wheeler, Harlan, Iowa; C. A. Jamison, Peoria, Ill.; W. E. Hemenway, Steward, Ill.; J. M. Grimes, Steward, Ill.; A. A. Ohl & Sons, Iowa City, Iowa; Edw. Hawkins, Earl Park, Ind.; F. L. Studebaker, Warren, Ind.; Thos. Clark, Beecher, Ill.; S. W. Anderson, Baker Mills, W. Va.; G. S. Burleigh, Vasselborough, Me.; T. C. Henderson, Hatton, Mo.; and A. A. Fuller, North Lake, Wis.

A recent letter from Garrett Hurst, breeder of Percheron horses and Aberdeen-Angus cattle, Zyba, Kans., informs us that he has shipped his last 2-year-old bull, Young Grapewood 47630, to McNele Gloyd, Blismore, Allen County, Kansas, who states that he is more than pleased with him. Mr. Hurst also mentions that he has lately bought some Junior 80000

Spriggs handles, and it only costs a postage-stamp to find out about it. Get next.

It is very gratifying to note the enterprise displayed by our friends in the "short grass" region in western Kansas and the rapid advancement in improved stock which is obtaining in that part of the country. Recently a representative of the Kansas Farmer had the pleasure of meeting F. S. Jennison, owner of the Blue Jay Ranch at Farnsworth, Lane County, Kansas, who had topped the Kansas City market recently with a load of feeders and then visited the celebrated Tebo Lawn herd of Shorthorns, owned by G. M. Casey, of Clinton, Mo., from whom he purchased a registered Shorthorn bull and heifer of the "Casey Mixture" type. Both of these were sired by the famous Scotch herd-bulls in service at Tebo Lawn. The bull calf was sired by Imp. Blythe Victor and the heifer by Ravenswood Flora, both notable animals. This purchase is a valuable acquisition for western Kansas and in the near future we may expect to hear of a number of notable breeding establishments in that part of the country.

During the last two years there has been an immigration of pure-bred stock-breeders from Iowa, Illinois, and Missouri into Kansas. A number of these men have been breeders of note in their home States, and have brought herds with them which were locally famous. One of the best-known of these men is Mr. H. W. Weiss, Westphalia, Kans., who was a noted breeder of Shorthorns of Sutherland, Iowa, prior to his removal to Kansas. He brought with him his

splendid herd of Scotch and Scotch-topped Shorthorns, which has at once taken rank for both breeding and quality among the very best to be found in the West. Mr. Weiss possesses in a marked degree that essential element to success with any breed of pure-bred animals, a knowledge of how to feed. He has been a liberal purchaser from the best breeders in Iowa and elsewhere and the writer had the pleasure of seeing him buy a number of excellent heifers at the great Bigler sale in June last. The writer considers this herd one of the very best that now exists in Kansas, and when it is announced that a draft from the Cherry Creek Shorthorns will be sold at South Omaha on March 13 next, we feel safe in saying that it will arouse a keen interest in the mind of every Shorthorn man in the West.

A meeting of the executive committee of the American Royal Cattle and Swine Show was held at Chicago on February 18, and arrangements were completed for the Royal of 1903. Prior to the perfecting of the arrangements the following officers of the executive committee were elected for the ensuing year: President, C. E. Leonard, Bellair; first vice-president, Chas. Guggell, Independence; second vice-president, A. M. Thompson, Nashua; third vice-president, H. W. Elliott, Estill; secretary-treasurer, T. J. Wornall, Liberty, all of Missouri; general manager, C. R. Thomas, Chicago; press representative, John M. Hazelton, Kansas City, Mo. The date fixed for the Royal of 1903 is October 18-24. Of course the cattle-show will be the one of paramount interest, but the hog-show will be immensely increased, and already three of the four leading swine associations have signified their intentions to hang up liberal premiums next fall. The next Royal will include draft horses and sheep, which have never been included before. Three of the five leading sheep associations have already decided to exhibit and a truly royal show is expected for these animals. With the advent of the draft horses and the greatly increased premiums which are promised by the cattle associations, the American Royal of 1903 will be well worthy of its name.

The United States Trade Reports of Cincinnati, Ohio, has some very complimentary things to say in regard to the Hiawatha Incubator, made by the Hiawatha Mfg. Co., Hiawatha, Kans., whose advertisement appears on page 228. This paper says that the difficulties which a prospective buyer finds in getting a truthful and correct answer to the question, which is the best incubator? are many, and suggests in the first place that he can not know all of the various manufactures and therefore can not decide for himself. Secondly, he can not depend upon the opinions of others for they, like himself, may be equally ignorant or prejudiced in favor of some particular make.

(Continued on page 228.)

Miscellany.

Telephone on Wire Fence.

EDITOR KANSAS FARMERS—In answer to your subscriber, who inquired about the success of the telephone on a barbed wire fence, will say, it is decidedly a success. The farm telephone has been in operation in this community for a number of years. In some cases, the line consisted of the upper strand of a barbed-wire fence for a distance varying from half a mile to four or five miles, and the service was fully as satisfactory as that on an insulated galvanized smooth wire. The only precaution needful is to secure a good clean metallic connection at the splices and avoid grounding the current by contact with other wires.

Now will some one having experience give best method of securing a good stand of English blue-grass? When is the best time to sow and what is the yield of seed per acre?

WM. KURTENBACH.

Dickinson County.

Hounds for Wolves.

EDITOR KANSAS FARMER:—In reply to A. G. Skinner's letter of recent date, would like to ask him if he thinks wolves are accountable for there being no prairie-chickens and quails. If so, why did they not kill them off years ago where there were more wolves than now, and when there were 100 chickens to 1 now? Prairie-chickens leave a country when it settles up; and quails are always scarce when we have a wet May and June, as last year.

I have killed a great many chickens and quails, but I never saw a wolf or a dog catch a well bird on the prairie in grass yet. Mr. Skinner says he never had a dog that would tackle a prairie-wolf. If he will come to Elk County I can show him plenty of dogs that will take hold of them. I like him, used to lose pigs and poultry by wolves until I got hounds, but have lost none since. I think grayhounds and foxhounds, mixed, the best. If he will get good ones he will have no more trouble with wolves.

Howard, Elk County. S. A. COON.

A Criticism of Our Public Schools.

EDITOR KANSAS FARMER:—Our public schools, under our present laws and management, have become our greatest hindrance in nearly all of our industries, and a detriment to the morals of our children.

In them our children are taught, above all, that the best way to live is without work and make themselves as worthless as is possible.

Children that are obedient and make themselves useful to those who have charge of them, just as soon as they commence their educational course in the public schools become disobedient and dissipated, and a disgrace to the community in which they live; a condition of things that has been obtained by an almost extortionate tax upon the parents and guardians of those children to raise a fund to pay an army of lazy loafers without either morals or suitable education, or other qualifications for teaching.

I let us have a law passed by our Legislature relieving those parents, and others who are providing private schools, or hiring their own teachers, and educating their children in their own homes where they have lawful supervision.

J. B. MOSHER.

Cloud County.

The Road Question.

EDITOR KANSAS FARMERS—In your issue of February 12 is an article by H. A. Naber, entitled "Farmers Can Make the Roads," which goes on to say that the cry for better roads is all a humbug, as nothing "could induce farmers to haul their produce to the cities when they can get it shipped for 80 cents per ton." I'd like to know how he can get it to the railroads without hauling it? Aerial traffic may be an assured thing but it "comes high," and hasn't got around to the farmers of this locality yet, and for the last two weeks the roads have been either too muddy or frozen too hard and rough for travel or hauling produce; and it is just the same every winter. No amount of "farmers'

work" seems to better the roads to any great degree.

It is true, as he says, that farmers with their teams and graders can do lots of good work—if they only would—and had a competent man to oversee them, but too often he, like themselves, cares nothing for the roads, and only tries to put in as much time as possible in doing as little work as possible. In one instance this fall, three men and teams put in \$15 worth of work on a piece of road that could have been "fixed" by contract for \$4. In other instances the "boss" simply told the men to go and fix certain spots, and has never been over the road to see whether his orders were executed or not. The chances are that the road was "fixed" in such a way as to be almost impassible.

Possibly the appointment of a township supervisor with his gang of road-workers might not be the best, but at least it would be a step in the right direction, as men and teams trained for road-work could certainly accomplish much more than new men and new teams to break in every day. Then the gang could complete a piece of road before passing to the next and much more substantial work would be accomplished than under the present system; and the farmer would be left in peace to attend to the affairs of his farm instead of leaving them at some important time. As for the non-tax-payers of the township, between the ages of 21 and 45, let them work out their poll-tax on the gang as under present conditions or else dig up their \$3 tax.

Let us try the plan at least. Most of us would rather pay our poll-tax in cash and see it do some permanent good, than to pay it in sweat and horse-flesh and realize that 90 per cent of it is thrown away.

H. B. GILES.

Clay County.

On Legislation.

BANKING LAW.

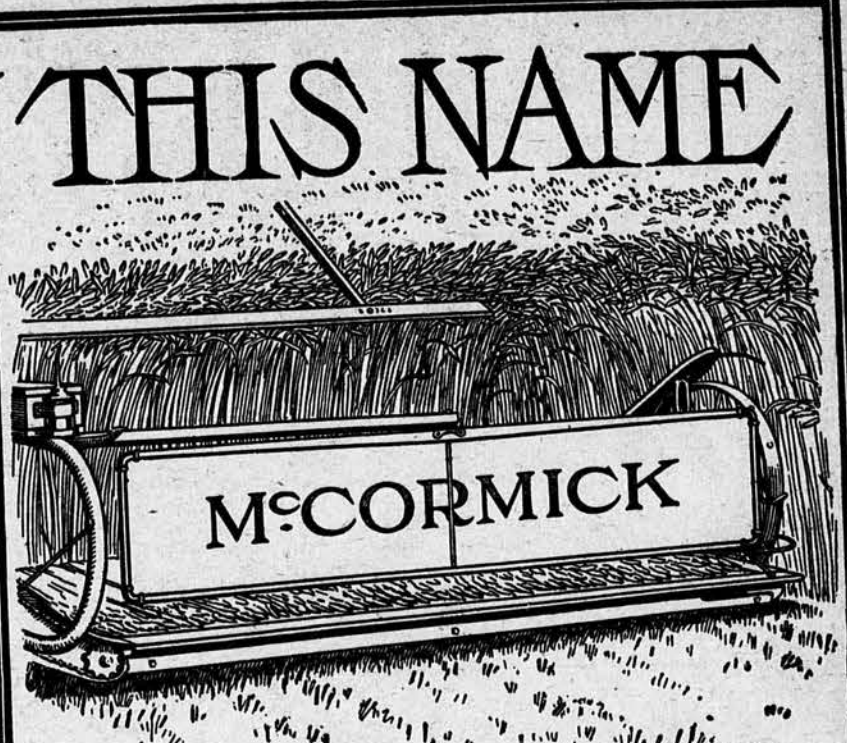
EDITOR KANSAS FARMER:—I notice by the daily papers there is about to be legislation on banking in the Kansas Legislature; or that some parties want a law raising the minimum capital of State banks in Kansas to \$10,000 instead of \$5,000. Where is there any necessity of a law of this kind? In the first place, if a law be enacted to raise the minimum capital of State banks to \$10,000, or a larger amount, it would deprive many small towns of having a bank, and what could do a town more injury in a business way than to rob it of its banking institution? Many small towns have been favored with a \$5,000 bank the past few years, which has increased the business interests of the town wonderfully; and there are many small towns at present without a bank that will be able to secure one should the law remain as it is now.

The party or parties at the head of this proposed legislation no doubt belong to a class who have a big corner on the financial interests of the country, and who do not need any legislation of this kind to afford them a good fat living. It is simply greed. Some people's wants are too great to be fair and just, and if allowed to reach their ideal, the effect would be to deprive many people of great and needed conveniences just to please a very few who do not need such favors at all.

It is a conceded fact that the monied big men of this country are growing more like the monied men of other countries; they want to get the thing arranged all their own way so far as financial matters are concerned. Many of the larger banks are, and have been for some time, advocating branch banking, so as to be allowed to open branch offices of their own institution in many towns having no banks, and thus secure a large amount of deposits to use in other towns, or enterprises in remote parts of the country, when the money is most needed at home. Besides, an hireling is never so good a banker or so accommodating as one who owns much stock in the institution and has something at stake.

I am convinced of one thing, and that is, if the common people of this State (or any other State) do not learn to be good financiers themselves, and know what to do on any and every financial proposition that confronts them and their welfare, they will soon find that they have been robbed of the needful conveniences of business life. I never could see why we can not just as well have small capitalized banking institutions as small any-other-kind-of institutions.

It is not so much the amount of capital that an institution has as it is the kind of men who run it that keeps it from swindling the people who deal with it. If a man be a rascal, he had better be in almost any other kind of



THIS NAME IN THE GRAIN

is a guarantee of a speedy and successful harvest. Time is money to every farmer and is always worth more when the grain is ripe than at any other season of the year; therefore, it pays the farmer well to own the McCormick—the binder that not only saves his grain, but also saves his money in saving his time.

"A MODEL MACHINE"

is the title of the McCormick book for 1903. If interested in machines write for it.

G. L. Rees, Topeka, Kas., M. W. Weeks, Wichita, Kas., General Agents for McCormick Machines.

business than banking so far as the business welfare of the community is concerned. It is a man's duty to investigate carefully the past conduct and business history of the men who are to be entrusted with their hard-earned funds. I know from personal experience in the banking business that smaller banking institutions as a rule are more accommodating to the average farmer, stockman and men with limited means than larger institutions are, for they are not so independent.

Also, it isn't often you find a \$5,000 bank in a large town or city. A law of the kind proposed will not affect people who live in or near large cities; but I know a very large per cent of the banks in this State are at the present time \$5,000 concerns; and I know also, that there are many towns having a bank of this (capital) size or no bank at all where there is only one large town or city; and this is true in every county in the State of Kansas. I think it is the duty of people all over the State to advise their representatives to let well enough alone instead of spending time and money only to make the situation worse for the majority of the people.

I would also add that I have taken the KANSAS FARMER for several years, and have helped to add a few new subscribers to its list; and will say, and most conscientiously, that although there are many good papers published in Kansas, there are none in my opinion that quite so well meet the needs of the farming class and stockmen in every respect—so far as this State and adjacent States are concerned—as does the KANSAS FARMER.

R. J. CONNEWAY.

List of Awards at the Iowa Agricultural College.

- Class A—Best ten ears of yellow corn.—First, J. M. Maxwell, Crawfordsville, Reid's Yellow Dent, \$5; second, George S. Forest, Miles, Reid's Yellow Dent, \$3; third, L. W. Foreman, West Branch, Reid's Yellow Dent, \$2.
- Class B—Best ten ears of white corn.—First, O. M. Stubbins, Alcester, S. Dak., Snow Flake White, \$5; second, Edwin Rowe, Grand Junction, Silver Mine, \$3; third, C. R. McLean, Union, Silver Mine, \$2.
- Class C—Best ten ears neither yellow nor white.—First, E. Johnson, Mt. Etna, 16 to 1, \$5; second, George Stein, West Liberty, Reid's Yellow Dent, \$3; third, W. Johnson, Storm Lake, Bloody Butcher, \$2.
- Class D—Sweepstakes.—J. M. Maxwell, Crawfordsville, Reid's Yellow Dent, \$10.
- Class E—Best ear of corn, any variety.—First, George S. Forest, Miles, Reid's Yellow Dent, \$5; second, W. Johnson, Storm Lake, Bloody Butcher, \$3; third, Forest D. Witmer, Wilton Junction, Silver Mine, \$1.
- Class F—Best ten ears of corn, any variety. (Breeder's Class).—First, Nims

- Bros., Emerson, Legal Tender, \$5; second, Fred Hethershaw, Des Moines, Iowa Cropper, \$3.
- Class G—Best ear of corn, any variety. (Breeder's Class).—First, Fred Hethershaw, Des Moines, Iowa Cropper, \$5; second, Nims Bros., Emerson, Legal Tender, \$3.
- Class H—Best work in corn-judging.—First, W. H. Walters, Bruce, S. Dak., \$15; second, C. A. Bliss, Diagonal, \$10; third (a), Don Cartwright, Luther, \$3; (b), Alonzo Harvey, Ossian, \$3; (c), E. C. Weeks, Eldon, Mo., \$3.

WITH NATURE'S WONDERS.

The Tourist Finds Much of Interest Among the Caves and Natural Bridges of California.

California has numerous natural bridges, caves, etc., of no little interest. The mammoth cave of Calaveras was discovered by miners in 1850. It contains, among other striking features, a rock shaped like a boat, and various apartments whose peculiar conformation or arrangements have caused them to receive such names as Odd Fellows' Hall, Music Hall, Bridal Chamber, Cataract, etc.

In Placer County, eight miles from the Central Pacific tract, is the Alabaster Cave, containing large rooms, crystalline waters, and innumerable stalagmites, stalactites, etc. In Tuolumne County is the Crystal Palace Cave, discovered in 1879. It has a number of attractive subterranean apartments, such as the Bridal Chamber, the Crystal Palace home, and a curious apartment called the Music Hall, where the deposits of aqueous origin not only have taken the form of organ pipes, sounding boards, etc., but they also emit, when struck, sounds or vibrations distinctly musical in quality.

Near this cave are two natural bridges, which the tourist can visit and return to the railway within half an hour. They are respectively 180 and 240 feet long, and the upper and larger is very curious. On the beach near Santa Cruz is a natural bridge of imposing proportions and picturesque formation into which the sea washes.

The direct and most comfortable route to California is over the Union Pacific. Literature giving full information can be obtained by addressing J. C. Fulton, depot agent, telephone 34, or F. A. Lewis, city ticket agent, 525 Kansas avenue, telephone 53.

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

Very Low Rates

to points in Montana, Idaho, Washington, Oregon, British Columbia, Utah, and Colorado, in effect daily from February 15 to April 30, via Chicago Great Western Railway. For full particulars apply to G. W. Lincoln, T. P. A., Kansas City, Mo.

Neglect of a Cough or Sore Throat may result in an incurable Throat Trouble or Consumption. For relief use BROWN'S BRONCHIAL TROCHES. Nothing excels this simple remedy. Sold only in boxes.

## The Young Folks.

Conducted by Ruth Cowgill.

### FIFTY YEARS AGO.

Gran'ma says that when she came here,  
More than fifty years ago,  
There was not a neighbor nearer  
Than a dozen miles or so.  
Just a rough, two-room, log cabin  
Gran'pa brought her to, you know,  
So she says, when they were married,  
More than fifty years ago.

Gran'ma says she often wonders  
How folks lived in those old days,  
When they worked so hard, and when  
they  
Had big families to raise,  
Everything is made so easy  
Nowadays, she says, that no  
One can realize the hardships  
Suffered fifty years ago.

Gran'ma says that gran'pa cleared the  
Big ten-acre lot alone.  
Rested till the seed was sown.  
Says she worked as hard as he did.  
I believe that this is so,  
For she wasn't old and feeble  
More than fifty years ago.

Gran'ma says twelve little children  
Came to them—how very queer.  
Six of them, she says, were buried  
In the garden, just out here.  
Gran'ma always cries a little  
When she tells us this. It's so  
Strange to cry for little children  
Buried fifty years ago.

Gran'ma tells of quilting-parties,  
Husking-bees, and dances too,  
Sleigh rides, and a hundred other  
Things that young folks used to do;  
But I think, all things considered,  
That to-day is best; although  
Gran'ma tells such very pleasant  
Tales of fifty years ago.

—L. C. Bishop.

### Mr. Burnett.

No one ever thought of calling him anything but Mr. Burnett. He may have had a surname—doubtless he did—but no one ever thought to enquire what it was. It seemed only appropriate to call him by his family name. As long as I had known him he has always been just the same plain, responsible-looking, tiny creature, like a man done in miniature, with his near-sighted, bespectacled eyes, his luxuriant black mustache, and his sparsely-covered, finely-shaped head. That he had ever been young or would ever be old seemed to me equally impossibilities. He had always appealed to me as a comical, half-real creature, like the Brownies, the Pixies, and the Little Old Men of the Mountains, until one day I heard his story.

When Mr. Burnett was an ambitious boy—think of it, Mr. Burnett an ambitious boy!—when he was an ambitious boy of fourteen or thereabouts, just struggling into grammar and fractions—for study came hard to him, though he loved it so—a great misfortune befell him, which was yet a greater misfortune than he then knew. His mother, the sole support of the family—for his father had long been dead—suffered a severe illness which left her a helpless invalid. There was another child, an older sister, who was just entering college, who could well have taken her share in the family maintenance. But Mr. Burnett, brave, proud little man that he was, then as now, stepped to the front and volunteered with his weak hands to keep the wolf from the door, until his sister should finish her education, when she was to earn a large salary by teaching, and he could then take up the broken threads of his schooling, and become, what he so longed to be, a learned, cultivated man, perhaps, even—for ambition soars when one is young—perhaps even attaining to a professorship, or—but this was too bright a dream—to fame as a great writer and thinker. And so, cheered by high hopes and purpose, he pursued his toilsome way cheerily, counting the long years, then the longer months, and, at last, the long, long days, till his sister's commencement day, when he would be free to take the way toward the goal of his ambitions. The sister came home, full of honors and happiness, and announced joyously that now dear brother need never worry about her for she was engaged to marry a missionary, and in the fall they two would go across the waters to teach the poor heathen. I wonder if no anger boiled in the little man's heart, if no sense of insult and ingratitude drove hot words of fierce reproach to his lips. Into those first moments of bitter disappointment we can not pry. Whatever he felt then, it is forgotten and forgiven now, for he speaks with a certain modest complacency of "my sister in Africa, you know." He still furnishes a meager living for himself and mother, putting in all his odd moments at reading and study, and never neglecting a son's tender ministrations to his feeble old mother.

And now you can see him, any day, in a certain counting house, sitting

perched upon his high stool, his near-sighted, inscrutably wise eyes fixed closely upon the interminable row of figures he is forever adding, his bony little hand following up and down the column, ceaselessly counting the items of other people's expense. No longer does the grotesque little figure call forth a smile, but rather I look with increasing veneration upon the pathetic, repressed-looking face, for upon it is written the epitaph of buried hopes and great ambitions, and it shows what is far greater than outward grace, the record of a beautiful life of self-devotion.

### The State Temperance Union.

At the convention of the State Temperance Union at Topeka recently, there was one notable meeting which it will be interesting to the young folks to learn about, since the audience was composed chiefly of young people, and the chief speaker was that good man who is known to half the young people in the world, Rev. Francis E. Clarke, the originator of the Society-of-Christian-Endeavor idea.

Hon. F. D. Coburn, who is so well known and so well thought of by all the farmers in the State, and who, besides his position as secretary of agriculture, has the other honor of being president of the State Temperance Union, presided, but took no prominent part, preferring to delegate to Rev. Charles M. Sheldon, the friend of Dr. Clarke, the duty of introducing the distinguished guest. Mr. Sheldon is said to be the most loved man in the world. At any rate he is well-beloved in his home town and State; a large, wholesome-looking man, in well-worn business clothes, which bag at the knees, a man whose round pleasant voice suits well round, symmetrical head, and his round well-fitted body—yet that same pleasant voice can fill a vast building and go straight to the hearts of five thousand people, flushing their cheeks with contagious enthusiasm, or bringing sudden tears to their eyes with a deft picture of human suffering; it can shrill with indignation at cruelty and injustice, and it can grow full and deep with laughter.

Mr. Sheldon spoke only a few words of introduction, telling pleasantly of his affectionate regard for his friend. He said he once, years ago, introduced a speaker to an audience, who told him afterwards that she has never been introduced in that way before—he was still uncertain in his own mind, he said, whether she meant that he had done well or ill. At any rate, Dr. Clarke had often introduced him in ways such as he had never experienced before, and now it was his turn. And there he told of Dr. Clarke's place in his own life, both as a warm personal friend, and as an inspiration and help, and introduced the speaker.

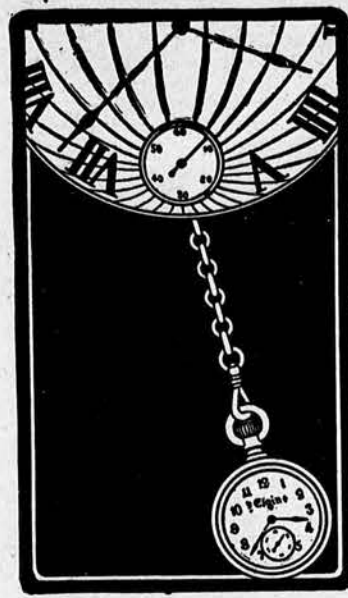
When Dr. Clarke arose, the Christian Endeavorers of the audience, who had all been seated together, stood up and waved their handkerchiefs, singing together a well-known Christian Endeavor song, "Loyalty to Christ."

Dr. Clarke thanked them in a few well-chosen words and proceeded with his speech. He is a man of a very different type from Mr. Sheldon. He is immaculately clothed, and from his well-brushed iron-grey hair to his patent-leathered feet, he has an air of elegance and polish. His voice is a splendid one for speaking, lower pitched than Mr. Sheldon's, less flexible, but better modulated.

His speech was a well-planned, well-worded one. His theme was our responsibility to other lands, in regard to temperance. He paid Kansas the usual compliments in regard to her great natural resources and in regard to the eyes of the world being upon her, and drew the usual lessons therefrom. He told of his observations in other lands and deplored the fact that America is brought into discredit very often by the kinds of people who represent her.

When Dr. Clarke closed, every one felt that he had heard a good speech and was glad he had come. And when it was announced that there was yet another speaker who would occupy about ten minutes of time, the audience sank back in their seats with a sigh of resignation. Three speeches are a good many for one evening, you know.

But those who leaned back so resignedly soon sat upright, and the subdued noise of people going out soon ceased, for the present speaker was not one to whom you could listen comfortably and resignedly. He was a youngish man, a Kansas preacher, hitherto unknown to most of the audience. He was long, very long, and slim, and had bushy reddish hair. He spoke with the greatest difficulty, half stuttering



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and dragging forth his ideas with arduous toil and ungainly gestures, growing so excited in his frantic efforts that I feared for the toes of the reverend gentlemen on the platform behind him. Yet this struggling man spoke with more real power than any other speaker at the convention. People listened to him, for this man felt intensely what he was saying. He was possessed of that personal magnetism that comes with deep and painful experience of an intense nature. And his words were beautiful with a sublimity that only truth and passion can give. His ten minutes lengthened into a half-hour and finally with a halting apology he sat down, mopping his heated face, while the audience melted away, the impression of the last speaker strong upon them.

### One of Spurgeon's Sketches.

The great preacher, Spurgeon, used to write funny little sketches, which, in spite of their crudeness, are full of homely wit that makes them charming. Here, for instance, is a pithy one:

A MAN IN A PASSION RIDES A HORSE THAT RUNS AWAY WITH HIM.

"When passion has run away with a man, who knows where it may carry him? Once let a rider lose power over his horse, and he may go over hedge and ditch, and end with a tumble into the stone-quarry and a broken neck. No one can tell in cold blood what he may do when he gets angry; therefore it is best to run no risks. Those who feel their temper rising will be wise if they rise themselves and walk off to the pump. Let them fill their mouths with cold water, hold it there ten minutes at the least, and then go indoors, and keep there till they feel cool as a cucumber. If you carry loose gunpowder in your pocket, you had better not go where sparks are flying; and if you are bothered with an irritable nature you should move off when folks begin teasing you. Better keep out of a quarrel than fight your way through it.

"Nothing is improved by anger, unless it be the arch of a cat's back. A man with his back up is spoiling his figure. People look none the handsomer for being red in the face. It takes a great deal out of a man to get into a towering rage; it is almost as unhealthy as having a fit, and time has been when men have actually choked themselves with passion, and died on the spot. Whatever wrong I suffer it can not do me half so much hurt as being angry about it; for passion shortens life and poisons peace.

"When once we give way to temper, temper will claim a right-of-way, and come in easier every time. He that will be in a pet for any little thing will soon be out at elbows about nothing at all. A thunder-storm curdles the milk, and so does a passion sour the heart and spoil the character.

"He who is in a tantrum shuts his eyes and opens his mouth, and very soon says what he will be sorry for. Better bite your lips now than smart for life. It is easier to keep a bull out of a china shop than it is to get him out again; and, besides, there's no end of a bill to pay for damages.

"A man burning with anger carries a murderer inside his waistcoat; the sooner he can cool down the better for himself and all around him. He will have to give an account for his feelings as well as for his words and actions, and that account will cost him many tears. It is a cruel thing to tease quick-tempered people, for, though it may be sport to you, it is death to them; at least, it is death to their peace, and may be something worse. We know who said, 'Woe to that man by whom the offense cometh.'

"Shun a furious man as you would a mad dog, but do it kindly, or you may make him worse than he would be. Don't put a man out when you know he is out with himself. When his monkey is up be very careful, for he means mischief. A surly soul is sure to quarrel; he says the cat will break his heart, and the coal-scuttle will be the death of him.

"A man in a rage  
Needs a great iron cage.  
He'll tear and he'll dash  
Till he comes to a smash;  
So let's out of his way  
As quick as we may."

"As we quietly move off let us pray for the angry person; for a man in a thorough passion is as sad a sight to see as a neighbor's house on fire and no water handy to put out the flames. Let us wish the fellow on the runaway horse a soft ditch to tumble in, and sense enough never to get on the creature's back again."

### An Intelligent Cat.

I have a large blue cat that I call Purdie. He is 9 years old and he weighs ten pounds. He sleeps upstairs, and when he gets tired of staying there he will come down, and open the door with his paw. He sits on a step just above the latch and hits the latch with his paw until the door opens. Then he will look to see if there is any stranger in the kitchen. When he wants to go upstairs he will jump upon the step and purr until some one lets him up. One evening when we were in the sitting room I heard a peculiar noise in the kitchen. I opened the door and looking in, saw him put his paw in between the doors and pulls them open. Then he reached in and pulled out a piece of meat. When he saw me watching him he ran upstairs; then in a little while he came down again, and so on for a long time. At last I went in, and when he went upstairs again I took the meat and hid it. He came down and seemed disappointed in not finding his meat. He sat there a long time and then went away. One summer, when the mother cat had little kittens, he would catch mice, rabbits and birds, and bring them to the little ones. The mother-cat soon learned that she need not go in search of food for the little ones so she stayed at home while he was out hunting. When he is in the house and he hears a mouse squeal he will run and sit down by the corner of the wood-box and wait till we come and pull the wood-box away, then he will jump behind the box and catch Mr. Mouse. When he gets lonesome through the day he will find a ball, marble, or an old rag, and make a terrible noise playing. When dinner is ready he will sit on a chair beside me, and if I do not feed him a little once in a while he will remind me by clawing my arm, then pull my hand to his mouth and take what I have in my hand. Then he will jump on the floor and run under the stove so we will not take it away from him. One time he jumped on the bureau and looked at himself in the glass. He smelled of the glass and tried to get to the cat before him.

There is a large crack in the corn-crib where he goes in and out. When he first found out that he could get in and out he sat there and measured it with his head, then he crawled through. One morning after breakfast he was sitting by the stove. Coonie, another cat, came and sat down beside him. In a little while he commenced washing Coonie; when he got through he slapped him with his paw as some mothers do to their children when they are naughty.

FRANK HUIHS.

Jefferson County.

**For the Little Ones**

**HIDDEN TREASURES.**

Little people, do you know  
What is underneath the snow?  
Flowers pink and blue and white,  
Big red roses all aglow,  
In their dark roots folded light  
Till the merry south winds blow.

Do you know what secrets deep,  
All the woods of winter keep?  
Ah! the darling little things,  
Down below the snow-bank's heap!  
Fern leaves curled in tiny rings,  
Violet babies fast asleep.

Little folks, now do you know,  
February soon will go?  
Then will come the sunny spring,  
When the snows will melt, and oh!  
How the meadow brooks will sing,  
And the daffodills blow.  
—Hattie M. Vose.

**The Story of a Snow-Flake.**

Little Brook Water-Drop sat upon a great rock where she had just been tossed from the muddy little stream where she had always lived. She was smiling up at the bright sun, which shone beautiful and warm in the blue sky. In a moment she heard a small, sweet voice calling her:

"Water-Drop, Water-Drop,  
Come up with me,  
The old sun is calling—  
He has need of thee."

She looked around, and there stood a tiny chariot, all made of gold, and in it sat a lovely milkwhite fairy. Without a word, little Water-Drop climbed into the chariot beside the fairy and in a moment was being carried swiftly upward. As soon as she could breathe—for the chariot went so fast it fairly took her breath—she said: "Where are we going, pretty fairy?"

"We are going home, little Water-Drop."

"Home?" said Water-Drop, wondering, for she had never had a home when she belonged to the brook, and she wondered what it meant.

"Yes," said the fairy. "Do you see that lovely soft thing above us?"

"Yes, that is a cloud," said Brook Water-Drop.

"That is home," said the fairy.

Before they could say any more, they heard a great clapping of little hands, and chatter of tiny voices, and behold, they were in the midst of the cloud, where all was commotion. A thousand little water-drops were hurrying about. They seemed to be getting ready for a long journey. Two or three stopped to welcome little Brook Water-Drop. "Oh, we're so glad you have come!" they said. "We are just starting on our long journey and were so afraid you could not reach us in time to go with us."

"Where are we going?" asked Brook Water-Drop.

"Oh, don't you know?" said the others in a chorus. "Why, we are going where it is cold, and we put on our shiny white dresses and dance and play. We are called Snow-Flakes, there."

Then they all began to move swiftly, and soon little Brook Water-Drop began to feel chilly, so she wrapped a lovely fleecy white dress around her and then she felt so happy that she began to dance and frolic with all the others. The strangest thing about their play was that they said never a word, but danced so lightly and quietly that you would never know they were near. Presently they lifted their fluffy skirts and spread their white wings and danced softly down to the bare, black earth. And soon the sun came smiling out at them, and they sparkled and smiled cheerily back at him. Little Brook Water-Drop Snow-Flake sat perched on the top of a drift and thought she was the happiest snow-flake alive.

After a while the children came out, and gathered the snow-flakes into great balls, and made a snow man of them which stood there grinning, with one eye gone and his nose crooked, until the good sun called his snow-flake children home again.

**Puzzle Corner**

**Riddles.**

1. Why is a colt like an egg?
2. What things grow larger the more you contract them?
3. I tremble at each breath of air, and yet can heaviest burden bear.
4. Behold a cereal and leave a sensation on coming near a fire; behold again and leave to consume.
5. My first is a domestic pet; my second is the indefinite article; my last is a cut of timber; my whole is an enumeration of names or titles.
6. Square paper.



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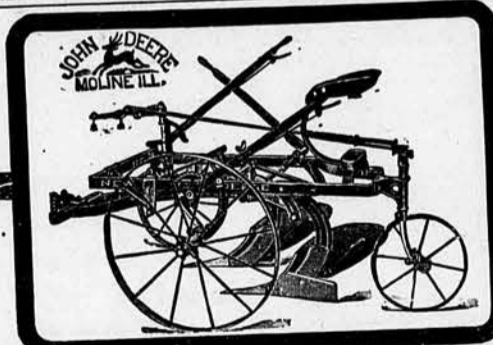
The Curtis Publishing Company, Philadelphia, Pa.

**Answers to Last Week's Puzzles.**

1. Because it is the grub that makes the butter-fly.
2. He can feel blue and green and red hot.
3. In the mirror.
5. Pledge, ledge, edge.
6. Excuse (x-q's).
7. M A I D  
A B L E  
I L L S  
D E S K

No arch or column, in courtly English of courtlier Latin, sets forth the needs and the worth of the Father of his Country; he needs them not; the unwritten benedictions of millions cover all the walls. (Mt. Vernon.) No gilded dome swells from the lowly roof to catch the morning or evening beam; but the love and gratitude of united America settle upon it in one eternal sunshine.—Edward Everett.

An advertisement in the KANSAS FARMER will do what no traveling man could do. It will work nights, Sundays, and holidays, in wet weather or dry, in hot weather or cold. It will talk for you before a travelling man gets out of bed and after he has gone to sleep. It will talk for you always. Get one.



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## The Home Circle.

Conducted by Ruth Cowgill.

### THE MERRY HEART GOES ALL THE WAY.

When you come to a wearisome bit of the road,

Where the stones are thick and the path is steep,  
And the back is bowed with the heft of the load,

As the narrowing way is hard to keep,  
Don't stop just then for a wasteful sigh,  
But challenge the worst with steadfast cheer;

If nowhere else, there is help on high—  
God's angel will hasten your pioneer.

When you reach a lonesome bit of the road,

Curtained about with mist and murk,  
And you hear faint sounds from the dread above,

Where shivering, grim hobgoblins lurk,  
Just laugh to scorn their doleful cries—  
This is the place to whistle and sing;  
Brush the fog from your fearless eyes,  
And close to the faith of your fathers cling.

When you stand at a sorrowful bit of the road,

And a hand you loved has loosed its clasp;  
When streams are dry that in sweetness flowed,  
And flowers drop from your listless grasp;

E'en now take heart, for further on  
There are hope and joy and the dawn of day;

You shall find again what you thought was gone;  
'Tis the merry heart goes all the way.

—Margaret E. Sangster.

### Country Clubs.

MRS. H. O. GARVEY, CORRESPONDING SECRETARY STATE FEDERATION OF WOMAN'S CLUBS.

Read before Farmers' Institute, Berryton, January 13, 1903.

When I accepted the very kind invitation some time ago to be with you today, I understood I was to speak to you on "Clubs."

Now clubs are trumps with me, and I always consider I hold a good hand—as I have some forty-four in Topeka and some 320 in the State Federation to draw upon for information, and I know something of their work and study. But when I received your program a few days ago, and found my subject was "Country Clubs," I felt that was one kind of club with which I was not so familiar, and that doubtless you could tell me more of "Country Clubs" and their benefits, from your experience, than I could possibly tell you; for already the "Give and Get Good" club is known by its fruits, and the poor that "we have always with us" have been warmed and clothed with your gifts at Christmas time. So it is useless for me to begin—as I would to many audiences, with a talk on the benefit of clubs, or organizations. You have proven that to yourselves already, and this meeting—this farmers' institute—is the outcome of the appreciation of just that principle. And clubs, country clubs, city clubs, study clubs, social clubs, political clubs, commercial clubs, city, State, and National federations are all formed with the same purpose; for in this day it is fully recognized that if one expects to accomplish any great results, it is necessary to ally one's self with others of the same interests, and together plan and execute.

Organization is the spirit of the times, not only along the line of culture, but in every philanthropic, charitable, political, agricultural and mercantile work. This association of ideas and endeavors does not lessen individuality; rather does it tend to bring out original thought, and evolve bright ideas from the inspiration of fellow co-workers. Men have for years realized the value of cooperation, and the business world has felt its force. Women on the contrary have been slow to know its usefulness and benefits. The evolution of woman's organization is the history of her advancement. A century ago, very little was expected of a woman in an educational way, besides knowing the three R's and a few accomplishments. All the culture a woman was supposed to need was found between the lids of the "Young Ladies' Counselor," or some such guide, which occupied a prominent place in the home next to the family Bible. For the club women of to-day it is well to give a few paragraphs from one of these "letters of advice" as a contrast to the advantages of to-day won by a higher education, and the strength and development found in united interests. Women of that day were admonished that, "If the love of a wife be tempered with a tolerable share of good sense she will be sure never to have any private views of her own!"

Contrast the following advice with the growing influence women exert in public and civic affairs to-day: "Avoid

entering into politic committees. It is not the province of any lady in private life to determine what should be done upon every occurrence of maladministration, because she has neither commission nor power to execute it." Over and over again was it taught, that the limits of a woman's usefulness were the walls of her own home. The world was considered a vast place, where woman, alone, was not safe or respected; and in consequence, timidity was a virtue. Woman felt helpless toward righting the wrongs of the world, and therefore not responsible. Not until her mind was broadened by education, the same education her brothers were allowed, were her eyes opened to the breadth of her influence and her possibilities. Women are naturally philanthropic, and when they once realized they could be of service outside of their homes, to feed the hungry, soothe the sick, and uphold their weaker brother, they were quick to discern that for protection for themselves, for help and to accomplish greater good, they must have organizations. Then were societies formed for the church, for charity, temperance, suffrage, and for self-improvement. And throughout these long years, women's achievements have proven the strength of their unity, whether it be in a large city federation like the one we have in Topeka, which is a recognized power in the community, or a country club like yours, here, which may become, if it is not already, the educational and social center and uplift for miles around. It is very obvious, then, that clubs are of great value, and have a mission to fulfil. They are one grade of life's school to us; and the federation of clubs—you see I believe in a complex system—is but a grade higher, toward a harmonious arrangement of individual classes, that, with a unity of purpose, and the same principle involved, study together life's problems, and work out the lesson, strengthened thereby for further examination and trial. At the last annual meeting of our State Federation of Clubs, I was much impressed with the club spirit, as revealed through the various club reports. It is truly the spirit of helpfulness. Self-culture alone does not represent the attainments of Kansas women. Without exception I think every club that reported was interested in some philanthropic or civic work. From the clubs that have established libraries, parks, decorated schools, and even controlled municipal affairs through the ballot, to the club of young girls, who are trying to make brighter the lives of the old people in their county poor-house, all breathed the same spirit of unselfishness. And this spirit is but the legitimate outgrowth of the club, one of the educational features sure to follow when one studies, and studies rightly. For the best of learning lifts us so above personalities, deepens our sympathies, and broadens our outlook to such an extent, that we can never again tread the narrow path of self-needs and selfish ends. So it was not a surprise to me when I learned that your club, in addition to its literary program, carried on a regular systematic charity and with the Scotchman, "I'm proud to hae met ye." There are a number of country clubs over the State that are also doing good work. The "Trounder Heights Club" between Wakarusa and Carbonale, composed of some fifteen or twenty women, have met for years and studied together. Ever since the Traveling Libraries were started, this club has kept one at a central home, for the use of its members and their families. Think what little missionaries these libraries may be, carrying advantages even of a University Extension course to those re-



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mote from other resources for study. This club belongs to the Osage County Federation of nine clubs, to which belongs also another country club, that I remember meets regularly through the spring, summer and autumn, taking a vacation in the winter when the roads are at their worst. This is the "Jersey Creek Domestic Science Club," and with their assistance in raising money, having ice-cream socials and other entertainments, a regular pastor is maintained. There is a country club in Ottawa County formed some ten years ago. Women came across the country often through the mud, perched high upon road carts, carrying their babies, if necessary, to their semi-monthly club meetings. Programs of real merit were given, then followed an exchange of choice receipts—and a reciprocity bureau of patterns was a feature. One week Mrs. Smith wanted the full-sleeve pattern; the next it went to Mrs. Jones. And the trousers pattern that Mrs. Brown recommended was one in which you could tell whether Jimmie was coming or going. This club is still an enthusiastic one, and I heard the President of the State Federation say she never met any brighter women than at one of their meetings.

There is another club down in the Third District, half way between Winfield and Arkansas City, that I have been much interested in, having known personally a number of its members. These twenty women some time ago decided they would try and secure a plot of ground for a cemetery for the use of the country around. The custom of using one's own farm for a burying ground, which had obtained for some time, was thought to be not desirable, in this age of quick transfer of property, and often occasioned much grief to the families. Some well-to-do farmer gave several acres of hillland for their purpose; and a man and team were asked from each family, to donate one day's work in laying out roadways and grading the cemetery. A picnic dinner was served by the women, and by the close of the day the many workers had accomplished what would have been a month's work for one; and a well-laid-out plot of ground was the result. Flower-beds were planted and tended by these club women and the use of the grounds was free to all. Their next work was the building of a house for shelter from rain and storm at the cemetery and for use as a chapel if necessary; and last year these women had \$200 saved towards buying a second-hand hearse that might be kept in a central barn where it could be used without charge for whomsoever needed it, as the expense of a hearse brought from one of the cities ten miles distant was an expense many could not bear, and perhaps they were the very ones who would feel most, the lack of every conventionality at such a time paid to their dear ones. What more tender thought than this of sympathy for the feelings of those in grief could these club women have shown?

Other clubs center their interest on the county poor-farms, and visits and personal attention result in more comforts for the inmates. Rocking chairs are always a luxury in these county homes, reading matter, picture papers and magazines, patch-work pieces, and worsteds for knitting bring welcome relief from monotony. I know a woman who gives every tenth jar of fruit and jelly she preserves to such institutions, and is never hungry for the lack of them herself. Surely such work for earth's most unattractive and unfortunate ones is doing "unto the least of these."

Then there is another phase of work and interest for the country clubs, one full of hope, one which concerns the welfare of the children of your own homes and districts. The club-woman may create an atmosphere for study in the home by her example, and by keeping abreast with the good literature of the day in the way of magazines and books, and in the news world now that rural delivery obtains. She can make her fireside a magnet to hold her boys by her companionship and resources, gained by a study of the

world's interests. She will be a better wife, a better mother, a better friend, for her breadth of view.

The country club-woman can raise the standard of the schools. Insist upon an intelligent school-board, sanitary conditions in the building, and a conscientious, capable teacher. Visit your schools; know something of the methods used. Let the teacher be assured of your interest and willing cooperation. Arrange parents' meetings to confer with the teacher, for the children's advantage. See that the school-house has attractive surroundings; interest the children in keeping the grounds clean, and let them plant seeds and watch their growth. The country offers such opportunities for nature study. Pictures on the walls are most desirable, in the culturing and refining influence the study of art has upon the character, but first a love and appreciation of nature should be taught, remembering "all nature is the art of God." Her pictures train the eye to perfection and beauty, and her book, accessible, always opens at an interesting place if one can but translate the text.

In the model schools of Evanston I visited last year, many new and beautiful features took my attention. But what attracted me most were the blooming plants in every window. Plants of free bloom, geraniums, sweet elystrum, pansies, forget-me-nots, and nasturtiums were the ones selected, and grew in boxes on the window sills. In the primary room I noticed on the blackboard in colored chalk and fanciful lettering, "We planted our seeds March 26," and I realized with what pleasure and profit the children had watched the plants from their first appearance to their blossoming. This could be easily accomplished in any school, at least through the fall and spring terms. In taking up plants in the fall and when planting seeds in the spring, each mother could send a contribution to the school.

To know the development of plant life should be recognized as necessary to the child, as is the rule of three. And it would come as a rest and relaxation between the duller tasks, something as does manual training—and now I've mounted one of the club woman's hobbies of hope: manual training added to the school curriculums everywhere.

That education which adds to the ordinary school training the fuller symmetrical development of all the faculties and powers which have been neglected so extraordinarily in our schools; that training of the eye and hand, whose help to the brain in perception and comprehension can not be overestimated; the training that must of necessity teach a respect for labor and an appreciation of dexterity and mechanical skill; that given opportunity for development of practical and helpful ideas, and fits the scholar for more ways of earning a livelihood. The true education is the one that fits us best for the demands life makes upon us, and we must give to our children this knowledge of the practical interests of life, to develop and broaden their sympathies, to bring about that feeling which "makes the whole world kin." If to-day there was a better understanding and appreciation of labor and its conditions, the adjustment and abolishment of our great strikes and labor troubles would be an easier task.

A short time ago I visited our State Agricultural College at Manhattan, especially the manual training and domestic science departments. I had heard the statement made that Kansas leads the other States in her Agricultural College and I was proud to realize the truth of it. I wish every young man and woman in this State might have the privilege of attending this

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college. When I saw their fine course of study, their many advantages in the way of the library and the laboratories for their college work, and added to this regular study, the opportunity of applying their knowledge in so many lines, working out real problems in the carpenter shop, at the forge, and at the machines, I was glad, for this is the all-around education that we need. The boys are skilled in wood- and iron-work until they can make their own tools, build houses, and even construct steam engines. And the girls are trained to competency in sewing, cooking, and domestic economy, learning cooking as a science, and drafting patterns and making their own clothing.

Our public schools should offer some branch of this training, as all can not have the advantage of this college course of the manual arts, etc., and country and town schools alike can make it practical. The club woman can help make public sentiment for this, the model school.

The country club may be the means of teaching patriotism to the future citizen. See that every school has its flag and that the children are reminded of what they owe to it, and the benefits they enjoy from our form of government. Help to make days of patriotic observances those which shall inspire lofty and noble sentiment. Is there any field in which the country club may not work?

The ground about is fallow and lies ready. We are striving towards perfection in all our ideals, and who shall say it will not be reached, some time?

I had a dream of a future year  
When doubts and striving cease.  
When Woman had attained her sphere,  
And all the world was peace.

That sphere so broad, that none essayed  
To measure with the eyes,  
Its confines mortals had not made,  
Its limit was the skies.

The homes were pure, the schools were bright,  
And want and sin, unknown.  
The clubs shed altruistic light  
That gleamed from zone to zone.

Our hopes as centered in our plans,  
I recognized, complete,  
We builded better than we knew  
The future needs to meet.

Such joy, such happiness were there;  
Sweet sounds of children's mirth,  
A Heavenly Radiance filled the air—  
I woke—it was not earth.

**The Club Movement.**

The last twenty years have been characterized by many changes for the better, not the least of which is the movement for the advancement of woman's intellectual life, epitomized in what is called the club movement. This movement, which has sometimes been wrongly understood, is merely woman's recognition of the value of organization. For ages, people have organized for worship; for centuries they have recognized the necessity of organization in times of danger, for defence and mutual protection; for years, men have recognized the importance of getting together for the advancement of their business or political interests; men have had organizations, also for sociability and mutual helpfulness, but only recently has it occurred to woman that she, too, can make use of this principle for the advancement of her ends—the high and worthy purpose to become more intelligent and more efficient helps to husband and children.

It is not only in the town where proximity makes organization easy, that this movement is making itself felt. In the country, where distances are long, where the daily work is increasing, where there is no convenient neighbor with whom to leave the children, the idea has found a ready welcome, and clubs are springing up in many places where the difficulties are great.

A prominent club woman recently told me of her first experience in a country club, which was some fifteen years ago. The women in a certain sparsely-settled community had organized into a thoroughly prosperous club, and invited their neighbors to attend one of their meetings, which was to be at the home of one of the members, a little four-roomed house on the prairie. From all directions she saw the women coming in spring wagons, carrying their babies and their sewing. The little woman not being able to furnish enough chairs to accommodate so many, seats were manufactured by wrapping long boards with quilts and comforts, and piled outside on the sunny side of the house, and brought in as there was need for them. A very entertaining program was in process of presentation when from one of the back seats, a member rushed forward shrieking, "A snake! a snake!" And there, sure enough, in a seat in front, where she had tossed it

in her agitated departure, lay coiled a great snake. It had chosen this softly cushioned nest while it lay in the warm sunshine, and, unnoticed by the absorbed club-member, had crept into her lap. Mr. Snake soon found he had sought the wrong place for ease and comfort, and, with the energetic assistance of the ladies, departed this life swiftly and abruptly. The club went on with the program!

There are some people, I am sorry to say, who are afflicted with a very large-sized and well-grown prejudice against women's clubs. The only treatment these people need, however, is information as to the cause of their complaint, for they generally have a vague fancy that a club is a place where a lot of women get together to gossip, do a little useless fancy-work, and waste time generally. Such is far from the case. The truth is that clubs are organized for work. Often—indeed one may say generally—the members wish an opportunity for study, feeling the ignorance of the world's doings which is almost inevitable for the mother absorbed in her home duties, without occasional companionship in the pursuit of information, and feeling the growing sordidness of their minds without some outside inspiration to self-culture, and when some enthusiastic one of their number suggests a club, they feel that here is a long-wished for opportunity, and join heartily together to make it a success.

Of all that such clubs have accomplished we can not speak here. We hope in the near future to be able to present sketches from several of these clubs so that each one can speak personally of what has been done.

We are glad to be able to present the excellent and comprehensive address by Mrs. Garvey, one of the brightest and most up-to-date club women of the State.

**Mrs. Adams' Letter.**

One of our readers thus tells of her recent experience: In July, one of our number spent a few days at the Ottawa Assembly, and came home enthused with the idea of a country woman's club. She talked it over with some of her neighbors, and a meeting was called and the club organized. On the very next Sunday after the club was organized, a Sunday school was organized. Few of our families could attend church, as we are five miles from town.

The club organization is a very simple affair. The officers are a president, vice-president, secretary, and treasurer. The officers, except the president, constitute a program committee.

We have read William Allen White's "Tenderfoot in Thunder Mountain," Miss Stone's articles in McClure's, and in Saturday Evening Post, also numbers of shorter stories and sketches. Our program has been a puzzle to us. For lack of time we could not take up a course of study, besides there are those who would not care to study, and whom we could not hold in the club if we took up such work. I have thought perhaps lessons in cooking or house-keeping would be advisable, but we have just those things on our minds so much of the time that we ought to spare one afternoon in a fortnight for something else. Our older girls attend when not in school and are a great help. We have fostered and planned for the Sunday school, and it is in good healthy condition. We have been obliged to discontinue the club meetings through the winter, as most of us are mothers with little children and it is not easy to take them out in the cold and we have no one to leave them with, while the older ones are in school; but we shall take up the work again in the spring, and be wiser for our experience. No one of us had ever belonged to anything of the sort before, so we had everything to learn. We have had discouragements; we have not succeeded in interesting as many of the neighbors as we hoped, but we are ever ready with an invitation and a kind word for our club. However, we feel that our time has not been wasted, because there is always our little Sunday school, and our best club-workers are our best Sunday school workers. Have you had any experience, or any reports from others that would help us? We are the wives of poor men and have all our house work to do, and have not much time for study.

Thanking you for the mental uplift you give us each week in the KANSAS FARMER. MRS. S. Q. ADAMS. Allen County, Kansas.

When you make a mistake make a bad one. You won't repeat it. When you have a good thing, stay with it. Get next to the "Blocks of Two."

**Our Weekly Recipes.**

**SOME GOOD WAYS OF COOKING APPLES.**

**Baked.**—Wash and core your apples, fill the holes with sugar and a little lemon juice and grated rind, and drop upon each a spoonful of the beaten whites of eggs, and bake.

**In Syrup.**—Prepare as for baking, but put into a pan of boiling syrup, made of sugar and water. Jonathans, or very tart, red apples, are delicious cooked in this way.

**Bird's Nest.**—One egg, one teaspoon of soda, a little salt, one pint sour milk, flour enough to make a stiff batter. Pour over four or five pared and cored apples in a buttered pan. Bake about one-half hour, eat with cream or sauce.

**Apple Tapioca Pudding.**—Put one cup tapioca in one quart of cold water, and let it soak slowly on the stove until thin like starch; have the apples peeled and quartered and in a pan ready to bake; season the soaked tapioca with sugar, butter, and nutmeg, pour it over the apples and bake till done.

**Stuffed Apples Baked.**—Pare as many large, tart apples as are needed, cut off the tops to be used for covers. Now, carefully scrape out the inside without breaking the apples. Mix the scrapings with sugar, cinnamon, raisins, a few blanched and pounded almonds, or chopped nuts, the grated peel and a little of the juice of one lemon, or use a little white wine instead of lemon juice. Fill the apples with this mixture, put back the piece for the lid on each apple. Grease a deep dish, set the apples in this with a very little water, and stew a few minutes. In the meantime make a batter with flour and eggs beaten until thick, with a cup of pulverized sugar and a cup of sifted flour. Pour this over the apples and bake. Eat hot or cold, with or without cream or sauce.

**Apple Scouffle.**—Bake six large, tart apples until tender, scrape out the pulp and beat until smooth. Allow one tablespoon fine sugar for each apple, and the grate drind of one and the juice of two lemons. Beat the whites of two eggs stiff and add slowly the apple pulp, sugar and lemon juice. Pour into earthen pudding dish and bake fifteen minutes. Serve while warm. SHARLOTT LESSLEY.

**Deafness Can Not be Cured**

by local applications, as they can not reach the diseased portion of the ear. There is only one way to cure Deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous lining of the Eustachian Tube. When this tube gets inflamed you have a rumbling sound or imperfect hearing, and when it is entirely closed Deafness is the result, and unless the inflammation can be taken out and this tube restored to its normal condition, hearing will be destroyed forever; nine cases out of ten are caused by catarrh, which is nothing but an inflamed condition of the mucous surfaces. We will give One Hundred Dollars for any case of Deafness (caused by catarrh) that can not be cured by Hall's catarrh Cure. Send for circulars, free. F. J. CHENEY & CO., Toledo, Ohio. Sold by all druggists, 75c. Hall's Family Pills are the best.

**Ainslee's for March.**

"Time, the Comedian," is the suggestive title of the novel in Ainslee's for March. The author is Kate Jordan (Mrs. F. M. Vermilye), whose work is always notable for intense dramatic quality and fidelity of characterization. A new writer, with a gift of fun, decidedly full and original, is David Barton, who contributes a story, "An Obstacle to Marriage," which is one of the most laughable bits of fiction published in many days. Charles Battell Loomis, in "My Authors' Reading," gives a valuable hint to the reader that finds he's forgotten his latchkey and is in a quandary as to where to spend the night. "Parsifal," by Guy Wetmore Carryl, is a quaint, pretty love-story of an American girl abroad. In the March issue many contributors particularly to be noted are, Ethel Watts Mumford, Arthur Stringer, Clinton Scollard, and Arthur Ketchum. "The Passing of the God," by Arthur Stringer, is far above the usual verse product of any magazine. It has the ring of true poetry. —Ainslee's Magazine Company, New York, 160 pp.; 15 cents.

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26 Pieces of Elegant Tableware, consisting of 6 Table Knives, 6 Table Forks, 6 Dessert Spoons, 6 Teaspoons, 1 Sugar Shell and 1 Butter Knife, put up in a neat case and will be sent, express prepaid, for only \$8.00.

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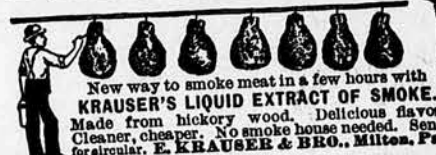
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**The Topeka College Business College**

Large School—Reasonable Rates—Good Positions—Catalogue Free—Address L. N. Strickler, Topeka, Kansas

## IMPORTANT QUESTIONS.

(Continued from page 217.)

orchardists seed their bearing orchards to clover and allow this to decay on the land, thus falling in with and only slightly modifying nature's method of restoring and increasing humus. Clover does more than most plants in contributing to fertility. It has the power of transforming portions of the nitrogen of the air into forms available to trees and other vegetation. For it is well known that the apple-tree may starve for want of nitrogen although four-fifths of the air is composed of this element. Without doubt the most rational cheap method of fertilizing the orchard in regions where red clover does well is by maintaining a good stand of this legume among the trees and leaving the crop to decay upon the soil. Similar results are attained by the use of cow-peas. Some even harvest the peas and yet find the effect good. This results, in part, at least, from the fact that the roots of the peas decaying in the soil furnish considerable humus and valuable quantities of nitrogen. Humus without nitrogen may be added by growing cane or other green crops in the orchard and plowing them under. Barnyard manure contains almost all elements of fertility. It is never amiss to spread it in the orchard unless the trees are growing too rapidly. Even in this case, liberal application of barnyard manure for a time, then its discontinuance, has been known to bring trees into profuse bearing. As the effects of the manure subside, the trees seem to think—if a tree thinks—that its end is approaching, and that, to perpetuate its species, it must be about bearing in a hurry. Hen-manure is very rich in potash and is often recommended for orchards. The fact that alfalfa is a most efficient nitrogen-gatherer has led to the suggestion that it would be a good fertilizing crop for the orchard. Its habit of drawing mineral elements from great depth through its prodigiously long roots, has been thought to indicate that, as a means of supplying potash to the surface soil, it would be efficient. But experts, in general, discourage the use of alfalfa in the orchard. It is an in-ordinate drinker. In dry weather it takes all available moisture from near the surface and puts its deep roots at work bringing more from far below so that it may keep growing. It is said thus to rob the orchard. Alfalfa is good for almost everything but its use in the orchard should be experimental until more shall be known of its effects. It is easily seen from this partial view of the subject of fertilizing the orchard that several methods are available. The editor's advice, in general, is to use red clover and barnyard manure.

## POTATOES.

3. One hundred pounds of average potatoes contain 15 pounds of waste, 67.1 pounds of water, 1.8 pounds of protein, 1 pound of fat, 15.3 pounds of carbohydrates, and 0.7 pound of ash. The potato requires a great deal more nitrogen for the production of its vines and leaves than for the formation of the protein which it stores in its tubers. The large potato-growers find in a plowed-up alfalfa-field the best soil for the production of potatoes. For the production of good potatoes and many of them, the soil should be rich in humus. An old clover-field is excellent for potatoes. The editor knows of no greater service that might be rendered to mankind by some of our potato-growers than in a discussion of the various details by which may be produced the best crop of the best potatoes in Kansas.

## CHICKEN-EATING HOGS.

4. Hogs often acquire the habit of eating chickens in obedience to a demand of their natures for more protein than is given them in their feed. The brood-sow feels this demand keenly, and it is often she that sets the example of catching chickens. Young and growing pigs require a great deal of protein. They are fairly well supplied with this while depending upon the mother's milk for a large percentage of their food. But when this has to be replaced by other feed and that other feed is corn alone, something is liable to happen to a chicken if the pigs suspect how chicken-meat would supply the longings of their appetites. The disparity between the demands of the pig and the supply for these demands by a ration of corn is most strikingly illustrated in the case of the 50-pound pig. Twenty such pigs will require 44 pounds of dry matter per day. If this were supplied as corn it would take say 50 pounds of corn. Now these pigs will want 7.6 pounds of protein per day. But the 50 pounds of corn will supply but 3.9 pounds of protein,

leaving a squealing deficiency in the pigs' feed. If this deficiency is to be made up in chicken, several will be required to equal the demand. The inference is plain. The pigs must be fed more protein. The cheapest material with which to supply this demand is alfalfa. Bran and shorts are good. Skim-milk is, perhaps, the best. Did our correspondent ever see a hog catch a chicken while there was skim-milk in its trough? The remedy for the chicken-catching habit is to give plenty of protein in the feed.

## SELECTION OF THE FAMILY ORCHARD.

EDITOR KANSAS FARMER:—I am intending to set out a small family orchard, and would like a list of the best varieties of apples adapted to this part of Kansas, that will furnish a continuous supply of ripe fruit during the summer and fall, also would like some information about the time of ripening, if convenient.

Would say to A Reader of Salina, that I have found that the native mulberry, dug up along the river, and planted on upland, grows readily, and makes a much larger tree than the Russian, without pruning or any special attention. CHAS. W. HITCHCOCK. Sumner County.

In 1879, the Kansas State Horticultural Society made an effort to determine lists of varieties of fruits to be recommended for the State. Three districts were described, viz., the Northern, the Central, and the Southern. In the following excerpt from the report the specific choices of every county are omitted except those of Sedgwick and Harper. These comprise the correspondent's immediate vicinity.

The numbers at the left of the column of names indicate the order of preference as determined by the entire vote. Nineteen counties voted. Early Harvest received the vote of every county as first choice for a summer apple in a family orchard. Carolina Red June was given second choice by 18 of the 19 counties in the district, Sumner alone giving it third place.

With this explanation the following table will be easily understood:

## VOTED LIST OF APPLES FOR SOUTHERN FRUIT DISTRICT OF KANSAS.

Family Orchard.			
	Sedgwick.	Sumner.	Harper.
	1	2	3
Summer Apples.			
1. Early Harvest.....	1	1	19
2. Carolina June.....	2	3	18
3. Red Astrachen.....	3	2	16
4. Cooper's Early.....	4	2	19
5. Hightop Sweet.....	5	4	18
Autumn Apples.			
1. Malden's Blush.....	1	1	19
2. Rambo.....	2	5	16
3. Lowell.....	3	2	19
4. Fameuse.....	4	4	18
5. Fall Wine.....	5	3	15
Winter Apples.			
1. Ben Davis.....	2	1	18
2. Missouri Pippin.....	1	1	19
3. Winesap.....	2	6	19
4. Willow Twig.....	3	6	18
5. Rome Beauty.....	4	4	19
6. Rawles' Genet.....	5	3	17
7. Smith's Cider.....	6	7	19
8. Jonathan.....	7	5	19
9. Gilpin.....	8	8	9
10. White Winter Permain.....	9	9	10

Scattering votes were cast for other varieties. Thus, Sumner County gave Sumner Queen fifth place in the list of summer apples and York Imperial tenth place as a winter apple, while Sedgwick gave Grimes's Golden tenth place as a winter apple.

Doubtless later experience would lead to a different arrangement. Jonathan and Grimes's Golden would hardly be left out from any list for either a family or a market orchard. They grow well, bear well, and, in cold storage, keep well. The Jonathan is especially adapted to cold storage, keeping its color, crispness, and flavor admirably.

It will be well before ordering trees to learn the experience of orchardists in the vicinity with each of the several varieties. But by all means plant the family orchard.

## GIVE US A STATE FAIR.

For the future welfare of Kansas and in behalf of the various resources of the State, it is exceedingly important that the present Legislature give the people of Kansas a State fair measure. A splendid bill has been introduced in the Senate, Senate bill No. 357, a substitute for the bills introduced by Senators White and Vincent. This is a practical measure that will enable Kansas to take proper rank with other agricultural States.

Should the present Legislature fail to provide for a State fair such failure will be a direct slap to every industrial society in Kansas. All of these societies have been urging this matter for years.

The KANSAS FARMER suggests that

every patriotic citizen and taxpayer write his representative or senator a strong letter at once urging his support of a State fair measure. Do this at once. It is important.

## FAVOR TABULATED PEDIGREES.

On another page we present an able paper by Col. J. F. True, Perry, Kans., discussing the question, "Should the Tabulated Pedigree Be Adopted Among Shorthorn Breeders?" This paper was read before the recent meeting of the Central Shorthorn Breeders' Association, at Lincoln, Neb. It elicited much discussion, after which the following resolution was unanimously adopted:

"Resolved, That the Central Shorthorn Breeders' Association request the Executive Committee of the American Shorthorn Breeders' Association to direct their secretary to write all certified pedigrees in tabulated form, to include four crosses or thirty immediate ancestors. And this Central Association commends this method of writing all pedigrees in transfer of ownership."

## AGRICULTURAL STUDENTS' CONTEST FUND.

During the annual meeting of the Kansas Improved Stock-Breeders' Association, it was announced that the students of the Agricultural College were taking a lively interest in improved stock and that, during the "short course," they were desirous of the assistance of experts to instruct them in the study of conformation of animals and the points of excellence of pure-bred stock.

Mr. N. Schmitz, representing the agricultural association at the college, was called on and said: "As a student I am here to learn all I can. I realize that the papers read before this meeting and the discussions are valuable to us. I also realize that, some day, it will fall upon our shoulders to carry this business forward. For that reason I am here to learn. I was sent here especially as a delegate from the agricultural association at the college. It is an association of students who realize the importance of live stock and especially of improved live stock. We realize that the more training we have in the line of live-stock work in judging in the different breeds, the better equipped we will be for the future, and for that reason we have been talking the matter over, with the result that our association voted to have some one speak to you and see what you thought of a contest for us in stock-judging. As you all understand, our funds are somewhat limited at the college and in order to have a contest we must have some prizes. For that reason I am here to ask your advice and suggestions. If it is, in your opinion, a good thing to have, something that would be good for the students and something that will help them, we want to know it. We will also, perhaps, ask you to contribute something to get the thing started. As students we see that when we have a little competition, there is more interest. At our college we have only a few representatives of the leading breeds, while at the other colleges they have many more. At the Iowa College, for instance, they have 225 head of cattle. Their valuation of live stock and equipment for animal husbandry is, I believe, something over one hundred thousand dollars. There is no reason why the Kansas people can not make as good a showing as they have made at the Iowa Agricultural College. It has been only this fall that some of our leading students came very near going to Iowa College for the simple reason that there they would have a better opportunity for judging contests. The Iowa College has been taking prizes among the agricultural colleges at the stock contests in judging—judging contests between the students—and the only reason is because they have better equipment and are better fixed for that work than we are. We all believe if we can get these contests started, we will have just as good as the Iowa or any other college. There is no reason why the Kansas College can not come up to any college in the world, and the only thing we can do is to push this work as I have suggested. We have come to you now for your suggestions and advice."

Professor Otis being present was called on and said:

"The breeders of the State have been very generous indeed toward the college. There have been donations of several animals in the cattle line, and all the hogs we have (and we have ninety-six head of hogs now) except three, have been donated by the breeders of the State or are the progeny of those that have been donated. We

## We Want To Buy Sweet Corn

We have a customer for several bushels of Sweet Corn. Can use any variety. Send us a sample, how much you have, and name (if you know.) We will pay a good price—enough so it will pay you to bother. Can use it shelled or on ear. Can use some Hulless, also Beardless Barley. Send samples.

## Griswold Seed Co.,

P. O. Box A. Lincoln, Nebraska.

have a very kindly feeling toward the breeders of the State. You will remember that the last Legislature appropriated \$5,000 each year for two years to purchase pure-bred stock. Last year the \$5,000 was spent and we now have representatives of ten different breeds of animals, and we have from three to five representatives of each of these breeds. Of course, the experts in animal-husbandry lines claim that is not enough. The breeds are enough, but we have not enough animals in any one breed to carry on satisfactory work in stock-judging when it comes to comparative testing. We are not complaining at all. We are simply doing the very best we can. But we do feel that the State of Kansas, with its immense stock interests, should see that the Agricultural College has enough of an appropriation to provide its students with satisfactory instruction. The regents are doing all they can. Every department is crowded and cramped. I do not know how we are going to get through with the funds we have, but we are doing the very best we can. Iowa has \$100,000 invested in live stock. What has Kansas? \$5,000!—plus the amount donated, perhaps running it up to six or seven, or, possibly, ten thousand. In order to do satisfactory work, of course we need larger numbers of at least one beef breed and one dairy breed. My idea is not that we should increase every breed, but to have four or five head of each of the breeds, and then have one dairy breed and one beef breed represented in larger numbers, so we can have comparative tests. The boys are taking an immense interest in this and are anxious to get all they can out of this work. Mr. Berry, Colonel Robison, Mr. Rhodes (an expert in judging chickens), and Mr. Borman came up to the college last year and helped us in the judging. We had so many students that we needed help, and they helped us and did not charge us for their work. Mr. Goslin lost from four to five hundred dollars in business because of the time he spent there. It is hardly right for us to ask these men to come and help us without compensation; but we haven't got the money. Should not the State of Kansas rise in her might and say that the Agricultural College shall have the money needed for all its departments for the development of its work, just as an agricultural college should have? I think so!" (Applause.)

The association then unanimously adopted the following resolution:

"Resolved, That this association recommend donations on the part of its members in stock and money to the State Agricultural College and Experiment Station and urgently request the Legislature to treat the college most liberally in appropriations."

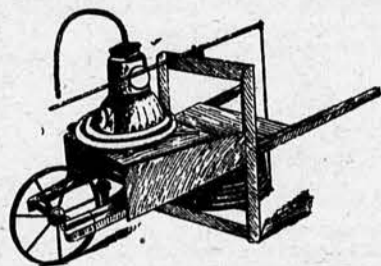
After the association adjourned, the officers and directors held a meeting and considered the matter of urging that a fund be created, to be known as the Agricultural Students' Contest Fund, and requested that everybody disposed to help this movement forward their cash subscriptions to H. A. Heath, secretary, Topeka, or to the KANSAS FARMER direct, and the same would be announced through the columns of the KANSAS FARMER. A few subscriptions have already been made and next week we hope to present a list that will make a good start in this direction. Everybody who is interested in the improvement of the Agricultural College is invited to contribute to this fund and the names will be published from time to time in the KANSAS FARMER.

## 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



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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.

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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.

### Why Not Plant Catalpas?

The question of tree-planting is one that is attracting the attention of all thoughtful land-owners.

The demand for fence-posts and telephone and telegraph-poles is ever increasing, and the supply is just as surely diminishing; so that even in sections which only a few years ago were heavily timbered, it is now almost impossible to get any durable material for these purposes.

The question naturally arises, what shall we plant in order to grow good, durable posts and poles in the shortest length of time, to meet this demand?

As bearing upon this subject, I wish to give a few extracts from the January number of *Arboriculture*. The editor says:

"On January 15, 1903, I again visited the catalpa forest in Edwards County, Illinois.

"Here are growing maple, ash, hickory and catalpa just as nature planted them. The trees are all tall, straight and symmetrical, and none exceed the catalpa in size or straightness of trunk.

"Here are catalpas 100 feet in height, 65 feet to first large branches, 18 to 30 inches in diameter, and not one shows any signs of disease.

"Near here are several long lines of catalpas, planted 8 and 10 years ago along the roadside, which are now from 8 to 16 inches in diameter; some would make fine telegraph poles, others, two cross-ties each. These were set eight feet apart in one single row."

To those unacquainted with the catalpa the above extract may seem like "tall talk," but having lived in the immediate vicinity of this forest for over 40 years I can verify most of the statements as to size and rapidity of growth.

I presume some of the dimensions given are estimates, but think they are approximately correct, having myself measured a single season's growth of renewal from a catalpa stump which was over 12 feet in height and 2 inches in diameter near the bottom, and "straight as a string."

The durability of the catalpa has been well known since the earliest settlement of this vicinity, and it is no uncommon thing to find fence-rails, made of this timber 60 to 75 years ago, still doing good service, while fence-posts have been removed after 25 years use, apparently as sound as ever.

Taking into consideration the rapid growth, the durability of the timber, the ease with which it can be grown from seeds or seedling plants, and the fact that it thrives in nearly all locations, from Maine to California, I know of no other tree that compares with the catalpa for economic purposes.

When planted 8 to 16 feet apart

along the roadside, or permanent fences, they not only add greatly to the appearance of a farm, but with very little attention, soon grow into valuable timber, and seem not to injure adjacent crops as most trees do.

For a forest, they should be planted eight feet apart each way, and some low growing crop cultivated between for 2 or 3 years, after which time all the attention required will be to remove occasional side-branches in order to form tall trunks.

About 7 or 8 years from planting, at which time trees should be large enough for fence-posts, remove every other tree each way, leaving remaining trees sixteen feet apart for permanent growth.

When cut off for use, the catalpa quickly sends up several shoots from the stump. Remove all but one of these, which, having the whole root to feed it, grows faster than a seedling, and makes a valuable tree in less time than before. Hence, when once a forest is established it becomes a continual source of income, growing more valuable every year.

The cause of most of the failures and disappointments in growing catalpa heretofore has been, want of care in getting pure seed of the genuine *Speciosa*, or native hardy sort. Many have planted both seeds and seedlings, and after years of waiting, find they have planted the *Bignonioides*, or some other dwarf-growing sort utterly worthless for timber.

The dwarf sorts are more productive of seed than the *Speciosa*, and the seed is also more easily gathered; which fact has led many unscrupulous persons to mix it with or sell it under the name of *Speciosa*. Therefore those intending to plant catalpa should make sure they are getting pure seed or seedlings of the genuine native *Speciosa*.

The seed is very light, requiring about ten thousand seed to make one pound.

Aside from its economic value, the catalpa stands well up as an ornamental tree, the foliage having quite a tropical appearance, and when in full bloom it is indeed "a thing of beauty."

If the FARMER readers are interested enough in the matter to ask for it, I will give a short treatise on growing the seedlings. G. D. J. Edwards County, Ill.

[Speaking for the readers the FARMER invites G. D. J. to give his treatise on growing catalpa seedlings.—EDITOR.]

### The Largest Ranch.

Texas formerly asserted its right to the honor of having the biggest cattle ranch in the world, before the breaking up of the Capitol Syndicate ranch of 3,000,000 acres. That distinction was not, however, justly claimed. In the State of Chihuahua, Mexico, Don Luis Terrazas has a 6,000,000-acre ranch, on which, it is said, 300,000 head of cattle range, in addition to 200,000 sheep and goats and 30,000 horses and mules. Don Luis recently sold to an American cattle company, for stocking their ranch in Mexico, 12,000 head of cattle.

Don't let any one exceed you in enthusiasm. Your business is just as important as his. Advertise your business.

Emerson once said that "old age should not creep on the mind. In nature every moment is new; the past is swallowed; the future only is sacred." Repel age of the mind and brighten your wits for the future by reading only the best. Our "Blocks of Two" is on page 1.

### Gossip About Stock.

(Continued from page 226.)

Thirdly, he can not make his choice from advertisements of manufacturers because they all claim to be right; and fourthly, he can not expect a correct answer from any poultry journal because this would mean financial suicide for the journal. In view of these difficulties the Trades Reports decided to make a thorough investigation for the purpose of finding out which was the best. As a result they announce that they are "prepared to state that there is no make of incubator on the American market to-day, in any of the qualities which makes for excellence, equal to the Hiawatha." "These incubators are made from the best material, are durable in use, perfect in construction, of superior workmanship, will give entire satisfaction at all times and are made by a company that is thoroughly reliable in every respect." Such commendation seems to leave little to be desired.

The dispersion sale of the Riverside Shorthorns, owned by the estate of the late Frank W. Bates, Osceola, Ill., took place at the Chicago sale pavilion last week with the following results: 28 females brought \$4,555, average \$163.03; 6 bulls brought \$1,445, average \$240.83; 34 head brought \$8,010, average \$176.76.

The popular headquarters for stockmen who visit Kansas City is the Coates House. Direct car lines from the Union Depot and to the Stock yards. Whenever public sales of fine stock are held at Kansas City you can depend on meeting the crowd at the new Coates House. Special rates to stockmen.

C. J. Huggins, Wamego, Kans., had the misfortune to lose his Black Tecumseh herd boar by an accident. However, he has several of his gilts bred to D.'s Expansion which he will sell at \$25 each, also a choice lot of September pigs, both sexes, and three tried brood-sows which he will sell, that are due to farrow in March by Black Tecumseh.

Remember that the great annual livestock event, or the twenty-second semi-annual stock sale at Lime Stone Valley Stock Farm of L. M. Monsees & Son, Smithton, Mo., will be held on next Tuesday, March 3, 1903. This offering will consist of four registered saddle stallions, one registered Percheron stallion, fifty-seven head jacks and jennets all black with light spots and all registered stock. Unquestionably the best lot ever offered at public auction in Missouri, also thirty head of extra good 3- and 4-year-old work mules. Everybody invited. Send for catalogue.

We call the attention of breeders who contemplate holding public sales to the fact that Topeka now has an experienced auctioneer in Mr. J. M. Sare, who has located his office at 534 Kansas avenue. Mr. Sare has had a life's successful experience in this line of work in the East, and during late years in the Northwest, but has selected Topeka as his future headquarters, and we bespeak for him a liberal patronage as he is a man well adapted for this line of work. By reason of his successful experience he is a prominent member of the State association of auctioneers as well as the National. He will be pleased to hear from anyone expecting to hold public sales of live stock or other property.

Parish & Miller, owners of the great Sunflower Herd of Aberdeen-Angus cattle at Hudson, Kans., report the sale, last week, of six 2-year-old bulls to Mr. Nell Shaffer, Cedarvale, Kans., at a good price. As will be remembered, this great breeding establishment was increased last December by the purchase, at the Chicago International, of the cow Jilt 11th and her bull calf by Prince Ito. One thousand dollars was paid for this cow and calf, and Hon. Parker Parish, who is now a member of the House of Representatives, reports that he has since refused \$1,100 for the calf alone. Prince Ito sold for \$9,100, and this is his first calf. Mr. Parish says that both he and his dam have come out wonderfully since they came to Kansas and that the calf is a show animal.

We are in receipt of a letter from Mr. A. L. Sullivan, manager, requesting us to change the reading matter of the Lincoln Importing Horse Company's advertisement, which is found in our advertising columns of this week. While he makes use of some strong assertions, we have every reason to believe that his representations are well fortified by stallions that are now ready to go into the hands of the breeders. This importing company is one of the oldest in this Western country and their magnificent barns and beautiful location (which has been their home for almost seventeen years) is the best of evidence that they are in the business to stay. Mr. Sullivan bought the material and built their barns in the early part of 1886, and from that time up to date has

always held the position of general manager. His motto has been, "The best is none too good," and as evidence of his judgment, this company has been very successful in winning in some of the hardest fought show-rings in Nebraska, Kansas, and several of the principal shows in Chicago. This last importation was selected with the view of surpassing any former importation in the way of excellency, general conformation, etc. The week following the last breeders' meetings at Lincoln the agricultural class, numbering over one hundred, received their instructions from expert judges at the Lincoln Importing Horse Company's barns, where they had a large number of most excellent specimens of the Percheron, Shire, and German Coach breeds. The class was oftentimes very much confused to know where to place their first, second, and third winners, owing to the uniformity of type and general conformation exhibited in these grand individuals.

A recent visit to the Cherry Creek breeding farm of Scotch Shorthorns, belonging to H. W. Weiss, Westphalia, Anderson County, Kans., reveals several facts that are of importance to both the Shorthorn breed of cattle and to Kansas. Mr. Weiss formerly lived at Sutherland, Iowa, where he won fame as a breeder and buyer of the best Shorthorn blood. He now has one of the purest Scotch herds, taken as a whole, to be found in this the greatest breeding region of the world. Among the animals that attract especial attention are a number of females purchased from the famous Bigler herd and bred to the great Merry ton or with calves at foot by him or one of the other great bulls belonging to that herd. Here also is a bull calf by choice Goods that is a credit to his sire though he has the rich red color of his dam. But in any herd perhaps no single individual is so attractive or so important as the herd bull. Imported Scottish Knight 138371 is royally bred. His sire was Imp. Northern Light 99701 by Standard Bearer 109925 out of Nonpariel. His dam was Bessie Girl by Imp. Craven Knight 99923, so well known among western breeders as the herd header of Senator W. A. Harris' famous herd. As an individual Scottish Knight leaves little to be desired. He has the size, style and finish that belongs to his ancestry and is especially fine in the back, loin, rump and fore and hind quarters. His head is strong and masculine without being "bull-headed," and his underline is well high perfect. He is a prepotent sire and his get shows well along with the get of the other famous sires mentioned. While we do not claim absolute perfection for this bull, we do claim that he is a credit to his ancestry, his owner, his breed and a distinct acquisition to Kansas. Mr. Weiss has built a large and handsome residence upon his Cherry Creek farm and has just completed a new cattle-barn that is more than 100 feet long and most complete in its appointments. As announced in his advertisement on page 245, Mr. Weiss will hold a sale at South Omaha on March 13 next, when some of the best things on Cherry Creek farm will be offered. The catalogues for this sale are just ready and may be had by addressing him at Westphalia. Any lover of good Scotch Shorthorns would be well repaid for a visit to Cherry Creek farm. Particulars in regard to this sale offering will appear in due time.

### Sotham Wins.

T. F. B. Sotham, of Chillicothe, Mo., owner of the Great Corrector and other prize-winning Herefords, has lately won his suit against A. Weber, a butcher in Kansas City, to recover the price of the prize-winning fat steer, Good Times, sold to him in 1900. According to reports, Good Times was sold at the American Royal of 1900 to Mr. Weber for 3 cents per pound above the highest sale at the Chicago International of that year, Mr. Sotham reserving the privilege of exhibiting Good Times at the International. As the Aberdeen-Angus steer, Advance, sold at \$1.50 per pound at the International, this fixed their price for Good Times at \$1.53 per pound, or \$2,392 for the steer, which amount has now been awarded Mr. Sotham by the courts.

If you do not wish to be forgotten as soon as you are dead you must either do things worth reading or do things worth the writing. If you are a good breeder other breeders should know it. A little advertising now is worth much in after years.

Some men live by the day. Some, for the future. Living by the day requires but little help. Living for self and posterity, much. Live your best, do your best and read the best. See our "Blocks of Two."

**PUBLISHERS' PARAGRAPHS.**

The J. B. Armstrong Seed-House, Shenandoah, Iowa, never was in better position to supply good seed-corn to customers than now. Orders received at an early date are sure of prompt attention. Write them now. See advertisement.

The New Empire is a monthly journal devoted to the development of the Southwest, published at Kansas City in the interest of the territory covered by the Kansas City, Mexico & Orient Railway, now under construction. The price of this paper is 50 cents a year, or clubbed with the Kansas Farmer, both papers \$1.25.

John F. Dayton, Waukon, Iowa, who has been in the nursery business for twenty-three years has built up quite a large business without the use of agents, depending entirely on mail order business and selling good stuff at wholesale prices direct to the user. He does not advertise anything of unknown merit. Write him for his wholesale prices.

We call attention to a Kansas institution that makes a specialty of treating rheumatism, piles, cancer, dyspepsia, and eczema. The German American Medical & Surgical Institute, Pittsburg, Kans. We trust that any of our readers who may have need of professional service in any of the above affections will write them for further information and mention the Kansas Farmer.

We call attention to the new advertisement of Ratekin seed-corn in this issue of the Kansas Farmer. This firm of J. R. Ratekin & Son, Shenandoah, Iowa, have acquired a tremendous trade in seed-corn, that being their special business for many years and they have numerous regular patrons in Kansas and the Southwest who are quite well pleased with their business relations with their firm. It is important that those who expect to buy seed-corn should secure the same as early as possible as the demand will be quite large.

From the city of La Porte, Ind., "the Maple City," comes fresh from the press, the 1903 catalogue of our regular advertising patron, the Rumely Company. In acknowledgment of the pride all its people have in this enterprising city, it bears on the front cover-page a beautiful wreath of autumn-tinted maple leaves, on the back page a cut in colors of the great Rumely manufactory with the leaf embellishment and the book throughout is attractive in form and substance. It has a fit subject. Its purpose is to illustrate and describe the well-known and popular Rumely traction engines and separators. The objects of a catalogue are well conceived and maintained to the end. No one can take up the book without being impressed with the fact that the Rumely Company intends that the purchaser shall know all about the Rumely goods. About one-half the book is taken up with full-page illustrations. Every point is made plain, so far as illustration can do it; and the descriptions are so minute and exact as to leave no questions or doubts in the mind of the reader when he has finished. The company evidently proceeds upon the theory that if threshing-machinery buyers appreciate just what their line consists of, it will be amply able to take care of itself against all competition. This must be conceded a wise policy where goods have the sterling character possessed by those of this concern. The book will be welcomed by all who are interested in high-grade threshing machinery. It will be mailed free to any one writing for it.

**Insuring the Harvest.**

The harvesting of grain has been from the most primitive times until the present an object of solicitude on the part of the farmer. Upon the successful harvest is dependent the feeding of the world.

The farmer who uses the Deering line of harvesters, however, is free from worry so far as the prompt and effective gathering of the crop is concerned. These ideal machines are always ready when needed, and can be relied upon.

**Bona Fide Offer.**

We wish to say that the offer of the Blaine Mfg. Co., Box 94, Concord Junction, Mass., to give a stem-wind, nickel-plated watch, chain and charm to any person, man, woman, or child, who sells nineteen packages of Blaine at ten cents each and remits them the money thus received, is a genuine and bona fide offer. Their large premium list and the Blaine for you to sell are sent free on request to all who write.

**This May Deeply Interest You.**

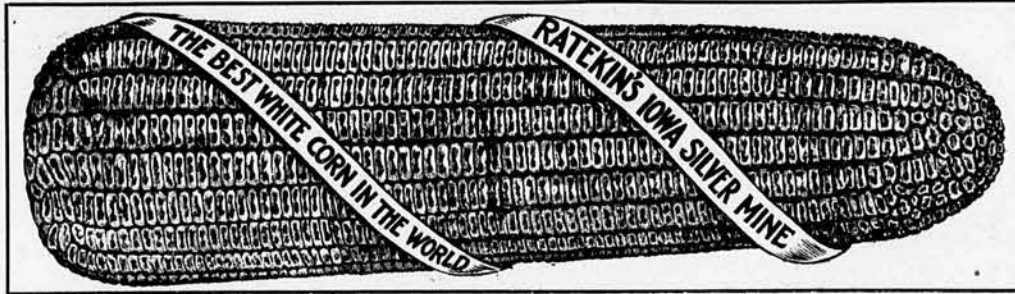
The Kansas Farmer earnestly desires to call attention of its readers to the announcement on page 237, by a company long and personally known to the publisher of this paper; a company who advertise a Pile Treatment that CURES—as we have seen hundreds of testimonials the company have to this effect, upon our visits to the office. Read their offer and write to them if you are afflicted. Their charge is reasonable. By writing them and taking advantage of their offer you can save yourself much pain, misery, and suffering, and consequently, loss of health, time, and money. The name of the concern is the Hermit Remedy Company, which has been twenty-five years in business. This in itself is a sufficient guarantee that they are trustworthy and honorable in their dealings.

**A Proud Record.**

We are in receipt of a letter from Geo. Ertel Company, Quincy, Ill., manufacturer of the Victor Incubators and Hay Presses. This firm has been in business thirty-seven years this month of which they are justly proud as shown by the following from the Quincy Daily Herald:

"A year ago to-day the George Ertel Co. broke the world's record for a single day's shipment of incubators and brooders—1,200 of the machines. They were consigned to all parts of the habitable globe and must not only have given satisfaction to the purchasers but must have advertised themselves remarkably well for to-day with no other record to break the company broke its own by shipping 1,500 of the machines. Saw last year's record and went it 300 better, thus setting a new mark in shipments."  
"Last year there was a procession of wagons that carried the incubators and

**Ratekin's Seed Corn.**



**STRICTLY IOWA GROWN—BEST IN THE WORLD.**

RATEKIN'S Improved Early varieties of Seed Corn have been planted, tried, and tested in every State and locality where corn is grown during the last twenty years and have always won first place and stood at the head of all other sorts among the practical corn-growing farmers; have everywhere uniformly given the biggest and best yields of good, sound solid corn, maturing in the shortest length of time. All our seed is grown here in the famous Nishua Valley, especially for seed purposes, from the finest, best, and most select stock. The Nishua Valley of Iowa is noted as the best corn producing locality; in the best corn growing county, in the best corn State in the Union, where the climate, soil, and natural conditions are the most perfect for the highest development of corn to be obtained or found in the world. We have made the improvement and growing of Seed Corn our main and leading specialty for twenty years, during which time we have sold and sent out more Seed Corn than any grower, Seed Firm, or Seed House in the world. Every bushel sold is guaranteed satisfactory on receipt of same; otherwise to be returned at our expense and money will be refunded. \$1.00 per bushel and upward for best varieties. Our beautiful and finely illustrated 65-page Catalogue of Farm and Garden Seeds mailed free if you mention this paper. Always address,

**J. R. Ratekin & Son, Shenandoah, Iowa.**

brooders to the freight depots, and it attracted as much attention as a circus parade. To-day that big parade was broken, the procession being limited only to the number of express wagons and freight wagons that could be pressed into service. The line of march was from the factory on Kentucky street between Fifth and Sixth, to Sixth, thence to Maine, thence to Eighth, thence to Hampshire, and down Hampshire to Fifth, down Fifth to Maine, on Maine to Third, and north on

**COLONIZATION OF THE SOUTH-WEST.**

**Aid and Inducements Offered by the Missouri Pacific Railway.**

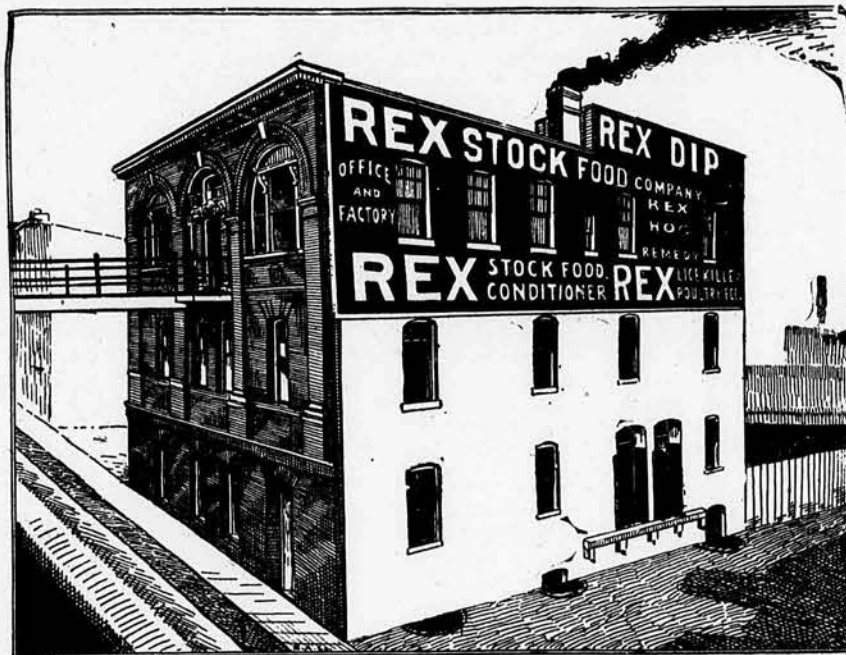
The Missouri Pacific Railway is bending every effort towards developing the agricultural, mineral, and industrial resources of the West and Southwest. To attain this end, it asks the aid and cooperation

**...PLANT...**

**CATALPA SPECIOSA**

Easily grown from seed. Will grow to post size in less time and last longer than any other timber. Pure, fresh seed (crop of 1902) of the genuine SPECIOSA, gathered from native forest trees, two ounces, 25 cents; one-fourth pound, 40 cents; one pound, \$1.25; postage paid; ten pounds or more, \$1.00 per pound; by express, prepaid. About 10,000 seeds to the pound.

**OAK RIDGE FARM, Browns, Edwards County, Illinois.**



The above illustration shows the factory and offices of a business enterprise that Omaha and Nebraska are proud of. About six years ago this hustling firm began business with only about 1,000 square feet of floor space. To-day they occupy and fill to its capacity a handsome new three story building having nearly twelve thousand square feet of floor space. They believe that success comes only to those who merit it. As an evidence that they practice what they preach this one instance will be a good illustration. For two years they have been prepared to put on the market a Rex Dip for cattle, hogs and sheep, yet none of this preparation can be bought for love or money. The reason is they have been and are still making exhaustive tests and they will not consent to offer it to their customers until they feel absolutely certain that this is perfected to the point of being superior in "merit" to anything of its kind

on the market. To substantiate their faith in their goods they publish in their printed matter a statement in which they guarantee every ingredient in every article of their manufacture to be the purest and best in quality and agree to place any article of their manufacture in one or one hundred tests against any similar article on the market for results and agree to furnish the goods free for such tests. Their line includes Rex Stock Food for fattening and finishing stock, Rex Conditioner for "wormy" or "out-of-condition" horses or stock of any kind, Rex Hog Remedy for "wormy" or "stunted" hogs and for preventing and curing diseases common among hogs, Rex Lice Killer for ridding poultry and poultry houses of mites and lice, and Rex Poultry Food for increasing egg production and for curing or preventing diseases common among fowls. Our readers will find any and all of this firm's goods to be of the best quality.

Third to the Burlington Route depots. From the lower peninsula of Mexico to the province of Alberta, British North America, on this continent, from South America to South Africa, from Queensland to New Zealand, these machines will be taken. They will advertise the company and the city where the company does its business clear around the world. And it is not as though everything had been held back to make a mammoth shipment; for every day this week the company has been shipping out goods, and all season shipments have been made regularly. Orders are pouring in daily now and eight young lady stenographers are employed doing the firm's correspondence while one does nothing but fold and address catalogues for mailing. And while they are all busy with the incubator and brooder department the hay-press department booms along just as busy as it can be. The Ertel establishment is a hive of industry and one of which Quincy has reason to be and is proud."

**Business Chances.**

The M. K. & T. Ry. has a well-established Industrial Department, aiding in the selection of sites and locations for industries of all kinds along its lines. Write, if you are interested. We will send book, "Business Chances," and any other information wanted. Address: **JAMES BARKER, Gen'l. Pass. Agent, M. K. & T. Ry., 204 Wainwright Bldg., St. Louis.**

**RUNNING FOR COVER.**

THE ORIGINAL **TOWER'S** FISH BRAND OILED CLOTHING (MADE IN BLACK AND YELLOW) WILL COVER YOU AND KEEP YOU DRY IN THE WETTEST WEATHER. ON SALE EVERYWHERE. TAKE NO SUBSTITUTES. **A. J. TOWER CO., BOSTON, MASS., U.S.A.** TOWER CANADIAN CO., Limited, TORONTO, CAN.



**Western Canada**

The Vast Areas of this Remarkable Agricultural Country are attracting more attention than any other District in the World. "The Granary of the World." "The Land of Sunshine." The Natural Feeding Grounds for Stock. Area Under Crop in 1902—1,987,330 Acres. Yield 1902—117,922,754 Bu. Abundance of water. Fuel plentiful. Building material cheap. Good grass for pastures and hay. A fertile soil, a sufficient rainfall and a climate giving an assured and adequate season of growth.

**Homestead Lands of 160 Acres FREE**

The only charge being \$10 for entry. Close to Churches, Schools, etc. Railways tap all settled districts. Send for Atlas and other literature to Superintendent of Immigration, Ottawa, Canada; or to the authorized Canadian Government Agent—**J. S. CRAWFORD, 214 West Ninth St., Kansas City, Mo.**

**PATENTS** Obtained. Low Fees, Easy Payments, Free Advice William F. Hal, 1003 F St., Wash., D. C.

**LUMBER,**

**SASH, DOORS, Etc.**

Send us your House and Barn Bills for our delivered estimate. We pay the freight and ship to any Railroad Station. White Cedar Posts and Telephone Poles a specialty. **SOUTH CHICAGO & CALUMET LUMBER CO., 951 Harbor Ave., CHICAGO, ILLINOIS.**

**GOOD SEEDS CHEAP**  
Best in the world  
From 1c. a p'k'g. & up. A lot free with every order. Great Big Catalogue FREE to all. Picture of all varieties. Send for big catalogue.

**R.H. SHUMWAY**  
ROCKFORD, ILL.

**STARK TREES** best by Test—78 Years LARGEST Nursery.  
FRUIT BOOK free. We WARE MORE SALESMEN PAY CASH  
STARK BROS., Louisiana, Mo.; Huntsville, Ala.; Etc

**PEACH TREES** General assortment. \$2 to \$3 per 100. Also plum, pear, and cherry trees. Circular free. R. F. Johnson, Bx 17, St. Louis, Del.

**HEALTHY TREES**—free from disease. Honest in quality. Grafted Apples 4c; Budded Cherries, 5c each; good Budded Peaches, 4c; Concord Grapes, 2c per 100; 1000 Ash \$1. B. and H. Locust, 25c; Mulberry, 8c. Low price. We pay freight. Catalogue free. Galbraith Nurseries, Box 32 Fairbury, Neb.

**Fruit Trees** 17 Peach, \$1.00. 50 Concord, \$1.00. 1000 Mulberry, \$1.00  
Immense stock, fine quality, low prices. Freight prepaid on \$10.00 orders. General catalogue free. GAGE COUNTY NURSERIES, Beatrice, Neb., Box 626

**SEEDS** BUY SEEDS THAT WILL GROW  
Our seeds have that reputation, there are plenty that have not. 10 pkts. Annual Flower Seeds, 10c. 5 pkts. Vegetable Seeds, 10c. 5 pkts. Giant Cyclamen, Double Dahlias, Prize Pansy, Mammoth Verbena and Marigolds, 7c. PLANTS: 6 Rose, 25c; 4 Pelargonium, 25c; 6 Geranium, 25c; 6 Begonia, 25c. Catalogue free. A. C. ANDERSON, COLUMBUS, INDIANA.

**Trees That Grow**  
The best and hardiest. Grafted Apples, 45c. Budded Peach, 55c. Concord Grapes, 2c. Black Locust, 25c. Seedlings \$1 per 1000.

**German Nurseries**  
We pay the freight. Illus. Grafted German or English free. German Nurseries, Carl Soudersberger, Prop., Box 9, Beatrice, Neb.

**PENCILARIA** the money maker for farmers.  
Produces four times as much hay as clover, twice as much as cane, millet or any other plant, and of better quality. One lb. will plant an acre. Per lb, 75c. 1/2 lb. 25c, sample free if you mention this paper. Large illustrated catalogue of Garden and Farm Seeds, Seed Corn, etc., FREE. IOWA SEED CO., Des Moines, Iowa.

**EVERGREENS**  
Hardy sorts, Nursery grown, for wind-breaks, ornament and hedges. Prepaid \$1 to \$10 per 100—50 Great Bargains to select from. Write at once for free Catalogue and Bargain Sheet. Local Agents wanted. Evergreen Specialist, Dundee, Ill.

**FREE SEED**  
Our handsome Garden Annual and Seed Catalogue. Send your address on a postal card to-day, or for 4c. In stamps and the names of 3 neighbors who are actual seed buyers we will send our catalogue and packet of the Giant Red, Madam Perrot PANSY if you write before March 15th. Address, COLE'S SEED STORE, Pella, Iowa.

**STRAWBERRIES**  
\$2.00 a thousand for standard sorts, new beds, strong FRUIT TREES Grape Vines and Small plants, Fruits at Fair Prices. Lists Free. J. F. DAYTON, Waukon, Iowa.

**HAVE YOU A DOLLAR?**  
It will return many fold if you invest it in one of our  
**-- Three Fruit Options --**  
20 Budded Peach Trees, 25 Grafted Apples or 50 Concord Grapes, either one for the dollar. Only clean, well rooted and vigorous stock in Trees, Shrubs and Vines. English or German catalog and 25c due bill sent free. We pay freight on \$10.00 orders. FAIRBURY NURSERIES, Box L, FAIRBURY, NEB.

**MONEY IN TOMATOES**  
IF YOU PLANT THE RIGHT SEED  
Our Magnificent and Superbly Illustrated Catalogue for 1903 tells all about the Best Tomatoes and other Money-Making Seeds.  
**FREE MENTION THIS PAPER**  
and we will send you absolutely free a liberal package of our Great Birthday Tomato—the newest and best variety—together with a copy of our valuable Seed Catalogue.  
Your name and address on a postal-card will bring the Seeds and Catalogue. We make this offer to induce you to try Great Northern Seeds—the best on earth.  
**GREAT NORTHERN SEED CO.**  
236 Rose Street, Rockford, Ill.

**GREEN RAPE** costs 25 cents per TON  
Greatest, Cheapest Food on Earth for Sheep, Swine, Cattle, etc.  
Will be worth \$100 to you to read what Salzer's catalog says about rape.  
**Billion Dollar Grass**  
will positively make you rich; 12 tons of hay and lots of pasture per acre, so also Bromus, Penant, Speltz, Macaroni wheat for arid, hot soils, 63 bus. per acre. 25th Century Oats, 250 bus. per acre and Teosinto, Yields 100 tons Green Fodder per acre.  
For this Notice and 10c. we will mail you our 10 Farm Seed Newsletters, fully worth \$10 to get a start.  
**JOHN A. SALZER SEED CO., LA CROSSE, WIS.**

**Horticulture.**

**What Shall We Do With Our Apples?**

G. A. ATWOOD, BEFORE BENTON COUNTY, ARK., HORTICULTURAL SOCIETY.

What shall we do with our Ozark apples—red, black and yellow? Such apples as you have here—beautiful, perfect in shape, in color, in flavor—sell readily enough every year at satisfactory prices. If the query only concerned No. 1 Ozark apples this paper would now be complete, for you will all concede that it is no problem to find a market for five times as many apples as the country has produced this year, if all were like these you have in your exhibit. Unfortunately there are No. 2's and some culls. The problem applies to the inferior grades; so our care is to look after the moth-affected and the windfall apples—or better, to so conduct our business that there shall be but a small per cent of culls. Thus reasoning your query become a proposition of very great importance.

What shall we do with our apples? The easiest way is to cultivate our orchards so that there will be so few off-grades that they will not be worth caring for. Oh, if the apple-growing millenium were here! You have been cultivating, pruning, spraying and trapping, and yet a large per cent of the apple crop is below No. 1. In looking at a handsome apple, you know how it hurts to discover that there is a black hole through its center, that its heart is rotten and its flavor ruined. It seems a pity not to put such an apple, a big beauty outwardly, in the No. 1 barrel, but to do so would be dishonorable.

The first care, then, must be to get ahead of insects and fungous diseases, which is not an easy task as many of you know by years of costly experience. Some of our best orchardists at the end of a season, after four or five sprayings which seemed to have had but little effect, have nearly given up the fight against the enemies. But there is progress. Remedies will be found.

Fruit growers are progressive and they will be able, presently, to produce apple crops that will sell on the trees to anxious buyers. Besides spraying, apply a wash to the bodies of your trees, dig around them, draw away the dirt that has been mounded up against the tree for a nest for wooly-aphis, let in the air and the rain, and scatter some ashes, or lime, or tobacco dust, in the dish around the tree. Those of you who have not tried these simple, inexpensive but effectual remedies, will be surprised at the results. It is a great mistake also to allow diseased apples to remain on the ground. The orchard should be as clean as the front yard of a well-ordered Ozark home.

And there must be better cultivation in our orchard management. We must manage planting and cultivating so that the tree will have sound roots. It is foolish to expect healthy fruit from diseased trees. There are systems and systems. Orthodox horticulturists should not make the mistake of deriding every new experiment that is reported as successful, without investigation. To visit some of the most profitable orchards in the different sections—orchards on level land and orchards on steep hillsides—and investigate all the points of culture, the varieties of soil, condition of land, etc., would be a profitable investment of time and railroad fare.

Professional men and skilled mechanics work for years to get ready to do business. It is a great mistake many fruit-growers make not to fit themselves for the noble avocation of horticulture. There is scarcely a more intellectual business or one that gives more pleasure to one who is devoted to his trees. There is no other business that should have equal attractions to ambitious, bright young men. It is the ideal life, life out of doors, working with nature and producing something that is good for mankind. Never before was there so much enthusiasm in fruit growing as now—never so many who are endeavoring to produce perfect fruit, who think more of doing well than of making money merely.

What shall we do with our apples next year? Six years ago the country had 75,000,000 barrels. If conditions shall be favorable next year there may be 100,000,000 barrels! What shall we do with them? Let us begin early, as soon as the "June drop" is over, and make arrangements for marketing the Ozark crop. Make preparations through a New York exporting firm to send car-loads to Europe. This would not be a difficult nor a doubtful undertaking. It is business to do it. In case

exporters do not come and buy our No. 1's, let us export. The Ozark Apple Growers' Association could attend to this work. At a cost of one to three cents a barrel, you could secure 25 cents to \$1 a barrel more than you would without this organization.

This is one thing we can do, and keep on doing more and more. Let us do it, if buyers do not come, and prices are too low.

A word about prices. Who is to fix prices? How negligent we have been not to have had an organization to look after our interests! Here we have 20,000,000 trees worth \$50,000,000 to \$100,000,000, several thousand orchard men, and until a few weeks ago we were entirely unorganized. The apple shippers, who number a few score, have a strong association which meets yearly and announces the quantity of apples on hand, and passes judgment on prices that should obtain. This is all right for the dealers, but how does it look for the growers to take no steps to promote and protect their interests? Such indifference is positively reprehensible. Let us of the Ozarks co-operate, and, as this section has the largest orchard area, lead off in organization.

What shall we do with our apples? Why, let us give the facts to the world that we have the leading apple section, that we produce superior apples. This is one service which the Ozark Apple Growers' Association should render. We must work up larger markets at home and abroad. We have done nothing in this direction. There are hundreds of towns that would take car-loads of apples that have never had a dozen barrels. There are 75,000,000 people in this country, and this multitude would take twice as many apples as have ever been marketed if there was proper distribution. Really, would it not be well to do a little commercial missionary work in the North, West, and South? Investigation in the East would demonstrate that the supply of apples was not equal to the demand.

But the foreign market must be held and the field cultivated. At the rate we are putting out trees we shall want the world for a market after a while. Across the Atlantic there is a limitless field. Great Britain has been our best customer; but other countries would be glad to have some of our red beauties if we would furnish them. The opportunity is before us.

How about the No. 2 and No. 3 apple? The No. 2's should be evaporated, and this grade should be good fruit. It is necessary to maintain the quality of our evaporated apples or we shall lose our immense foreign trade in this product. Our customers are particular, as they have a right to be. The Germans, who are our best customers for dried apples, will not stay with us if we send them stock made of too immature or bitter-rot-tainted apples. The American consul at a German port writes to our Government: "Dried apples arrive in fair condition, but evaporated apples do not, nor can they be kept in the market or any length of time owing to mould and decay." He suggests more thorough evaporation and greater care in handling. Our exports of dried apples last year amounted to 28,309,023 pounds. It would be a severe blow to lose our trade in this product.

There might also be worked up a market for apple butter that would amount to millions of dollars annually. Pure apple-butter is relished by every one, and if it was made "true to name" and properly advertised, it would soon be used on every table. Here is a business that could be expanded to an almost limitless extent. Official testimony shows that most of the apple-butter factories in Ohio use adulterants.

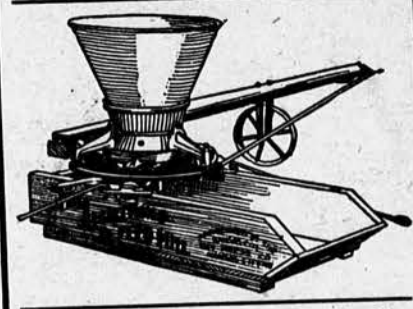
Boiled cider could be made an important article of commerce. One of your Benton County men is doing considerable on this line and is making it pay. Reduce five barrels to one and the product is a very desirable article. Its merits, once known, would secure for it universal use. Here is a place to use good apples that are not fine enough to barrel.

The No. 3 apples that are clean and free from bitter-rot should be converted into vinegar. Cider vinegar does not pay expenses, you say. No, not now, it is true, but if there was a pure-food law, it could be made and sold at a good profit.

Now, we are up against another question: Will the country give us a pure-food law and so promote the well-being of every citizen? With such a law in force the Ozark apples will all sell at good enough prices.

Friends, these are our honest conclusions. Now will you who live in the greatest apple section of the world lead in the effort to secure pure-food laws,

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**SAVE THE FRUIT**

honest packing and the manufacture of unadulterated, clean by-products? You can do all this paper suggests by co-operating for that end. Work through your local societies, through the Ozark Fruit Growers' Association and individually, and we shall never have a glut of apples; we shall prosper, and the world will be the better for our lives.

**Pruning.**

B. B. SMYTH, OF TOPEKA, BEFORE SHAWNEE HORTICULTURAL SOCIETY.

The matter of pruning is one that has been but feebly developed in a scientific way. The ways of pruning, the time for pruning, and the why of pruning are all subject to a variety of opinion because the entire matter has been the last and least considered in the process of fruit development.

J. G. Holland, in drawing his beautiful and instructive lessons from nature, writes:

"The native orchard's fairest trees,  
Wild springing on the hill,  
Bear no such precious fruits as these,  
And never will

"Till axe and saw and pruning knife  
Cut from them every bough,  
And they receive a gentler life  
Than crowns them now.

"And Nature's children, evermore,  
Though grown to stately stature  
Must bear the fruit their father's bore  
The fruit of nature

"Till every thrifty vice is made  
The shoulder for a scion,  
Cut from the bending trees that shade  
The hills of Zion.

"Sorrow must crop each passion short,  
And pain each lust infernal  
Or human life can bear no fruit  
To life eternal.

"For angels wait on Providence,  
And mark the sundered places  
To graft with gentlest instruments  
The Heavenly graces."

When we study the evolutionary development of fruits from their primitive conditions up to the very luscious perfection in which we find them to-day, we are bound to recognize that intelligent means have been employed to secure such perfect ends.

Judicious and intelligent pruning has, perhaps, done as much as any other on earth to bring fruits up to present-day standards.

Nature produces lavishly, and in her train are all sorts of possibilities for progress to grasp upon and push to wonderful—yes, almost limitless results. The phenomena of life are best presented, always, in the happy medium that lies between extremes, and so with pruning, a medium which common sense only can dictate—after certain fundamental principles have been observed—is that which should govern the one with "axe and saw and pruning knife."

Some kinds of fruit stock will bear with benefit much severer pruning than others. The cherry calls for little pruning. The pear needs little; the apple needs more; and the peach and grape will be better with a great deal.

Pruning done judiciously will stimulate fruitage and also secure a better quality in the product. Pruning done judiciously leaves the tree, or shrub, or vine, in a beautiful condition; it brings out symmetry and gives a certain pleasure to the beholder which can only be accounted for in the fact that careful thought and intelligent application of muscle are always appreciated wherever found.

When to prune is the problem. Some very successful growers have been so much lost in the medley of advice about pruning that they have attended to this matter whenever the spirit moved them and they happened to have a sharp knife in their pocket.

It is undoubtedly a fact that if twigs and branches are kept smoothed off while yet young and tender, there will be little call for that heavier pruning which is to be avoided as far as possible. When it is found necessary to do pruning of the heavy kind, it will be interesting, if not advantageous, to consider nature's processes with regard to plants, for all plants of our latitude have different relations to vitality at different times of the year.

In the spring time all vegetation starts out with vigor, and growth is carried on more rapidly than later in the season. This is because there has been stored up somewhere in the individual plant a prepared nutrient for starting up spring growth and carrying it on until foliage can be developed sufficiently to establish the phenomena of independent growth.

In the tree and vine and shrub this nutrition is found to have been prepared in the previous autumn and elaborated into the sap by springtime. When we do heavy pruning in late winter or early spring we remove the elaborated material to just the extent

we remove the large branches. At the same time we open up a wound from which may flow large quantities of rich sap which we would hardly suppose the plant could afford to lose.

It would seem, from a theoretical standpoint, that pruning would better be done about the time the elaborated sap has been exhausted, and the plant is doing business in a normal way.

The hard maple no longer yields sugar-laden sap early in April in our latitude. Taking this tree for an example among trees in general, it would seem that the latter part of April would be the ideal time to trim trees of heavy branches. By so doing we would leave all prepared nutrition in stock for service. We would cut away the branch after it had helped to start growth in the spring, and we would leave the scar in time to be greatly covered by the summer's growth.

The value of root pruning is too well known to comment upon. Its principle value lies in the shock it gives the plant, thereby securing fruitage in the tree or plant that has been over ambitious in the matter of growth.

**Lime, Sulphur and Salt for Scale.**  
PRACTICAL FARMER.

The success that has attended the use of this California mixture in keeping the San Jose scale and other insects in check has created an interest in the process, and inquiries are coming in in regard to the making of it. It has also been used successfully in California in the destruction of the peach worm. We take the following from Bulletin No. 144 of the California station: "The formula as successfully used in Placer County region this season is as follows:

Lime.....40 pounds  
Sulphur.....20 pounds  
Salt.....15 pounds  
Water to make.....60 gallons

"Boil ten pounds of the lime and 20 pounds of sulphur in 20 gallons of water for from one and a half to two hours, or until the mixture is a deep amber color, which will indicate that the sulphur is dissolved. The balance of the lime, 30 pounds, should then be slacked in another vessel and the salt added to this latter mixture. This should be stirred till the salt is dissolved and then added to the original mixture of lime and sulphur, and the whole boiled for from thirty to forty-five minutes longer. Then strain the mixture into the spray tank and apply to the trees HOT. Do not let the mixture get cold, for a portion of the ingredients will then crystallize and precipitate out of the liquid, and its effectiveness is much reduced."

The boiling is done in the large cauldron that can be either suspended or set in brickwork. The important point is to cover every part of the tree with the mixture. The work is done while the trees are leafless. It has been found that this mixture, while not killing all the scale insects at once, will keep up its work and finally get them. We propose to use this mixture this season and may have more to say about it later.

**Unproductive Plum-trees.**

EDITOR KANSAS FARMER:—I have some twenty non-fertilizing plum-trees, or at least I think that is the matter with them. They are thrifty and bloom full; sometimes they have started to grow plums, but we have never seen but one full-grown and ripened plum.

I would like to know if grafting standard sorts on them would be liable to succeed either in making the old stock produce fruit or in growing good fruit themselves. If so, what varieties would be best to use for grafting, and when would be the proper time?

I am pleased with the FARMER, and the stockbreeders' number is interesting.  
H. V. DWYER.  
Asherville, Mitchell County.

**REPLY BY PROF. ALBERT DICKENS.**

It is altogether probable that the variety is self-sterile, or nearly so, and if this is the trouble some other variety which blooms at the same time should be used for a pollen-producer. Top-grafting would accomplish this and so far as known some other variety of the same species would work well.

Top-grafting is somewhat less certain in Kansas than in localities which have more even weather and less wind. If you can get well-grown trees of a suitable variety you will probably get as good results by setting them near the other trees as by top-grafting. This trouble has often occurred where Wildgoose has been planted alone, and Wooten has been recommended as a pollen producer for Wildgoose.

Kansas Experiment Station Bulletin No. 101 contains a bloom chart showing the dates of blooming of the more common varieties.

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WHEN WRITING ADVERTISERS PLEASE MENTION THIS PAPER.

## The Apiary.

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

### The Swarming Question.

EDITOR KANSAS FARMER:—I have been reading brothers Duff and Bohrer on artificial swarming or increase. I do not know all about bees, yet I am one of the "has-beens," having been through it all, such as artificial swarming, raising queens, selling bees and honey, importing queens, besides testing every kind of a bee I could hear of—Cyprians, Carniolans, Italians and the so-called brown bees of Arkansas. I tried hard to get some Philippine bees through a soldier-friend of mine that went there in 1898, but he claimed he could not find any bees there; in fact, I have been a veritable bee-crank, and am yet, and will be as long as I live if I don't do much at it. My management, if I wanted increase, and only had one or two colonies, would be like this. If a colony swarmed naturally it would be good; if they did not swarm at all, so much the better. I would not "monkey" with them at all and in the end, all will be better. If a colony swarmed and I knew which colony swarmed, and if there is only a few colonies one can generally tell which one swarmed, even if he is not present when it issues, I would not allow that colony to swarm but once which is as easy as falling off a log. The plan is not original with me; I believe it is Hedden's. It works with me without fail. Hive the swarm right up against the colony that swarmed, facing the same way; on the sixth day carry the old colony to an other part of the yard. That ends the swarming from the old hive. When the old colony is removed, place the swarm where it sat, all of which can be done sooner than I can tell it. You can take this for what it is worth. If I were to tell my preference of the bees I have tested, the beemen would sting me to death with their pens, and no one would take any stock in what I have written. So I am not going to do it; not to be in print, anyway.

M. F. TATMAN.  
Rossville, Shawnee County.

### Louisiana Purchase Exposition.

EDITOR KANSAS FARMER:—Now that the time is almost at hand to begin the preparation and collection of products to be exhibited at the Louisiana Purchase Exposition. Permit me to suggest that preparations among the beekeepers of the State for a honey exhibit in the horticultural department of Kansas should receive immediate thought, as to the particular kind of receptacles they wish their bees to store honey in for that display. In different parts of the State there is an unlimited amount of alfalfa, which is by all odds the best honey producing plant in the State, as regards quantity, quality and color, when compared with any other. And such sections as are abundantly supplied with this plant will be well adapted to the production of honey to be stored by the bees in receptacles highly ornamental. Many differently shaped receptacles have been used. A smooth, glass cone, of any desired size, not exceeding eighteen inches in height, nor more than eight inches in diameter, may be successfully used. Supports for the combs may be put inside and bright comb attached so that either the edges or sides of the comb will face the glass. It should then be placed in the storage department of a hive containing a strong colony, when the honey gathering season has fairly begun, being cautious to put this receptacle upon a board that is to be removed with the glass when filled. The openings communicating with the main part of the hive should not exceed one and one-half inches if round, as the queen may enter it and start up a lot of young bees. Such receptacles much of course be covered with a box that will not admit light, as the bees will not appropriate the space nearly so quickly if light can be seen where they deposit their honey, and in order to darken it they will paste profolis all over the glass, thus defeating one of the main objects in view, namely, to have the glass as nearly free from stain as possible. I have described the above form of ornamental storeroom as merely suggestive. The skillful beekeeper in coupling his taste and aid with the skill of his industrious little workers, may prepare an ornamental exhibit of honey that will prove very attractive. He may even have his bees fill a receptacle shaped like our noted Kansas sunflower. I have kept no bees since I have lived in Kansas, so I could not attempt to enter upon such an enterprise if I so desired. Both I

hope a number of persons may prepare an exhibit of this kind. And now is a good time to prepare receptacle.  
Lyons, Rice County. G. BOHRER.

### The Name in the Grain.

While it is yet weeks and even months before many of the agriculturists of this country will begin harvesting their grain crops. Nevertheless there is scarcely a man who, in his imagination, can not see the billowy waves of the golden harvest field and the name of his favorite binder as it moves through the yellow grain.

The name on the binder flag is important. It should be a name that stands for something tangible—a name that has stood the test of time—that has triumphed in every grain field—that has always represented the highest attainment in the manufacture of harvesting machines—that satisfies the world's demand. The name McCormick is world-renowned, and on the flag of your binder means a pleasant and profitable harvest.

A prominent writer recently said: "All the honor that rightly falls to pioneer inventors attaches to the name of McCormick, but great as it is, we esteem it even less than the honor that attaches to a uniformly honest construction of machines which bear the name McCormick." The flag on the McCormick has become known as the "farmers' favorite flag." It is the flag of success in the harvest-fields of the world.

### Burr Incubators Meet With Success.

In another column of this issue will be found the advertisement of the Burr Incubator company of Omaha, Neb. From that it will be seen that Burr incubators are equipped with a five-inch double waf-er regulator. In choosing what incubator they shall buy most people look first at the regulator, for upon that very largely depends the success or failure of any machine. It is discouraging business to be obliged to watch an incubator night and day in order to prevent it from getting too hot or too cold, but with the five-inch double waf-er regulator on an incubator the operator can leave it all night and know that the temperature will be exactly right. People who are using Burr incubators this season seem to be unable to say enough in their praise, because when the temperature is kept at the proper point, getting good hatches is simply a question of getting good eggs. All classes of people are meeting with great success with the Burr and as a result the company is rushed to keep their orders up to date. They have a large and well-equipped factory, however, and can fill every order promptly. They carry in stock 60, 120 and 240-egg machines and make to order any other size desired. Their brooders are also giving great satisfaction, as they are also equipped with a five-inch water regulator, so that the chicks that are put in the brooder neither freeze nor fry. It is the chickens you raise and not those you hatch that bring in the money and Burr brooders will raise them. The men who starts in the poultry business with a Burr incubator and brooder starts right and is sure to succeed. If you drop the company a postal card they will mail you a free catalogue, which will tell you all about their machines and explain all the latest improvements. Please mention this paper.

### A Field of Pencilaria.—A New Feed.



H. G. Krupp, Harper County, Kans., says: "I planted Pencilaria on sandy ground but it came up and grew right along in spite of the cold, dry weather. My stock ate it down twice but it came up again and I believe that it can stand any dry season. It is equal to cane in quality."

This new fodder plant seems to be attracting universal attention among our readers, and the crop is truly wonderful, as it yields from three to seven cuttings per year from one sowing and has produced 95 tons of green fodder per acre from three cuttings in a carefully weighed test.

The seeds are so very small that one pound will plant an acre and still one plant usually has 25 to 75 stalks growing 7 to 14 feet in height. When it is figured that one-fourth acre will produce sufficient fodder to support a cow six months either for summer or winter food, and

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# The Poultry Yard.

## Black Langshans.

One of the prominent varieties of the Asiatics are the Black Langshans. Almost every one is more or less acquainted with Black Langshans, for they have established themselves in this country to such an extent that they have become largely the farmers' fowl. One of the peculiarities in con-



nection with poultrydom in the past is, that almost every black fowl that has been introduced in the past has been turned down on account of its blackness, but the Langshan has certainly been an exception. We have two varieties of the Langshans, the Black and the White as recognized by our standard. White fowls are usually very popular, but the most extraordinary thing in connection with the Langshan family is, that the Blacks have so far exceeded the Whites in popularity, that the White Langshans are scarcely heard of at present, and the Black Langshans are right up at the head of the poultry kingdom irrespective of variety or breed. Go where you may, either to the show-room, or to the country among the farmers, and you will find that the Black Langshans occupy one of the train are all progress to utility.

The Black Langshans have peculiarities of their own that will win you to them, even if you are prejudiced against a black fowl; and for this reason, they have pushed themselves to the front without any special help they have ever received in the way of a boom by fanciers. The general make-up of the bird, both cocks and hens, providing the stock is what it should be, is what we would call the ideal bird in looks. They will always demand admiration as the cultured lady and gentleman in poultry society; not that they are really proud, but are naturally made that way and they can not help it. If you will stop a moment and take a look at the picture of them accompanying this article, you will see for yourself just what it takes to be a first-class Black Langshan.

The utility side of the Black Langshans is by no means wanting, that we should dwell too long on beauty. The Standard makes the weights of the Langshans as follows: Cock, 10 pounds; hen, 7 pounds; cockerel, 8 pounds; pullet, 6 pounds. In this you see they run just about one pound under the Cochins, so we must class them with our large varieties. The Standard has put their weight low, and might safely raise it one pound all round; for the facts are that a good stock of Black Langshans, as bred at the present time, will easily reach Cochin weights as given by the Standard, while the cochin could scarcely be raised. I will take the responsibility of saying that, as I have found it, the lack Langshan pullet will begin laying eggs about as early as any of the small egg-producing class, the Leghorns not excepted. The Langshan under the same conditions as others will begin laying eggs on an average earlier in autumn, and continue during the winter in advance of anything I know of. Unlike the other larger breeds they may be profitably retained one year longer, or one year older than either the Brahmas or Cochins. They withstand extreme cold weather better than most others, and under the effects of a severe blizzard if housed properly, of course, will keep up a larger per cent of eggs through the storm.

The Black Langshan hen is the ideal hatcher of eggs. She is not only the ideal sitter, but the ideal mother. She is the proper size and weight, and she conducts herself in a proper manner

to hatch every fertile egg under her. She has the patience necessary to brood her newly hatched chicks long enough after hatching to insure their safety. She sits lightly on the eggs, and seldom breaks one. She is easily handled, and may be taken off the nest as often as necessary for inspection, and returned with good results. If any one is disappointed with Black Langshans, it is the fault of the manager, and not the variety of chickens. Pawnee County. A. H. DUFF.

### Ventilation in Incubators.

EDITOR KANSAS FARMER:—It is the popular idea that ventilation evaporates the moisture from eggs during incubation, and so it does, to a limited extent, but the main cause is the pressure in the egg due to the growth of the chick and the shrinkage of the shell. Eggs, during incubation, get rid of the excess moisture more on account of the pressure within than on account of the ventilation. At best, the ventilation can only carry off the poisonous gases.

As proof that pressure forces the moisture out of fertile eggs during incubation, we point to the infertile eggs in the same machines. Infertile eggs only perceptibly shrink in size and weight. If ventilation controlled the evaporation, then there should not be so much difference between the fertile and infertile eggs under the same conditions.

I have been operating incubators a long while and I feel sure I can voice the opinion of nearly every operator of incubators, that getting the air cell too large is more imaginary than real. We all read about it, but few have seen it. The lack of sufficient ventilation fails to carry off the gases arising from the eggs and the natural conditions and actions of the egg are interfered with, the chick fails to develop naturally, hence wet, weak chicks with an unripe appearance.

It is very evident to any one who thinks (beyond what they read of) that moisture and ventilation are so mixed up that the influence of one is taken for the other. Excessive applied moisture has exactly the same effect as the lack of ventilation, it makes the air too heavy; it is the same with poor ventilation. This heavy, mucky condition of the air blocks the expelled or evaporated moisture from the egg. Another proof of the pressure within eggs during incubation is the enlargement of the air cell as the incubation progresses.

I dispute that the air-cell is for the purpose of furnishing air to the chick except just before it pips the shell. The division between the air-cell and balance of egg is air and moisture-tight. If it were not tight, it would fill with moisture. The chick could not possibly use the air. Even its movements and different positions would dispute the theory. Just before the chick pips the shell it usually breaks through to the air-cell, but not always. I contend that the first real breathing of the chick is after it pips the shell, and from the time it pips the shell until it makes further effort, it is accumulating itself to real air.

The air-cell has a purpose, it helps form a pressure in the other end of the egg; it has still another purpose, it holds the contents of the egg intact, it makes a back stop and makes it possible for the chick to brace for action. If it were not for the air-cell the contents of the egg would float.

Ventilation is just as important as the temperature in incubation. Ventilation does the same work in incubators as in other things. Doctors draw a line on draughts of air, but make no attempt to exclude or curtail it, and why should we in ventilating incubators?

As stated, such a thing as air-cells becoming too large is more imaginary than real. We read the cautions, but the real thing is rarely in evidence. Fertile eggs, during incubation, get rid of the excess moisture through pressure more than through ventilation. In incubators, like in the house we live in, the question of ventilation is settled when we correctly draw a line between plenty of air and draughts of air. This is such a simple and well-known problem that it hardly needs mentioning. The theories about carbon, oxygen, and other component parts of air, serve to muddle more than to explain, and inasmuch as these things are rarely mentioned in connection with air for ourselves, we can not see the great need of using up space on the question in connection with incubators, except perhaps in some cases wherein the lamp might burn the air before it enters the egg-chamber. M. M. JOHNSON.

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### What Ails the Chickens.

EDITOR KANSAS FARMER:—Will the editor, or some reader, tell what ails my chickens and give a remedy? Chickens roost in various places, in trees, etc. The first that died had cholera symptoms, but now the combs do not turn blue or purple, but are red and healthy looking, bowels loose. Disease sometimes "lets up" but returns. Sick about twenty-four hours. How disinfect when they roost in trees or on sheds?

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**In the Dairy.**

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

**Eleventh Report on the Cow-Test Experiment.**

D. H. OTIS.

Previous reports can be found in the KANSAS FARMER for April 10, May 15, June 26, July 17, September 18, October 16, November 27, December 11, and January 15. Last month's report is as follows:

dry up and fall in the months of July and August, and the dairyman finds his cows falling off in milk in spite of all his efforts to keep up their flow by supplementary feeding. The sorghum-plant will produce a large amount of green and succulent forage, and produce it during that part of the year when the pastures are in poorest condition. By its use, either as a sorghum crop or by pasturing direct, the milk flow may be maintained through the most trying parts of the year. Prof. T. L. Lyon, of the Nebraska Experiment Station, recommends very favorably the use of the sorghum through the months of July, August, and September. He would not begin to pasture it until it has fully obtained its height, or just before seed begins to form. By this method he says one acre will furnish feed for ten cows twelve days.

At the Kansas Experiment Station we have used sorghum pasture for several years and with very satisfactory results. Many farmers reporting on this subject have pastured for years with no harmful results.

No.	Name of Cow.	Selected by—	Fresh—		Yield.		Grain consumed.		Judges rank for profit
			Jan. 10, 1903	Jan. 10, 1903	Milk, lbs.	Butter, fat, lbs.	Corn, lbs.	Total.	
243	Cowslip	J. W. Bigger	797.5	35.88	698.0	21.35	73	146	3
236	Haster	E. C. Cunnigham	878.4	41.58	808.5	27.35	73	146	3
234	Rose of Cunnigham	J. W. Bigger	1241.7	53.86	1065	33.85	10.65	213	27
244	Clover Leaf	M. L. Bickson	1090.1	35.97	387.6	12.61	62	124	1
238	Rose of Leaf	A. H. Diehl	726.8	20.25	382.0	17.75	77.5	155	9
245	Molly	C. L. Johnson	824.0	25.85	543.3	22.24	108.5	248	6
241	Rose of Industry	S. A. Lewis	802.0	25.27	545.1	23.36	96	192	4
240	Raise Belle	G. C. Priest	55.04	2.04	305.8	7.15	36	96	4
246	Floss		687.3	35.39	305.8	27.36	36	192	4
242	May Queen		582.8	25.43	305.8	27.36	36	192	4

Roughness per head for the month: Alfalfa hay 280 lbs.; cow-pea hay 44 lbs.; oat hay 16 lbs.; millet hay 110 lbs.; cut cane 240 lbs.; Kafir fodder 55 lbs.; total 745 lbs.

No.	Name of cow.	March		April		May		June		July		August		September		Total	Roughness per head
		Milk, lbs.	Butter, fat, lbs.	Milk, lbs.	Butter, fat, lbs.	Milk, lbs.	Butter, fat, lbs.	Milk, lbs.	Butter, fat, lbs.	Milk, lbs.	Butter, fat, lbs.	Milk, lbs.	Butter, fat, lbs.	Milk, lbs.	Butter, fat, lbs.		
243	Cowslip	761.6	33.89	762.1	32	797.5	35.88	658.9	30.64	559.2	25.16	585.1	24.87	577.0	27.69	577.0	27.69
236	Haster	849.5	32.28	743.7	29	878.4	41.58	793.0	34.10	657.5	27.29	582.7	25.07	355.9	20.84	355.9	20.84
234	Rose of Cunnigham	1200.1	35.10	1090.1	35.97	1241.7	53.86	1055.5	36.41	826.6	30.58	913.0	32.57	820.5	38.56	820.5	38.56
244	Clover Leaf	733.1	21.63	642.9	20.25	726.8	20.25	593.9	21.97	401.9	13.66	478.0	16.49	459.4	18.79	459.4	18.79
238	Rose of Leaf	824.0	25.85	726.8	20.25	824.0	25.85	742.5	26.73	633.2	24.60	610.7	22.97	527.6	25.14	527.6	25.14
245	Molly	802.0	25.27	791.5	26.91	824.0	25.85	664.6	23.92	511.4	20.97	529.4	20.74	444.6	18.40	444.6	18.40
241	Rose of Belle	503.6	25.68	477.0	25.04	578.4	27.4	499.3	24.48	342.2	13.35	344.6	14.9	297.8	29.17	297.8	29.17
240	Raise Belle	503.6	25.68	477.0	25.04	578.4	27.4	499.3	24.48	342.2	13.35	344.6	14.9	297.8	29.17	297.8	29.17
246	Floss	630.3	30.88	582.8	25.43	687.3	35.39	613.0	31.84	532.0	26.53	541.1	23.82	459.9	31.73	459.9	31.73
242	May Queen	630.3	30.88	582.8	25.43	687.3	35.39	613.0	31.84	532.0	26.53	541.1	23.82	459.9	31.73	459.9	31.73

Cowslip dropped a bull calf January 10, and Rose of Cunnigham a bull calf on January 29, 1903. The freshening of the cows will add considerable interest to the test and it will bring the best cows very close together during February.

**Sorghum or Kafir for Summer Pasture.**

EDITOR KANSAS FARMER:—Will you please inform me through the columns of your valuable paper, if Kafir-corn or cane, or both sown together, would make a good and safe summer pasture for milch cows? If not, what can you recommend for the purpose? Is alfalfa a safe pasture for cows? Also, please give a formula for a balanced ration of dry feed for milch cows.  
 Dickinson County. SUBSCRIBER.

For the conditions in that section of the State from which our correspondent writes it would be hard to find better forage-plants for helping out the scant pastures of late summer or early fall than sorghum or Kafir-corn, if, in the almost invariable rule, the pastures which were furnishing an abundance of rich and succulent forage in the early summer months, begin to

On the other hand, many mysterious cases of very sudden and fatal poisonings have occurred. Many explanations have been advanced by different investigators, but the most recent and conclusive studies show that the deadly poison, prussic acid, sometimes occurs in the young plants at certain stages and conditions of their growth.

Dr. A. T. Peters, of the Nebraska Experiment Station, who has been studying this subject for several years, has shown that the poison is formed only in young sorghum of stunted growth; that it is confined to the second growth, nor does frost increase the quantity; that drought, by resisting development, tends to make it highly dangerous. With these facts before us it is plain we are taking some risks if we attempt to use sorghum or Kafir as a pasture crop.

E. V. Wilcox, of the Department of Agriculture, says that "A rational plan for preserving losses from this source would be to keep cattle away from young sorghum until a test is made to determine whether or not it happens to contain prussic acid. If sorghum is kept in good vigorous growth, the period during which it re-

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**THE U. S. WINS IN THE Greatest Cream Gathering State IN THE UNION**  
 At the Nebraska State Dairymen's Convention, Lincoln, January 22-23, 1903.  
**THE HIGHEST SCORE OF ALL**  
 was awarded the Adams Centre Creamery, Archer, Neb., on  
**BUTTER MADE FROM U. S. SEPARATOR CREAM.**  
 This is only one of the many victories for U. S. Separator Butter this season.  
 For Western trade we transfer our Separators from Chicago, Minneapolis and Omaha. Address all letters to Bellows Falls, Vt.  
 Write for circulars  
**Vermont Farm Machine Co., Bellows Falls, Vt.**

mains poisonous is comparatively short."

It might be well to make a test with one or a few animals only. One method at the college farm has been to let the sorghum get several feet high before attempting to pasture it. We give the cows an opportunity to fill up on dry feed in the yard before turning on the sorghum, and a man stays with them while they graze, allowing them only fifteen or twenty minutes the first day, gradually lengthening the time from day to day.

Our correspondent might use early sown oats for an early summer pasture, having patches sown at different times to furnish a succession of green feed. As soon as pastured down, the soil might be disked up and sorghum drilled in for the latter months. The writer regards alfalfa as far more dangerous than sorghum to cows. It had better be made into hay and utilized for winter feed.

Our correspondent fails to state what feeds he has of which to compound the balanced ration. Without that information we could not compound a ration which would be of any practical value to him.

GEO. C. WHEELER, Herdsman Kansas State Agricultural College.

Bring on Your Records.

Below we submit a record of a herd from western Kansas which is a splendid showing. If only one could duplicate this for a profitable herd, let us have your figures. If more men in Kansas would keep an account of their herds, as Mr. Bull does, we might have many such to show. Mr. Bull is to be commended for his excellent work in developing a paying dairy herd.

EDITOR DAIRY DEPARTMENT:—I have decided to let you know that Gray County is still a part of Kansas, and that the eastern part of the State will have to get a move on them or take a back seat. On Economy Ranch we have a grade Holstein cow that in December and January produced 3,272 pounds of milk, testing 3.05 per cent of fat, making a small fraction less than 100 pounds of butter-fat. Figuring the milk at the price at the cheese factory for December, it amounts to \$36.03 from the one cow for two months.

In December, we put the milk of seventeen cows in the cheese factory; they averaged thirty and one-third pounds of milk per day, per cow, making \$10.36 each from our cows for the month for milk and some of the cows strippers at that; the expense for feed was \$4.50 each.

We have one very profitable cow on the ranch. Within three years she has dropped eight head of calves. In March, 1900, she brought twins; in February, 1901, twins; in 1902, one, and on February 1, 1903, triplets. She is a high-grade Holstein.

What cow or what herd can make a better showing? JOHN BULL.

Kansas State Dairy Meeting.

The Kansas State Dairy Association, which is one of the oldest as well as one of the strongest farmers' associations in the State, will hold its sixteenth annual meeting in the Agricultural Hall at the Kansas State Agricultural College, Manhattan, Kans., March 3 to 6.

One of the principal features of the association this year will be the exercise in judging dairy live stock. Expert judges of dairy animals will each afternoon of the week, 2d to the 7th inclusive, lecture before the attendance at the State Dairy Association, the students of the college using live dairy animals as illustrations for the lectures. This part of the program is under the management of the dairy department of the Agricultural College and much good results from the exercise. Those in attendance at the meeting of the State Dairy Association are invited to enroll in the Agricultural College classes. This work is highly interesting and instructive.

The synopsis of the program reveals that a large number of the leading dairymen of the State and outside of the State will partake in the discussions and addresses. Reduced railroad rates of one and one-third fare on certificate plan will be given. Liberal prizes will be offered in the butter-makers' competition, the first prize being a handsome silver cup competed for each year and provided for by the Kansas creamerymen. Last year this cup was won by L. Larson, of the Continental Creamery Co., of Topeka, Kans., and the year preceding by Martin Schaad, of Blue Mound, Kans. The butter exhibit this year will be the first of a series of six competitive tests being arranged for by the department of

dairying of the Agricultural College. Kansas buttermakers have been called upon to compete in each of these tests. The college will score each tub of butter exhibited. The butter will then be placed in cold storage and scored at intervals of two to three weeks for some months later, in order to determine the keeping quality of this butter.

The butter exhibited at the association last year was bought by the department of dairying of the United States Department of Agriculture and put through such a test as will be carried on by the State college this year. The test revealed that Kansas butter is of high rank and has keeping quality excelled by no other butter.

The week's program is:

TUESDAY EVENING, MARCH 3. President's address, Geo. H. Littlefield, Parsons, Kans.

"Relative values of feeds," E. B. Cowgill, editor Kansas Farmer.

"Why do we not eat more cheese?" W. W. Grant, instructor in cheese-making, Kansas State Agricultural College.

WEDNESDAY MORNING, MARCH 4. "Relation of crops," Prof. A. C. Ten Eyck, agriculturist, Kansas State Agricultural College.

"Cow inquiries," Prof. D. H. Otis, professor animal husbandry, Kansas State Agricultural College.

"The dairy cow west of the Missouri river," J. Fred Schlappi, feeder of model dairy herd, Buffalo Exposition.

WEDNESDAY EVENING, MARCH 4. Entire programme by fourth-year students, Kansas State Agricultural College.

"Milk as a condensed farm product," R. E. Williams.

"Where the profit comes from," H. R. Webster.

"The Kansas dairy cow—what she is and what she ought to be," J. Nygard.

"Poultry as an adjunct to the dairy," Milo Hastings.

"Educational influences in dairying—their need," M. H. Matts.

THURSDAY MORNING, MARCH 5. "What I think of dairying and how I succeeded," five-minute talks by dairymen. J. F. Robinson, Beloit, Kans., will open discussion.

"Dairy catechism," A. L. Cottrell and L. S. Edwards.

"The correct reading of Babcock test," C. E. Gray, Topeka, Kans.

THURSDAY EVENING, MARCH 5. "The abuse of the hand separator," Prof. E. H. Wester, professor dairying, Kansas State Agricultural College.

Discussion of Kansas separator methods, results, etc.

FRIDAY MORNING, MARCH 6. "What the successful skimming station operator should know and do," C. C. Turner, Manhattan, Kans.

"How I secured a big patronage at my skimming station," E. C. Mewhirter, Brewster, Kans.

It is reasonably certain that Prof. P. G. Holden, of the Iowa Agricultural College, will occupy the entire Friday evening session discussing "Corn culture and breeding."

All railroads have granted a rate of one and one-third fare on certificate plan, from February 27 to and including March 9.

The Hand-Separator Dairymen.

Under the auspices of the Empire Cream Separator Co., there will be held a two-days dairy institute at Salina on March 2-3. The programme is as follows:

MONDAY, MARCH 2. "The advantages to the creamerymen of the hand-separator system in creamery operations," J. A. Walker, M. V. Bickel, Chas. Harding, N. E. Wescott and W. F. Stubbs.

"Selling separators—arguments to be used and difficulties to be overcome in canvassing," Eugene Edholm, W. W. Prassey, G. A. Carr, Nicholas Gessler and J. T. Hornaday.

MONDAY, 1:30 P. M. "Is it advisable to place machines on trial with a farmer? If so, under what conditions?" C. T. Wells, M. H. Potter, Geo. B. Crichton, J. H. Hill, Brown Gifford, W. E. Warner.

"Advertising—how traveling representatives and local agents can use circular matter and advertising generally to best advantage," M. Morrow, J. H. Wooley, I. D. Stevens and I. D. Graham.

"How to organize and work territory to best advantage," W. H. Conover, A. Arwedson, L. H. House, W. T. Coleman, W. C. Austry, and D. V. Hulbner.

MONDAY, 8 P. M. Address of welcome and reception. Illustrated lecture: "A trip around the world," J. E. Nissley, Topeka.

TUESDAY, MARCH 3. "Essential qualities in a good hand separator and what machine possesses more features which recommend it to the farmer than is possessed by any other cream separator on the market," K. J. Bell, Mr. Brock, P. T. Birchard, Bert Slater, L. G. Humbarger.

"Competing machines—their strong and weak points—methods employed in competition—Contests," Ed. Geyer, S. D. Ely, V. E. Pugh, J. O. Slater, W. H. Phipps.

TUESDAY, 2 P. M. "Economics of the hand-separator system, and its advantages to the farmer or milk-producer as compared with the skimming station and other systems," W. W. Marple, Chas. L. Wilson, Geo. W. Priest and Chas. Kittell.

"Best methods of farmers of caring for hand-separators and cream and of delivering cream to the shipping point or factory," W. W. Fliske, E. I. King, J. P. Jennings, J. N. Knickerbocker, and Carl Walker.

"A glimpse of the Empire factory and how things are done there," Henning G. Taube, Ernest E. Bell.

TUESDAY, 8 P. M. Entertainment—subjects to be supplied.

The man who falls in love with himself has no rivals. Nor has the man who thinks he can farm without a good farm paper. Did you notice our "Blocks of Two"?

A CAR-LOAD IN TEN DAYS.

We know of no better evidence of the Empire machine than the fact that we sold a car-load in ten days in January to people who had seen them work

200 NEW SHIPPERS IN 30 DAYS.

We know of no better answer as to what people think of our system than to tell you 200 new shippers commenced in January. All of these from localities where we had shippers and whose statements they had seen. Write us for any information, and commence doing business right.

Blue Valley Creamery Company, St. Joseph, Mo. Pioneers of the Farm Separator System.

Davis Cream Separator Co.

BEST IN THE WORLD EASIEST CLEANED MOST DURABLE CLOSEST SKIMMER

CATALOGUES

Davis Cream Separator Co., 54 to 64 N. CLINTON ST., - CHICAGO, ILL.

Save time and freight by ordering from

PIONEER IMPLEMENT CO., COUNCIL BLUFFS, IA.



The Empire Meet.

A creameryman's convention decidedly unique in character was held in McGregor, Iowa, on January 28, 29, 30, and 31, under the auspices of the Empire Cream Separator Company, of Bloomfield, N. J. Mr. E. E. Bell, the secretary and sales manager of the company, originated the idea, and presided at its several sessions. The object was to get together some of the leading creamerymen of Iowa and Wisconsin for a general discussion of the hand separator proposition, and its bearings upon the dairy interests of the day. There were about sixty-five persons present through the four days' session, and the new cream question in all its various phases was very thoroughly discussed.

Among the topics were the following: "Economics of the hand separator system and its influence upon the dairy industry."

"The advantages to the creameryman of the hand separator system in creamery operation."

"The advantages to the farmer or milk-producer in the hand separator system of creamery operation as compared with the whole milk system."

"The best methods for collecting cream to the central churning point in good condition."

"Methods for caring for hand-separator cream, and why it is easier to control the quality of product through having the farmers deliver cream than whole milk."

"Making extras from hand-separator cream. Why and how it can be done more easily than through operation upon the whole milk than skimming-station method."

"To what extent is it profitable for a creameryman to interest himself in the education of the farmer in methods of operation which benefit both, and how can this education be most successfully accomplished?"

"The advantages to the creameryman in being his own separator agent."

"Essential qualities of a good hand separator."

"Is it advisable to place machines on trial with the farmer? If so, under what circumstances, and upon what conditions?"

Other topics having more special bearing on the Empire machine were presented at some length.

One of the most interesting features of the entire meeting was Mr. Bell's explanation of the scientific principles of centrifugal separation, and the explanation of the Empire separator.

Of special interest were the addresses of Charles Harding, of the Hygeia Creamery Company, of Omaha, and W. W. Marple, of the Blue Valley Creamery Company, of St. Joseph, Mo. Both of these gentlemen, as is well known, are conducting large creameries on the hand-separator plan, and buying cream from farmers two and three hundred miles distant. Other creamerymen who are operating on a smaller scale were present, and added their testimony to the effect that the hand separator has undoubtedly come to stay—that it means a greater economy of production for the creamerymen, and greater profits for the milk-producer.

It was agreed that the creameryman is neglecting his best opportunities if he does not secure the agency for a good cream separator, and thoroughly educate his patrons in its use. The advantages to the farmer were clearly pointed out. In the first place, the hand separator reduces the labor of dairying nearly one-half, and is likewise a great saver of time. Moreover, it gives him fresh, warm skim-milk for feeding purposes, thus adding very materially to his profits. From the creamery side, it was maintained by those who had tried them, that they could undoubtedly pay patrons a higher price for butter-fat the year round under the hand separator system than they can under the whole-milk system—and if the patrons use a good separator, and

Butter Makers make better butter and more butter by using the KNEELAND OMEGA CREAM SEPARATOR. simple, cheap, efficient. Easily cleaned. Free from repairs. Guaranteed to suit or money back. Send for Free Book, "Good Butter and How to Make It." The Kneeland Crystal Creamery Co., 22 Concord St., Lansing, Mich.

give it proper care, the creameryman can produce a better quality of butter than he can under the whole-milk system. It was admitted that when the hand separator was first introduced such was not the case, simply because the hand separator was of so complicated a pattern and so intricate in its mechanism that it was impossible for the patron to keep it perfectly clean—but the modern simple separator, of few parts, is easily washed, and there is really no excuse for it not producing cream of the very highest quality—at least, the gentlemen present maintained that the Empire always does it without fail. It is hoped that the Empire Cream Separator Company will issue some of the excellent addresses made, in printed form, so that the dairymen and creamerymen in general may read them. Mr. E. E. Bell is to be congratulated upon the happy idea of this meeting.

Dana's White Metallic EAR LABELS stamped with any name or address with consecutive numbers. I supply forty recording associations and thousands of practical farmers, breeders and veterinarians. Sample free. Agents Wanted. C. H. DANA 62 Main St., West Lebanon, N. H.

Learn At Home Shorthand Use your spare moments and prepare for positions that pay \$60 to \$100 and over per month. Students placed in positions when competent. Send 2c stamp for trial lesson. The Central Institute, 32 Randolph St., Chicago

You have in your bins the best, cleanest, purest and heaviest SEED OATS to be found anywhere if you will only separate it from the rest. It will then be worth 7c. The CHATHAM FANNING MILL will separate the good from the bad. Separates oats and wheat, takes cockle out of wheat and plantain out of clover seed. M. CAMPBELL FANNING MILL CO., LTD., Catalog on application. 131 Wesson Ave., Detroit, Mich.

This Tubular Fence Post made of Galvanized Metal, will not rust, rot nor burn, and will last a lifetime. Cheap as the best wood post. Takes any kind of woven, barb or smooth wire fence. Made plain or ornamental. For farm, lawn, cemetery, etc. Circulars and prices on application. Bloomfield Mfg. Co. Box 112, Bloomfield, Ind.

WASHINGTON. I have lived in Kittitas County, Washington, continuously for 18 years. Send me a 10-cent coin and a 2-cent stamp, and I will tell you why I think it the best place in the United States for a dairy farm. James H. Endsley, Ellensburg, Wash.



Good-roads Legislation.

EDITOR KANSAS FARMER:—I believe that we need some change in the election law so that it will not disfranchise so many republicans.

We also need some change in the road laws so that the road tools can be used more than fifteen days during a year. What is the matter with doing away with nine-tenths of the road overseers, anyway? They are generally too busy to attend to the road work at the proper time. They are poorly paid and hated by their neighbors and loved only by the enemies of good roads.

GEO. W. SMITH.

Elk County.

Publisher's Paragraphs.

It is important to get all orders in for garden seeds early, as many kinds are going to be short; and in this connection would call attention to the Archias Seed Store, Sedalia, Mo. They make a speciality of "sure seeds" and won first prize at the Missouri State Fair to be the past two years.

On another page will be found the advertisement of the Stark Bros. Nurseries & Orchards Co., of Louisiana, Mo. This well-known company is said to propagate more grape-vines than any other in America.

The sale of the Silas Wilson Nurseries to the big Missouri firm of Stark Bros., has been confirmed and an advance payment made to bind the sale. The transfer will be made in April or May, the exact date depending upon the season.

Thousands of dollars are lost by the farmers of this country each year through the ravages of vermin and insect pests, and thousands more are expended by the National and State governments, as well as by individuals, in the unending war against them.

Stables of any large farm and it is cheap and effective. Write at once to the MacFarland Chemical Company, Topeka, Kans. for catalogue and prices.

"Thirty Years Selling Direct."

This is the headline with which our friends, the Elkhart Carriage and Harness Manufacturing Company, of Elkhart, Ind., announce their readiness for this season's campaign.

THE MARKETS.

South St. Joseph Live Stock Markets.

South St. Joseph, Mo., February 3, 1903. The bad storms of early last week checked the big flow of cattle marketward and resulted in lighter supplies and a gain of 10@20c in values.

While receipts of hogs continue to show quite favorably with other points, displaying about 4,000 in excess of Kansas City for last week, yet packers are unable to secure enough hogs.

Local prices for both sheep and lambs continue in the lead with other Missouri River markets, as Colorado lambs sold up \$7, or 35@50c higher than competitive points while sheep arrivals included Colorado yearlings at \$6.25, ewes at \$5.10, and Oklahoma-fed New Mexico yearlings and wethers mixed at \$5.95.

Lawrence Seed Markets.

Lawrence, Kans., February 16, 1903. We give you to-day's buying prices in our market. Outside prices are for best grade:

Table with 2 columns: Seed type and Price per 100 lbs. Includes Red clover, Alfalfa, Timothy, English blue-grass, Millet, Cane-seed, and Kafir-corn.

Special Want Column

"Wanted," "For Sale," "For Exchange," and small or 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.

CATTLE.

FOR SALE OR TRADE—For young cattle—one Percheron stallion; also for sale M B toms, headed by 6-m 95%; hens 94%; J. W. Hoisinger, Cottonwood Falls, Kans.

FOR SALE—Bulls at farmers' prices, cows and heifers cheap, to reduce herd. Twelve registered Angus bulls from 10 to 22 months old; also my herd bull—or would exchange. Cows and heifers bred, some with calves by side. These cattle are not overfed, but in good breeding condition. A. L. Wynkoop, Bendena, Kans.

REGISTERED Hereford bulls, cows, and heifers for sale. Come and see them. Will make prices right. H. B. Clark, Geneseo, Kans.

FOR SALE, CHEAP—A No. 1 Galloway bull, registered, coming 2 years old, in good flesh, is good enough for a hard header and cheap enough for a he range. Thos. Gribben, Hope, Kans.

BOTTOM OUT OF PRICES—Shorthorn bull and heifer calves, red with white marks, or roans, at \$50, net, the get of British Lion. D. P. Norton, Dunlap, Kans.

FOR SALE—10 head of registered Hereford bulls, 6 to 20 months old, good individuals, and in good condition. Visitors met at trains if notified. Farm 20 miles southwest of Wichita. A. Johnson, R. F. D. 2, Clearwater, Kans.

FOR SALE—A choice herd of registered Holsteins. Six heifers coming 3 years old, and one yearling heifer from first prize cow. A 2 year-old first prize bull from M. E. Moore's unbeaten 1901 show herd. E. W. Melville, Eudora, Kans.

FOR SALE—My herd bull, Baron Knight 124946, 4 years old, dark red, weight 2,200 pounds, got by Gallant Knight 124468; also three Scotch-topped bulls, 14 months old, and a few cows with calves by side. J. F. Engel, Alden, Kans.

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

FOR SALE—A few young Hereford bulls from the Evergreen Farm herd, headed by Leo 121322. Address Pearl I. Gill, Great Bend, Kans.

FOR SALE—Guernsey bulls from best registered stock. J. W. Perkins, 422 Altman Building, Kansas City, Mo.

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

HORSES AND MULES.

FOR SALE—Percheron and French Coach horses. S. C. B. Leghorns, Rhode Island Reds. Eggs 3 cents each. H. C. Staley, Rose Hill, Kans.

SHIRE STALLION FOR SALE—Newton Echo 4564, dark bay, black points, blocky, a good breeder and a sure foal-getter. Ben Lomond (17155), black, 6 years old, imported, sired by Dunsmore Bounding Willow (18018), dam Priory Flower, sired by the famous Lincolnshire Lad 2d (1865), who was also the sire of Harold (3708), conceded to be the best Shire in his day, in England. James Auld, Aida, Geary Co., Kans.

ON ACCOUNT of leaving the State, I offer for sale my high-grade Percheron stallion, coming 4 years old; dark bay, weighs now over 1,500 pounds; will at maturity weigh 1,800 pounds; has proved sure. G. W. Southwick, Riley, Kans.

FOR SALE—One-half to seven-eighths Percherons, studs and fillies, 1 to 4 years old, same weight, 1,000 pounds at 1 year old, dark colors, big bone; can furnish car-load. F. H. Foster, R. R. 6, Lyons, Kans.

FOR SALE—A high-grade black Percheron stallion, coming 3 years old this spring. This colt is large and smooth and has good bone, weighs nearly 1,600 pounds. R. E. Casad, Ochseltree, Kans.

FOR SALE OR TRADE—Full blood draft stallion (Percheron), 5 years old, grandson of Brilliant. Not registered. E. E. Edgerton, White City, Kans.

FOR SALE OR TRADE—One imported French Coach Stallion, dark brown, weighs 1,400 pounds, good breeder; will trade for jack or road stallion. Can show colts from horse. H. J. Stevens, Wellington, Kans.

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

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

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

FOR SALE OR TRADE—One of the largest and best Ottonian jacks in Kansas, black, with mealy points; 2 years old Oct. 30, 1901. Would prefer to turn him for registered English Red Polled cattle. Address L. Box 53, Sterling, Kans.

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

SWINE.

FOR SALE—Eleven good Poland-China boars. H. W. McAfee, Topeka, Kans.

FOR SALE—Large English Berkshires—boars and gilts, registered. A. M. Ross, Cedarvale, Kans.

FOR SALE—Berkshire boars, by son of imported Commander and King Blossom; also bred gilts. O. P. Updegraff, Topeka, Kans.

FARMS AND RANCHES.

J. M. YOAKEM & SONS have a number of cheap farms and pasture lands to sell on small payments, if sold before March 10. Possession at once. Write us at Homestead, Kans.

FOR SALE—A well improved stock and wheat farm of 460 acres, at \$7.50 per acre. Address J. D. Hayes, Colby, Kans.

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

320-ACRE FARM—with fair improvements, good orchard and water. Price \$4,500; in payments, \$900 cash, balance six per cent interest; possession any time. John G. Howard, Emporia, Kans.

FOR RENT OR SALE—Two sections of good pasture land, well watered and well fenced, six miles north of Ogallah, Frago County, Kans. Skimming station at Ogallah. For particulars address, W. J. Rogers, Clyde, Kans.

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

FOR SALE—320 acres fine pasture land in Wabunsee County, 2 miles from Halfax, good grass and never-falling water. H. B. Rice, Tecumseh, Kans.

Farms, Ranches, Wild, Mineral, Timber Lands. Sell, Trade. We control Millions of acres, Any State. Cheapest, Best. Describe wants. W. W. Gavitt & Co., Bankers & Brokers, Topeka, Kansas.

SEEDS AND PLANTS.

WANTED—500 bushels of Kafir-corn and 100 bred stock pigs. O. P. Updegraff, Topeka, Kans.

FOR SALE—250 bushels German millet seed, 150 bushels Siberian millet seed, first class seed. H. W. McAfee, Topeka, Kans.

FOR SALE—Whippoorwill cow peas, \$2.50 per bushel. E. I. Johnson, Winfield, Kans.

WANTED—To buy sweet corn. Send sample and say how much you have to offer. Harnden Seed Co., 505 Walnut St., Kansas City, Mo.

ANY ONE wishing cedar trees, please write Murray Weaver, Centerville, Linn Co., Kans.

MEXICAN JUNE CORN—The only corn that made a crop in Central Texas last year. Planted first week in July, made 45 bushels per acre. Other corn planted at same time made nothing. Each sack has from 1 to 3 large ears. With late summer or fall rains it never fails. Write for prices to farmers. Address F. O. Porter, Lott, Texas.

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

200,000 Johnson's Early and August Luther strawberry plants for sale. Write me what you want and see what I can do for you. E. M. Wheeler, Jefferson, Kans.

WANTED—Sweet corn wanted. Will pay a good price. Correspond with us. F. Barteldes & Co., Lawrence, Kans.

FOR SALE—300 bushels of sorghum seed. Brookover Bros., Eureka, Kans.

HONEY LOCUST—300,000 plants sorted in two sizes—\$3.50 and \$2.75 per 1,000, 12 to 21 inches. The only tree for middle and western Kansas. J. E. Mellecker, Spearville, Kans.

SEND FOR price list of straw berry, raspberry, and blackberry plants to Wm. Brown & Sons, Lawrence, Kans., R. F. D. 2.

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

POULTRY.

EGGS FOR HATCHING—From my "Superior Strain" of Barred Plymouth Rocks, noted for size and quality. Fourteen years careful exclusive breeding. 15 eggs \$1. 30 eggs \$1.50. E. J. Evans, Box 21, Fort Scott, Kans.

HIGH-CLASS POULTRY—Silver Wyandott's, White Wyandottes, and White Plymouth Rocks. Eggs for hatching, 13 for \$1. R. F. Meek, Hutchinson, Kans.

MISCELLANEOUS.

WANTED—A young male bull pup, registered. J. B. Goodwin, Wellington, Kans.

WANTED POSITION—An experienced man desires a situation as manager or superintendent of a stock farm. Good references. Address T. B. F., Care of Kansas Farmer Co., Topeka, Kans.

WANTED—Two good farm hands to work on farm, help take care of horses, cattle, and hogs, married men preferred; Have houses for them to live in. Address S. M. Knox, Humboldt, Kans. R. F. D. 1.

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

PATENTS.

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

The Stray List.

Week Ending February 12.

Wabunsee County—Simeon C. Smith, Clerk. MARE—Taken up by N. F. Rogge, in Newbury tp., January 10, 1903, one black mare, 5 years old, 15 hands high, branded M on left fore leg, weight 800 pounds; valued at \$15.

Ozage County—Chas. F. Hobbs, Clerk. STEER—Taken up by D. N. Jones, in Arvonia tp. (P. O. Lebo), December 20, 1902, one black 3-year-old steer, branded X on left hip; valued at \$20.

Wallace County—O. N. Thorene, Clerk. STEER—Taken up by J. W. Bonalag, (P. O. Sharon Springs), January 5, 1903, one black steer, branded with a T; valued at \$18.

Week Ending February 19.

Bourbon County—Lydia Barton, Clerk. STEER—Taken up by F. M. Wax, one-quarter mile south of Rockford, one large red yearling steer, with star in head and left hip higher than right.

Rush County—W. J. Hayes, Clerk. STEER—Taken up by S. A. Renner, 7 miles south and three miles east of Rush Center, December 1, 1902, one red steer with white spots, about 2 years old, weight about 900 pounds; valued at \$35.

Week Ending February 26.

Harvey County—John L. Caveny, Clerk. PONY—Taken up by J. J. Stewart, in Macon tp., February 5, 1903, one chestnut sorrel pony mare, about 7 years old; valued at \$20.

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 of charge by THE STATE BUREAU OF IMMIGRATION OF MARYLAND. Address Mr. H. Badenhop, Secretary, Merchants Nat'l Bank Bldg., Baltimore, Md.

Farms and Ranches.

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

S. G. CARTER

GENERAL AGENT REAL ESTATE AND LIVE STOCK Miami, Texas.

If you want to buy feeders or any kind of cattle or a farm or ranch in Texas, see or write to me. No trouble to answer questions. References: Emporia National Bank, Emporia, Kas.; First National Bank Amarillo, Texas; Lee & Co., Bankers, Miami, Texas

GRAPE VINES.

Concord Grape Vines, 1 yr. old.....\$1.00 per 100 Concord Grape Vines, 2 yr. old.....\$1.50 per 100 Lucretia Dewberry Plants.....75c per 100 Kansas Raspberry Plants.....75c per 100 Early Harvest Blackberry Plants.....75c per 100 Strawberry Plants.....25c per 100 Houghton or Downing Gooseberry.....\$2.00 per 100

J. C. BANTA, Topeka, Kas

Sunny Summit Farm Pure-Bred Poultry.

Silver Spangled Hamburgs, American Dominiques, B. C. and B. C. Brown Leghorns Barred and Buff Rocks, S. C. Black Minorcas, Mammoth Bronze Turkeys. Eggs \$1 per 15; turkeys \$2 per.

VIRA BAILEY, Kinsley, Kansas.

German-American Medical and Surgical Institute

Pittsburg, Kans. Lock Box 100. WE TREAT RHEUMATISM, FILIAS, CANCER DYSPEPSIA, ECZEMA, AND ALL CHRONIC DISEASES. Correspondence confidential. Write us about your case and learn what we can do for you. Address as above.

## Grange Department.

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

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

### NATIONAL GRANGE.

Master..... Aaron Jones, South Bend, Ind.  
Lecturer..... N. J. Bacheider, 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..... R. C. Post, Spring Hill  
Assistant Steward..... W. H. Coultis, Richland  
Chaplain..... Mrs. M. J. Ramage, Arkansas City  
Treasurer..... Wm. Henry, Olathe  
Secretary..... Geo. Black, Olathe  
Gate Keeper..... S. F. Kyner, 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

### Report of Legislative Committee.

To the Patrons of Husbandry of the United States:

Your committee have laid before the members of congress the various measures on which the National Grange has sought legislation, and briefly gave reasons why legislation should be enacted along the lines suggested in the interest of agriculture and the entire people of the country.

We have had interviews with the Department of Agriculture, Department of Justice, Interstate Commerce Commission, Postmaster-General, and with the President of the United States relative to the legislation sought by the National Grange. We were received by them with courtesy and distinguished consideration, all of whom recognize our order as representing the agricultural interests of the country in a non-partisan sense, seeking such legislation only as would be for the welfare of the country.

The President expressed himself as especially pleased to receive and talk with a committee of farmers who were not seeking official appointment or class legislation. He readily conceded agriculture to be of such vast importance to the welfare of the nation that any legislation that would promote agriculture would, through its influence, promote all other legitimate interests of the country, and would receive his earnest personal and official encouragement. He frankly said to your committee: "I shall do all in my power to promote a more prosperous agriculture and shall gladly cooperate with the agricultural department and with you in broadening the markets for agricultural products, and will especially see that the interests of agriculture receive equal consideration with other interests of the country."

Your committee was accorded careful hearings before the committees of the Senate and House when our measures were being considered; and in each and all cases the members expressed themselves as glad to hear from a committee representing all the agricultural interests and not seeking partisan or class advantage.

We are assured by the Postmaster-General and by members of Congress that more than \$12,000,000 will be appropriated at this session of congress for free rural mail delivery, and that the service is growing in popularity as its benefits are more and more apparent.

We congratulate the people and our order for the great benefit to agriculture and our country growing out of the work of our order in this matter.

The bills pending in congress for postal parcel and postal savings banks will not be reached at this session of congress.

Your committee has carefully examined house bill No. 3109, entitled An act "For preventing the adulteration, mis-branding, and imitation of foods, beverages, drugs, and condiments in the District of Columbia, and in the Territories, and for regulating interstate traffic therein, and for other purposes."

This bill, if enacted and enforced, will meet in a large measure what the order has sought in correcting the frauds practiced against producers of pure foods and medicines, and against consumers. The bill passed the house Dec. 19, 1902, went to the senate Dec. 20, 1902, read twice and referred to Committee of Manufactures, and favorably reported Jan. 8, 1903, and is now on Senate calendar ready to be taken therefrom at any time. This bill is of such vast interest to all the people of the country that we urge our members and others to wire and write their

senators urging them to urge the passage of this bill. The people should act promptly. This session expires March 4, 1903.

Your committee has carefully considered all the anti-trust bills now pending in Congress, and realize some merit in each of them, but not all we desire in any one of them. We realize the importance of some legislation in the interest of the plain people regulating trusts. We would recommend our members to wire and write their members in congress to support the substitute house bill No. 17, as reported Jan. 23, 1903. Said bill is entitled An act "Requiring corporations engaged in interstate commerce to make returns, prohibiting rebates and discriminations, the use of interstate commerce in attempts to destroy competition, and for other purposes." This bill is not as far reaching as the members of your committee would like, but we think is the best measure that we can hope to get through congress at this time. If it will prevent rebates or discriminations, and prevent manufacturers from trying to destroy competition, it will relieve the people greatly. We urge our people to wire and write their members urging the passage of amended house bill No. 17.

Yours fraternally,  
AARON JONES,  
E. B. NORRIS,  
N. J. BACHEIDER,  
Leg. Com. Nat. Grange.  
Washington, D. C.

### Mantey Grange, in Linn County.

Although but a year old, this grange has made a good record and is going to be heard from in the future. After their installation last month, oysters were served, and a general good time was had. One of the most successful granges in the State has an unwritten law that when programs get stale, or the grange seems dull, oysters are placed on the program for the next meeting, and every fellow is there. Yes, it pays to give an "oyster program" in every grange occasionally. To get the members out it is equal to a "possum social" in a colored church.

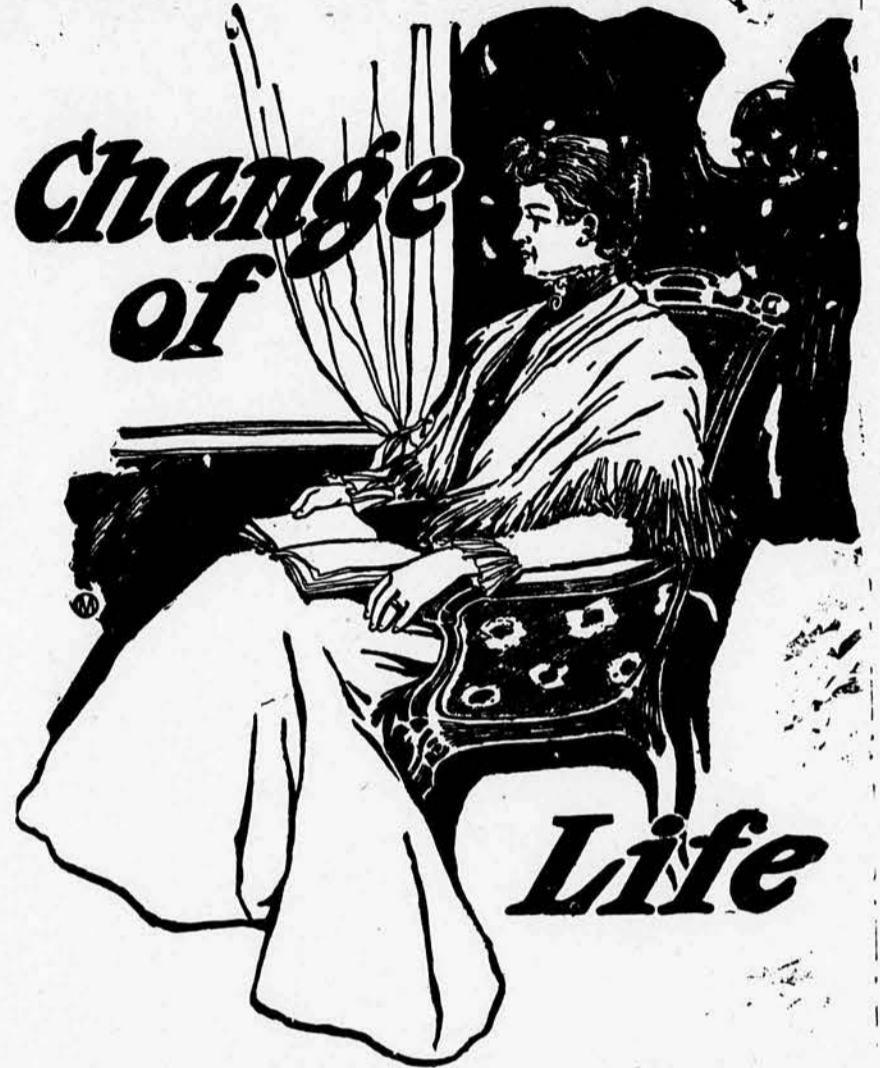
A good subject for discussion in the grange is insurance. Of course we have the best and safest insurance company in the State, but in some countries an insurance tax is collected with other taxes, and every man's property is insured. An inspector sees to it that all houses are built with good flues, and are kept in good repair; and the taxes levied are sufficient only to cover actual losses and running expenses. A State insurance company could be conducted more safely and economically than several mutual companies. Why would it not be a good thing?

Has your grange taken up the question of consolidation of the country schools? I was opposed to it one year ago, but recently my ideas have undergone a change: Right here at home we have three adjoining districts that have had an average attendance of not to exceed a dozen pupils; yet three teachers were employed for about seven months each to teach them. Insurance, also, is carried on three school-houses and fuel furnished and other necessities. A saving on every item could have been made by consolidation. The small districts have everything to gain and nothing to lose by consolidation. The best of teachers could be employed and all the country scholars would have the benefits of a graded school. In many cases an entire township could be placed in one district, and three or four teachers do the work; and enough saved to pay for hauling the distant pupils to and from school. Let the different granges of Kansas discuss this question; it is worthy the serious attention of all country people.

The farmers' institute held at Cadmus, Kans., the 2d was a success in every particular. Professors Mayo and Edith McIntyre, of Manhattan College, were present and delivered excellent addresses. This was the first institute ever held there but it will not be the last, as the farmers who were present discovered whatever good things are in institutes, are for those who are on the farms. Every one regretted that a two days' session had not been arranged for, and the next time it will be for two days if speakers can be found.

### Something to Work For.

Every grange should have some definite object in view. A grange that just meets and adjourns keeps from dying, perhaps, but is falling short of what its organizers intended. A grange that



## A Danger Period Through Which Every Woman Must Pass.

Owing to modern methods of living, not one woman in a thousand approaches this perfectly natural change without experiencing a train of very annoying and sometimes painful symptoms. At this period a woman indicates a tendency towards obesity or tumorous growths.

Those dreadful hot flashes, sending the blood surging to the heart until it seems ready to burst, and the faint feeling that follows, sometimes with chills, as if the heart were going to stop forever, are only a few of the symptoms of a dangerous nervous trouble. The nerves are crying out for assistance. The cry should be heeded in time. Lydia E. Pinkham's Vegetable Compound was prepared to meet the needs of woman's system at this trying period of her life, and all women who use it pass through this trying period with comfort and safety.

### TWO COLUMNS OF PROOF.

"DEAR MRS. PINKHAM:—I was sick and nothing seemed to do me any good until I began taking Mrs. Pinkham's medicine.

work. I know your medicine saved my life and I cannot praise it enough."  
Mrs. LIZZIE ROECAP,  
519 Smith St., Millville, N.J.

"It was Change of Life with me and falling of the womb. I had severe pains all through my body. I had a terrible cough and people thought I had consumption.

"DEAR MRS. PINKHAM:—I have worked hard all my life, and when the Change of Life came I flowed very badly for weeks at a time. I would stop for a day or two, then start again. I went to see a doctor and went through an examination, and spent two hundred dollars for medicine and doctor's bills, but I did not get the relief I expected.

"I took six bottles of Lydia E. Pinkham's Vegetable Compound and two of Blood Purifier, and two boxes Liver Pills, and I am now stouter than I have been for a long time. I can do all my work now, thanks to Lydia E. Pinkham's Vegetable Compound.

"At that time I saw Lydia E. Pinkham's Vegetable Compound advertised and began its use. I have found it to be just what I needed.

"If any one wishes to write me, to verify these statements, I will gladly answer their letters."  
MRS. CLARA CHEZEM, Jewett, Ill.

"I wish every woman suffering from female trouble would try it. I recommend it to all my friends."  
Mrs. WM. DAILY, Millbank, S.D.

"DEAR MRS. PINKHAM:—For seven years I had been suffering, was passing through the Change of Life, and my womb had fallen; menses were so profuse that at times I was obliged to lie on my back for six weeks at a time, could not raise my head from pillow. I had been treated by several physicians, but got no relief.

"DEAR MRS. PINKHAM:—I feel it a duty I owe you and every suffering woman in the land to tell of the wonderful results I have found in using Lydia E. Pinkham's Vegetable Compound and Liver Pills.

"I was advised by friends to try Lydia E. Pinkham's Vegetable Compound, which I did, and after taking it six weeks I was able to be around all the time and do my house-

"Passing through the Change of Life, some of the physicians consulted said nothing but an operation would save me. But your medicine alone cured me."—Mrs. MAGNOLIA DEAN,  
1441 First Avenue, Evansville, Ind.

**\$5000 FORFEIT** if we cannot forthwith produce the original letters and signatures of above testimonials, which will prove their absolute genuineness.  
Lydia E. Pinkham Medicine Co., Lynn, Mass.

has no hall of its own should begin at the start to create a fund for building. A few dollars loaned out and a few more added at the end of each year will soon amount to enough to build a hall. But a great many of our Kansas granges have halls of their own and I think all these should follow the example of Oak Grange No. 665 in Shawnee County which has built sheds for the teams. I hope the time will soon come when all our Kansas granges will follow this excellent example.

first. Bro. I. D. Hibner, secretary of the Grange Insurance Company, was installing officer. We are watching the papers closely for the date of the bear and wild turkey supper that Bro. Hibner's grange is to give in the near future, as we learn his last hunting trip in Arkansas was a successful one.

### MEN OF ENERGY

can secure profitable employment selling the famous Wasa-Tusa and Ner-Vena. Seelye's Extracts, Perfumery, and stock remedies. Security bond, Team and medicine wagon needed to take up the work. Long time contracts written to hustlers. If interested write to Dr. A. B. Seelye Medicine Co., Abilene, Kans.

**ROSS** CUTTERS AND SHREDDERS SAVE FEED, TIME & MONEY

**5 TON WAGON SCALES \$35.00** SENT ON TRIAL FREE CATALOGUE FREE



**\$45 WKLY.** GOVERNOR PUMP



**\$10.00 A Sweep Grinder for \$10.00**

**Handling Corn Fodder MADE EASY** By the Use of the **Eagle Claw Hand Fodder Fork**

**WELL DRILLING Machines** Over 70 sizes and styles for drilling either deep or shallow wells in any kind of soil or rock.

**WELL DRILLING MACHINERY.** PORTABLE and drill any depth, by steam or horse power.

**Are You Going to BUILD a MILL?** 30 years experience in building flour mills; all capacities from 25 bbls upward.

**STICKNEY JUNIOR 3 HP GASOLINE ENGINES** Safe, strong, serviceable, durable, expensiless, cheap in price.

**STEEL ROOFING** Strictly new, perfect, Semi-Hardened Steel Sheets, 2 feet wide, 6 feet long.

**FREE CELEBRATED CREAM SEPARATOR** Automatic; SAVES \$20 per cow each year.

**ASTHMA** TAKEN FROM THE SYSTEM. Nothing remains which can produce an attack.

**WIRE FENCE** at Wholesale. A 34-inch stock fence \$20 per rod.

**50000-FARMERS** Now use Duplex Machines, making Fence Horse-high, Bull-tongue, Pig and Chicken-tight at

**A MACHINE** to weave your own fence of Cellar, Steel Spring Wire, 32 inches high, at 25 Cts. per Rod.

**IT'S YOUR MOVE, NOW.** We've improved the quality of the wire, and simplified the construction of wire fences.

**5,000 Farmers** ordered fence direct from our factory this year. Many of them had done so before and had found that our

**ADVANCE FENCE** ADVANCE FENCE CO., 180 C St., Peoria, Ill.

**TICKLE THE EARTH** And it will laugh an abundant harvest... Every GOOD FARMER knows that THOROUGH PREPARATION of the soil is one of the most important factors in raising GOOD CROPS.

**CANCER CURED** With Soothing Balm Oils MR. M. YANT, OF CRETE, NEB. No need of cutting off a woman's breast or a man's cheek or nose in a vain attempt to cure cancer.

**ST JOSEPH PLOW CO., ST. JOSEPH, MO**

**ASTHMA** TAKEN FROM THE SYSTEM. Nothing remains which can produce an attack. You can eat, sleep and study as usual without slightest return of symptoms.

**LADIES** My Regulator never fails. Box FREE. DR. F. M. MAY, Box 31 Bloomington, Ill.

**OUR ADVANCE AGENT \$10.50** Just to make your acquaintance we offer a 16-in. Double Board, Steel Beam Plow, Hard as Glass all over for only \$10.50.



**A GOOD TIME** To think about your WINDMILL is before you buy it

**BUILT FOR HARD, HONEST, EVERYDAY WORK.** If your dealer is not posted, write us at Beatrice, or Omaha, Neb., Kansas City, Mo., Sioux Falls, S. D.



**Any Horseman** of experience knows that there is no Liniment so efficient and absorbent and quick as well in its action as **Sloan's Liniment**

**BLACKLEGOIDS** BEST PREVENTIVE OF BLACKLEG. Blacklegoids afford the latest and best method of vaccination against blackleg—simplest, safest, surest.



**BLACK-LEG-INE** Pasteur Blackleg Vaccine ready for use. EACH DOSE SEPARATE. Single Blacklegine (for common stock): 10 dose box, \$1.50; 20 dose box, \$2.50; 50 dose box, \$6.00.

**Pasteur Vaccine Co.,** CHICAGO - NEW YORK - FT. WORTH - SAN FRANCISCO.

**SECURITY STOCK FOOD** Stock owners who have used all kinds of stock food say Security gives BEST RESULTS, in SHORTEST TIME, AT LEAST COST.

Send 15 cts. to the **FARMER'S CALL** and the names and addresses of ten good farmers for a year's subscription. **QUINCY, ILLS.**

Breeders' Directory

DUROC-JERSEY SWINE.

D. TROTT ABILENE, KAS., famous Duroc-Jerseys, Poland-Chinas Registered Stock, DUROC-JERSEYS, contains breeders of the leading strains. N. B. SAWYER, CHERRYVALE, KANSAS.

BAILEY BROS. & CO., BEATTIE, KAS. For Sale, Famous Pedigreed Duroc-Jersey Swine. Registered Scotch Terrier dogs. Fine, young stock 6 months old. Nosegay Foxglove at stud. Correspondence solicited.

M. H. ALBERTY, - - Cherokee, Kansas. DUROC-JERSEYS. Choice bred gilts and serviceable males.

MAPLE AVENUE HERD J. U. HOWE, Wichita, Kansas. DUROC-JERSEYS. Farm 2 miles west of city on Maple Ave.

FAIRVIEW HERD DUROC-JERSEYS Watch for our Brood Sow Sale in February. J. B. DAVIS, FAIRVIEW, BROWN CO., KANSAS.

DUROC-JERSEYS. Duroc-Jerseys For Sale—Choice July, Aug., and Sept. pigs for sale, both sexes. Prices reasonable. Newton Bros., Whiting, Kans.

WALNUT HILL HERD DUROC-JERSEY SWINE. H. A. J. COPPINS, County Clerk, Eldorado, Kans. Stock of both sexes for sale.

Duroc-Jerseys For Sale 16 choice, vigorous males of spring farrow, and 25 head of extra good gilts, either bred or open; best of breeding. Come and see them, or write your wants. Prices reasonable. J. F. CHANDLER, Frankfort, Kas

DUCK CREEK HERD OF Duroc - Jersey Swine. 200 head to choose from. Write us your wants. Mitchell Bros., Buxton, Wilson Co., Kans.

Duroc-Jerseys. Grade Hereford Heifers. I have for sale a few open gilts and some fine young boars old enough for service. Also 90 head of choice high-grade Hereford heifers bred to registered Hereford bulls. Write me your wants. T. F. ZIEGLER, La Harpe, Kans.

Imhauser & Co.'s Long and Large Boned Duroc - Jersey Hogs. Have some choice fall pigs for sale. If you are looking for something good, write for prices, etc. Also cultivators of Ginseng—greatest money-making plant grown. J. E. IMHAUSER & CO., R. F. D. No. 4, SEDALIA, MO.

Standard Herd of Registered Duroc-Jersey Swine, Red Polled Cattle, and Angora Goats.

Swine herd headed by Big Joe 7363 and Ohio Chief. Cattle herd headed by Kansas 8308. Young stock for sale in season. PETER BLOCHER, Richland, Shawnee Co., Kans.

Golden Rod Herd Prize-winning Duroc-Jerseys VAN'S PERFECTION 11571, sweepstakes boar at all State Fairs of 1902, at head. Everything reserved for my great bred sow sale, February 19, 1903. GILBERT VAN PATTEN, Sutton, Neb.

POLAND-CHINA SWINE. Dietrich & Spaulding, Richmond, Kas. For Sale—Choice bred POLAND-CHINA GILTS safe in pig to our great herd boars. Also extra good fall pigs, boars, and gilts.

Kansas Herd of Poland-Chinas Has some extra fine gilts bred, also some fall boars. Will sell Son. I Know, he by Perfect I Know. Address— F. F. MAGUIRE, HUTCHINSON, KANS

Shady Lane Stock Farm HARRY E. LUNT, Proprietor, Burden, Cowley Co., Kans. A few choicely bred Poland-China Boars for sale, some choice open gilts and bred sows

SHADY BROOK STOOK 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.

THOROUGHbred Poland-China Hogs Special price for next 20 days on 10 bred gilts, to farrow in April and May; they weigh from 200 to 275 pounds, and most of them are bred to Black Perfection 27132, the best breeder I ever owned. Also 20 fall pigs, and 4 boars large enough for service. 100 head in hand. Write for anything you want in Poland-China hogs. JOHN BOLLIN, R. F. D. No. 5, LEAVENWORTH, KANSAS.

POLAND-CHINA SWINE.

FOR SALE Poland-China Hogs, Holstein-Friesian Cattle; either sex. Best strains represented. H. N. HOLD-ERMAN, Rural Route No. 2, Girard, Kansas.

Elmdale Herd of High-Class POLAND-CHINAS Shawnee Chief 28502 at head of herd. Some choice bred gilts only for sale, bred to a Perfection boar. W. L. REID, Prop., R. R. 1, North Topeka, Kas.

..Oak Grove Herd.. OF PURE-BRED Poland-Chinas For Sale—A few choice Boars and 50 Gilts, some bred for early spring farrow. Write, or come and see... GUS AARON, R. F. D. 5, Leavenworth, Kans

Providence Farm Poland-Chinas. Correct by Corrector, Perfection Chief 2d by Chief Perfection 2d, Jewell's Silver Chief, and Kron Prinz 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.

Meadowbrook Poland-Chinas Herd boars; American Royal and choice goods for sale. Bred sows and gilts. Also two boars by Corrector. Quality and prices are right. Call, or address J. R. Killough & Sons, OTTAWA - - - - KANSAS.

PEOAN HERD OF Poland-Chinas. Our boars of serviceable age are all sold, but we have a number of good ones of September and October farrow; also a fine lot of bred gilts, sired by Model Tecumseh 64133, J. L.'s Best 70655, and U. S. Wilkes 25821. J. N. WOODS & SON, R. F. D. No. 3, Ottawa, Kansas

CHOICEST STRAINS ...OF... POLAND-CHINA HOGS 400 head in herd. Fashionably bred sows and gilts bred to Broad Gauge Chief 25733, first prize winner International Show, 1900, and Simply O. K. 24290, first prize winner Missouri State Fair 1901. 200 winter and spring pigs in special offer. Bargains in registered Stallions and Mammoth Jacks. Also SHORTHORN and POLLED DURHAM CATTLE.

SNYDER BROS., WINFIELD, KANS CHESTER WHITE SWINE. D. L. Sutton, N. Topeka, Kans BREEDER OF Improved Chester Whites Stock For Sale. Farm is 2 miles northwest of Reform School.

The Crescent Herd O. I. C. WHITE The World's Best Swine Some choice spring boars ready for service, and Gilts bred, for sale. This stock is O. K. and can not be excelled for the money. Every hog guaranteed. Write for prices and Free Delivery proposition. JOHN W. EOAT & CO., CENTRAL CITY, NEBRASKA.

BERKSHIRE SWINE. Large English Berkshires Only a few bred gilts for sale, and limited number of fall pigs. Write soon, or come and see them. Manwaring Bros., R. R. 1, Lawrence, Kans. Telephone 222-2.

Knollwood Farm Herd BLUE BLOODED IG BONED ROAD BACKED ERKSHIRES... Young stock of all ages and both sexes, and bred sows for sale. E. W. MELVILLE, EUDORA, KANSAS.

EAST LYNN HERD OF LARGE ENGLISH BERKSHIRES Herd headed by Premier 4th 55577 assisted by Rutgers Judge 2d 61106. ONLY THE BEST. Imp. Lady Elma 4th 44683, the highest priced Berkshire ever sold in Kansas City, is in our herd and there are others like her. Inspection invited six days in the week. WILLIAMS & RHODES, Tampa, Marion Co., Kans.

BERKSHIRE SWINE.

Fall Berkshire Boars FOR SALE, QUICK, AT A REASONABLE PRICE

We have for sale a few choice yearlings, sired by Baron Duke 80th 50017, he by Baron Lee 4th 82446, and out of Duchess C 35th 53583. The dams of these boars are of the most desirable strains of the most desirable strains of the most desirable strains. Inspection or correspondence desired. Address ACHENCACH BROS., Washington, Kas. Breeders of Berkshire Swine, Double Standard Polled Durham Cattle, and W. P. Rock Chickens.

CATTLE. ENGLISH RED POLLED CATTLE—Pure-bred Young Stock For Sale. Your orders solicited. Address L. K. HASELTINE, DORCHESTER, GREEN CO., MO. Mention this paper when writing.

HEREFORDS FOR SALE.—Having sold the most of my herd, I have left for sale five fine yearling bulls. Write me for particulars. I will sell them cheap. S. COWBEE, R. R. 2, BURLINGAME, KANSAS.

MEADOW BROOK SHORTHORNS—Ten fine young bulls for sale—all red. Red Laird, by Laird of Linwood, at head of herd. F. C. KINGSLEY, Dover, Shawnee county, Kansas.

COBURN HERD OF RED POLLED CATTLE. Herd now numbers 115 head. Young bulls for sale. Geo. Greenmiller & Son, Centropolis, Franklin Co., Kans

D. P. NORTON'S SHORTHORNS. DUNLAP, MORRIS CO., KANS. Breeder of Pure-bred SHORTHORN CATTLE. Herd bull, Imported British Lion 183692. Young stock for sale.

North Elm Creek Herd Pure-Bred Shorthorns and Poland-Chinas Scotch-topped Young Mary females with 9th Knight of Elmdale 181507 at head. Call on, or write W. J. Smith, Oketo, Kas

Ruby Red Herefords. 15 FINE, YOUNG BULLS FOR SALE. Socrates 75813, a mammoth, dark red sire, smooth, low, of great frame, drooping horns, and descended from Lord Wilton, The Grove 3d, Horace, and Garfield. The dams are choice, and descend from Lord Wilton, Anxiety 3d, Earl of Shadeland 2d, Horace, The Grove 3d, Hesiod. A few grade bulls on hand. Also Poland-China swine. Have just purchased the entire show herd of POLAND-CHINA SWINE of the late F. J. Knappenburg, of Penola, Kansas. Call on, or write to R. J. SIMONSON, Mgr., CUNNINGHAM, KINGMAN CO., 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.

Corrector Herefords. A few choice yearling and 2-year-old heifers bred to one of Corrector's best sons for sale very reasonably; also some 4-year-old cows with calves at foot and rebred, and just four bulls under 1 year out of Lord Wilton and Grove 3d cows. Visitors welcome. Correspondence prompt. WM. TIBBLES, Haddam, Washington 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 G. C. BARTLETT, R. F. D. No. 5, Wellington, Kans.

...Hazford Herefords... Herd headed by the young show bull, Protocol 2d 91715, assisted by Major Beau Real 71621, a nephew of Wild Tom. Females largely the get of Bernadotte 2d 71834. A few choice young bulls for sale. Robt. H. Hazlett, Eldorado, Kansas

Sunflower Herd of... SCOTCH and SCOTCH-TOPPED Shorthorn Cattle, Poland-China Swine. Two Scotch bulls in service. Representative stock for sale. Address Andrew Fringle, Knorrville, Wabasha County, Kansas.

CATTLE.

POLLED DURHAM CATTLE. 20 head of both sexes. Bulls of serviceable age and young cows bred. Eligible to two records. Correspondence solicited. A. E. BURLEIGH, KNOX CITY, KNOX COUNTY, MO.

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

Weston Stamp Herd REGISTERED... HEREFORD CATTLE. Anxiety 4th females with Weston Stamp 9th at head WM. ACKER, VERMILLION, KANSAS.

ESKDALE HERD OF Aberdeen - Angus Cattle. YOUNG STOCK FOR SALE. JAMES FRATER, Fredonia, Wilson Co., Kans.

MAPLE LEAF HERD OF THOROUGHbred SHORTHORN CATTLE and POLAND-CHINA SWINE. Farm 1 1/2 miles south of Rock Island depot. JAMES A. WATKINS, Whiting, Kans.

Shorthorn Bulls For Sale From the Valley Grove Herd. An extra good lot, reds and roans, sired by Lord Mayor 112727 and Knight's Valentine 187068. T. F. BABST & SONS, AUBURN, KANS. (Telegraph Station, Valencia, Kansas.)

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THE ..N. MANROSE.. Shorthorns Rural Route 5, Ottawa, Kans. Giltspur's Knight 171591, at head of herd. Young bulls ready for service for sale.

"The Wayside" Herd of Registered HEREFORDS "ANXIETY WILTONS," with Printer 66684, March On 14th 108678, and Good Sign 140887, as Service Bulls, will be represented at South Omaha, January 22-23—get a Catalogue and Rum. Some excellent young things among this year's calves for sale—private treaty. Do you want SHOW HERDS that will WIN? Get one by Printer, and one by March On 14th, be on top, and see them take first and second place. W. W. GRAY, Fayette, Missouri.

A Hereford Snap. FOR SALE, QUICK, 20 yearling Hereford bulls and 50 bull and heifer calves. All out of dams of 15th cross by registered bulls. Practically pure-bred and a splendid lot in fine condition. Prices reasonable to early buyers. W. P. Goode, Lenexa, Kas Mention Kansas Farmer.

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SHORTHORNS

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Bulls, Cows, and Heifers, for sale at bargain prices. Can supply females in car-load lots if desired. Some show yard material.

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Sempstress Valentine 157771 and Mayor 129229 at head of herd. Larkin's Duluth and Kansas King at head of Saddle Horse Herd.

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One car load of bulls, 1 and 2 years old; one car load of heifers, 1 and 2 years old; a few cows with calves by side for sale.

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Forty head of Scotch-topped Young Marys, Floras, Harriets, Ianthas, and Britanias. Minister 2d 150171 at head of herd.

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L. F. Johnson & Son, R. R. 4, Gauda Springs, Kas COL. LAFF BURGER, Auctioneer.

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Imported Scottish Knight 136371 heads the herd. All sale animals reserved for the great South Omaha sale on March 13 1903. H. W. WEISS, Formerly of Sutherland, Iowa. Westphalia, Kas

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

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Black stallion, 15 1/2 hands, standard and registered, 11 years old, sound and sure, heavy bone and muscle, very fast, level headed, kind disposition, a beauty in harness or out. Sired by Sealskin Wilkes sire of Bessie Wilkes 2.24, Emolita 2.24—the greatest show mare in America, dam by Mambrino Patchen 58, second dam by C. M. Clay Jr 22, third dam by Brown's Bellfounder, son of Imported Bellfounder. Price \$500, if sold before April 1.

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On hand upward of 500 HEAD.

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80 head of registered ewes, bred to imported rams; 15 head of high-grade ewes, bred to a registered ram; 6 head of British imported ewes, bred by Hardin and Mlatryn; 45 head of 1-mos, rams, and ewes from imported sires; 40 head of 1- and 2-year-old ram; 4 head of yearling rams from imported sires and dams; also 3 head of ram lambs from same; 2 head of yearling ewes and 3 head of ewe lambs from imported sires and dams. These sheep must be sold before March 1. Write your wants at once and get bargain prices. The flock will go at a very low figure to a quick buyer. G. C. HAYWARD, R. F. D. No. 3, Tama, Iowa.

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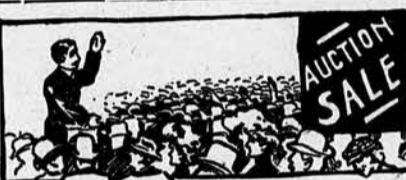


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Visitors and buyers throng his barn and say: Hello, Bill! I'm from Illinois; I'm Iky from Missouri; Iams has the good ones; he shows us horses better than he advertises. See that 1,900-lb. 2-year-old "a hummer," I bought him at \$1,300. Couldn't duplicate him in Illinois, Ohio, or Iowa at \$2,000. See that 2,150-lb. 3-year-old, "a ripper" Sav. Iky! see the sex black 2,300-lb. 4-year-olds showing to those Ohio men. They are the BEST I EVER SAW. Say, boys! look at this 2,100-lb. pair of beauties; they are worth going from Maine to California to see (better than the pictures). Say, Iky, you couldn't go wrong here. They are all "crackerjacks." If you open your mouth and your pocketbooks you will do business. Iams sell them. He has on hand imported and home-bred.

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2 to 6 years old, weight 1,600 to 2,500 lbs, all "approved and stamped by the European government. 95 per cent blacks. 50 per cent TON HORSES. Iams speaks French and German. buys direct from the breeders. PAYS NO INTERPRETERS. NO BUYERS, NO SALESMEN, HAS NO TWO TO TEN MEN AS PARTNERS TO SHARE PROFITS WITH; his buyers get middleman's profits. These six facts and his 21 years of successful business at St. Paul makes him the first class stallion at 50 cents on the dollar, and saves his buyers from \$5 to \$1,000 on each stallion. FARMERS: Form your own stock company, who pay slick salesmen \$2,500 to \$3,000 for third rate stallion when you can buy a better one of Iams at \$1,000 or \$1,300. First class stallion are NEVER PEDDLED to be sold. IT COSTS \$800 TO \$1,000 TO HAVE A COMPANY FORMED BY SALESMEN; Iams pays horses' freight and his buyers' fare. Write for finest horse catalogue in United States, showing 40 illustrations of his horses. It is an eye opener. References, St. Paul State bank, First State bank and Citizens' National bank. Barns in town.

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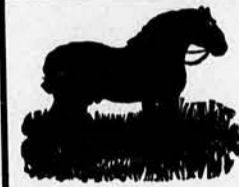
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My October importation now in my Shenandoah Barns. 100 REGISTERED PERCHERONS on the farm; 75 STALLIONS. Most of them ton horses. Come and see them.

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35 Registered, Balance High-grades, and all Red.

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Strictly choice show animals of Gilt Edged breeding. Established 20 years. For Sale—100 sows and gilts bred and not bred. 20 short yearlings and aged boars. Summer and fall pigs of all ages. Reduced prices before sale.

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We have recently bought out the great R. S. Cook Champion Herd and combined same with the Elm Beach Herd, making us in a position to furnish swine of the highest grade. Poland-Chinas of all ages and either sex for sale. Write or come and see us. Farm is four miles north on Arkansas Avenue.....



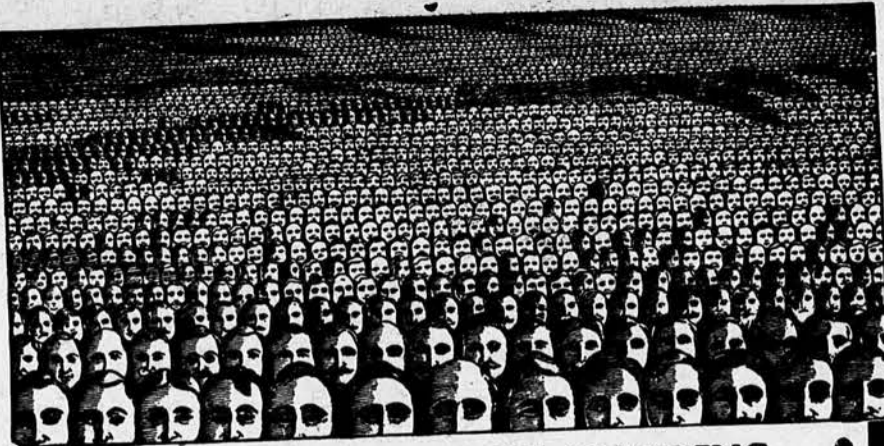


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## 40--Bred Poland-China Sows--40

Whiting, Kansas, March 10, 1903.

I will, on the above date, at the home farm, one and one-half miles northwest of Whiting, and five miles east of Netawaka, sell 40 Bred Poland-China Sows and 10 Unbred Gilts; all eligible to record. They are from first-class sires and bred to such sires as H's Perfection 26439, Perfection I Know 29830, Kansas Sunshine 29828. Write for Catalogue. Lunch on the ground. Sale to commence at 1 o'clock sharp.

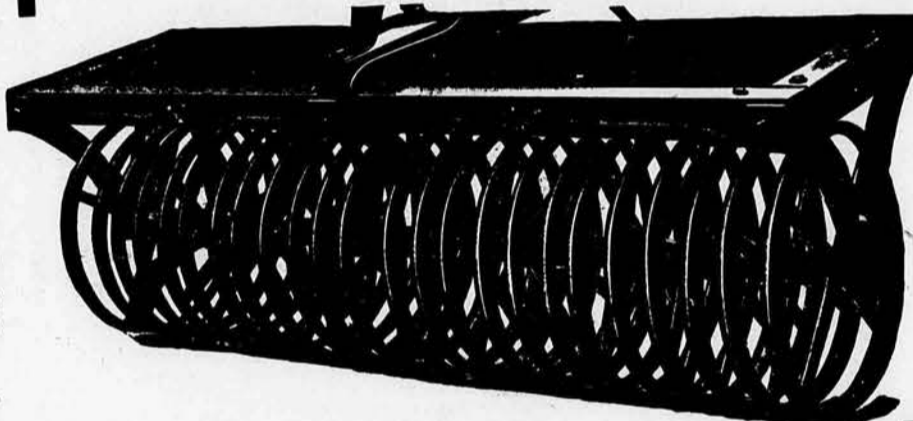
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has more humps than the "Campbell," and can pack both the surface and the sub-surface.



Patent applied for.

Nothing better for putting the ground in fine condition for seed-bed.

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525 Kansas Avenue.  
'Phone 53.

**J. C. Fulton, Depot Agent,**  
North Topeka.  
'Phone 34.



# DISPERSAL SALE

Thursday, March 5, 1903,  
COMMENCING AT 10 O'CLOCK,

At Topeka Fair Grounds,  
— UNDER COVER —

18 Months' Credit on most of the offering

...R. I. LEE...

The Most Successful Breeder in the West, sells all of his

## High - Bred Horses.

54 HEAD—16 STALLIONS all standard and registered. All bred in the purple of trotting blood for from four to six generations and represent 30 years successful selection. Most of the offerings bred same as Maxine (4), 2:08 1/2, fastest trotter for age in 1902. Horses exhibited day before the sale. Send for Catalogue to—

R. I. LEE, WANAMAKER, KANSAS.  
MR. L. H. BEAN, RAVENNA, OHIO, AUCTIONEER.

# GREAT DISPERSAL AUCTION SALE

At the Farnsworth farm, one mile east of Santa Fe Shops, Topeka, Kansas.

Saturday, Feb'y 28, 1903.

THE BURTON DAIRY HERD OF CATTLE, consisting of 80 head of choicely bred and well-selected high-grade Shorthorn, Red Polled, and Holstein cattle.

FIFTY REGISTERED DUROC-JERSEY HOGS.

The entire herd of brood sows and young gilts and males.

NINE HEAD OF KENTUCKY SADDLE HORSES,

including one registered stallion, and eight mares and fillies, a notable collection by G. G. Burrton.

Several hundred bushels of corn, farming implements, wagons, harness, phaeton, McCormick corn harvester, mower, rake, go-devil, seeder, disk roller, sulky plow, corn-planter, lister, drill, stirring plows, cultivators, harrow, corn-sheller, corn-crusher, feed-cutter, horse power, etc.

Sale to be without reserve, as this property must be sold regardless of sacrifice. Sale begins at 10 a. m. sharp. Free lunch.

TERMS OF SALE: All sums of \$10 and under, cash. All sums over \$10, a credit of twelve months will be given, without interest, if paid when due; if not paid when due, 10 per cent from date of sale, note with approved security. Ten per cent off for cash.

For Catalogues, address

E. S. BURTON, Mgr., Topeka, Kans.

Col. J. N. Harshberger, Auctioneer.

B. C. Fox.....

D. F. Logan.

## FOX & LOGAN.

WILL SELL AT OUR LIVERY STABLE IN DANVILLE, KENTUCKY.

On March the 4th, 1903,

35 head of Native-bred Kentucky Jacks, also a few well bred Saddle Stallions. Sale begins promptly at 10 o'clock a. m., rain or shine. Horses and mules always on hand and for sale. Call on, or address FOX & LOGAN, Lock Box 532. Catalogues mailed on application.

WE WILL SAVE YOU FROM \$10 TO \$45 on almost any kind or style of machine.

Sold direct from factory saving all salesmen's expenses and dealers or agents' exorbitant profits. Our machines have modern features not possessed by any others. Ball-bearing stands; finest attachments FREE. Latest design woodwork, the stylish swell front, polished oak. Guaranteed to be better than machines sold for twice the price. SHIPPED ON APPROVAL anywhere in U. S. Guaranteed 20 years.

ARLINGTON GEM \$25.00 Regular 5 drawer Drop Head including all attachments.	\$11.25
ARLINGTON QUEEN Flat Tension and Needle Bar. Take-up, same as New Home, Domestic and White.	\$14.75
ARLINGTON Highest arm made, Disc Tension. Independent take-up, same as Singer, Wheeler & Wilson and Standard.	\$17.75
\$25.00 Regular 5 Drawer Drop Head	\$17.75
\$25.00 Automatic Lift, Drop Cabinet	\$19.75
\$75.00 Beautiful 2 Door Desk Cabinet	\$28.75

Write for our Catalogue, 64 pages beautifully illustrated. Contains all points about buying Sewing Machines right—FREE. CASH BUYERS' UNION, Dept. B 64, CHICAGO.



**Towers' Surface Cultivator**  
Keeps the land the cleanest. Saves the roots of the growing plants. Preserves the moisture. Causes the ears to fill to their points. Increases yield ten per cent to twenty-five per cent. Do you want to do this in raising corn? Send for our Treatise on Corn Culture and prices to introduce where we have no agents.

THE J. D. TOWER & SONS CO., 14th St., MENDOTA, ILL.

200 Sold 1896  
1902 5,300 Sold

WHEN WRITING TO OUR ADVERTISERS MENTION KANSAS FARMER.

# 60 SCOTCH AND 60 SCOTCH-TOPPED 60

## SHORTHORNS

At South Omaha, Nebraska, March 13, 1903.

A choice draft of Imported and Home-Bred SHORTHORNS from one of the best-bred herds now in Kansas. This was a famous herd in Iowa and is now headed by Imp. Scottish Knight 136371. The best offering of both bred females and bulls of the season. For Catalogue, address

H. W. Weiss, Westphalia, Kans

Formerly of Sutherland, Iowa.

# Coupe Brothers' Nebraska Shorthorn Sale

TO BE HELD AT

Falls City, Neb.,  
Saturday, March 7, 1903.

FIFTY-FIVE HEAD OF GOOD SHORTHORN CATTLE will be sold by Coupe Bros., in Falls City, Neb., on above date. This will constitute the closing out of Coupe Bros.' herd at that place, the sale being made to close a partnership deal of many years' standing. This is a herd of Red Shorthorns, of good scale, good feeding quality, and prolific habits. It is one of Nebraska's old-time herds and has always been a money-maker for its proprietors. This herd is in first-class working condition now and full of promise. The great 2,200-pound Scotch bull, SCOTTISH MODEL by Courtier 2d, dam Lovely Maid by Baron Knight 114357, is included in sale with a nice lot of his get. For particulars, see field notes and Catalogue (which will be sent if asked for.) The Scottish Model heifers of proper age are bred to McClenan's Prince, a good young Scotch bull, also to be included in sale. About 10 young Bulls in sale. All Cows and Heifers of breeding age are bred—many of them well forward in calf. For sale Catalogue, address

COUPE BROS., Falls City, Neb.

Cols. F. M. Woods, C. H. Marion, M. W. Harding, Auctioneers.

# Great Stock Sale

Twenty-Second Semi-Annual STOCK SALE!

At Limestone Valley Farm,  
6 miles east of Sedalia and 2 miles north of Smithton, Pettis Co., Mo.,  
TUESDAY, MARCH 3, 1903.

Fifty-seven head of registered Jacks and Jennets, all black with white points 14 to 16 hands high. The best herd ever offered at public auction in Missouri. Six prize-winners at the Missouri State Fair, 1902. Three registered Saddle Stallions, one registered Percheron Stallion and thirty extra good 3- and 4-year-old Work Mules.

Write for Catalogue and come and bring your friends. We shall be pleased to meet you and take care of you free of charge. Respectfully,

L. M. MONSEES & SONS  
SMITHTON, MISSOURI.

Three Good Pettis County, Missouri, Farms For Sale Cheap.