

KANSAS FARMER

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KANSAS FARMER.
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All advertising intended for the current week should reach this office not later than Monday.
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Table of Contents

Alfalfa in Kansas, growing.....	250
Alfalfa, mulching.....	250
Animals, number and value of farm.....	266
Anti-trust bill amended.....	274
Baby, experience with.....	262
Barringer, Sylvester.....	265
Bees, early spring work with.....	261
Bentley, W. R.....	265
Berry, R. C.....	259
Blackleg.....	265
Boy who became famous, a.....	260
Carr, Cynthia A.....	262
Cattle breeding show, and showing breeding.....	254
Cattle-feeding at Missouri college.....	254
Children happy, making.....	263
Clark, C. C.....	265
Clubs, country.....	263
Content in the cow country (poem).....	260
Corn and grain for Kansas, better-bred.....	272
Corn improvement.....	249
Corn, the by-products of.....	252
Cow-peas and Kafir-corn, experience with.....	250
Dishwater a manufactured article.....	255
Eczema.....	265
Emmer-speltz-quail.....	250
Experience, valuable.....	250
Fables, past and present.....	260
Farmers' institute specialist, etc., a.....	264
Farm, here and there on the.....	250
Farm notes.....	268
Fistula.....	265
Fleming, J. A.....	265
Floriculture, home.....	267
Food products from diseased animals.....	264
Garget.....	265
Grimm, Andrew.....	265
Hand-separators, farm testing of.....	271
Haney, J. G.....	250
Hibner, Ole.....	258
Hildreth, C. E.....	259
Home on the prairie (poem).....	262
Huffer, Chas. N.....	259
Hungry spider, a (poem).....	261
Indigestion with inflammation.....	265
Jack, D. D. S.....	261
Kafir-corn, cane-seed and corn.....	249
Kansas, western.....	258
Lalage, F.....	263
Legislation, asks drastic.....	259
Lice.....	265
Live stock, breeding and handling.....	253
Macaroni, to cook.....	262
Macaroni wheat.....	250
Mange, probably.....	265
Many changes asked.....	259
Marconi, from Moose to.....	262
Marysville farmers' institute, the.....	249
Martin, E. N.....	264
Melon-louse, remedies for the.....	267
Mitchell, Ed. R.....	254
Morley, James F.....	259
Moulds, John T.....	250
Mutual improvement club, the.....	263
National capital, the present.....	260

National capitals, America's nine.....	260
Ochiltree grange.....	274
Ostertag, Adam.....	265
Plan of campaign.....	270
Poll evil.....	265
Poultry-breeding, the farmer and.....	269
Poultry chat.....	269
Poultry notes.....	270
Prairie-dog poison, State.....	259
Puzzle corner.....	261
Quail-emmer-speltz.....	250
Ray, Mrs. Albert.....	270
Road problem, the.....	259
Rock Valley grange.....	274
Ruf, J.....	250
Schwanke, W. E.....	265
"She".....	262
Shepherd, N. J.....	268-270
Shouse, Gomer E.....	263
Siberian millet.....	266
Simpson, Roy B.....	252
Smith, J. T.....	250
Speltz-emmer-quail.....	250
Sprays for the orchard, some.....	249
State fair, prospects for a.....	249
Stock-breeders' annual.....	274
Stockholders' meeting (grange).....	249
Stock-judging school, the.....	259
Telephones, more about.....	259
Telephone, the country.....	272
Ten Eyck, A. M.....	266
Thums, Chas. E.....	267
Tree-planting, encouraging.....	267
Trounder, Emma E.....	263
Uhl, F. E.....	272
Utley, W. H.....	255
Weed, L. A.....	259
West, the extreme.....	255
Winans, Chas.....	250
Wolf, Dr. O. W.....	253
Woods, Mark W.....	265
Ziller, John D.....	265

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 heavy precipitation which covered the State of Kansas during the last week of February and was especially heavy in the wheat belt, did immense good to growing crops. Live stock suffered considerable inconvenience but so far no heavy losses have been reported in this State.

As will be noticed elsewhere in this issue of the KANSAS FARMER, the Kansas Swine-Breeders' Association will hold a meeting at Manhattan next week during the swine-judging week at the Agricultural College. Breeders of pure-bred swine generally will find it greatly to their advantage to be present on this interesting occasion and do their full share in promoting the interest of pure-bred swine in the State.

Quite a number of readers of the KANSAS FARMER have sent stamps to this office to secure the last biennial report of the State Board of Agriculture. We have sent these to the department and the reports have doubtless been received. We suggest that others who may desire this report would send their requests and stamps direct to the secretary of the State Board of Agriculture, Topeka, Kans., and thereby avoid any delay.

The man who figures on the values of feeds is always surprised at the results in favor of alfalfa. But the most surprised man of all is the keeper of dairy cows when first he substitutes alfalfa for both hay and bran. Nearly as great is the surprise of the feeder when first he makes alfalfa a part of the ra-

tion for fattening hogs and steers. How can the farmer who raises no alfalfa expect to keep step with him who by growing alfalfa produces several extra dollars per acre and improves the fertility of his land? Alfalfa is a money-maker.

The Louisiana Purchase Exposition Company have selected Chas. F. Mills, of Springfield, Ill., the old secretary of the American Berkshire Association, secretary to the chief of the live-stock department, Hon. F. D. Coburn, of Kansas. Colonel Mills by reason of his long and active service in connection with National live-stock enterprises will make an exceedingly valuable man for this position. The KANSAS FARMER desires to extend congratulations to Colonel Mills for this merited appointment.

CORN IMPROVEMENT.

G. P. Holden, professor of agronomy at the Iowa Agricultural College, has been secured to deliver an illustrated lecture on "Corn Improvement" in the college chapel at Manhattan before the State Dairy Association on Friday evening, March 6.

This lecture with the illustrations will show what has been done with corn and represent clearly what remains yet to be done. It will be worth going many miles to hear; and when it is known that Professor Holden is the originator of the corn school, the corn-judging score-card, and the instructor who opened up the possibilities of corn research and encouraged Prof. Shamel to go after the possibilities he has proclaimed as existing in the corn-world, it is realized that the speaker of next Friday evening is the greatest of the pioneer corn specialists, who takes great pride in noting the successes Prof. Shamel, his greatest pupil, is making all along the line.

The lecture of Professor Holden should do Kansas a great deal of good.

THE STOCK-JUDGING SCHOOL.

The Kansas State Agricultural College is conducting a judging school for beef cattle this week. Between 300 and 400 students are being taught to judge and select a good beef animal. Mr. John Gosling, of Kansas City, has been secured as expert judge for the week. Mr. Gosling has made a life study of beef, having commenced his work as a local butcher and has gradually risen in his profession until he is recognized as one of the ablest judges of beef cattle in the United States.

The students are greatly interested in judging live stock. They have arranged for a student's judging contest the last of the week, in which members of the different classes will compete with each other as to which is the best judge of beef cattle.

Another interesting feature of the judging school is the preparation that is being made for a slaughter test. A very fat steer, an ordinary butcher's steer, and a canner (a very poor animal) are being judged alive this week. These animals are to be slaughtered the last week in March and their carcasses judged upon the block. This demonstration will enable the students to judge the frame of an animal from the canner, and of the distribution of fat and lean portions of the carcass from the very fat and moderately fat steers.

STOCK-BREEDERS' ANNUAL.

Pending the action of the Legislature on the State Fair bill and some other matters, the Kansas Improved Stock-Breeders' Association will not issue the Stock-Breeders' Annual for 1903 until after March 20, 1903, so that

Kansas breeders who have not enrolled may do so before March 20, 1903.

The Annual will contain a complete report of the thirteenth annual meeting, the best ever held, also the classified Kansas Breeders' Directory of about 1,000 breeders in over 90 counties in Kansas. A larger edition than usual will be gotten out this year, if the present Legislature provides a State appropriation for that purpose.

The membership now has the promise of one thousand by March 20, 1903. After that date it will be too late to get your name and class of stock in the classified Kansas Breeders' Directory.

Every stockman interested in pure-bred stock or improved methods of breeding and feeding is urged to become a member for 1903. You can become a member for 1903 for only one dollar. It is proposed to materially advance the initiatory fee for next year and the present time is the only opportunity to become identified with this great organization for the present nominal fee. The benefits received are worth many times the cost.

In sending in your dollar be sure to mention the class of stock you breed, the number you own, also what you have for sale or wish to buy this spring. Address H. A. Heath, secretary Kansas Improved Stock-Breeders' Association, Topeka, Kans.

PROSPECTS FOR A STATE FAIR.

There never was a session of the Legislature when there was a better working body than the members of the present Senate. They have shown unusual and commendable interest in a broad gauge and liberal policy, toward placing Kansas in the very front rank as a leading agricultural State.

The industrial interests have had special consideration and matters in which the farmers and stockmen of the State are pushing have had the hearty support of the Senate. The State fair measure was handled by Senator White of Jewell County, who succeeded in getting through a splendid State fair bill which appropriates \$50,000 for permanent improvements and also provides that the fair shall be held under the auspices of the State Board of Agriculture. This is a measure that has been earnestly demanded for the last ten years and the Senate has done its full duty in this matter. It is now up to the House to concur in this important measure, and if the Senate bill is defeated it will be because of political domination in the House.

The Drovers' Telegram of Kansas City says:

"It is now just ten years since the last regular State fair was held in Kansas, a period so long that the old buildings have rotted and been burned, so that new structures will be needed to take their place. It is certainly not to the credit of the Legislators of the Sunflower State that during the past decade they have permitted such a state of affairs to exist. Other States in the meantime have taken pride in appropriating \$50,000 to \$100,000 at a clip to support their State fairs, while Kansas, a State that stands first in wheat production and right near the top of the list of States in the output of grains and cattle, is content to jog along with no central exhibition of her agricultural greatness. It practically amounts to ten years wasted. It is not a case of urban pride, but State pride that should actuate each and every member of both houses of the Legislature and they should vote accordingly. The 1903 Legislature of the State of Kansas will be a failure unless it

(Continued on page 264.)

Agricultural Matters.

Experience with Cow-peas and Kafir-corn.

EDITOR KANSAS FARMER:—Last spring I mentioned it was my intention of making several experiments with cow-peas and Kafir-corn planted in various ways and combinations. It seems at least a few parties were interested in the outcome, and are asking for results. As it may be of general interest and not having time to answer personally a number of letters, I request you to kindly give results through the columns of the KANSAS FARMER, which are about as follows:

About May 15, I seeded a piece of land with two varieties, Whip-poor-will and Large White Black-eye cow-peas, drilling them in with a shoe-drill with press-wheels, and then harrowing or planking the ground perfectly smooth, so there was no trouble in cutting them with the mower. This was successfully done, and was raked in windrows with sulky-rake and cocked as soon as wilted. These were perfectly cured in the cocks, then stacked. We are now feeding them and they are perfectly sweet and bright, with exception of some spots that took water during some of our heavy storms. All animals, from calf to horse, eat them with a relish. My object in planting this piece so early was to secure two cuttings. The peas came up very quickly and evenly, and started growing rapidly. When they were three to four inches high we had a great deal of cold rain, and for several weeks they scarcely grew at all and never made to exceed one-half the crop they would had it been a hot and dry season. The land on which most of them were planted has gumbo subsoil, so surface was saturated most of the time. I made but one cutting though many of the roots started a second growth and matured a few peas. There was about one and one-fourth acres in this piece and about one and one-half to one and three-fourths bushels of seed used. Four good wagon-loads of hay and a small second crop of pasture were secured. After cutting my oats and sows plowed some **ONE HEADING** rye, I cow-peas on **SEVEN ACRES**, planting **ONE AND ONE-HALF** soy-beans and Kafir-corn.

One piece I first drilled with Kafir-corn, then followed the same rows drilling Whip-poor-will cow-peas, about one peck per acre. These we cultivated once and grew together. A good many pods matured about the time the Kafir-corn was dropping its bloom and forming heads, but no seed matured. Fearing frost we cut this with corn-binder, cutting pea-vines and all clean, and binding them in handy shape to handle. This crop was fed on grass in the pasture during the fall, and out of a wagon-load you could not pick up a handful of waste.

Peas and Kafir-corn were planted July 3, and cut about October 10. July 5, planted a lot of Whip-poor-will peas, but never picked any seed. They did not mature a fair seed-crop so pastured them. July 17, planted a lot of White Blackeyes. These matured good seed but were spoiled in the cock. Many were swollen and some rotten, so they were stacked when dry, and a bunch of cows ate them up clean, vines and all. May 31, planted early soy-beans. These made a good crop of fine, large beans.

The past season was very unfavorable for cow-peas. Many late-planted ones did not mature any seed at all. As I was short of help and crop of seed light, did not save any of this year's Whip-poor-will variety, and have no seed to spare. Peas are quoted at \$1.25 per bushel in North Carolina. I do not know of any northern-grown seed, but would not hesitate to use Virginia or North Carolina-grown seed for southern Kansas. Will tell about cow-peas and Kafir-corn seeded together with seeder for hay crop another time. Montgomery County. J. T. SMITH.

Macaroni Wheat.

EDITOR KANSAS FARMER:—Your correspondent enquires about Macaroni wheat. This wheat is claiming considerable deserved attention, especially in the section of somewhat difficult rainfall. It is generally conceded that an increased yield of from five to ten bushels per acre over other varieties may be expected. The more unfavorable the season, the greater seems to be the difference in favor of the macaroni. The term macaroni is applied to a class of wheats that are best adapted to the manufacture of macaroni. There are a number of varieties, as the term "macaroni" means no more than to say "bread wheats," as applied to those varieties used in making bread. There are varieties that

will doubtless be superior to others, but as yet the trials are not sufficient to indicate which are best.

There has been some discrimination against the macaroni wheats by millers, but this in a large measure is inconsistent. The macaroni wheats appear to be richer in gluten than the bread wheats, but the gluten does not have as great a tenacity—will not stretch as much. So in making bread, if the same amount of yeast is used, it stretches the gluten until it breaks, and the loaf "falls." This is a fact that appears to not be generally recognized by many bread-makers, that the rising may be destroyed by too much, as well as too little, yeast. Macaroni wheats being richer in gluten, make better feed than the bread wheats, and wheat as a feed for stock is becoming more and more used.

As to seeding the macaronies, they are now classed as spring wheats, but it is thought that some of them may soon be so developed as to admit of fall seeding. The spring seeding should undoubtedly be done just as soon as the ground can be worked. To help this along the land should be fall plowed and kept in good condition by harrowing. The amount sown per acre should vary somewhat with the location and kind of ground. It will perhaps be as safe a rule to follow as any to seed the same amount as of the other wheats. For middle western Kansas, one bushel per acre is recommended. As to method of seeding, the drill used for other small grains should be used. J. G. HANEY, Supt. Fort Hays Branch Experiment Station.

Here and There On the Farm.

EDITOR KANSAS FARMER:—Wheat on early worked land and in corn-stubble, plowed in the spring, is looking well.

Nothing quite so thrifty as the hog market. Take your hat off to a pig. I noticed a man selecting seed-corn the other day from a pile that had laid out all winter. However, I shall not offer him any advice; at least, not until corn is up. He got a stand last year, while I planted over.

Give the brood-sows plenty of exercise and fresh air. They will get the fresh air right (they will get the air at all right), some green stuff or slop, and as little corn as will keep them in good flesh.

At our nearest market corn brings 33 cents a bushel, at the hog market 50 cents a bushel.

Good work-horses are in strong demand for farm use and will be for some time; too many young animals are road bred.

In a recent issue, one D. Trott (Dame Trott, we suppose) takes some shots at dish-water as a hog-feed. We will agree it don't amount to much when raising hogs on a large scale, but what of the thousands who keep from one to five brood sows and their offsprings? House-slop then assumes importance. For hogs kept in pens, without pasture, on corn and water, dish-water, thickened with shorts, makes an ideal change. As proof of the value of dish-water and house-slop we humbly suggest that he allow his wife to raise one of his hogs, using slop as an extra feed. Who doubts the results?

Preparation of the summer fuel now commands attention on many farms; be sure and have plenty cut ready for the stove. Cutting dry wood is not a snap. CHAS. WINANS, Jefferson County.

Quail—Emmer—Speltz.

EDITOR KANSAS FARMER:—We should have a law protecting the quail; here, there are less than a half-dozen to one thousand acres of land. They are truly the farmer's friend, and destroy thousands of insects every day, and do harm to nothing.

As to the manner of electing United States senators, I am in favor of electing them by direct vote of the people; also, think the President should be so elected.

Will you please answer a few questions? What is speltz, and where can the seed be obtained? Also, what is emmer? What is the grain called "pearl millet"? Can you give me the name of a farmer who raises pencilaria, and what it is used for? Harvey County. JOHN T. MOULDS.

Spelt, or speltz, is intermediate between wheat and barley, but is usually regarded as a hard-grained wheat. Emmer is also a variety of wheat in which as in spelt, each grain is inclosed in a husk. The writer has not been able to find descriptions which would enable him to distinguish emmer from spelt. Prof. M. A. Carleton, cerealist of the

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U. S. Department of Agriculture, said a year ago that all of the so-called spelt he had examined in this country was emmer and not spelt. Seed can be obtained from almost any of the prominent seed-houses advertised in the KANSAS FARMER.

Pearl millet is a non-saccharine sorghum. It has given way to Kafir-corn in nearly all places where it has been tried in Kansas.

A good many farmers have tried pencilaria. It has been well liked by some, while others have declared it to be nothing but pearl millet and have written discouragingly of it. The KANSAS FARMER will be pleased to have reports of last year's experience with this plant.

Valuable Experience from a Subscriber of 20 Years' Standing.

EDITOR KANSAS FARMER:—How nice it is, this sear weather, to look out of the window, and know that your stock and feed are all in the dry, and out of the wind. But, O, the poor mail-carriers! They have a time to get around, and we all, especially land-owners, ought to take more pride in our public roads, even if we have to spend a couple of extra days. Let us not be afraid to do a little work for someone else and let us give more of our experiences for the benefit of others, in our farm operations, and when we have a good farm implement, that we know is good, recommend it. Such is the Strawbridge broadcast seeder. I have used one for nineteen years with very little repair. It will sow anything from timothy-seed to corn. I have sown all kinds of seeds in the hardest winds and never failed to get a good, even stand. But in order to be handy and light, it ought to be attached to a cart, which can be made for a few dollars.

In that way it is far ahead of any down-seeder and will do nearly double amount of work, which sometimes is quite an item.

Now if you permit, I will give you my experience with grass. I have been growing English blue-grass for over sixteen years, but intend to quit it. Our land has become so infested with the buckshorn weed that we can hardly grow any grass except alfalfa. Our land is not of the best and I believe English blue-grass is hard on land, and renders it tough and hard. If hard-pan is near the surface it is sure to bring it to the top. It makes good spring and fall pasture, but through the summer cattle don't care to eat it; and on our land it does not last more than from three to five years. It may do better on black soil. Two years ago I sowed sixty pounds of Salzer's billion-dollar grass-seed on well prepared land, and not a spear grew. I tried Pencilaria the two last years without any success. Tried bromus inermis two years, but attributed failure to other conditions. I want to try it again. Last spring some one in the KANSAS FARMER said it was "no good," and some one else replied, claiming it was even better than alfalfa. Would the party kindly tell us all about his experience with it, what amount per acre, and when to sow?

The agricultural department recommends it very highly. I am afraid that chinch bugs will destroy it. If so, it would be useless for us. I have had good success with alfalfa, in a limited way, and think it the easiest grass to get a good stand of. I have often sent off to various parts of the country for different varieties of seed-corn but find home-grown the best.

Siberian millet, on our upland, will not make half the hay the old German millet does. I have tried it several years.

Two years ago I got some Black Diamond oats from Iowa. It was a complete failure as was their Gold and Silvermine corn. I think our prairie soil not adapted to is. Last spring I sowed about four pounds of Victoria rape per acre in a sixteen-acre field of oats, after the oats were up some four inches. It and the oats made a fine growth. The rape came near growing over the top of the oats. I feared a while that the rape would smother the oats, but the oats made fifty bushels per acre. The rape got the center cut out too much and did not make the pasture I expected. But as last year was exceptionally wet, I believe in an average year it is all right.

I have sold my 245-acre farm and bought 100 acres in the same section, and, if the good Lord spares me, expect to do less and better farming after this. I will have to fight cockle-burrs a few years, but I think they are the easiest weeds to get rid of we have. I had scarcely a stalk of them on the old farm.

I got possession too late last fall to sow alfalfa, though I plowed fifteen acres for that purpose. I shall sow the



A Low Wagon at Half Price.

The cheapest, the easiest and the best way to get a low wagon is to buy a set of Electric Steel Wheels to fit your farm wagon. If you don't want to bother with changing the wheels buy a set to fit your old gear. If you have no old gear you can buy one for a song, as there are thousands of them lying around the country. A set of Electric Steel Wheels costs less than one-half the price of a low wagon. They are made to fit any wagon. They make a new wagon out of your old one with wheels that cannot rot or break. Made with straight or staggered spokes, wide or narrow tires. Save blacksmith bills, write for our Handy Farm Wagon Catalog. Tells about our full line of Electric implements. It is Free.

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patch to oats and after they are up plant cow-peas with a two-horse corn-planter, drill, and double-row them, at the rate of a bushel to three or four acres. I know my cow-peas have those noodles on their roots they speak of so much.

Now, Mr. Editor KANSAS FARMER, my article has gotten much longer than I expected, but if this finds room or is worth printing in your valuable paper, I may try again. J. RUFF, Neosho County.

Mulching Alfalfa.

EDITOR KANSAS FARMER:—Will it hurt young alfalfa—that sown last fall—to mulch with manure? Barton County. JOSEPH RASELY.

The young alfalfa will be benefited if the manure shall be evenly spread at the rate of six or eight loads to the acre. If a manure spreader be used it will distribute the manure just right. No other crop responds more satisfactorily to manure than does alfalfa.

Growing Alfalfa in Kansas.

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

(Continued from February 26.)

COMPOSITION OF ALFALFA.

The following table, compiled from Bulletin 103, issued by the chemical department of this station, shows the per cent of digestible matter found in various feeds. The percentage is calculated on the material in the condition it would be found when fed:

	Protein.	Carbohydrates.	Fat.
Alfalfa hay, cut ten per cent in bloom.....	13.24	39.26	0.89
Alfalfa hay, cut half in bloom.....	11.90	40.26	0.39
Alfalfa hay, cut in full bloom.....	10.43	43.17	0.69
Red clover hay.....	6.58	35.35	1.66
Timothy hay.....	2.89	43.72	1.43
Prairie hay.....	0.61	46.90	1.97
Corn fodder.....	1.98	33.16	0.57
Kafir-corn fodder.....	3.22	48.72	1.15
Wheat bran.....	12.01	41.23	2.87

The digestibility of alfalfa hay, prairie hay and Kafir-corn fodder was determined in feeding experiments made at this station by the chemical department.

This table shows that in protein, the most valuable part of our feeds, alfalfa hay cut when one-tenth in bloom is worth ten per cent more than bran. In other words, a ton of good Kansas alfalfa hay will supply as much of the material needed to make growth of lean meat, milk and blood as 2,200 pounds of wheat bran. The reader can easily make comparisons with other feeds. Kansas alfalfa can be raised,



READING TIME

is here again, with its long evenings.

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cut and cured and put in the feed racks on the average farm for two dollars per ton. The large yield has already been shown in this bulletin. A consideration of the yield, the composition and the cheapness of alfalfa should be a strong inducement to Kansas farmers to increase their acreage, and handle their seedings of alfalfa in such a way as to secure the largest yield and prolong the life of the plants.

GROWING FOR SEED.

The third cutting of the season of alfalfa ripens the seed more evenly than the earlier cuttings, and comes at a time favorable for handling. The third cutting weakens the vitality of the plant less than earlier cuttings, and allows for a sufficient time for a late fall growth to protect the plants through winter.

In seasons of drouth, the second cutting may be left to seed, if there is danger that there will not be enough moisture to mature the third cutting. Under no conditions should the first cutting of alfalfa be allowed to seed, if it is desired to maintain a stand of alfalfa on the land.

The alfalfa should be cut when the greater proportion of the seeds are hard, but not sufficiently ripe to shell. The cut alfalfa should be cured like the hay, with as little handling as possible, and then stacked. Many of our correspondents have an impression that alfalfa for seed should be rotted after being cut. The reverse is exactly what is needed. The alfalfa should be well cured and thoroughly dry when put in the stock, or there is damage from heating, and stack-heating seriously injures the vitality of the seed. The straw left after the seed has been threshed from the alfalfa is a fairly good rough feed, although not nearly equal to alfalfa cut at the proper time for hay.

Prof. S. J. Hunter, of the Kansas University, Lawrence, found that alfalfa pods taken where the blossoms had been fertilized by bees had an average of 5.58 seeds in a pod; the seeds were plump, pods numerous in a cluster, and had several spirals. Alfalfa pods taken where the alfalfa could not be fertilized by bees had an average of 3.35 seeds in a pod; seeds in at least one-third of the pods were small and shriveled; the pods were few in a cluster, and were short, with but few spirals.

The per cent of increase from the work of the bees was 66%.

CAUSES FOR FAILURE.

The failures in alfalfa-growing in eastern Kansas have been chiefly where methods suitable for western Kansas have been adopted, and successes have followed where entirely different methods have been used. In eastern Kansas, owing to many years' cultivation and a good rainfall, the land is weedy. The usual experience is as follows: Ground thoroughly prepared in the spring, seed immediately put in, a good stand, and rapid early growth; in September, a field with some alfalfa and a perfect stand of crab-grass or foxtail; next spring, no alfalfa, or only half a stand. This experience is usually repeated two or three times, and alfalfa, not paying, is dropped.

As a rule, we have found that suc-

cessful alfalfa-growers in eastern Kansas have started to prepare the ground a year before sowing the seed. They plant the land intended for alfalfa in corn or some cultivated crop. They cultivate thoroughly and keep the land free from weeds. When the land has been made clean and put in good tilth, the successful alfalfa-grower in eastern Kansas has put on it a crop in the spring that he could get off early, and has then thoroughly prepared the land and seeded it in the early fall.

Another common cause of failure with alfalfa in eastern Kansas is late cutting. The successful clover-grower usually destroys his first seedings of alfalfa by late cutting.

Poorly prepared soil, loose soil at the time of seeding, seeding with a nurse crop, early and excessive pasturing and allowing the weeds to get ahead of new seeding are other causes of failure.

The writer attended six farmers' institutes in one county in southeastern Kansas in 1899. He found no alfalfa growing in the county, and strongly urged the farmers to raise it. They were almost unanimous in declaring it could not be grown in their section of the State, although very few trials had been made. In 1901 the writer again attended a farmers' institute in the same county, and found that the farmers insisted as strongly as ever that alfalfa could not be grown in their county. After a large number had expressed themselves very emphatically, stating that they knew and had proved that alfalfa could not be grown in their section, Mr. M. O'Brien, of Liberty, stepped forward and said that he had been induced to make a trial of alfalfa as a result of the writer's talk in 1899, and in 1901, without irrigation, he had made five cuttings of alfalfa, the season being the most unfavorable in many years. The five cuttings aggregated fourteen feet and two inches in length, and the yield averaged seven and three-fourths tons per acre. The yield of the cuttings was as follows: First, May 11, two and one-half tons; second, June 24, two tons; third, July 21, one ton; fourth, August 27, one and a half tons; fifth, October 19, three-fourths ton. A photograph of the five cuttings is given, through the courtesy of Secretary Coburn, of the Kansas State Board of Agriculture. Mr. O'Brien's experience can be duplicated on almost every farm in eastern Kansas.

The failures to grow alfalfa in western Kansas have come largely from two causes: Lack of moisture and proper condition of seed-bed at time of seed, and depredations of animal enemies, particularly grasshoppers, gophers, and prairie-dogs. Common sense and patience are necessary to secure the right condition of seed-bed. Alfalfa should not be seeded until this has been secured. We have seen several cases where good yields of alfalfa have been secured on high upland in western Kansas. A slight depression on the high prairie was selected and carefully prepared. Then furrows were run in various directions through the adjoining buffalo-grass sod to bring the surplus rainfall to this and. In one case it required two years in which to secure enough moisture to make a perfect seed-bed. When this was secured, alfalfa was seeded, it was

protected from grasshoppers, and good yields were the result. Alfalfa is easily raised on the bottom lands and in the draws in every county in western Kansas, and there are few quarter-sections of upland but what have some low spot on which alfalfa can be profitably grown.

Alfalfa is adapted to a wide range of soils and climates. Secretary F. D. Coburn, in his book, "Alfalfa," shows that it is a profitable crop in at least twenty-one States and Territories; that it grows under the widely different conditions of California and Delaware, Washington and New Jersey, Idaho and Louisiana, Montana and Georgia; that in New Jersey the annual yield is equal to six tons of bran, in Montana it is found thriving and yielding well sixteen years after seeding, and in Louisiana it yields six cuttings a year. Is it not, then, foolish for any Kansas farmer to think that alfalfa will not thrive on his farm?

FEEDING VALUE.

The feeding value of alfalfa can be only barely mentioned here, as a separate bulletin is required to properly treat the subject. On the Kansas Agricultural College farm, during the winter of 1901-'02, we were obliged to feed our young stock alfalfa hay only, as no other roughage could be obtained at a reasonable cost. Our 2- and 3-year-old pure-bred heifers were fed alfalfa hay only, without any grain whatever, from September 2, 1901, to April 4, 1902—214 days—and made an average daily gain of one and two-tenths pounds per head. The largest gains and the best condition of the heifers was secured when twenty-three pounds of hay per head were fed daily. This shows that alfalfa hay furnished a maintenance ration through the winter months, and, in addition, a gain of 104 pounds for each ton fed. These cattle ran loose in a lot fenced with wire, and had a board shed open on the south for shelter. The heifers at the close of feeding were in such condition of flesh and hair that visiting Eastern feeders were sure that oil-meal had been fed.

At this station, pigs were pastured through the summer on alfalfa with a light feeding of corn. After deducting the probable gain from the corn, the gain per acre from the alfalfa pasture was 776 pounds of pork. One lot of fattening hogs were fed all the grain they would eat; another lot all the grain and dry alfalfa they would eat. The lot having the hay made a gain of 868 pounds of pork per ton of alfalfa hay. Alfalfa should form part of the daily ration of every growing pig and of all stock hogs. Hundreds of brood sows were carried through the past winter on alfalfa hay, without grain, and had large litters. It pays, through, to feed some grain.

With scrub cows fed alfalfa hay and Kafir-corn grain, at ordinary prices for feed, butter-fat was produced at a cost for feed of 7 cents per pound. On the college farm, young cattle are wintered on alfalfa hay and corn fodder, Kafir-corn fodder, and sorghum fodder, and make through the winter a good growth without grain.

A dairyman near Manhattan cut alfalfa and fed it green twice daily to his cows. Ten cows were fed all they would eat, and gave good yields of milk

through the summer without other feed. They consumed the alfalfa that grew on four square rods less than two acres.

A stockman in Rice County, Kansas, made a gain of five pounds per day per head on steers for forty-seven days with alfalfa hay and corn. In ordinary feeding, 1,000 pounds of grain are required to put 100 pounds of gain on a fattening steer. With alfalfa hay and corn-meal, at this station, fattening steers made 100 pounds of gain for each 718 pounds of grain.

Alfalfa makes good pasturage for horses. Horsemen report a gain of six pounds a day per head on horses pastured on alfalfa and given a light ration of corn or Kafir-corn. Pure-bred Percheron mares were recently inspected by the writer that had been fed alfalfa hay in winter and given alfalfa pasture in summer for twelve years. They were in almost show condition, and had been and were regular breeders.

Alfalfa hay is one of the best feeds for sheep that is grown, and both green and dry alfalfa are valuable feeds for poultry. Alfalfa leaves are especially valuable to color the yolk of the egg in winter.

On account of its effect on the skin and hair, alfalfa is one of the best feeds for cattle being fitted for the show-ring.

CLOSING SUGGESTION.

This bulletin completes the work of the writer for the Kansas Experiment Station, and he leaves to take up work in another State. The writer has lived twenty-one years in Kansas, and during this time has made a careful study of crop-production and of stock-feeding under all conditions of soil and climate and changes in seasons. As a result of this study, he would urge on every farmer in the State to raise more alfalfa. Alfalfa sold or fed will return a greater net cash income per acre, year by year, than any other field crop. Land seeded to alfalfa will rent for more than for any other purpose. Large land-owners can secure a greater cash income from their investments by seeding their land to alfalfa before leasing it than in any other way, and the land will constantly increase in fertility and improve in condition so long as the alfalfa is allowed to remain, while, with ordinary systems of cropping, rented land tends to constantly depreciate in fertility, condition, and value.

The Kansas farmer needs to raise more alfalfa for his land's sake. Alfalfa gives him heavy yields secured from soil many feet below that reached by other crops, and leaves the surface-soil richer, in better tilth, and ready to yield much more abundantly when planted to other crops.

Alfalfa is an absolute necessity in Kansas for the cheapest production of beef, pork, mutton, and milk, and for securing the cheapest rapid growth of colts, young cattle, sheep, and pigs. It can profitably form the greater part of the feed of mature horses, cattle, sheep, and swine that are kept for breeding purposes, and is a cheap and good feed for poultry. It supplies the food elements lacking in most of our other field plants, and, when fed with them, makes a balanced ration.

A thorough effort should be made

by every Kansas farmer to grow it if he does not already have it on his farm. Alfalfa is of such great value as a feed, and its yield is so high, and it yields so well for so long a period after a good stand is secured, that it will pay the Kansas farmer who is without it to carefully study every requirement of the plant, and then attempt to secure these conditions, and seed largely. If the first attempt fails, try again and again, if necessary, and final success will well repay for all expenditure. To the Kansas farmer who already has alfalfa, we would say, RAISE MORE.

The By-products of Corn.

READ BEFORE IMPROVED STOCK-BREEDERS' ASSOCIATION, JAN. 12-14, BY ROY B. SIMPSON, CHICAGO.

By way of introduction I wish to assume the role of inquisitor. How many farmers present buy their seed corn every year? How many of you produce your own seed? The State of Kansas has made wonderful strides in agricultural progress during the last decade—the whole world knows about it. This means that you have the nerve to reduce your theories to a basis of practicality; it means also, that you



ROY B. SIMPSON, CHICAGO.

are broad-gauged and aggressive to the extent that if some other stockman or seedsman in another State produces something better than you have, you will buy a part of it and eventually beat him at his own game. This being true, suppose you should read in the columns of your favorite agricultural daily or weekly paper an advertisement something like this:

"THE WONDERS OF AGRICULTURE—ZEA MAYS.

"This marvelous plant, the latest scientific discovery, produces enormous yields of grain and forage. It yields rubber for boots and mackintoshes and elasticity for stiff necks. From it comes the finest quality for mixing house paints and red with which to paint the town; it yields gums, sugars, starches and a syrup which is the best spread for your daily bread; and for your stock just what you need, the most digestible concentrated feed. This plant can be used in the manufacture of nearly one hundred articles known to science and the housewife. A limited quantity of seed for sale at one dollar per pound. One hundred thousand dollars deposited with the Aladdin National Bank will be forfeited if we fail to make good any of the above claims. Address Corn and Company, New York City."

My friends, I'll venture the statement that an advertisement of this kind would make the advertiser a millionaire within a year. Thousands of farmers would send their dollars and in return get exactly the article advertised—a package of "zea mays," better known as the greatest and most valuable of all cereals, King Corn.

The farmers of Kansas and other corn-belt States know the value of this grain; they know when to plant and when to cultivate. They know that corn may be improved to a marked degree by a process of breeding. For example, there is a large percentage of barren stalks in a field—the progressive farmer knows that the pollen from these barren stalks means a greater barrenness next year if the seed from this field is used for planting, therefore he regards the tassels on these barren stalks as a detriment to further improvement and removes them. At harvest time the most perfect ears are selected for next year's planting and at the proper time the seed is carefully tested to determine its fertility. All this is familiar to the modern farmer;

the process of breeding corn is very simple, yet it is one of the most important schemes yet evolved to bring about a better system of intensified farming.

This is a great pleasure to me—to be able to tell you of the importance of corn from the manufacturer's viewpoint. From the standpoint of the average farmer corn is most valuable for making corn-bread, batter-cakes, beef, pork, and whiskey. I thought so, too, years ago, when a chunk of corn-pone, a slice of bacon and a big onion served as a mid-day lunch in the field during harvest time. A brief period in the manufacturing business however has given me an inkling of the many uses to which this plant is adapted. In manufactures, corn was first used by the distillers, and next in the manufacture of starch. Science evolved other products in rapid succession. In order that you may understand something of the methods employed it will be necessary for me to take you for a short trip through one of the big factories of the Glucose Sugar Refining company, whom I have the honor to represent.

PROCESS OF DISINTEGRATING CORN.

Corn is composed of four distinct parts—the hull, known in commerce as bran, the hard, flinty portion known as gluten, the starch, and the germ. When received at the factory the grain is passed through a cleaning machine which thoroughly removes the dust, pieces of cob and other worthless matter. It is then immersed in large tanks called steepers. The capacity of these tanks is about 1,000 bushels of grain and 8,000 gallons of water. This disintegrating process, called steeping, is carried on from 30 to 40 hours. When sufficiently softened the water is drawn off into a special receptacle and reserved for further use.

The softened corn is then passed into the mills. These mills are made of steel, the discs of which run vertical, in opposite directions and at a very high speed. This process removes the hull, frees the germ and breaks up the starch body. Water being used on the mills we now have a heavy, thick mass instead of the kernels. This mass is then passed into a large trough of running water, and the germ, being lighter in weight than the remainder of the mass, rises to the surface and is carried off into a special tank. We will have more to say about the germ later. The remaining mass which has sunk to the bottom of the trough then passes through stone Buhr mills of the same type as used in flour mills. The object of this second grinding is to get the gluten, bran and starch in as finely ground condition as possible. From these mills where it has again received an addition of water and has now become very thin, it is passed over frames covered with very fine silk bolting cloth, called shakers. This bolting cloth retains the bran and allows the starch and gluten to pass through. The separation of the starch from the gluten is the most difficult task of all and is accomplished by the use of long, slightly inclined planes known as starch tables. The starch, being heavier than the gluten sinks to the bottom, when the fluid or starch-milk, which has been previously collected, is run over the tables the starch is built up in layers and the gluten is carried off the end of the tables and drained into large settling tanks.

We now have a solid mass of starch containing about fifty per cent water. In order to remove the water from the starch it is broken up on trays and placed in special kilns which thoroughly dries it. We now have a marketable starch.

Starch is the basis for a large number of commodities, including glucose, grape sugar, dextrine and several varieties of gums. It is also modified for various purposes for use by textile mills, paper mills, laundries, confectioners, and for baking powders and culinary purposes. Next to the starch itself glucose is the most important product having starch as its basis.

The word "glucose" is from the Greek "glukus," signifying sweet. It is a heavy, transparent syrup, two-thirds as sweet as cane syrup. In a solid form it is known as grape sugar. These commercial names are often misleading to the public. The names corn syrup and corn sugar would be more appropriate and indicate just what they are. With your kind permission I will quote a paragraph from a paper by Peter T. Austen, Professor of Chemistry in Rutgers College. Professor Austen says:

"Glucose and grape sugar are no new things. In 1792, over one hundred years ago, the sugar of the grape was discovered in Germany by two chemists, Lowitz and Proust, who advocated

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the cultivation of the grape for the purpose of obtaining this sugar for the home market. In 1811, Kirchoff, an eminent Russian chemist, made the discovery that starch could be easily converted into sugar, and that such sugar was not merely similar to, but identically the same as the sugar of the grape. The vast importance of this discovery was at once and universally acknowledged. Upon it was founded an industry that has flourished and grown with ever-increasing strength. In France, Holland, Belgium and Germany the consumption of this article has now reached the enormous quantity of ten thousand tons per annum."

GLUCOSE—HOW MADE.

A few words as to the methods employed in the manufacture of glucose may prove interesting. We place the starch in liquid form in a tank called a converter, and the desired change is secured in a few moments. When this is accomplished the liquid is then drawn off, filtered and refined in exactly the same manner as cane sugar, so that the most searching chemical test can discover no traces of anything harmful to the most delicate person. The further evaporation of glucose forms the white and solid substance known to commerce as grape sugar.

The healthfulness of glucose was long ago established. Back in the eighties there was an effort made to tax this article out of existence. The cane-sugar manufacturers carried the fight into Congress but their efforts were fruitless. The result of this legislation was a series of lengthy experiments to determine with absolute certainty the food value of glucose. These experiments were conducted by the most eminent scientific men of that time, including Professors George F. Barker, University of Pennsylvania, Wm. H. Brewer, Yale University, Walcott Gibbs, Harvard University, Charles F. Chandler, Columbia College, Ira Remsen, John Hopkins University, Dr. Cyrus Edson, Commissioner of Health, New York City, Dr. J. B. Murphy, of Chicago, and a host of others. Some of these experiments extended nearly

two years; men, women and children—the weak, the strong and the convalescing were placed on an exclusive diet of glucose with results entirely satisfactory, proving that as an article of food, glucose is most wholesome and nutritious. The following statement from Dr. Cyrus Edson, in a letter to Mayor Gilroy of New York City will substantiate my statements in this connection. Dr. Edson says:

"Starch can not be used by the human system until after the digestive organs convert or change it into glucose. To eat potato is to consume glucose; to eat bread is to consume glucose. Honey is but another form of glucose. Glucose is the basis of a multitude of infant foods. Malt is practically but another form of glucose. Glucose may be justly called predigested starch, since as I have said, it is starch in the exact condition that we find it prepared by the digestive organs for assimilation. Glucose is preeminently a fat-forming, heat-producing food. Under a diet of glucose a man can perform more muscular work than under any other single article of food. It is an essential article of food without which, in some form, man can not enjoy life. Chemistry has shown man how to imitate exactly the products of nature. The honey of the flower and numerous other products of nature's laboratory can not only be imitated by man but exactly reproduced by him through the agency of chemistry. We should welcome such glorious results of science with a glad shout of joy."

There are numerous uses for the manufactured glucose. It is used by confectioners in the manufacture of the finest candies because it is healthful and because it prevents the candy from crystallizing or returning to sugar. Your wives who make candy at home know what this means. Glucose is also used by bakers and by manufacturers of syrups. The daily capacity of the five plants owned by the glucose sugar refining company is more than four thousand barrels. With corn syrup as a basis, we manufacture several well known brands of table syrups. It is

(Continued on page 266.)

The Stock Interest.

THOROUGHBRED STOCK SALES.

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

March 13, 1903—H. W. Weiss, Westphalia, Kans. Shorthorns, at South Omaha.
 March 19, 20, and 21, 1903—Combination horse sale at Riverside Barn, Wichita, Kans., 300 high class horses. J. A. Lahr, Eldorado, Kans., and others.
 April 1-2, 1903—Shorthorn cattle. H. O. Tudor, Bolton, Kans.
 April 21, 1903—F. P. Healy, Bedford, Iowa, Scotch Shorthorns, at Seneca, Kans.
 April 22, 1903—Northern Breeders' Combination Sale, Bunceon, Mo. C. P. Tust, Secretary.

Breeding and Handling Live Stock.

DR. O. O. WOLF, OTTAWA.
 Paper read before Wellsville Farmers' Institute, February 4 and 5, 1903.

Of all works undertaken by man perhaps none has had its charms more lauded than that of agriculture.

It has furnished thought for reflective men of all ages. It has figured in the production of earth's greatest men, both physically and intellectually. It is the place where man comes in the closest contact with nature; where he has the best opportunity for observing natural results, and where, most of all, he is led to believe in the great Creator which causes like to be brought forth after its own kind, the fulfillment of one of the natural laws.

What has been said applies to agriculture in a general way, not only including soil culture, but the breeding and handling of live stock as well, which is such an important branch of the industry in this State and Nation, and should be considered by every tiller of the soil as a means of preserving the fertility of his land, as well as a source of profit.

At times it may be difficult to figure a profit, but as a rule we believe it can be done, where careful methods are adopted and the breeder fully realizes the import of his calling; realizes that he has something more to do than merely effect the coupling of one animal with another; realizes that to him are entrusted living organisms, plastic in character, that may be moulded and shaped more or less according to his own ideas. Hence it behooves him to be careful, and guard every good characteristic, and replace every bad, by a good, or at least a better one, ever in an ascending proportion.

To accomplish this, it will be necessary to study what kind of an animal is required, to have suitable environment, to secure proper feed and shelter, and to be persevering.

Many men fail because they do not persevere, or because they do not have a definite aim in view. For instance, this year they patronize a draft-horse, next, a road-horse, and so on, without any particular type becoming established. They are trying to produce what is commonly called an all-purpose horse. But can it be done with any degree of certainty from such mixed breeding? Can the best results be obtained in this way? Can we secure the most profit by pursuing such a course? Do we not try to cater to our own ideas, rather than to the demands of the market even though engaged in the business for a purely selfish purpose, that of making a profit? It would be well for us to study what the market demands and then try to produce it.

There are few of us that would not succeed in raising a good driver or an 1,800-pound draft horse or a first-class coacher, or all-purpose horse, as he may be called, if we set out to do it, and persevere in the attempt.

What has been said in regard to horses is just as true in the breeding of cattle, sheep, and hogs.

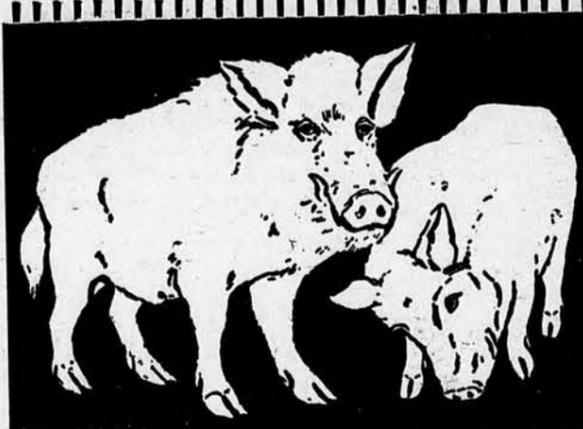
WE GO TO ENGLAND

to-day for the Shire, we go to Scotland for the Clyde, we go to France for the Percheron, because these old-country breeders have persevered—have bred along one line, with the one object in view for years.

Were we Americans only half as persevering as these old-country veterans, our importations would soon be lessened; we would soon have the nations of the earth at our feet, seeking stallions to improve their studs, bulls to build up their herds and rams with which to grace their flocks.

Already we are making a good impression abroad with our beef, pork, and mutton, which now reaches almost every part of the known world. And our horses and mules have been found serviceable at least in times of war.

All of this is good and is to be coveted and cultivated; but should not we, as progressive men, seek something more? I



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This engraving shows the "original Boar and Sow" as they were when ranging wild for hundreds of years in Asia, Africa and Europe. Hog Breeders are to be congratulated on the wonderful development over the original type.

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 C. C. WHITE,
 Breeder of Thoroughbred Poland-China Hogs and Shorthorn Cattle.

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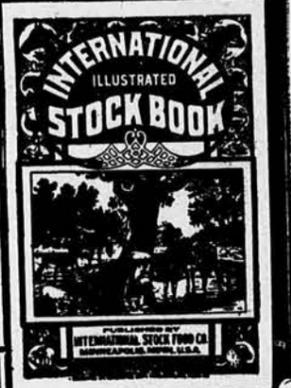


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have confidence enough in you, and in American ability and enterprise, to believe that with the great variety of climate which we possess with a greater feed supply at our command than that of any other nation, with the great interest that is being taken in agricultural affairs made manifest by meetings of this kind, we can and will soon be able to furnish animals of a superior quality, fit not only for the general market, but for breeding purposes as well.

TO BE SUCCESSFUL

we must study the climatic conditions and surroundings under which our breeding operations are to be conducted in order that we may select animals suitable for such environment.

It would be folly to attempt to improve, or even maintain, the ponderous draft horse on the scant feed and bleak hills of a Colorado range. True, much may be done to improve the Western horse and increase his size under these conditions by the introduction of new blood, but the animals through which this improvement is to be made must be reared under different conditions.

Were nature allowed to take her course under these conditions, we would in a few generations find the broncho or cyouse replacing the best class of draft-horses money could buy.

We have a good illustration of what environment will do by comparing the pony of the Shetland Islands with the monstrous draft-horse of the valleys of lower Scotland. Both had their origin in the same parent stock. Of course, selection, breeding, and feeding have played a part in producing these results.

We may, to a certain degree, overcome the influence of climate, by proper shelter and feed, but our task will be made easier and our reward more certain if we give it proper consideration.

SELECT BEST STOCK.

After this has been done, it remains for us to select breeding stock of the highest class and quality, and of some marketable type, being sure that they are perfectly sound.

In the horse, where his usefulness depends largely upon his soundness, we should be extremely careful. I do not wish to leave the impression that splints, side-bones, ring-bone, spavin, curb, and similar affections are transmissible as such, because they are not, but rather that the conformation which predisposes to these conditions is transmissible so that it oftentimes appears in the offspring of an animal so affected, and has led to the belief that they are hereditary.

The horse, for instance, with too upright or too oblique a pastern is ren-

dered subject to disease by the extra amount of concussion or strain that is occasioned thereby. The horse that is said to be tied-in-below at the hock is also to be rejected as it is a poor conformation, and renders the animal a fit subject for spavin and possibly curb. A horse that is blind should also be avoided unless known to be due to accidental causes. In cattle, sheep, and hogs it appears as though we might overlook some of the details above enumerated, but even here we should steer clear of disease, particularly such diseases as tuberculosis or consumption in cattle. While this disease is not now considered hereditary, yet animals suffering with it often have poor chest and lung development and will transmit this conformation; besides they are a menace to the rest of the herd.

By observing the conformation of the pelvis, particularly in the breeding of swine, much of the difficulty experienced in delivering the young may be avoided. The pelvis should be well developed and roomy.

Breeding too young may also increase the breeders' troubles along this line, as well as have the effect of checking the growth of the dam. Besides, the offspring does not get as good a start as it would were the mother older and in better condition to suckle it. Some of the breeders' associations have taken a step in the right direction by adopting rules that prohibit the registration of the produce of mothers under a certain age.

BREEDING AGE.

The age at which breeding may safely take place, depends somewhat on the development and care the animal has had and is to receive; but I think it would be safe to say, that any time previous to 3 years would be too young for the mare to drop her foal; 2 1/2 years should be reached by the heifer, and the sow should not be far from a year and a half old.

There is oftentimes a great temptation to breed at a younger age than above indicated, particularly to the breeder of registered stock, when prices are good, and he wishes to increase the size of his herd as quickly as possible; but he should keep quality rather than quantity in mind, if he wishes to be of most service to the breeding world, and receive the most profit in the end.

There is always enough of the common class of stock on the market, and it should be our aim to produce something better than this, something better than the average, something better than we have. This we can not do if we allow anything to take place that will check the growth and devel-

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opment of the animals entrusted to our care.

MANAGEMENT AND CARE OF BREEDING STOCK.

This brings us to another important phase of the subject, viz., how to best handle and care for our breeding stock. Unless proper care and management be given, including feed, we can hardly hope for success. This is one of the channels through which improvement must come.

He does well who breeds, but he does doubly well who breeds, sheds, and feeds. Ever bear in mind that scrub care makes scrub stock; that it is easy enough to make a scrub out of a full-blood, but that it is impossible to make a full-blood out of a scrub. We should not swing to either ex-

treme in our management; should not allow our animals to become unduly thin or excessively fat. They should be protected from heavy storms and severe cold during winter, yet should be given plenty of exercise. Mares are all the better for having a little work to perform every day during the winter, and indeed, this may be kept up almost to foaling time without any injurious results.

During the summer, the mother should be given plenty of food, as this is a very important time in the life of the youngster. If it is not given sufficient food to keep up a helathy growth at all times, it is liable to be stunted, and when this takes place there is always disappointment when marketing time comes around. It should be taught to eat such feeds as oats, shelled corn, and bran, at an early period in life. Usually about 3 months would be about right for the colt and calf. Very much before this time they can digest starchy foods but imperfectly, and harm may result; but as a rule, little trouble is to be feared from this source, and the advantage of having the youngster taught to eat when weaning time comes around, is of untold value, in that the change may be made gradually. A little carelessness at this time may greatly reduce the value. It is very important that the young animal be kept growing at all times; there is but little danger of overdoing it up to 2 years old.

During the first winter of their existence they should be protected from the cold by a well-ventilated and well-bedded stable or shed. We should not forget the bed, which contributes much to the comfort of our animals. They will do much better when so cared for, as they make better gains and grow more rapidly when lying down. The Scotchman fully realized this when he said, "A good bed is half fed."

We should not, however, keep them in bed all the time, and rob them of their exercise which is necessary to good health. Whatever increases their health and growth increases their market value and is to be sought for. But the market value is not the sole incentive to the true breeder of live stock, for he may, at times, have to breed at a loss, or sacrifice qualities for which he has worked for years to secure.

He loves his animals and an unkindness shown them is an unkindness to him. He appreciates and enjoys praise of his efforts often more than he does profit. He works for the public good by trying to strengthen some weakness or by developing some worthy quality in his favorite breed. He who succeeds in doing so is surely as much of a public benefactor as he who causes two blades of grass to grow where only one grew before.

So let us give him the credit that he deserves and try and take a part in this great work of breeding and handling live stock.

Breeding Show Cattle, and Showing Breeding Cattle.

ED. R. MITCHELL, MANAGER TEBO LAWN HERD, CLINTON, MO.

There was a time in my life, some fifteen years since, when I first began breeding Shorthorns, that I thought I could write an immense volume on the first part of my topic, "The Breeding of Show Cattle." But alas! how often we are brought to a realization of the truth expressed in that old adage of our Highland friend when he said, "The best laid plans of mice and men gang aft a-glee." So at the present time, I am forced to a startling realization of the fact that my entire store of knowledge concerning this subject might easily be summed up in one short paragraph, the volume of which would not overtax the mind of any reader.

The term, Show Cattle, to me, is anonymous, taking the position as I do that it simply means the exhibition of the highest degree of individual excellence to be found in our breeding herds, which should, I believe, be exhibited in good strong breeding condition only. We are told that the "Cannie Scotchman" on his native heath, is averse to the over-indulgence of the ravenous appetite of his bovine pets, thereby jeopardizing, in a measure, their future usefulness; but the fastidious eye of the 20th century American has led us at times to believe that we must create, as it were, a new class of animals, especially designed for the show-yard, thereby departing almost entirely from the proverbial and long-fostered idea of the breeders' and butchers' beast. Unto man has not been given the creative power farther than the dictation



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The result of feeding small doses of Dr. Hess' Stock Food to milch cows is shown in larger pails of rich milk. Dr. Hess' Stock Food possesses wonderful tonic properties that revive all the vital organs, increasing the appetite and strengthening the digestive power, so that all food eaten may be applied to the proper purpose. Dr. Hess' Stock Food corrects all tendency to indigestion, constipation, bloat or flatulence—prevents abortion in cows—keeps the animal in a healthy condition throughout any season of contagious or infectious diseases. Farm animals of all kind have now long been on dry feed, and are in special need of the tonic and laxative effects of

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of the mating of domestic animals; and while we know that like will, in a measure, produce a likeness of itself, this maxim taken in the broad sense which we are sometimes tempted to use it, viz.: Like produces like, will not always prove true, as cited on almost every farm in America to-day, where you will see the best individual on the farm rearing a very ordinary calf; and again, possibly a very plain cow with an outstanding calf. This may possibly be due to injudicious mating on the one hand, and possibly a successful nick on the other. Another version of this matter comes to us in this connection which is of vital importance to the breeding fraternity of to-day. A plausible accounting for the vast number of inferior animals recorded in our herd-books of to-day, is found in the fact that the masses of breeding animals found in our purebred herds are shifted about from post to pillar, frequently passing through the sale-ring three or four times in a year, making it impossible for their owner to study the breeding characteristics of the different families, thus giving rise to that ever-familiar term, injudicious mating.

PERFECT BREEDS—HOW SECURED.

A logical solution of this problem is found in the pages of history, when we note the policies pursued by those who have made for themselves a name which stands immortal, and is ever familiar to the rank and file of the breeding fraternity. Bates, Booth and Cruickshank may be referred to as examples; and we find that the keynote of their success lay in the fact that the few families with which their herds were founded had been carefully preserved on the farm, studied from generation to generation, and the requirements in the mating of each were catered to to the fullest possible extent. Following the example of Kirklevington, Worlaby, and Sittyton, we now find ourselves in need of establishing a universal type, which same shall be in evidence both in our show- and breeding-herds, the guidepost which we must of necessity find in the demands of the beef-cattle market of to-day. The day of the 1,800- to 2,000-pound 3-year-old steer has long since given way to the tidy yearling, familiar to us all as "Baby beef." And when the Shorthorns are able to land the championships in steer classes and carlots at the great International Exposition, it must of necessity be with animals of identically the same type as that of their most formidable adversaries. We have a recognized formula by which professional men are able to prescribe remedies for human ailments, but the man who has discovered a formula for the continued production of show-cattle, is as yet an unknown quantity. The statutes of a free country entitle every man to his own way of thinking, and as frail humanity is a victim to various kinds of infatuation, possibly I have over-indulged in the

admiration of the beautiful, effeminate character. In which case, I would select for the matrons of my herd, such females as our Scotch friends would term, "The little lady cow," being low-down, tidy, fine-boned, broad-backed, weighing possibly 1,400 to 1,600, truly effeminate in character, as expressed by the clean-cut muzzle and mild, placid eye. With such cows, I would prefer to mate a bull of the same type, with the exception that I would have him strong in bone, low-down, wide-out, as denoted by that wonderfully sprung rib, and possessing the greatest possible masculine character, whose three or four top sires have been known producers of strictly high-class animals. From such mating, I would expect to produce a medium-sized animal of the rent-paying sort at least, and possibly by judicious selection, and the assistance of the corn-crib cross, be enabled to be found occasionally in the ranks of those who have experienced that trying ordeal of having their heart cease to beat pending the deliberations of the expert judge.

SHOWING BREEDING CATTLE.

With your permission, and thoroughly appreciating your patience, I will now touch upon the last phase of my topic, "Showing breeding cattle." Competition is the spice of life and the greatest prompter on the road to success. Surely such is the experience of the so-called professional showman. How many we find, who, on their first appearance in the show-yard, meet with slight disappointments, abandon all hope of future success, and relegate themselves into the ranks of those who have passed into oblivion. Not so with our veteran showman, neither should it be with the novice, ever mindful of that old maxim, "If at first you don't succeed, try, try again," for good things only come to those who wait. Consider, if you please, the contrast between these two. The former, ever mindful of the fact that perfection is not attained in the bovine kind, and that judging them is merely the comparing and contrasting of their defects; the latter allows himself to consider only the commendable features of his charge as against the defects of his competitor, and like the schoolboy, developing into manhood, is forced to a startling realization of the fact that he must first see himself as others see him. Since the introduction of purebred cattle into this country to battle against the scrub, the show-yard has been the most direct means of reaching

the masses, giving rise to the necessity of breeders selecting the highest types of animals to be found in their herds, with which to meet their fellow breeders in friendly competition, at the same time perpetuating their kind. That there are possibly cattle shown from calfhood, that on reaching maturity fall to breed, none will deny. But have you ever stopped to consider that in this case, the performances of this animal is in the mind and on the tongue of every interested breeder in the civilized world, and if perchance they fail to perpetuate their kind, it immediately becomes public gossip, and is attributed to high conditioning. On the other hand, we have no known means of ascertaining the number of animals which are driven annually to the shambles from the pasture for the same reason, viz., non-producers. This condition possibly arising for lack of sufficient acquaintance with the feed-pail. And I am firmly convinced that where there is one animal ruined by over-feed, there are hundreds ruined for lack of it. The matter then resolves itself into the fact that the judiciously manipulated feed-pail rarely proves disastrous in the showing of breeding cattle.

So, fellow breeders, let us, one and all, put our shoulder to the wheel, obliterating all fads and speculation, working to the one great end, the establishing of a universal type, which will ever resound to the glory of the red, white and roan, and in the language of Col. Woods, "The Shorthorns will improve any breed of cattle on earth."

"O sweeter than a censor's swing, to gain a soul's repose, The boys with blacks will then concede the Shorthorn boys as foes."

Let the eye of the world be upon you, and guided by the motto of our Hoosier friends, "Breed your show cattle; and show your breeding cattle."

Cattle-Feeding at the Missouri Agricultural College.

A carload of 2-year-old high-grade steers fed by the Agricultural Experiment Station at the University of Missouri, averaging 1,466 pounds, sold in Chicago last week at \$6.85, which was more than \$1 above the top of the market for that day, and is the record price for cattle in any market this year.

These cattle were purchased for the fancy New York trade. The leading live-stock paper of Chicago referred to this sale as follows:

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25c, 50c, 75c, AND \$3.00 BAGS, GUARANTEED

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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

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above other sales to-day was one of a load of fifteen prize Hereford steers averaging 1,466 pounds, which sold at \$6.85. It was an exceptional load of cattle and the best seen here since the Fat Stock Show. They were fed by the Experiment Station at Columbia, Mo., under the supervision of Dean H. J. Waters.

"The load attracted considerable attention for being so far superior to anything else on the market."

These steers were purchased in the vicinity of Columbia at a cost of \$4.10, for the feeding experiments conducted at the station, in which the feeding value of cottonseed-meal, linseed-meal, and bran, in combination with corn, was compared with corn alone, on blue-grass pasture. They were on full feed from July. These cattle were also used by the students in the stock-judging exercises required of the students in the Agricultural College, and were used to impress upon these young men the importance of handling only high-grade stock.

Four of the best steers in the original bunch purchased by the station were taken out last spring to go with a load of show cattle that won at the International Fat Stock Show at Chicago this fall. These steers were considered by all authorities to be the best and to be carrying the finest finish of any animals that have been on the market since the Fat Stock Show, and were considered by some to have been capable of winning in that contest.

The station now has eighty high-grade calves with which it is comparing the influence of age upon the cost of beef. One-third of these calves will be marketed next fall as yearlings, another third the following fall as 2-year-olds, and the third bunch will be carried until they are 3 years old, a careful record being kept of all the food consumed during the progress of the experiment. The United States Government is cooperating with the station in conducting this experiment, and has a special officer located at Columbia to collect data and report the results to the Government.

Dish-water a Manufactured Article.

EDITOR KANSAS FARMER:—In answer to D. Trott's inquiry about dish-water, will say: It does not grow from seed, it is a manufactured article put up by an expert, and can be obtained at the backdoor of almost any city hotel at a moderate cost.

It is composed of hydrant water, perlite, coal-oil, sal-soda, soap, washing-fluid, bones, potato-skins, broken glass, mouldy bread, spoons, gold-dust, rotten apples, dishes of various kinds, knives and forks, old dish-rags and tinware; is seasoned with a variety of grease, flavored with lemon-peel, and is a first-class article. It contains other ingredients too numerous to mention. Hogs fed on it exclusively for months generally die of indigestion. If Mr. Trott lives near town perhaps he could feed dish-water profitably if he has other feed to mix with it, as bran, shorts and corn. W. H. UTLEY, Missouri.

The Extreme West: Its Resources and Wants.

BY MARK W. WOODS, LINCOLN, NEB., BEFORE THE CENTRAL SHORTHORN BREEDERS' ASSOCIATION AT ITS LINCOLN MEETING.

From a howling wilderness, where the scream of the panther was mingled with the war-whoop, where the towering majestic Rockies stand guard over the fertile virgin valleys, where the buffalo in countless thousands multiplied and grew fat, where the moccasined warrior and mighty grizzly reigned supreme, the Great West has been transformed until to-day it is a veritable garden of Eden. Its beautiful valleys made to blossom like the rose and its people the happiest in this great land of contentment.

In the first peopling of this vast territory it was a mad rush for yellow gold. Men left their herds, their flocks, and their families, their minds turned from the staid channels of tillers of the soil and they were soon snuffed by the great treasury, expecting that each pick or blast would uncover an untold fortune. Some won, but many lost, and after time had dulled the keen edge of quick riches their minds naturally reverted to their hereditary occupation, tillers of the soil and tenders of flocks and herds.

In reclaiming placer gold they had learned the secret of diverting water from its natural course. This knowledge was made use of until to-day those valleys are no longer virgin, but covered by a network of artificial waterways that distributes the elixir of

life which makes the bosom of mother earth, when kissed by the summer's sun, yield most bountifully. They have builded beautiful homes, school houses and churches. Their immense granaries, stables and storehouses would do credit to the most prosperous and fertile section of our great corn belt. In fact were it not for the mountains that ever loom on the distant horizon, and the indescribable invigorating effect of the ozone-charged atmosphere, one would naturally say, were he driving down one of these magnificent valleys, Where am I? It is needless that I should describe the beauties of this wonderful country or their flocks and herds, the statistics gathered at the great live-stock markets speak more eloquently than can human tongue. The sheep and cattle that come to market each fall that were reared on these vast ranges, knowing naught of shelter, other than nature's, tasting naught but her sweet grasses, when placed beside our corn-fed cattle, often outweigh, outsell and outrank them in quality. This is not a new country with a struggling people striving to conquer nature's wilderness, not a new country where each penny has to be counted, not knowing where the next is to come from. It is a country with the greatest of resources, mines, timber, cattle, sheep, horses, and agricultural products. Drouth and hot winds do not affect them, for they depend on irrigation. The great number of men worked in their mines give the rancher, as he is called, a ready market for all he produces at good prices. Since our trade has opened with the Orient, nearly all the cattle go west, and as this trade increases, the Pacific slope is bound to be one of the richest, if not the richest, section of the United States.

BROUGHT GOOD PRICES.

In what way does this interest the American Shorthorn Breeders' association? Let me tell you. It has been my pleasure to ship to a great many different sections of this country registered Shorthorn and Hereford cattle, and I am here to say that I never shipped a good one, no matter what breed, that did not bring a good price. At our sale at Helena, Mont., last September, all the good cattle, Herefords as well as Shorthorns, sold from \$200 to \$400 each. The same was true at Spokane. These people have not been sufficiently educated that they are ready to-day to buy your prize winners at fancy prices, but they are more than ready to absorb all the good, plain-bred cattle you have to spare. Do not delude yourself with the supposition that they are poor judges. I tried a load of scrub thoroughbreds at each place, big, strong, rough bulls one would think they would buy to put on the ranges, but the ranges are all practically fenced and controlled so that you can not get a bull much too good to more than satisfy the average western man, and if any of you are contemplating taking common, ordinary bulls west, save your time, money and reputation by putting them to the knife. On the other hand, instead of seeking for a market in South America, or some other distant place, why do you not take advantage of this market, that you do not have to cross seas and torrid climes to reach? There are thousands upon thousands of men in these western valleys anxious and ready to purchase from one to five head of good cattle and pay you good prices, but they can not come here after them, the expense of shipping so few, together with traveling expenses and time, makes it prohibitive. Why does not the American Shorthorn Breeders' Association take this matter up and devise ways and means of supplying this trade? Of course you do not particularly need it to-day, but you will hold these good prices longer if you will extend your market, as prices received will always depend on the law of supply and demand. Castrate the inferior bulls, or sell them to some of the poor down-trodden farmers of the corn belt who are trying as an economic business proposition to balance an investment of \$1,000 in cows with a \$40 bull. You will find no room for them in the West. There they understand the bull is half the herd. I have learned this from sad experience. Don't put off reaching for this trade until you really need it. Go after it now in a business way. Don't allow your mind's eye to picture this country to you as a small territory, as in it you could lose your great corn belt several times over, and there you will find men with the cash of the realm, ready and anxious to purchase all the good seed you can spare in the next twenty years. They say all things come to those who wait, but the man who waits for this trade to come to

Warranted to give satisfaction.



GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable.

Every bottle of Caustic Balsam 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, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.

Lump Jaw Spavin Curb Splint Sweeny

Cure Them

Lump Jaw in cattle, Fistula and Poll Evil in horses, and almost every blemish that a horse can have, even bad Bone Spavin, Ringbone and Knee-Sprung, can be readily cured by anybody. We want to tell you how to do it, prove that you can do it, and guarantee you success in doing it. Two big booklets explaining everything sent free. Write now. Fleming Bros., Chemists, 212 Union Stock Yards, Chicago, Ill.

EVERY HORSE OWNER Should Keep Instantly On Hand



KENDALL'S SPAVIN CURE

the old reliable remedy for Spavins, Ringbones, Curbs, Splints, etc., and all forms of Lameness. USED FOR 25 YEARS.

University Ave., San Jose, Cal., May 21, 1900.

Dr. B. J. Kendall Co., Dear Sirs:—I have been using your Spavin Cure for twenty-five years, and find it very efficient as a remedy for what it claims to cure. Please send me your "Treatise on the Horse and His Diseases," and much oblige Yours truly, G. B. BLANCHARD.

Endorsements like the above are a sufficient guarantee of its merits. Price \$1; Six for \$5. As a liniment for family use it has no equal. Ask your druggist for KENDALL'S SPAVIN CURE; also "A Treatise on the Horse," the book free, or address DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.

White LABEL Ear Labels

Dana's White 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.

AN INSTANT'S PAIN

and the dehorning job is smoothly done, no crushing or bruising if the

KEYSTONE

Dehorning Knife

is used. Easy, sure and most speedy in operation. No evil results can follow. Cuts from four sides at once. Endorsed by veterinarians. Guaranteed.

M. T. PHILLIPS, POMEROY, PA.

NO HUMBUG. Three in One.

Swine V. Stock Marker and Calf Dehorner. Stops swine from rooting. Makes 48 different ear marks. Extracts Horns. Price \$1.50. Send \$1 for trial. If it suits, send balance. Pat'd May 6, 1902. Hog and Calf Holder only 75c.

FARMER BRIGHTON, FAIRFIELD, IOWA.

Of All Seeders

for sowing all kinds of grains and grass seed there are none quite the equal of this



Strowbridge Broadcast Sower.

Sows Wheat, Rye, Oats, Barley, Buckwheat, Hungarian Millet, Clover, Timothy, Pans, Corn, Etc. Also distributes Commercial Fertilizers, Plaster, Lime, Salt, Guano, Ashes, etc. Sows perfectly even without any "skips" or "misses." Sows any desired quantity from 1/2 bush up to 3 bush per acre. Easily and quickly attached to any wagon. Write for free booklet. We will make a price that will make you buy.

Racine Implement Co., Box 21, Racine, Wis.

CRONK'S Improved Staple Puller

IS AT THE FRONT. Ask your dealer to show it. Three wire cutters, two hammers, two splicing clamps—all in one tool. A Staple Puller that will pull staples when no other make will. A cutter that will reach wire when the button cutter will not. One day's use will save the cost of it. \$1. postage paid.

CRONK & CARRIER MFG. CO., Elmira, N. Y.

ECONOMY CREAM EXTRACTOR.

WATER AND MILK ARE NOT MIXED. Best, cheapest and most effective. Is a money saver. Requires no labor or power to operate it. Thousands in use. AGENTS WANTED Everywhere. \$30.00 PER WEEK. Exclusive Territory FREE. Women as successful as men. Write for our liberal offer to agents and first buyers.

ECONOMY MANUFACTURING CO. DEPT. 178. KANSAS CITY, MO.

LOUDEN HAY-SLING



IT CLEANS THE RACK.

Handles any kind of hay, bound grain, straw, corn fodder or other forage. Works with any hay-carrier. The largest and best line of hay tools for either field or barn use. The originators of Flexible Barn Door Hangers and have the Best on Earth. A full line of hardware specialties. Save money by writing for catalogue. Address

LOUDEN MACHINERY CO.,
Dept. D, FAIRFIELD, IOWA.

30 Cents Per Rod

For this HOG and STOCK FENCE. Without barbed wires above 25c. PER ROD. Catalog free.

Warner Fence Co.
Box 66, Waverly, Kans.

him will leave it as a heritage to his grandchildren.

The great tidal wave of concentration is ever rolling on, and it is dawning upon the minds of those western men that in order to reap the greatest profit at the least expense, two poor animals must be concentrated into one good one. And, gentlemen, these broad-minded, generous people with their hardy climate, their wonderful grain and grasses, will some day be competitors with whom you will have to reckon at the great international, and many of the trophies competed for will be borne in triumph to the land of the setting sun.

Kansas Swine-Breeders.

Following is the program for the special session of the Kansas Swine-Breeders' Association to be held at Manhattan, Kans., March 12 and 13, during the week of the swine-judging at the Kansas State Agricultural College:

THURSDAY EVENING, MARCH 12, 7 O'CLOCK.

1. "The Berkshire—History and Standard of Excellence"—G. W. Berry, Emporia, Kans.
2. "The Poland-China—History and Standard of Excellence"—C. M. Irwin, Wichita, Kans.
3. "The Duroc-Jersey—History and Standard of Excellence"—D. Trott, Abilene, Kans.
4. "The Chester White—History and Standard of Excellence"—D. L. Button, North Topeka, Kans.

FRIDAY EVENING, MARCH 13, 7 O'CLOCK.

5. "The Rearing and Caring for Brood Sows"—Thompson Bros., Marysville, Kans.
6. "The Feed and Care of Young Pigs from Birth Until Weaned"—A. M. Jordan, Alma, Kans.
7. "The Pig—from Weaning Time Until He Is Marketed"—M. Patterson, Blue Rapids, Kans.
8. "Arrangements of Hog-Pens, Yards, and Pasture"—L. P. Fuller, Morrowville, Kans.
9. "Fads and Fools"—H. W. Cheney, North Topeka, Kans.

Note.—The papers in the foregoing program will be subject to pertinent discussion, and swine-breeders are urged to be prepared. The judging of swine by the students of the Agricultural College under the tutelage of a competent expert will be in progress during the entire week of March 9-14, and the college management have promised a slaughter and cooking test to which all breeders of swine are invited, and it is hoped the swine-breeders of the State will attend both the judging school and the meeting of the association, and thus assist by your presence and council to the business of swine-breeding upon that higher plane which by reason of its importance it should justly occupy.

Kansas City Hereford Sale.

The public sale of Hereford cattle held at Kansas City February 25 and 26 was, as advertised, one of the best all round offerings of young Hereford stock ever sold at Kansas City. The offering was not only a credit to the breed but to the contributors as well, and was a small but select draft from the herds of the following contributors: Scott & March, Belton, Mo.; C. A. Stannard, Emporia, Kans.; Gudgell & Simpson, Independence, Mo.; Frank Rockefeller, Belvidere, Kans.; Mrs. C. S. Cross, Emporia, Kans.; W. B. Waddell, Lexington, Mo.; George B. Baker, Maryville, Mo.; Fritz & Shea, Blakesburg, Iowa, and Logan B. Chappell, Blackburn, Blackburn, Mo. The auctioneers were Cols. R. E. Edmonson, F. M. Woods, Jas. W. Sparks and Carey M. Jones. Secretary C. R. Thomas, of the Hereford breeders' association, assisted in the ring work.

As predicted by the Kansas Farmer, this sale afforded the buyers an exceptional opportunity to get things cheap. It is doubtful whether buyers ever had such a snub before as at this sale. One hundred and nine head sold for \$18,085, general average \$164.26. Thirty-eight bulls averaged \$148, and seventy-one females about \$176. No fancy prices were realized and only a fair average, quality considered, was made for the entire offering. Gudgell & Simpson's consignment made the highest average of any contributor, twenty-four head averaging \$259. Nineteen heifers averaging \$273 and five bulls \$209. C. A. Stannard's general average was \$163, eleven bulls averaging \$165.44, and twelve heifers \$161. Scott & March's general average on twenty-two late-bred heifers was \$123. F. Rockefeller's general average was \$133 for twenty-two head; his consignment consisted of eleven bulls and eleven heifers. W. B. Waddell's heifers averaged \$147.50. Mrs. C. S. Cross's bulls, \$152.50. Fritz & Shea's average was \$127, and Geo. B. Baker's average for bulls was \$117.

The complete list of purchasers for

BUYERS OF HEIFERS.

- B. B. Ramsey, Warden, Okla.; J. A. Funkhouser, Plattsburg, Mo.; H. B. Cornish, Osborn, Mo.; Geo. P. Baker, Maryville, Mo.; F. Rockefeller, Belvidere, Kans.; Geo. Smith, Craig, Neb.; Fritz & Shea, Blakesburg, Iowa; H. A. Naber, Wallula, Kans.; S. L. Brock, Macon, Mo.; P. G. Ewing, Osage City, Mo.; A. L. Miller, Settle Sta., Mo.; Logan B. Chappell, Blackburn, Mo.; O. Harris, Harris, Mo.; R. Brewer & Son, Leavenworth, Kans.; Fred Evans, Belton, Mo.; Jones Bros., Comiskey, Kans.; Jas. Ross, Osage City, Kans.; F. H. Leubbert, Westphalia, Mo.; S. A. McFarland, Glassford, Ill.; J. W. Greenland, Everest, Kans.; Wm. Shive, Greenwood, Mo.; Roy Lynds, White Cloud,

Kans.; C. W. Carmichael, Odessa, Mo.; J. C. Hartzler, East Lynn; Mrs. C. S. Cross, Emporia, Kans.; R. W. Schmitz, Westphalia, Mo.

BUYERS OF BULLS.

- S. J. Moss, Melvern, Kans.; W. R. Haskell, Centerville, Iowa; J. A. Barnett, Galatin, Mo.; Neal A. Pickett, Ashton, Kans.; F. O. Grubbs, Whiting, Kans.; Peter Hecht, Tipton, Mo.; D. P. Cornish, Oshorn, Mo.; William Hillson, Eureka, Kans.; F. F. Scidmore, Tescott; Fred Evans, Raymore, Mo.; O. Harris, Harris, Mo.; C. F. Cook, Council Grove, Kans.; R. Brewer & Son, Leavenworth, Kans.; H. M. Baker, Kansas City, Mo.; C. A. Stannard, Emporia, Kans.; G. G. Dick, New Lancaster, Kans.; M. H. Lewhead, West Liberty, Mo.; Jos. Holmon, Rayville, Mo.; S. H. Prather, Tarkio, Mo.; M. Zimmerman, Kansas City; H. O. Porter, Nashua, Iowa; Brown Bros., Wheaton, Kans.; J. E. Summers, Huntsville, Mo.; F. C. Weeks, Eldon, Mo.; M. L. Loucade, West Liberty, Iowa; C. F. Cooke, Council Grove, Kans.

The Humbert Percheron Sale.

L. H. Humbert & Son, Corning, Iowa, will make full announcement this week of their forthcoming public sale of imported and home-bred Percheron stallions. This sale is to take place at the Humbert farm near town on Monday, March 23. In the Western Percheron world Humbert stock has been strictly above par ever since their purchase a few years ago of the great French-bred stallion Sully (40030) 21779—a brilliant bred horse, famous as a sire of good ones. A half dozen or more of his young horses, coming 3, will enter this sale ring with as full promise of high value in the breeding stud as ever went with a like number of horses the get of one sire in a single sale ring. The imported stallions are likewise a top-notch lot, and all go to this sale without any strings attached. These young fellows are all big draft horses right now, the kind that appeal to a man's reason and his pocketbook alike. The Humberts feel that the entire Western draft horse breeding world should evince an interest in this public sale of high-class Percheron stallions. They feel no small pride in the high type of stallions they are able to place before the buying public. Of the imported stallions it may be emphatically said that they embrace every good trait and quality that have served, when combined in a single breed, to make it the most popular draft breed of horses on the face of the earth. The Humbert stallions were selected by a master hand in the horse business—a young man who has grown up alongside these big Percheron horses and knows them like an open book. The Humberts talk French when they buy in France, but they will manage to talk United States on sale day, or have a man there who is able to do so. They send special invitation to Kansas horsemen to come out to this sale. Write for catalogue, and note the advertisement in Kansas Farmer.

Advertising Good Stock Pays.

Editor Kansas Farmer:—Now that the battle is over and the clouds of smoke have cleared away since the sale, and we again have a breathing spell, I desire to thank and compliment you for the good your paper did me as an advertising medium in spreading the news of the sale. We are proud that our ambition is gratified (as we anticipated) that we have had the greatest sale of the season—the secret is, we had the goods that the people wanted and they did not hesitate to compete for them; while we have broken the record in several ways as to high prices in the respected classes, yet we feel every man got his money's worth, and considering quality we think many animals sold for less than their value but as a whole we had a very successful sale both to myself and to the buyers, and while our average is much higher than is ordinarily made at such sales, we would have made much higher average had conditions been more favorable to us in getting our stock sheltered at an earlier date. On this account we forewarned the public that there would be some grand bargains to be had, and lucky were the buyers who got them. It was no uncommon thing for purchasers to be offered \$25 to \$200 premium on their purchase, and some trading was done on this basis. As we expect to continue to hold public sales, we expect even greater results when the people learn that we handle strictly first-class stock and can be relied upon as getting their money's worth. S. S. Spangler, Milan, Mo.

You Can Buy Galloways.

The greatest opportunity of the year to buy high-class Galloway cattle will be at the breeders' combination sale to be held at South Omaha, Neb., March 18, 1903, when sixty head will be offered for sale, including forty cows and heifers and twenty bulls. Choice selections from the best herds in America which comprise that of the Brookside Farm Company, Fort Wayne, Ind.; T. J. Davis & Son, Triumph, Ill.; C. N. Moody, Atlanta, Mo.; C. B. Rowland, Rose Hill, Iowa; J. P. Martin, Sutherland, Iowa; and Phil Grace, Rose Hill, Iowa. For catalogues address C. N. Moody, Atlanta, Mo. Intending purchasers who have been making inquiries of H. A. Heath, of the Kansas Farmer, and stock-breeders' association for foundation stock will have in this sale the opportunity sought.

Gossip About Stock.

The Chickasaw Stockmen's association and the Pursell Fine Stock show association will hold a joint meeting at Purcell, I. T., April 7, 8 and 9. They met with such success last year in a two-days session that they decided to make it three days this year.

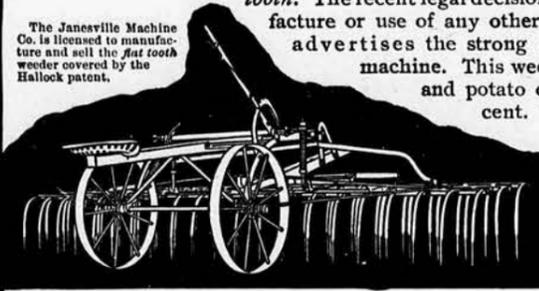
The popular headquarters for stockmen who visit Kansas City is the Coates House. Direct car lines from the Union Depot and to the Stock yards. Whenever public sales of fine stock are held at Kansas City you can depend on meeting the crowd at the new Coates House. Special rates to stockmen.

Colin Cameron, of the San Rafael Cattle Company, Lochiel, Ariz., announces that his next annual sale of registered Herefords will be held at Kansas City, May 5 and 6, 1903. The cattle are now located on his Anderson County ranch and those desiring catalogues should address Colin Cameron, Greeley, Kansas. Hereford buy-

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 advertises the strong points of the Hallock machine. This weeder will increase grain and potato crops from 25 to 50 per cent. Why and how it will do it and why the flat tooth makes the only successful weeder is best explained by the booklet which we will send free if you write for it.



The Janesville Machine Co. is licensed to manufacture and sell the flat tooth weeder covered by the Hallock patent.

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

ers who have bought of these cattle have secured exceptionally good values and the cattle made them good money.

We are in receipt of a warning notice to purchasers of Percheron horses that all genuine American Percheron certificates should bear the signature of S. D. Thompson, secretary. The Kansas Farmer has received a copy of the report of the American Percheron Horse Breeders' Association, and we are advised that a copy of this will be sent to any one applying for the same to S. D. Thompson, secretary, 503 Tacoma Building, Chicago.

L. H. Humbert & Son, Corning, Iowa, are to announce a public sale of sixteen top-quality young Percheron stallions, imported and home-bred, sale to take place at Corning, Iowa, Monday, March 23. Kansas Farmer readers are asked to keep date in mind. File your application for catalogue at once, and watch Kansas Farmer columns for full details of this grand offering. A few registered mares are included. Every horse is a "crackerjack," and they will be put up and sold for the high dollar.

Intending purchasers of registered Hereford cattle will find what they want at a very reasonable price by consulting the advertisement of H. B. Clark, of Geneseo, Rice County, Kans., in this issue. Buyers can have the pick of the herd either singly or in car lots. Mr. Clark has been breeding for many years and has quite a representative lot of Hereford cattle and has been using a son of Patronman, by Lamplighter, the latter a herd bull in use by Gudgell & Simpson. It will pay buyers to visit Mr. Clark's herd.

John Bollin, breeder of leading strains of Poland-China hogs, whose farm is one mile west of Kickapoo, Leavenworth County, has changed his address to Route 5, Leavenworth, Kans. In changing his advertisement this week, he announces that he is entirely sold out of boars and bred sows. He has on hand twenty-three bred sows yet to farrow. He states that he might spare a few if they all did as well as Nellie Tecumseh, who farrowed eleven pigs February 24. Mr. Bollin has sold sixty boars this season, all of which gave splendid satisfaction.

E. A. Eagle & Son, breeders of registered Hereford cattle at Rosemont, Osage County, Kans., have thirty head of well-bred cattle of the leading strains. The young stock is all sired by the herd bull, Gudgell 94011, a son of the noted Corrector. He is now offered for sale also nine head of young bulls, 11 to 20 months old, and twelve heifers same age, and a few cows with calves at foot or due to calves in April. Intending purchasers of Herefords will find this a very desirable lot and the same can be purchased at quite reasonable figures if taken soon.

Attention is directed to the new advertisement of A. M. Ashcraft, F. R. D. 3, Atchison, Kans., who has a splendid lot of Shorthorn cattle for sale. The cows are young and sired mostly by Alice Maud's Duke 117877, such bulls as the Duke of Somerset 115305, Earl of Lancaster 86262, Dick Taylor 7th 62232, and Loudon Duke 6th 10377 of the lines represented by the top crosses of the animals for sale. The cows have calves at side or are bred to Acorn Duke 18th 142177. Intending purchasers will find a very desirable lot of Shorthorns at this place and prices within the easy reach of any buyer.

Farmer Brighton, of Fairfield, Iowa, is just entering upon a new advertising campaign in this paper. It is apparent that in his combination tool—the Swine V to prevent hogs from rooting, Cattle Dehorner and Stock Marker—Farmer Brighton has something which other farmers want and buy liberally, else he could not afford to advertise so regularly. His ad. has come to be a familiar face in this and many other papers. It is just a little ad. headed "No Humbug," and accompanied by a cut showing the tool and a hog's snout operated upon to show how it works. Look up this ad. if you keep hogs or have occasion to mark or dehorn.

One of the most persistent swine advertisers in the Kansas Farmer for a number of years is Mr. M. H. Alberty, Cherokee, Kans. While he has never used large space his card, like the flag, has always been there, but in view of the fact that he is sold out so closely he has found it necessary to discontinue his present card until he has more stock for sale. In a recent communication he says: "If I leave advertisement in Kansas Farmer, will have to answer inquiries at the rate of about ten a day. The Kansas Farmer has brought me a larger percentage of customers than any other paper. I am satisfied with the results and only discontinue temporarily to avoid answering so much correspondence."

This week the Texas Live-Stock Association will hold its annual meeting at Fort Worth and the Seventh Annual Fat-Stock Show will also be held at Fort

BIG PROFITS IN HOGS.

The hog question is an interesting one. Some farmers are much more successful than others. It is a big difference whether you get 8 lbs. or 17 lbs. of pork out of a bushel of corn fed to hogs, or 19 lbs. out of a bushel of wheat. No other animal will give the number of pounds of gain for feed consumed that hog will. They are the farmer's mortgage lifter.

THE AMERICAN SWINEHERD is a specialist and the best authority on the hog industry. Its success is attained by concentrating on one line.

- Professor Henry says that success comes through devoting all efforts into one channel. Professor Kennedy of the Iowa Agricultural College says, "Your paper is a leader on the feed question."
- A 2 years' course in hog-raising. Teaching how to be successful.
 - How to make the greatest profit.
 - How to get 17 pounds of pork out of a bushel of corn.
 - How to get 19 pounds of pork out of a bushel of wheat.
 - How to double the growth and gain over usual methods.
 - How to keep your hogs healthy.
 - How to utilize without expense the costly experience and gathered wisdom of capable and successful feeders and breeders of swine.

No one interested in hogs can afford to overlook nor fail to take advantage of this special offer.

Send us \$1.00 for 2 years' subscription to the American Swineherd, and it will entitle you to a free copy of our HAND-BOOK on "HOG HYGIENE" with trade secrets, recipes, feeding tables, valuable information, etc. This will equip you for successful and profitable hog-raising. If this offer is accepted within 10 days we will send you in addition a wonderfully suggestive picture in colors, "Uninvited Guests," showing the pigs partaking of a meal uninvited. This gives you \$5.00 for \$1.00, and 2 years' schooling in successful hog-raising. If you accept this offer you will want the paper as long as you are interested in swine. Address: AMERICAN SWINEHERD, 537 Como Bldg., Chicago, Ill.

\$28, Free. For A Testimonial.

You can have ripe tomatoes June 15th, ripe melons July 1st, new potatoes and cucumbers May 15th. All other vegetables or flowers as early by using Gold Mine Hot Bed. It protects all kinds of plants from frost, cold, raw winds and storms. Keeps off the bugs, insects, cut-worms. Stimulates plant life in such a manner as to make them grow three times as fast. Indorsed and recommended by every agricultural paper in the United States, and by every farmer that has used them. There is not a tool or implement that the farmer buys that will bring him in as large returns each year as this. It will pay for itself forty times a year, with proper usage. We have reduced the price from \$1.50 per dozen to 85 cents, for immediate acceptance. Sold on the same guarantee to give satisfaction as plows, binders, and mowers are sold, or money refunded. When you find they are better than you expected them kindly send us a testimonial. Next year you will want more of them; we will reciprocate your kindness with a present. We will give 200 Gold Mine Hot Beds to the person sending in the best report; 100 for second best; 50 for third; value \$28, and pay all charges to destination. Premiums paid in November. Points considered—Earliness, yield, amount of money made, with one dozen. Please do not delay your orders. Reference by permission: Commercial Bank, Greentown. W. M. WOODWORTH, Greentown, Ind.

Warning!

The American Percheron Horse Breeders' Association (Established 1876) hereby warns intending purchasers of Percheron horses that all genuine American Percheron certificates bear the signature of S. D. THOMPSON SECRETARY, Tacoma Bldg., Chicago. All certificates not so signed and purporting to be certificates of record in the Percheron Stud Book of America are spurious.

\$75 CAPITAL will start man or woman in first-class business in home town or country district; pays \$100 to \$200 monthly. No risk, money secured. F. E. A., 421 N. Y. Life, Kansas City, Mo.

Worth, March 5-7. Col. R. E. Edmonson, the well known auctioneer, who resides at Kansas City, will give two pitchers to the owner of the best Hereford and Shorthorn bull and two heifers under one year old, bred and owned in Texas and exhibited at the show. The pitchers are now on exhibition at Jaccards' in Kansas City and are splendid examples of the beautiful in the silversmith's art. The pitchers are identical with the exception of the engraving. They stand about nine inches high with a broad bowl and mouth,

Cascarets

CANDY CATHARTIC

BEST FOR THE BOWELS

10c 50c. Druggists

Genuine stamped C C C. Never sold in bulk. Beware of the dealer who tries to sell "something just as good."

smooth polish, and of the very latest pattern. Seldom has as handsome a trophy been offered prize winners in any stock show. It was truly a gracious thought of Colonel Edmonson, this idea of presenting the Texas champion Hereford and Shorthorn prize winners with a trophy that will always serve as a reminder of the great victory they achieved at the 1903 show at Fort Worth. The inscription on each pitcher is similar in general.

Mr. H. W. Weiss, of Westphalia, Kans., whose advertisement appears in this issue of the Kansas Farmer, is making a very important sale of Shorthorn cattle, and in order to accommodate his old customers in Iowa and Nebraska concluded to hold his sale at South Omaha. His old location was near Paullina in O'Brien County in the Hawkeye State and it will be recalled that just before he moved his belongings to Kansas he took part in a three days' sale at Paullina with others of his brethren in the Shorthorn business. His sale then was a most successful one, but it turned out to be even better than it seemed from the fact that he had divided most liberally with the public and almost without exception the cattle he sold then have gone on and done just as the buyers would like them to do. He is now advertising another sale, this one to be held at South Omaha, March 13. His offering will consist of sixty head in all, of which ten will be imported Scotch cows and twenty-five American-bred Scotch cattle. One of the most salient features of the value is the fact that no less than twenty calves will be sold with their dams and there is no need to remind readers of this journal that it is the "three-in-one-kind" that pays the best. It may be depended on also that Mr. Weiss means what he says when he advertises anything in connection with himself or his cattle.

Are You Tired of the Farm?

A great number of bright young men, who are working by the month on the farm for comparatively small wages, are desirous of improving their condition financially and it is a commendable ambition. It is no disgrace to be a farmer, in fact it is far from it, but for a young man

160 Acres an Hour.

On one of the bonanza ranches in North Dakota a little incident occurred last winter which illustrates with what nonchalance the natives view events that would create a furore in the East.

A binder expert was sent out from a big harvester plant in Chicago to look after a large number of binders that were in use on the big ranch. He ascertained that the machines would meet him at a certain crossroads at eight o'clock on a certain morning. He managed to be on time at the place designated. For some time no machines put in an appearance, but after waiting impatiently for about an hour he saw a cloud of dust down the road and the long line of Deering machines hove into sight. Accosting the driver of the first machine, he inquired the cause of the delay, and that individual coolly answered: "Sorry to keep you waiting, boss; but we stopped a little way up the road to cut a small piece of oats." The "little piece of oats" amounted to some one hundred and sixty acres. It took just about an hour for that army of Deering machines to care for it.

The Fence Problem.

With the farmer the fence problem is always uppermost. In the endeavor to cut down the expenses of the farm, the cost of building and repairing fences has been taken into account, and it is generally admitted that the best fence for the farmer is one made of plain galvanized iron.

The life, beauty, and utility of a fence all depend upon elasticity—that allows for changes in temperature—that is self-regulating. Farmers and everybody interested in the fence question, should send to the Carter Wire Fence Machine Company, Box 24, Mt. Sterling, Ohio, for their new illustrated catalogue, which will be mailed free to any address. This interesting booklet tells all about wire fences, how to build them, what kind of wire to use, and how they can be made tight. It also describes the Carter Wire Fence Machine, with which a farmer can weave a wire fence right in the field. These



The Western Normal College.

The Western Normal College, Shenandoah, Iowa, is one of the brightest and busiest institutions of its kind. The management of this college are desirous of getting the attention of the young men and young women to the fact that here is a high-class normal and business college at their own door. To this end it is

asked that any young man or woman who reads this, and feels interested, should write his or her address to the Western Normal College, mentioning this notice, and receive in return, free of charge, copy of the Normal Bulletin, which gives a volume of information about the college. Enrollment for this year is upwards of 1,200 students. Address The Western Normal College, Shenandoah, Iowa.

to save enough money from his wages on the farm to enable him to buy one of his own is almost an impossibility at present prices of farm lands, so to advance rapidly he must look for other opportunities. To-day there is no one making a larger amount of money than first-class salesmen. Of course there are plenty of men who do not make a success of selling goods, that is also true in every branch of work, but some of the brightest and most successful salesmen have been raised on the farm. The C. R. Harper Manufacturing Company, of Marshalltown, Iowa, are manufacturing a line of repair tools expressly for farmers to do their own repairing with, consisting of Malleable Iron Vices, Malleable Iron Drill Frames, Drill Bits, Screw Plates, Anvils, Hammers, Tongs, Pinchers, Ball Bearing Forges, etc. They are the best tools manufactured by anyone, and should not be confused with the cheap cast-iron tools which have been sold quite extensively throughout the West. Every farmer knows how much superior malleable iron is to common cast iron. Their tools are giving the best of satisfaction. This company for the past year or two have been placing their goods through the hardware trade, but as that has not been entirely satisfactory to the company, and realizing that in order to keep up with the times they have decided to place their goods on the market direct to the users, thereby saving the farmers one profit. Their intention is to canvass the country with salesmen selling direct to the farmers, and they have an advertisement in this issue on page 273 for good, reliable salesmen to work in Kansas. Any young man who wishes to better his condition should write this company, as they will make him a proposition at which, if he develops into a fair salesman, he can make from three to four times as much money clear above his expenses as he can get on the farm. They want only good, reliable men, and would prefer to get those who have a horse and buggy. If you are looking for something whereby you can make a good, big salary write to C. R. Harper Manufacturing Company, of Marshalltown, Iowa. In case a canvasser calls upon you this season trying to sell you tools, be sure you get those manufactured by this company as they are the only people who manufacture Malleable Iron tools of this kind.

machines are sold at a low price and are fully warranted. Agents are wanted everywhere to sell these machines and the Carter Coiled Wire. Write at once for territory.

A Growing Business.

The great volume to which the trade on Champion Harvesting Machines has grown can in a measure be appreciated by knowing that there are now sixty branch houses in the United States, located at the principal trade centers, and each devoted exclusively to the conduct of the business of the Champion line. Each branch house is in charge of a general agent, who has under him one or more stenographers, bookkeepers, and warehouse men, as well as a number of traveling men. At each branch are carried stocks of machines and a full stock of repair parts, while agents convenient to every locality have on hand such repair parts as are likely to be needed.

Free by Mail.

We call special attention to the advertisement of the Palace Clothing Company on page 264 of the Kansas Farmer this week. It will be noticed that they offer to send a new spring catalogue free to any reader of this paper. It has samples of cloth and the latest spring styles for men and boys. This enables the busy farmer to get the latest and best things in clothing at the lowest possible prices and without loss of time, and we feel in urging our readers to send for this catalogue that we are suggesting a positive benefit. The Palace Clothing Company of Topeka is the leading house of its kind in the West and all orders sent them will have prompt and careful attention.

"From the use of your Packer, I increased the stand of my alfalfa crop 50 per cent last year."—G. G. Burton.

It takes an enormous amount of work but only a little worry to wear a man out. If you advertise in the KANSAS FARMER you get the enormous amount of work it will do for you and your worries will cease.

REGISTERED PERCHERON STALLIONS

AT AUCTION!

AT CORNING, IOWA, MARCH 23, 1903

16 STRICTLY SELECT SHOWY STALLIONS

All young—2- to 5-year-olds; imported and home-bred; mostly blacks and black-greys—many of them ton horses at maturity. These fine, young horses embrace the best there is in Percheron breeding, and likewise the best there is in Percheron form, character, action, and disposition.



...They Will Sell For The High Dollar....

Our buyer, Mr. Ernest Humbert, is fluent in the French tongue; therefore he is an eminently successful buyer in the Percheron Districts of France. He buys only the good ones; and he buys so he can sell. You must see these big flash black horses, sound and thoroughly acclimated and that go like a house on fire. A half-dozen or more of the toppest young stallions in this sale are the get of our great imported stallion, Sully (40430) 21779. This is the greatest Percheron stallion in Iowa to-day and all his get are true to his own type—being typical draft horses from the ground up. If you are inclined to feel "horsey" come and spend the day at our farm. A few mares are catalogued. Write for catalogue to-day.



L. H. HUMBERT & SON, Col. F. M. Woods, Auct. Corning, Iowa.

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.

BROOD SOW SALE!

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.

Herbert Haub.

COL. J. N. HARSHBERGER, AUCTIONEER.

HEREFORDS.

Catalogues describing the registered Herefords that we will sell at Kansas City, May 5 and 6, 1903, will be ready to mail to all applicants, about April 10.

Mention Kansas Farmer. Colin Cameron, Greeley, Kansas

WHEN WRITING OUR ADVERTISERS, MENTION KANSAS FARMER.

Miscellany.

Western Kansas.

Read before Progressive Farmers' Club, by Gomer E. Shouse, Shields, Kans.

Western Kansas, the country so many people have at times wrongly termed "Western Desert," is rapidly increasing in resources and developing conditions which give fair promise of making it one of the richest sections of this grand old Sunflower State.

In speaking of western Kansas, I will take into consideration the western 135 miles of the State, being all west of 99 1/2 deg. west longitude, which is about the western boundary of the strictly wheat section. My part of the State, Lane and Gove Counties, is about eighty miles from the west line. Here we are raising large numbers of cattle, also raise small grains, wheat, barley, and oats quite extensively. In southwestern Kansas, especially along the Arkansas River, where are the notorious sand-hills, the country is devoted chiefly to stock-raising, certain small localities being excepted. In some of these counties reports fail to show even an acre of wheat. Along the western border of the State, and extending east one or two tiers of counties, ranching is done on a large scale; the ranchmen in places practicing almost the same as free range which they have in some parts of Colorado, just across the line. But as a rule, free range and herding is rapidly giving place to the pasture which allows each man to improve the grade of his herd much faster and to a greater degree, as he may desire. In the northern part, the country has been divided into much smaller farms, and much of the buffalo-grass is broken up.

These farmers are raising large crops of corn and wheat, but do not handle a great many cattle, and are making the mistake of selling much of their corn as they do their wheat.

Beginning at the 100th meridian and going through the center of the State westward, the acreage and yield of wheat gradually decreases, and there is a corresponding increase of large cattle herds. Along the Saline, Smokey and Arkansas rivers we find vast areas of alfalfa, and smaller fields of this ideal forage-plant along every creek or branch.

The northern and eastern counties are more densely populated, and with the present rate of emigration, before very many years western Kansas will be full. For the benefit of inquirers, I will say, there is very little homestead land left open to settlement; and what is left, is of poorest quality, being generally in some canyon, of which we have an ample supply along the Smokey.

ADVANCED METHODS OF FARMING.

As a rule, the people of this section are adopting more economic methods in the management of their ranches so as to secure better results. For example, the wheat raiser is getting stock to eat up his straw (which in our soil, if headed short, is good feed), and is pasturing his extra buffalo-grass in summer and wheat in winter. Another improvement is the rapid grading up of herds and the fencing of two pastures, one for summer and the other for winter use, if wheat pasture can not be had. Farmers in this section are giving up the old farming whims of their ancestors and beginning to go after things in earnest, by using varieties of grain, kinds of tillage, etc., and are getting richly repaid for it in crop returns. Wheat sown early makes early enough pasture for weaning calves, and will be an important factor in the production of "baby-beef." Kafir-corn is largely raised for its grain, as well as fodder, and if fed to calves that are on wheat pasture, makes an excellent feed for their fattening period. A few years ago large areas lay idle, unfenced, not even herded over; but that day is past. New settlers are coming in and buying much of the land used for grazing purposes, and they seem to pick for the center of a large pasture, if possible. All cautious ranchmen are preparing for the expected rush next spring, by buying what land they wish to retain for grange purposes.

PRESENT LAND VALUES.

You will naturally ask, "What is land selling for?" and it is not so easily answered. The price largely depends on depth and supply of water, available grass-land, surroundings, and large or small desire of a man to sell or buy; but as a rule, good raw quarter-sections unimproved, and all in grass, sell for from \$120 to \$600, or an average of \$310. Improved land in a large

body, correspondingly higher. These estimates are for Gove or Lane Counties, and it surprising to look over the records and notice the acres of land that have changed hands during the last two years. Grass-land leases for from \$25 to \$35 per section and promises higher. Farm-lands rent for from one-fifth to one-fourth crop rent. The average ranchman, as a rule, has a crop of from 200 to 500 acres of grain, which is harvested with a header; besides 25 to 50 acres of sorghum, usually sown as roughage for his herd, numbering from 40 to 700 head. The predominating cattle are grade Short-horns and Herefords, now generally headed by a pure-bred or very high-grade bull.

Raising of swine is becoming very important as we find we can produce good meat on barley and Kafir-corn, or wheat, and hog-cholera is unknown. Raising of horses and mules is becoming an important feature, and each ranch has a bunch of from twelve to fifty head, and some as many as 300 to 500.

SOIL AND MOISTURE.

Our soil is quite deep, with a light-colored limy subsoil. The soil is neither a loam nor a sand, but rather half way between, having enough sand to prevent stickiness. We, as you know, quite often suffer from lack of rainfall during our growing season, but almost always get plenty of moisture during the year to mature crops if given at the proper time. If we can, by scientific farming, hold that moisture until we need it, as we are doing today by proper tillage, etc., we can revolutionize the rain business.

As fellow citizens of this one of the best States west of the Mississippi, let us put aside the prejudice against Western Kansas that the disappointed office- and fortune-seekers of '85 and '86 gave, and give her what she deserves, the name of an enterprising, prosperous and rapidly developing section.

Instead of the sod dug-out of fifteen or twenty years ago, we can show you residences that compare well with Eastern houses; we can show good herds of grade steers which Eastern feeders know the merit of; also as good schoolhouses and churches, according to the population, which is about one-eighth for the given area as compared with the same area of Eastern Kansas.

I have given you a short sketch of our country, and will gladly answer questions in regard to it at any time; and if you will come out to the "Flying's" ranch, I will take pleasure in showing you a piece of our country. Be sure and come at harvest.

The Country Telephone.

OLE HIBNER, OLATHE.

The telephone is an instrument for transmitting sounds of speech through a wire by means of electrical vibrations corresponding to the sounds. Its use in the practical world is yet in infancy. Scarcely a quarter of a century has elapsed since the first instrument was invented; and it, like every other new invention, is imperfect, waiting for some genius of the years to come, to contribute to its improvement. And how much has already been accomplished! We travel through the country to-day and see in every city and town, and in many parts of the country, a perfect network of wires, each one, probably, carrying communications for hundreds of miles. We step into one of the large exchange offices, and watch the "hello girls" placing the inhabitants of a great city in communication, not only with one another, but with the world at large; we see a person walk up to a little box on the wall, place a small cylindrical stick to his ear, turn a crank a few times, and carry on a conversation with some one a hundred miles away, as though they were right before him; and we are stricken with awe for the more we study over it the deeper we are lost in its mysteries.

I shall not attempt to treat its action technically, save to say that the sound is carried by the breaking, or weakening, of an electrical current, caused by the vibrations of a tympanum, and is reproduced by this broken current strengthening and weakening a magnet which controls the receiving tympanum thus compelling it to vibrate in exactly the same manner as the one by which the breaks in the current were originally caused. The use of the telephone upon the farm—and there is no other place where it is of as much value—was not appreciated at first. Farmers thought as little about using it as they do now about using automobiles or wireless telegraphy. But things have changed, and

the farmer of to-day knows how convenient it is to be able to walk up to the little box on his sitting-room wall and talk to any of his neighbors, or the neighboring town, and the cost seems small to him, because he has learned through experience to appreciate the value of what, so few years ago, was unthought of.

The tendency to let everything alone with which we are not familiar without even attempting to inform ourselves with regard to it is a great handicap to progress.

Now that the farmers have commenced to think about the telephone, it is but a question of time when phones will be as common in the house as a tea-kettle or bottle of lemon extract, and every housewife can find out how many young chickens her neighbor has, what kind of a cake Jennie baked for the social, how Mrs. Brown likes her new hat, etc., without traveling all over the country.

FROM A BUSINESS POINT OF VIEW, the same principles will apply to the telephone that apply to creameries, banking, merchandising, etc. It requires capital to start and conduct it, and that capital may be either private or corporate. The advantages of corporate capital are more distinctly marked in this than any other business enterprise I have ever observed. It is not so complicated or indefinite. When you take stock in a cooperative telephone company, you can estimate within a few dollars the cost of your line and fixtures, you can tell very nearly what the operating expense will be; and you can tell to the dollar the amount of your income; and thus be able to figure the per cent income almost exactly, let that be profit, balance or surplus; thus making one of the most definite investments known to the business world. If properly conducted, it is about as definite as loaning money on first mortgages, and a great deal more easily accomplished.

If you go into the mercantile business, trade is liable to fall off any time; or if you go into the banking business, very often paper that seems to be gilt-edged will at last prove worthless; but when you invest in a local telephone exchange, you can figure out just what you are to receive; thus the first and principal advantage is that it is independent and definite.

DIFFERENT KINDS.

There are a great many plans of local cooperative rural telephone exchanges, and nearly all of them seem to be successful and giving satisfaction. In some parts of the country, each buys his own 'phone and pays his part of the constructing and operating expenses, and furnishes his own repairs. In other places, they organize and capitalize companies, build the line and rent 'phones to those who do not take stock, and apply the rent thus received on running expenses. In other places they buy their own 'phones and attach them to barbed wire fences, clothes-lines, etc., or string a wire down the hedge fence, any of which systems answers the purpose, and some of them very well. I prefer a system where they organize, capitalize, just the same as though they were going to run a cooperative mercantile association, have their organization named and chartered, construct their line, and rent to the stock-

holders at the same rates as to any one else, always paying a fixed interest on the capitalization.

The objection is sometimes made to this system—that it is a money-making scheme, and is partial, but this is not true. First, because any one who wants a 'phone can have it, and at the same rates as those who hold the stock, and many people can do that, when financially they would not be able to pay \$50 or even \$25 cash in order to talk to their neighbors; but if they are able and want to, they have the privilege of taking stock, and would own their 'phone just as much as though they had bought their own particular instrument and placed it in the house themselves. Secondly: Because it is not fair to pay stock into the capitalization to an amount greater than your own share of the expenses and not receive interest on the investment any more than it would be to, be required to furnish two miles of line in order to get to some other person's house. Third: Because of uniformity in the system; and there is nothing with regard to the business so important as uniformity. If the people furnish their own 'phones, some will have one pattern and some another; some will have dry batteries and others sal amoniac; some will have 1,000 volt ringers, and some only 500. Under such conditions it is almost impossible to call one of the neighbors, if everything else is perfect, much less talk to him. Some people will put up their own 'phones or have the hired man do it; others will have an expert arrange the entire instrument; and the natural consequence is that some have lightning arresters, and some have none; some have their lightning arresters arranged so they are a protection, and others have their 'phones burned out every time it thunders.

Another thing that is liable to be

overlooked is the quality of the instruments. If the organizers are not familiar with telephone work and manipulation, they are liable to get a poor instrument because it looks well, and the man who is trying to sell it says it is all right, and can be bought \$2 or \$3 cheaper than other 'phones; and as a result, it is out of repair one-half of the time; and when you finally want to connect with some neighboring line, your 'phone is too weak to carry on a conversation thirty miles from home. But when you are organized and chartered, having a paid-up capital, and a list of subscribers with a fixed monthly rent, and an expert employed to put up your line, you have unconsciously arranged for all these things, for you have placed the construction in the hands of one who knows his business, and who can proceed with system and despatch to put up your line and instruments; and you will then have made an addition to your neighborhood which you can well afford to be proud of, and which will live for years after you and bear a record of your good works to the generations yet unborn.

Another very important consideration in the locating of a telephone system upon your farms, is the advance it gives the value of your real estate. Besides being an improvement whose usefulness and convenience is almost inestimable, it shows to the stranger in that locality that the people there are progressive and up to date, and a buyer would at any time feel like paying a little more to be among the best class of people.

RETROSPECTIVE.

It is difficult for the people of to-day to appreciate the advancement of the period in which we live; born in the nineteenth century, surrounded by all the conveniences of an advanced civilization, the things which result from genius so common to the present, blend indistinguishably with the endowments of nature in her unmodified realm, and we look at the wonders of the age without the slightest mark of awe, until thought transforms the simple into the complex, the familiar and commonplace into the marvelous and mysterious, and is lost in the vast oblivion of infinity. What do you suppose Julius Caesar would have thought if he could have walked up to a little box on the wall of the Capitol, or into a little booth in the Roman Forum, and talked to Mark Antony, over in Trans-Alpine Gaul? Or imagine the amazement of even General Grant at the time of the Civil War, if he could have called up President Lincoln, and talked with him about the plan of the campaign, or reported some of his great victories. And yet we, only a comparatively few years later, walk up to our little box, talk to whomever we please, and hardly give its wonderful mechanism a passing thought. How feeble are the minds of men, and vast the field in which they dwell.

THE FUTURE.

The tendency in times past has been for the farmer to be the last to enjoy the advantages of scientific research, but the time is coming, and is not far distant, when the farmers of this country will enjoy the advanced and up-to-date, in conjunction, or even in advance of those who now look at them as "the lower classes."

The tiller of the soil has the right to the first place in the realm of society, and the time has about arrived when he is to reclaim his own, though, through the lapse of many centuries in the estimation of the outside world, he has dwelt in the lower circles of the social function, and he alone has the power of redemption and restoration to the place which has rightfully belonged to him since the very dawn of temporal existence. There is but one way in which this can be accomplished, and that is, by modernizing the mind, and opening up a new and broader field of thought, coming out of the beaten rut, the trodden paths, and entering the portal that opens the field of progress.

This is rapidly being done. To-day the farmer has more improvements on his premises than ever before; and every day and year brings something new to add to the glory of the country home—the gasoline engine, the rural free delivery, and now the telephone. God in His infinite wisdom only knows what the future has in store, or how soon that store-house will be opened to bless the rural world.

If we continue to advance in the road in which we are now traveling there can be but one future in our path, and that is too bright for me to attempt to picture. Let it be sufficient to say that when there is nothing left

of the present century save a few rusty records and the mouldering forms of its genius, and a rumor drifts across the years of the suffering of the dependent tiller of the soil in the past, it will flutter for a moment in the atmosphere of thought and die forever in the memory of the rural king.

More About Telephones.

EDITOR KANSAS FARMER:—In regard to an inquiry on "Wire-fence Telephones," I would say they are not satisfactory for many reasons, chiefly these: Too many weeds along fences which impede the circuit; also, the grounding of the circuit at the posts.

Let me tell you of a better plan. Start a subscription paper for cost of posts, wire, and insulators, among your neighbors from your community to some central point, say, your town. Figure your cost per mile, and an equal amount of labor from each subscriber. Ordinary hedge posts twelve feet long set in the ground two feet, will do until you reach "by-roads" and cross-section roads which must be high enough to admit and not hinder high loads. The posts should be set 55 feet apart. Insulators, bolts and No. 12 wire need not cost you over \$8.50 per mile. Have the "phones" of a good class, and each stockholder own his "phone" as private property. Good, first-class 'phones will cost you from \$11 to \$14.

We started a line nine miles in length with seventeen 'phones last fall, and now there are in course of construction eight lines, with 100 miles of wire which will be completed shortly. There should not be over twenty 'phones to each line (single wire we use), as more will cause the line to be loaded, and prevent good service.

Now, my fellow farmer, get in line. Do yourself a favor and start your rural telephone. CHAS. N. HUFFER. Cherokee County.

Many Changes Asked.

EDITOR KANSAS FARMER:—Politics of to-day is a very complicated thing. Not one in a thousand, perhaps, understands the intricacies of red tape.

Politics is a machine and as such it must do the will of its creators. People have nothing to do except vote for and elect a certain set of men, and then endure laws made for them and against themselves. I am not an alarmist nor a radical, but try to be conservative and fair-minded, respecting every one's opinions and desiring the same treatment. The KANSAS FARMER has kindly given its readers an opportunity to express their views in regard to legislation, and we presume this to mean that each one may have the privilege of stating exactly what reforms are needed to produce a better state of society. Any change which will accomplish this should be inaugurated; and the quicker we learn to lay aside prejudice and adopt progressiveness the sooner we will approach an ideal state. It must be apparent to all thinking men that we are living under a profit system and are likely to for some time to come.

As like begets like, and cause and effect are relative, we logically must expect certain results to arise from certain causes. The trust system is but an outgrowth of the profit system and is legitimate as long as the system which produced it is lawful. Trusts were formed to produce more profit, as one might expect. Each one of us is endeavoring to do the same thing, and as long as we foster the profit system so long must there be rich and poor. Abolish it! Thousands are of the same opinion. In an editorial, also in articles by Bro. Gleed and Dr. Wallace, railroad discrimination is forcibly pointed out, but there is no remedy suggested. Under the profit system and private ownership, the railroad companies have a perfect right to haul for one man for nothing and extort two prices from another. This howl about trusts and railroad discrimination and bad service is nonsense. They and many other evils also, are the results of the profit system.

Let us seek a remedy. The only logical one is to remove the cause, which is the profit system.

Among the changes needed I suggest the following: Initiative, imperial mandate, direct legislation, referendum, proportional representation, right of recall, annual school meeting to be held sometime between October 1 and April 1, reduction of public highway by petition to forty feet, especially in the more southern States where snow never obstructs the road; a law granting to every farmer, who has no natural forest, not less than \$2 and not more than \$4 per acre per year, for a period of five years from date of planting, who shall plant and cultivate one or more acres of forest-trees; a law ex-

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FREE FARM OF 160 ACRES
IN THE FAMOUS
Saskatchewan Valley
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To the Renter, the Farmers' Sons and Poor Man, this is an opportunity to secure absolutely FREE a good Farm in the fertile SASKATCHEWAN VALLEY OF WESTERN CANADA, a country where crop failures are unknown. This is your opportunity. Don't Wait, these Farms will be taken up rapidly. WRITE NOW.

We have a colonization arrangement with the Canadian Government to locate on our lands a limited number of settlers; as soon as this contract is completed this offer will be withdrawn. You have nothing to pay excepting a homesteaders' fee of \$10.00 to the Government of Canada. You do not pay us a penny.

We furnish free liveries and experienced men to locate you. Reduced Railway Rates any day. Write for information, Maps and descriptive matter.

THE SASKATCHEWAN VALLEY LAND CO. Ltd. 305 Jackson St.
ST. PAUL, MINN.
NOTE.—This Company has the endorsement of this paper.

empting the owner (who must be an actual farmer) from taxation on the following property, viz., one registered bull, one registered boar, one registered ram, one registered goat; and a law providing that all poll-tax shall be paid in cash to the county treasurer and be credited to each township whence it came; and a road overseer be elected to keep in continual repair such an amount of road as the character of the land will permit, and to hire men who shall perform a legal day's work, giving a check on the treasurer which must be cashed on presentation and endorsement.

Hoping these few remarks will cause agitation which may end in ultimate good, I extend my best wishes to the KANSAS FARMER for the courteous invitation given its readers to present their views through its columns.

We feel that time spent in investigation and exchange of experience is not lost, and that slowly but surely the American people are progressing toward a more perfect condition. Reading, experience and training are the most powerful factors of progress.

Medford, O. T. L. A. WELD.

The invitation extended to readers to discuss needed legislation was intended to apply to matters that might or should come before the present session of the Kansas Legislature. In admitting the above paper with its liberal digressions into advocacy of measures the adoption of which would mean radical changes in some directions, the editor reserves the right to cut off the discussion without reference to the feelings of writers.

Asks Drastic Legislation.

EDITOR KANSAS FARMER:—We need legislation creating a secret service for our State. Thieves, robbers, gamblers, perjurers, horse-thieves, safe-robbers, and murderers abound. City, county and State officers unlawfully take fees or boodle. Candidates for office use cigars, whisky or money to influence voters. These and other law-violators would cease their unlawful practices if the State would enforce her laws, as Uncle Sam does, by providing a secret-service.

Labette County. C. E. HILDRETH.

State Prairie-dog Poison.

EDITOR KANSAS FARMER:—I would like to inquire if carbon bisulphide will kill prairie-dogs? Does the State furnish anything to kill them?

Clay County. JAMES P. MORLEY.

Prof. D. E. Lantz, Manhattan, Kans., State agent for the discovery of means to kill prairie-dogs, supplies at cost the best exterminator ever found for the destruction of prairie-dogs and pocket-gophers. Write to him for bulletin on the subject and for instructions about procuring the poison.

The Road Problem.

EDITOR KANSAS FARMER:—I am glad to see so much discussion of road laws. Kansas certainly comes as near having no road law as any State in the Union, and it is high time that a law was enacted along sensible, business-like lines, not only requiring but compelling judicious, timely, and workman-

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NEW UNIVERSAL
Hand Seeders and Cultivators.
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They do perfect work. Save time and money. Open furrow, drop seed, cover any desired depth, also marks next row. Latest and best Cultivating Attachment. Best material throughout. 1903 catalog describing our full line, free.



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YAZOO VALLEY

Of Mississippi—Specially Adapted to the Raising of

COTTON, CORN, CATTLE, AND HOGS.

SOIL RICHEST IN THE WORLD

WRITE FOR PAMPHLETS AND MAPS.
E. P. SKENE, Land Commissioner,
Central Station, Park Row, Room 456,
CHICAGO, ILL.

like expenditure of road-tax and labor. If we had good dirt roads, we should not need macadamized roads; and if we had a good road law we would have good dirt roads; and the expense need not be greater than under the present system.

Supervisors ought to be selected some other way than by election, but however selected, they ought to be held liable to a fine of not less than \$5 nor more than \$50 for neglecting the roads. At least one-half of the road-work and most of the grading should be done by June 1.

R. C. BERRY.
Anderson County.

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 of every farmer, miner, merchant, and professional man along its lines. The development of the products of any section of the country means just so much more capital to be spent in that section. Prosperous neighbors make a prosperous community, especially if they live and have their interests at home.

It is this class of persons that the Missouri Pacific Railway asks the patrons along its lines to invite to their sections. You furnish the names and addresses, and we will furnish the necessary descriptive and illustrated literature to induce them to settle in your community. We wish to colonize the West and Southwest, and offer every inducement in the way of excellent transportation facilities and low rates to all prospective settlers and homeseekers.

H. C. TOWNSEND,
General Passenger and Ticket Agent,
St. Louis, Mo.

When writing advertisers please mention Kansas Farmer.

The Young Folks.

Conducted by Ruth Cowgill.

CONTENT IN THE COW COUNTRY.

Stranger, hoard up all your riches,
Count your gold an' bonds an' stocks,
Reckon up your yearly profits,
Ere you lock up that strong box.
But you'll never feel the freedom
Of us fellers on the range,
For our life, without such worry,
Would, to you, seem passin' strange.

You kin ride on rubber cushions,
You kin roll on smooth-paved street.
We don't feel a touch of envy
With God's grass neath our feet.
True, our manners may seem lackin',
An' our clothes a little slack,
But you can't discount our frien'ship,
An' our word we don't take back.

No, the homes upon our ranches
Won't compare with your grand pile.
We don't have now bowin' servants;
We don't go so much on style.
But we've plenty, an' we're happy—
More than that no wealth can gain.
An' we breathe the air of Heaven
Where the blue dome rims the plain.

Stranger, people can't be narrow
In a land, like ours, so wide—
An' if humble seems our mission
As around our herds we ride,
You must mind it was to herdsmen
That God promised much of old;
An' His love to strayin' cowmen
Would corral us in His fold.

—B. J. T.

The Present National Capital.

"Washington to-day, says a writer in Atlantic Monthly, 'bears no more relation to 'the Federal City,' founded by the first President than the blue lump of clay does to the flashing diamond. The Continental Congress was a movable body. It sat in eight places. It fled Philadelphia because its proceedings had been disturbed by a mob which had not been promptly quelled. It was largely fear of the mob which governed Congress in not locating the Capitol in or near a large city, which forced it to reject the claims of New York, Philadelphia, Wilmington, Harrisburg, and Baltimore. A site on the Potomac, fiercely denounced by the New England members as an unhealthy wilderness, was offered. It was accepted reluctantly by both houses; and, under the authority conferred on him, President Washington appointed surveyors to locate the boundaries of the ten miles square over which Congress should have exclusive jurisdiction. It was hoped (an inspiration shared even by Washington) that the new city was destined to become the 'greatest commercial emporium' in the United States. Fortunately for itself and the country, it has been saved from that fate. The city of Washington is the first instance in history of a nation's capital created by legislative enactment; all other capitals have been part of the process of national evolution. The men who acted, the men who planned the city, had faith in the future, and the audacity which belonged to genius. It was an age of narrow streets; of houses jammed together, shutting out vista and light; of beauty sacrificed to the material. With almost superhuman foresight, these men pictured the Washington of the century to come; they created wide streets and magnificent avenues, and reserved one-half of the city for parks and open spaces, so that its inhabitants might forever be gladdened by the sight of grass and flowers, and turn from the work of man and find a new joy in nature. When, a hundred years ago, the seat of government was transferred from Philadelphia to Washington, the crude city boasted but a few hundred houses, and only one executive department completed and ready for occupancy, all else was faith; but men who had created a nation were justified in believing they could build a city. How well they build the world knows. It is the center of the imperial diadem of cities, the pride of the New World, the admiration of the Old."

The plan of the city was made by a Frenchman, assisted by Thomas Jefferson. It is like no other city in the world except Versailles, which served as its model. Instead of having streets laid off in regular squares as in most cities, the streets radiate outward in all directions from the capitol, which are crossed by broad avenues. This plan gives opportunity for many small parks, and the city is thickly dotted with little oases of flowers and grass. A beautiful city, it is called, having the charm of a Southern climate and Northern ideas; a city of ease and leisure, of trees and free air and long distances, of a widely varied population. Here comes the sturdy, breezy Westerner; the correct, punctilious Bostonian; the chivalrous, leisurely Southern gentleman; that copper-hued stoic, the Indian, and his volatile

brother, the negro. Here, too, come people from all other nations; the "heathen Chinese" (often of wit, however, which puts the arrogant American to shame), the Englishman, the Frenchman, the German, the Italian, the African, the Japanese. The rich and the poor, the titled and the low-born, the soldier, the sailor, the ambassador, the statesman, and the politician, from all over the world, come to Washington. Some one has said that if you stay in Washington long enough, you may see any one you wish, for everybody goes there. We are glad it has become a place of whose beauty we need not feel ashamed before the proudest eyes.

It was not until 1871, however, eighty years after its founding, that it began to grow beautiful. Our forefathers were very economical gentlemen, and considered that they ought not to waste their few hard-earned dollars in so frivolous a way as making public buildings there, grading the streets, and planting trees and parks. The city of those early times is described as a most uncomfortable place to lodge in, or to travel through, dirty, ill-kept, unpaved, with few and poor lodging places, in short, a backwoods town in the wilderness.

The original plan of its founders was that Washington should grow upward over the bluffs of the Potomac. But Americans were speculators ever, and the enterprising owners of land in that desirable direction put up the price to 75 cents and \$4 a square foot. This seemed to the settlers too steep a price, so they contented themselves with land on the other side at 10 or 25 cents a square foot. This land was a swampy place with no attractions to home-seekers except the price, yet this was sufficient inducement to draw the trend of the city in that direction, so that the enterprising but disappointed men were left in possession of their valuable land, and Washington grew up out of a swamp, to the great surprise of everybody from that day to this.

Washington has some of the most beautiful public buildings in the world. The art building is called the most beautiful in the world. Washington's monument is the highest in the world, a needle of beautiful crystal marble, 470 feet high. It will stand for ages to remind the world of one of its greatest and best citizens, and to keep in the minds of Americans a reverent memory of their earliest great man.

America's Nine National Capitals.

How many readers could tell off-hand the number of National Capitals this country's Congress has sat in, and give the names? Not many, probably. Well, there have been nine of them—Washington, D. C., Baltimore and Annapolis in Maryland, Trenton and Princeton in New Jersey, Philadelphia, Lancaster and York in Pennsylvania, and New York City. The first session of the Continental Congress was held in Carpenter's Hall, Philadelphia, September 5, 1774. Thereafter the American Congress was for a long time something like the Philippine Congress while the latter was dodging American troops—and for much the same reason. Fearing to remain in Philadelphia after the defeat on Long Island, Congress went to Baltimore, and voted George Washington dictatorial power for six months. Congress returned to Philadelphia two months later, February 27, 1777. Lancaster and York got their sessions after the defeat at Brandywine. Congress again retreating. Nine months the law-makers remained in York; news of Burgoyne's surrender was received there. Then six months in New York and another term in Philadelphia. Menaced by unpaid troops, Congress went over to New Jersey. Sessions were held in Princeton College library. Annapolis next, where General Washington resigned his commission. Trenton had a trial then, with Henry Lee as President. Here Lafayette took leave of his American allies.—From "Affairs at Washington," in March National.

Put Yourself into Your Work.

If you would have your work count for something, put yourself into it; put character, originality, individuality into everything you do. Don't be satisfied to be an automaton. Determine that whatever you do in life shall be a part of yourself, and that it shall be stamped with superiority. Remember that everything you do of real value must have the impress of yourself upon it, and let that be the evidence of excellence and superiority.

You will find that devotion to your work will pay. Superiority of method,

progressiveness, and up-to-dateness, leavened with your own individuality, are permanent.—February "Success."

Fables, Past and Present.

Telling stories to point a moral has long been a favorite mode of preaching. Aesop, perhaps the best, and certainly the oldest adept at this art, lived in 620 B. C. He was a slave in Greece when a boy, but because he was so witty, he was made free, and after his death a statue was erected to him. George Ade, the modern most famous fabulist, has a history as different, as his fables are different, from those of Aesop's. He is a successful and popular playwright.

Here is a specimen of the ancient's art:

THE OWL AND THE NIGHTINGALE.

A formal, solemn Owl had for many years made his habitation among the ruins of an old monastery, and had pored so often over some mouldy manuscripts, the stupid relics of a monkish library, that he grew infected with the pride and pedantry of the place, and, mistaking gravity for wisdom, would sit whole days with his eyes half shut, fancying himself profoundly learned. It happened, as he sat one evening half buried in meditation and half in sleep, that a Nightingale, unluckily perching near him, began her melodious lays. He started from his reverie, and with a horrid screech interrupted her song. "Begone," cried he, "thou imperitinent minstrel, nor distract with noisy dissonance my sublime contemplations; and know, vain songster, that harmony consists in truth alone, which is gained by laborious study, and not in languishing notes, fit only to soothe the ear of a lovesick maid." "Conceited pedant," returned the Nightingale, "whose wisdom lies only in the feather that muffle up that unmeaning face; music is a natural and rational entertainment, and, though not adapted to the ear of an Owl, has ever been relished and admired by all who are possessed of true taste and elegance."

Contrast this with one of George Ade's much-talked-of fables:

THE 90-POUND KNIGHT ERRANT AND HIS LADY FAIR.

Once there was an Estimable Lady named Mrs. Killjoy, who used to hunt for Trouble with a Search-Warrant.

She was not happy unless she was being insulted. Before anybody chirped she knew that she was going to have Bricks thrown at her Character.

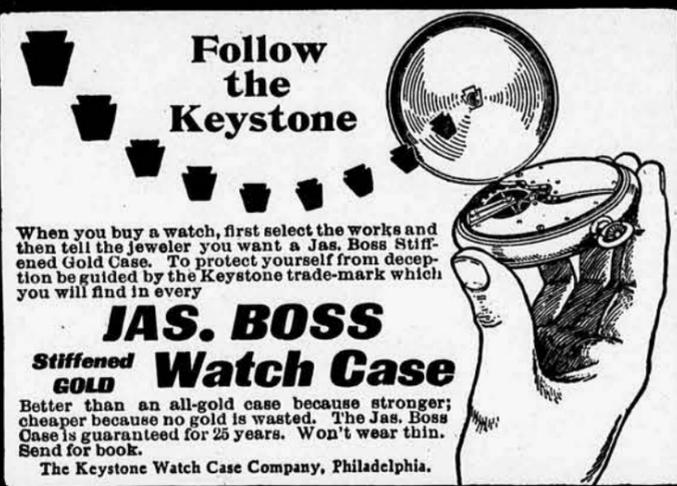
Mrs. Killjoy held to the obsolete Theory that Man was put into this Mundane Trouble Factory to protect weak and defenseless Woman from all Slurs, Sights and Insults. That is why she picked out for her True Knight an undeveloped Specimen about the size of a Philadelphia Squab, with four-inch Biceps.

His steady Assignment was to fight her Battles. Mrs. Killjoy was one of those Sensitive Plants who could not get into a Trolley without having some one rudely Stare at her. She always suspected that the He-Salesmen in the Stores were trying to make Love to her, and if any Man happened to be walking behind her on the same side of the Street, she Knew that she was being Pursued.

"Are you going to sit here and allow your Wife to be Insulted?"

That was the Speech she would hand him when they were out together. Then it was up to him to call some 200-pounder, or else be prepared to lie awake half the Night and listen to the Story of her Wrongs.

Sometimes he suspected that she



Follow the Keystone

When you buy a watch, first select the works and then tell the jeweler you want a Jas. Boss Stiffened Gold Case. To protect yourself from deception be guided by the Keystone trade-mark which you will find in every

JAS. BOSS Stiffened Gold Watch Case

Better than an all-gold case because stronger; cheaper because no gold is wasted. The Jas. Boss Case is guaranteed for 25 years. Won't wear thin. Send for book.

The Keystone Watch Case Company, Philadelphia.

wanted to realize on his Life Insurance.

His usual Play was to promise to be an Avenger. Then he would hunt up the Person who had grossly insulted Mrs. Killjoy and apologize in her behalf, and say that she was a trifle Dippy.

What Mrs. Killjoy needed was a Husband in a full Suit of Armour mounted on a White Horse and thirsting for Blood. She had read the wrong kind of Books. Husband knew that she would stack him up against it sooner or later.

Sure enough, one Day he found her in Tears and learned that the Man delivering the Coal had been Impertinent and had failed to remove his Hat while speaking to her. She wanted to know if Mr. Killjoy was a Man or a Mouse, and that settled it. He went out to roast the Teamster, and she followed along to Gloat.

The Teamster was a Low-Brow, with a 48-inch Chest, and he did not know a thing about the Henry of Navarre Business. He grabbed Mr. Killjoy and dusted the Bin with him.

While the sufferer was in the Hospital, waiting for the Bones to join, Mrs. Killjoy sat beside him and said: "As soon as you are well enough to be around, you must hunt him up and Shoot him."

"I will," said the brave Knight, "if I can get one of those Sandy Hook Guns that will carry Six Miles."

Moral: In these Days Chivalry must wear a Tag, or it will not be recognized.

A Boy Who Became Famous.

A boy, only 6 years old, was sailing with his father down the Danube. All day long they had been sailing past crumbling ruins, frowning castles, cloisters hidden away among the crags, towering cliffs, quiet villages nestled in sunny valleys, and here and there a deep gorge that opened back from the gliding river, its hollow distance blue with fathomless shadow, and its loneliness and stillness stirrings the boy's heart like some dim and vast cathedral. They stopped at night at a cloister, and the father took little Wolfgang into the chapel to see the organ. It was the first large organ he had ever seen, and his face lit up with delight, and every motion and attitude of his figure expressed a wondering reverence.

"Father," said the boy, "let me play." Well pleased, the father complied. Then Wolfgang pushed aside the stool, and, when his father had filled the great bellows, the elfin organist stood upon the pedals. How the deep tones woke the somber stillness of the old church! The organ seemed some great, uncouth creature roaring for very joy at the caresses of the marvelous child.

The monks, eating their supper in the refectory, heard it, and dropped knife and fork in astonishment. The organist of the brotherhood was among them, but never had he played with such power. They listened; some crossed themselves, till the prior rose up and hastened into the chapel. The others followed; but when they looked up into the organ-loft, lo! there was no organist to be seen, though the deep tones still massed themselves in new harmonies, and made the stone arches thrill with their power. "It is the devil!" cried one of the monks, drawing closer to his companions, and giving a scared look over his shoulder at the darkness of the aisle. "It is a miracle!" said another. But when the boldest of them mounted the stairs to the organ-loft, he stood as if petrified with amazement. There was the tiny figure treading from pedal to pedal, and at the same time clutching at

the keys above with his little hands, gathering handfuls of those wonderful chords as if they were violets, and flinging them out into the solemn gloom behind him. He heard nothing, saw nothing, besides; his eyes beamed, and his whole face lighted up with impassioned joy. Louder and fuller rose the harmonies, streaming forth in swelling billows, till at last they seemed to reach a sunny shore, on which they broke; and then a whispering ripple of faintest melody lingered a moment in the air, like the list murmur of a wind harp, and all was still.

The boy was John Wolfgang Mozart.—Christian Intelligencer.

For the Little Ones

A HUNGRY SPIDER.

A hungry spider made a web
Of threads so very fine,
Your tiny fingers scarce could feel
The little slender line.
All round-about, and round-about,
And round-about it spun,
Then straight across and back again,
Until the web was done.

Oh, what a pretty, shining web
It was, when it was done!
The little flies all came to see
It hanging in the sun.
All round-about and round-about,
And round-about they danced,
Across the web, and back again,
They darted and they glanced.

The hungry spider sat and watched
The happy little flies;
It saw all round about its head,
It had so many eyes.
Round-about, and round-about,
And round-about they go,
Across the web and back again,
Now high, now high, now low.

"I'm hungry, very hungry," said
The spider to a fly.
"If you were caught within the web
You very soon should die."
But round-about, and round-about,
And round-about once more,
Across the web, and back again,
They flitted as before.

For all the flies were much to wise
To venture near the spider;
They flapped their little wings, and flew
In circles rather wider.
Round-about, and round-about,
And round-about went they,
Across the web, and back again,
And then they flew away.

—Anon.

Jack, D. D. S.

"Mama, how soon can I have my dollar?" asked Arthur.

"Just as soon as the teeth are out, dear. I hope you will show Dr. Morse that you are a brave little man."

"Mama, why does the doctor have 'D. D. S.' on his sign?"

Arthur had learned the letters from his building blocks, and was always picking them out when his mother took him down town.

"They stand for words that are too hard for you to understand, dear, but they mean that Dr. Morse pulls teeth, instead of giving medicine, like Dr. Ray."

"Dr. Ray has 'M. D.' on his sign," said Arthur, looking across the street.

"I wonder if they'll hurt very bad?"

"The 'M. D.' hurt?" laughed mama, for Arthur was beginning to look quite sober. When the doctor pulls, out will come your crooked little teeth to make room for a nice strong set. You know, if these stay in your mouth much longer, the next ones will be crooked, too."

"May I spend the dollar to-day?"

"I thought you wanted to buy a collar for Jack. Do you think you can find one to fit without bringing him to the store?"

"Yes, mama, I am sure I can. Jack's neck is just this big, for I felt it this morning." And Arthur showed with two small hands the exact size of doggie's shaggy neck.

By this time they were climbing the stairs, and Mrs. Myers read a notice tacked on the door saying that Dr. Morse was out of town, and would not be home for several days. Arthur did not know whether to laugh or to cry when mama told him. He was glad not to have the teeth pulled, but he could not have the dollar papa promised him till they were out, so poor Jack would have to wait for his collar, and that was dreadful. Fido Ward and all the other dogs had shiny new collars, and Jack, who was much nicer than any of the rest, had only a piece of rope around his neck, so Arthur could lead him.

"Never mind, Jack," whispered Arthur, putting his arms around his pet as soon as he got home. "It was all the fault of that doctor for not staying in his office. I'm just as sorry as you are, but in a day or two you will have the best collar in town."

Jack wagged his tail and looked as if he understood every word. Then the two playmates had a fine romp in the grass till both were out of breath. At last Jack fell asleep under the big

apple tree, and Arthur, who had both hands filled with ripe fruit, caught hold of the rope with his teeth, intending to give it a little pull to awaken the dog. At this moment Mary, the cook, opened the kitchen door, and called, "Here, Jack! here, Jack!"

Jack saw the plate in her hand, and thought it must have something nice on it for him. He made a great spring before Arthur could let go of the rope, and jerked out all the crooked little teeth that Arthur was afraid to let any one touch. Mama heard a great screaming, and rushed out to find her little boy looking in the grass for his missing teeth.

"What name shall I put on the collar?" asked the clerk, politely, as a small boy with very few teeth looked over the stock of dog collars.

"Put on 'Jack, D. D. S.' 'cause he pulled my teeth," said Arthur; and the man laughed when he heard the story. "I don't believe it hurt half as bad as if the doctor had pulled them. Anyway, I'm glad Jack won't have to wait any longer."—Hilda Richmond, in Sunday School Times.

Puzzle Corner

1. Behead a forage-plant and leave a warm admirer; behead again, and leave above.
2. My first is a preposition; my second is an article of man's attire; my whole is to lay out money in property.
3. My first is a young lady; my second and third make a preposition; my last is to rest on the feet; my whole is to take in a wrong sense.
4. Square please.

Answers to Last Week's Puzzles.

1. Because each must be broken before it can be used.
2. Debts.
3. Water.
4. Wheat, heat, eat.
5. Catalogue.
6. P A P E R
A B O V E
P O R E S
E V E N T
R E S T S

The Apiary.

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

Early Spring Work With Bees.

Perhaps the most critical time during the entire year with bees is during the month of March. This month large numbers of colonies perish that might otherwise be saved by a little attention. Starvation and the loss of queens is the principal cause. If there is a time during the whole year, that we should remember the bees and save the most with the least attention, it is now. A colony of bees can not remain long alive if their food supply has given out, and a colony will soon become extinct now if it has no queen.

Bees may be thoroughly examined, the hive opened, and the contents inspected on any warm day when the bees are flying, and it is a rare exception that many of this kind of days do not appear at this season of year; hence, when we find the bees on the wing on one of these days we should take advantage of the opportunity and make an examination of their condition. It is usually a difficult matter to obtain queens at this season of the year to stock up queenless colonies, but we can save the bees by uniting them with some other colony, and thus strengthen the one we unite with.

When a queenless colony is found, take it up, bees and all, set it on top of some other colony, and thus let the bees go below to the colony containing the queen, which they will always do. A few missing colonies will, perhaps, furnish some honey for other colonies, and the frame of honey thus given to others, is of the greatest advantage to those that may be short of food. Frames of honey given colonies that are scarce of provisions is the best way to feed them now as we can not feed liquid food too early. When the bees fly often, once or twice a week, it is safe to feed them a little liquid food; but if the weather is such that they can not thus get frequent flights, we must feed otherwise. In this case we can feed them candy made in cakes and laid over the frames of comb directly over the bees as they cluster in the brood nest. Sugar fed on this plan is a decided success as far as keeping the colony alive

and in good condition, but just as soon as the weather will permit, we should promptly feed them pretty heavily on syrup in order to give them a chance to store a good quantity of it in their combs for future use. Each colony of bees at this time, and on until the honey harvest opens, should have as a reserve store not less than twenty pounds of food; and a good quality of sugar, such as the best of granulated, is as good in every particular for this purpose as the best quality of honey gathered from flowers.

Keep the hive well protected in early spring. If you are using chaff hives, or double-walled hives of any kind, leave them on until all cold weather is gone. Stripping the hives of their winter protection too early is a detriment to them; hives well protected in early spring will raise more young bees, and come out stronger at the beginning of the honey harvest, than those unprotected. The greater amount of natural heat retained in the hive by good protection by packing around the bee sin any manner, the larger will be the brood nest, and more space occupied in breeding. The queen is capable of largely increasing her laying capacity at any time, but she must be confined to the amount of space the cluster of bees can keep warm enough to rear and hatch brood.

Queenless colonies are not only a loss themselves, but to allow them to remain sitting in this condition where the other bees can have access to them, will induce robbing, and thus create a bad disposition among the other bees. It may lead to excessive robbing even of good colonies, and be the means of heavy destruction, hence the importance of promptly taking them up. Many queens do not survive the winter, especially old queens.

If your bees are not in the best of shape, in good movable frame hives, or even if they are in the latest and best standard hives, you should give every hive a good overhauling early in spring. The best time to do this is when the bees are beginning to gather a little honey, and when the fruit-trees are in bloom is usually the best. Clean the insides of the hive of propolis, and trim up all the frames of comb, and put them in line shape for handling. Many combs become too thick from surplus honey stored in them the season previous, and it is almost impossible to manipulate them with the requisite number in the hive. Take a sharp knife and shave them down to the proper thickness, and thus have the brood chamber well dressed up for handling.

Get hives and all fixtures in readiness early, for it is too late to make the effort just when you need them. This is the greatest cause of so many bees being put in improper hives of every description. You want every hive in the apiary just alike so you can change any part of one to another, etc. Standard hives can be procured conveniently almost anywhere, and as uniformity in bee-hives has now been established everywhere, there is but one kind now to be found. A colony of good stock of bees in a good standard hive is worth as much as a cow or a horse, and I am inclined to believe that the expert beekeeper will come out at the end of the year with more clear money than the other fellow.

Boys who make Money after School Hours

Over 3000 Boys in various parts of the country are making money in their spare time selling *The Saturday Evening Post*. Some make as much as \$10.00 and \$5.00 a week. Any boy who reads this can do the same.



IN A DAINTY little booklet, which we will send to any boy free, the most successful of our boy agents tell in their own way just how they have made a success of selling

The Saturday Evening Post

There are many stories of real business tact. Pictures of the boys are given. Send for this booklet and we will forward with it full information how you can begin this work. No money required to start. We will send Ten Copies of the magazine the first week free. Write to-day.

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CHAMPION MOWER

DRAW CUT

DRAWING the finger bar of a mower from a point ahead instead of pushing it from behind gives the wheels more traction and the machine more power. This is the reason for the great cutting power of the Champion, just as it was the reason for the great cutting power of the old rear cut mowers. The Champion is front cut, but it is also draw cut, and combines the cutting power and durability of the old rear cut mowers with the safety and convenience of the modern front cuts. The Champion draws the finger bar entirely—it does not push it in the least, and in this important particular is not equalled by any other. The Champion has other valuable improvements, among them a simple and effective lining device for the finger bar, and a superb pitman having new and improved ball and socket connections both to the knife and to the fly wheel. No cramping or binding is possible with the Champion pitman, while provision is made for taking up wear and lost motion, preventing pounding and breakage. The fly wheel pin is at all times surrounded by oil, which cannot be thrown out and wasted by the revolution of the fly wheel, thus preventing heating and wear at this important and heretofore troublesome point on a mower. Write for catalog describing this wonderful modern mower, also Champion hay rakes and binders. Handsome calendar free if requested. CHAMPION DIVISION, INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO.

The Home Circle.

Conducted by Ruth Cowgill.

HOME ON THE PRAIRIE.

Far out on the broad prairie,
Where the wind blows free and wild,
Is a dear old-fashioned homestead,
With its sunshine pure and mild.
Within there is peace and quiet,
The rooms are quaint and low,
The windows broad and airy
Through which the breezes blow.

Outside is a wide veranda
That circles the whole house round,
Beneath its roof in leisure hours
The family oft is found.
To the posts the vines are clinging
And are swinging to and fro,
Inviting the evening breezes
With music soft and low.

Over yonder is the orchard
Laden with sweetest bloom,
Where the drowsy bee is clinging
For sweets for its winter home.
Over the low-swaying tree-tops
And under the drooping boughs,
We get a glimpse of the old red barn
Where stock in winter is housed.

Which, now, is quietly feeding
On the lovely seat of green,
With a little boy to guard them
Whose head is a golden sheen.
Oh, home on the rolling prairie,
When the bright springtime is gone,
And summer and autumn have glided by,
And the winter days come on.

May dear ones gather there ever,
With hearts full of loving cheer,
Tho' snowflakes are silently falling
Over meadows brown and sear.
Now, dear old home in the twilight,
As the stars come twinkling through,
We leave you in care so tender
Of Him whose promise is true.
—Cynthia A. Carr.

"She."

Who ever heard of such a text for a sermon, and yet there are many less worthy ones chosen and preached upon learnedly and unintelligibly. This little sermon, which we have found in an exchange, ought to be preached often, and one can not help wishing, a little maliciously, that some men that we know might have the same helpful experience in the kitchen which seems to have been the inspiration to the reverend author of the following:

Text—"Her husband, also, and he praiseth her."

Sermon—"She is away, absent. When a man says "she," he is understood. To every "he" there is but one "she," or should be. And "she" is away, leaving us to thought and good resolutions. "I have been washing dishes," wrote Hawthorne, "and the washing of dishes does seem to me the most absurd and unsatisfactory business that I ever undertook. If, when once washed, they would stay clean forever and ever (which they ought in all reason to do, considering how much trouble it is), there would be less occasion to grumble, but no sooner is it done than it requires to be done again. On the whole I have come to the resolution not to use more than one dish at each meal."

The quiet fidelity with which "she" will dishwash her life away for "him" is a marvel of endurance and grace. Just here is the servitude of woman heaviest—no sooner is her work done than it requires to be done again.

Man works up jobs, ends them and takes his pay. This pay allures him, as oats a horse homeward bound. Thus men work by terms and jobs—and although the work is endless as to quantity, yet when cut up into terms and jobs, we men go heartily on our journey and count the milestones.

Not so with our mate. "She" mends our socks, and we put an irrepressible toe on the darned spot, and she darns it again. "She" washes for the family, and the family makes haste to send back the same garments to be washed again. "She" puts the room in order, and we get it ready to be "rid up" again. The same socks, the same washing, the same room every time. She has no successive jobs, no terms, no pay day, no tally-stick of life. She washes the same dish 365—yes, three times 365 times a year. No wonder she breaks it, and is glad of it! What a happy relief to say: "I've done with that dish!"

Not only have we, like Hawthorne, washed dishes, but we also cooked and served and helped eat a meal (with bated appetite because of cooking) and now are astonished at the number of thoughts and steps and acts involved in a very plain supper. And we had it and with it came wisdom.

Gentlemen, all! We go into a room and see a table set. It seems to us one thing—a supper. It is, in fact, from 50 to 200 separate things, taken down one by one for us to use, and for "her" to wash and put back whence they came. There is a plate of biscuit. To that plate of simplicity, we, with our hands and feet, brought to-

gether a new, quick fire for baking—viz., kindling wood, raking out stove and hod of coal, flour from the bin, shortening from the gravy dip down cellar, salt from one box, sugar from another, soda from the jar, acid (tartaric) from a bottle, a spoon, a pitcher of water, a dripping pan and a thin pan for mixing up these ingredients, and, after all, happening to forget the biscuits half way through in a way which the men reckon quite unpardonable in a cook. Meanwhile that one plate of biscuit added to the eternal dishwasher two spoons, two pans, one plate and a little cup. Just a little piece of steak contributed eight pieces to the dishwasher. A few strawberries sent in six pieces to be got ready to soil again. Four eggs impressed themselves on six separate articles.

Gentlemen, we began at ten minutes of six, and at a quarter to eight we found ourselves triumphant—everything cleared away except the dish-cloth.

You see, we washed up the bread pan, the dish pan and the sink, scalding them all (and our fingers, too), and dried them off with the dish cloth. Now, where on earth can we go to wash out that dish rag? Not in the clean pan! Not over the clean, dry sink! We stood aghast for five minutes, and then wadded up the rag, round like a sure ball, and tucked it into a far corner of the sink, and shut down the cover. Our sink has a cover. But that rag, though hidden, was heavy on our conscience. "She" never would have done so. We have seen clean dish cloths, but how they wash them passes our skill.

And so, as we said, "she" is away, leaving us to thought and good resolutions. We shall be a wiser and better man for at least two days after her return. And when we stop to think, shall rank a successful housekeeper and home-maker as a worker second to none of the scale of achievement and deserving. Her services are like the air, the rain, and the sunshine, indispensable, yet too often enjoyed without thanksgiving.

To Cook Macaroni.

Creamed Macaroni.—Break into short pieces, cover with hot water, and cook until tender. Drain off water. Then make sauce of flour, butter and milk, seasoned with salt and pepper, about as thick as cream, pour over the macaroni, cook until thoroughly done, and serve. Some people grate cheese over the macaroni, and cook the sauce separately, pouring over it when it is on the platter for the table.

Escalloped Macaroni.—Prepare as above without the sauce. Butter a granite pan, cover the bottom with a layer of macaroni, over which scatter a layer of bread-crumbs, grated cheese, butter, and salt and pepper. Continue with alternate layers until full. Pour enough milk to cover, and bake until a delicate brown.

Macaroni with Dried Beef.—Prepare as in first recipe, making the sauce separately and cook dried beef in it. When done pour macaroni into drier-beef sauce, and serve.

Macaroni Loaf.—Cook three-fourths cupful milk with large tablespoonful bread crumbs, one and one-half cupfuls chopped cooked chicken, tablespoonful each of butter, chopped green pepper, parsley and celery, three well-beaten eggs, salt to suit; line a buttered granite pan or earthen bowl with macaroni cooked as in first recipe; turn mixture in carefully, stand in a pan of water in a moderately hot oven until the center is firm. Turn out carefully, and serve with thick sauce, and strew over it pieces of macaroni.

Beef Loaf with Macaroni.—Chop

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some round of beef. Soak bread-crumbs in cold water, put in a cloth and wring. Add well-beaten eggs, a little chopped onion, salt, pepper, and a little sage. Form a roll of crumbs and meat, and bake. Cook macaroni, and serve the roll upon it, adding a hot sauce of butter, flour, salt, tomato pulp, and grated cheese, together with whatever juice of the meat may cook out from the roll.

Experience with the Baby.

An affectionate father declares that natural depravity is well developed in a 6-months-old infant, as he can prove by bitter experience. The other evening he was left alone with his tiny son and heir. The youngster's mother had gone to the theater. His aunt went out also, and so did his nurse, and the man was left in full possession of the field.

About seven o'clock he began to rock his child to sleep. And he rocked and crooned and walked steadily from that time until nine. Then the infant, having finally succumbed to "nature's sweet restorer," he arose and, as if walking on eggs, carried his burden stealthily to its crib, put it down as gently as possible, and withdrew. Alas! however, in closing the door it squeaked a bit, and Mr. Baby was as wide awake as ever, and he remained as chirpy as a seventeen-year locust until his mother came home at eleven.

Next evening—and here's where the depravity comes in—mother was home, and auntie and all the rest of the family, so Mr. Baby went off to sleep at six o'clock, as usual, and even when he presently fell out of bed did not awaken.

Now the bewildering father is wondering why a baby who is aroused by the slightest creaking of a door one night, when his mother isn't home, fails to wake when he falls out of bed the next. It is a rather difficult problem.—N. Y. Weekly.

From Morse to Marconi.

How swift the transition from the old to the new, in these marvelous first years of the new century. Yesterday a man named Morse sent a message from Washington to Baltimore over an insulated land wire. It was too extraordinary for ready belief. Then the ocean cable—Field's achievement—wonder of wonders!—man sending messages under the deeps in the flash of an eye. A great shock to unbelievers! Easier now to credit any story, however unusual. Hence the comparative calmness with which the world has accepted this last and most marvelous of inventions—Marconi's wireless telegraph. Yet, what is there in the Arabian Nights Tales that can compare with it? It is telepathy systematized; it is the "coming true" of a dream. Through the thousands of miles that separate his stations on Wellfleet, Cape Cod, and Poldhu, Wales, Marconi personally transmitted and received messages exchanged by the chief executives of America and Great Britain. This was what the President sent: "His Majesty, Edward VII, London, Eng.:"

"In taking advantage of the wonderful triumph of scientific research and ingenuity which has been achieved in

perfecting a system of wireless telegraphy, I extend, on behalf of the American people, most cordial greetings and good wishes to you and to all the people of the British Empire.

THEODORE ROOSEVELT.

Washington, January 19, 1903." And this was King Edward's reply: "The President, White House, Washington, America:

"I thank you most sincerely for the kind message which I have just received from you through Marconi's transatlantic wireless telegraphy. I sincerely reciprocate in the name of the people of the British Empire the cordial greetings and friendly sentiment expressed by you on behalf of the American nation, and I heartily wish you and your country every possible prosperity. EDWARD, R. and I.

Sandringham, January 19, 1903." Mark that day in red—January 19, 1903—on which the first wireless "marconigram" passed between the shores of the United States and Great Britain. It marks the opening of a new era of freer communication between man and man throughout the earth—and perhaps throughout the universe.—National Magazine for February.

Club Department.

Country Clubs.

We are most heartily pleased at the instant and enthusiastic welcome which our proposition for a club department has received, and we feel assured that, with such support, we shall make it a most helpful part of the paper.

We wish to make the different country clubs, scattered so far over Kansas, acquainted with each other, so that they may be, as a whole, what every club is to its members, a "Mutual Improvement Association." We shall, therefore, from week to week, offer some sketch, history, or "autobiography" from the different clubs. This week, we have an extremely interesting history of "The Mutual Improvement Club," of Trounder Heights, Carbondale. They have certainly had a wide range of subjects for discussion, and one of which any club with all the advantages of numbers, and convenient reference libraries could well be proud. Mrs. Trounder, the writer of the above-mentioned papers, says something in a letter to the editor of this department which so tersely and so forcefully puts the situation, that we pass it on. She says:

"The club movement is one of the things that country women are loth to begin, yet there is nothing that would produce better results in harmonizing country life—if rightly conducted. The rules of the club should be to the point—not overdone—and each and every applicant for membership should thoroughly understand them prior to becoming a member. The greatest enemy to club work is small gossip, but only through club work can it be successfully eliminated, as one of the present conditions which need remedying."

It is true that women do indulge in small gossip at times, a practice usually prejudicial to the finest development of one's own character and to

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the reputations of one's neighbors. Yet when women are over-wearied with the petty trials of everyday life, it is natural that they seek relaxation in talk of other things than their work. And, if no other topic presents itself, refresh themselves with discussions of their neighbors' personal affairs. Salvation from this evil can come only by replacing the undesirable topics of thought and conversation with nobler ones; and Mrs. Troudner says, clubs, whose acknowledged pursuit is of higher things, fill this want as perhaps no other means could.

We wish to thank those women who have written for us of their club work, and to request that others do the same. There are doubtless many clubs which are not generally known and which might be a means of help and inspiration of others, would they but tell of their work. We wish to send the KANSAS FARMER to every club free of charge, and we ask that each club send us the name of its president or corresponding secretary, in order that we may place it upon our list, in the name of the club.

The Mutual Improvement Club.

EMMA TROUDNER, CARBONDALE, KANS.

During the winter of 1895 an organization was effected at Troudner Heights which was named "The Trustworthy Daughters." It lived under this cognomen until the second Thursday in May, 1898, when its evolution was observed with appropriate ceremonies and it became known as "The Mutual Improvement Club," with its curriculum enlarged, ready to begin work along many lines of intellectual, social, and educational endeavor. The membership began with seven, varying from that to twelve members. Perfect harmony has been, and is, one of the particular features, as gossip and evil speaking are expressly discountenanced. The membership covers a larger area of country, probably, than most country clubs, one member coming a distance of eleven miles. Our programs are interspersed with music, and we have talks on home culture, table talks, vegetable versus meat diet, millinery and its relation to bird life, initiative and referendum, parliamentary study, and current events; and, indeed, it might be a question whether any topic presented would meet the fate of some of the bills brought before a legislative body by being "tabled" without due consideration.

One afternoon of each month is set apart for the club meeting, around which the farm work must revolve. Club-day is one of our sacred institutions. It means that the everyday treadmill round of work is to be relegated to the background, and instead an afternoon of pleasant relaxation, which renews and strengthens, and fills the mind with something besides routine work.

One of our members, speaking of the club and its effect, said, "If there was not another thing gained by it except the social afternoon, it serves a purpose that I, for one, can not do without, for, if I did not have that to look forward to, and the anticipations consequent, I do not believe I could stand up under the work which almost overwhelms me at times." This is one of the best features about country clubs, the social intercourse, the getting away from routine work, and enlarging our vision. In looking over the various papers belonging to the club, I find the following topics, which were discussed during the 1902 course of study: "Higher Education," "State Institutions," "Science from an Everyday Standpoint," "Current Literature," one member who was assigned the subject of "Art" gave us a wonderful unfoldment of "black art." This year we have planned that each member shall have one particular day, and arrange a program for that day, to be duly announced a month in advance. In January we held a social and business session.

February, our subject was "The Desirability of Including the Manual-Training System with the Consideration of Country School Consolidation," which is a most important subject. March, our study will be "Longfellow as an Author and Poet."

Each year the Mutual Improvement Club holds its annual picnic at Troudner Heights, where a good program is given and a pleasant day is enjoyed by about fifty club women. Last year, Mrs. Margaret Hill McCarter, and Mrs. A. H. Thompson, of Topeka, were the honored guests. To-day the daily paper comes to us with the message, "Her spirit is at rest.—Mrs. A. H. Thompson passed away this morning." It means much to club women that a good woman has finished her work, faithful to the end, and has passed on to greater and higher unfoldment.

The literary tastes of the neighborhood are provided for at club headquarters by access to a traveling library, application being now in for the eighth one.

In 1899, the Mutual Improvement Club joined the Osage County Federation of Clubs. This has been of much benefit and broadened the opportunities for more intelligent club effort, as well as convinced us that a small club can do as good work as a larger one, and that any neighborhood would be better off for a woman's club rightly conducted. It is a means for helping to make pleasant homes, better mothers, and better social conditions.

Making Children Happy.

Children are sensitive creatures, easily hurt and easily made happy. It takes only a little remembering of one's own childhood to be assured of this. Many a bright little heart is darkened by a chance word or look or a bit of thoughtless neglect. A writer in McCall's Magazine puts it convincingly, and at the same time offers some good advice on the subject:

The average mother of to-day would no doubt be greatly indignant did any one suggest that she did not do everything in her power to make her children happy. And yet there are many mothers who, perhaps two or three times a day, unwittingly mar a child's happiness in some way or another. Mothers are apt to consider the little things which please little minds too trivial for their notice, and it is this neglect of the trifles which make up a child's life, so to speak, that is liable to spoil its complete happiness.

It is surprising, for instance, how much it adds to the pleasure of a child to know that its mother takes an interest in anything which causes him or her amusement and enjoyment. Nothing damps childish pleasure more than to be told not to bother father or mother with some little thing which has helped to pass away an hour or so, and which the child took so much enjoyment in making. Use the article, if possible, or if that can not be done, assist the child in making something better. Mothers should always encourage their children in making simple, useful articles which can be used in the home, rather than allow them to waste their time in an idle fashion while indoors. Idleness should always be guarded against; for a child who is allowed to lounge about on an easy chair or sofa, or hang listlessly over the fire, will assuredly prove a burden.

When a boy gets wearied of his toys, draw him kindly to you and tell or read him some simple story. Perhaps you may get him to copy some animal or bird mentioned in it. Teach him netting or knitting, how to make paper flowers, or any other simple occupation which can be turned to useful account and will encourage a taste for industry, and always accept the home manufacture of your boys if urged upon you. Many a happy hour will be passed by a boy or girl when they know that some little easily made piece of work upon which they are engaged will be accepted with a smile by their father or mother.

There are, of course, hundreds of trifling little employments which will readily suggest themselves to the mind of an intelligent mother. It is immaterial how trivial the occupation may be, so long as it is a useful one and will save a child from becoming ill-humored or peevish simply because it can not find something to occupy its hands or mind. It often seems more difficult to amuse boys than girls, simply because it is thought effeminate to instruct them in many things with which girls are acquainted. This is certainly a mistake, for one of the best ways to make children happy is to encourage brothers and sisters to love the same amusements and pastimes. Of course, those of an intellectual kind are referred to, for it is not desirable to transform our boys into girls or the latter into tomboys.

If there are boys and girls in one family they should be taught to share their hobbies. It should not be thought effeminate to teach a boy knitting or netting, for instance. Knitting, especially, is one of the most fascinating pastimes for a boy, and his interest in it may be stimulated by asking him to help in the making of, say a woolen antimacassar or chair cover. Boys often prove themselves to be very expert in the making of knitted woolen articles, and the time given to instructing them is always well and profitably spent.

Another point which a mother should always bear in mind is never think it too much trouble to answer her children's questions. How often does a mother reply when asked some

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question while engaged in household work: "I'm sure I don't know, child; don't worry me when you see I'm busy." This is the surest way to stunt the growth of a child's mind. Furthermore, it is unkind to make it feel the awkwardness and pain to which ignorance exposes it. It is far better to make the little inquirer happy by endeavoring to satisfy his or her desire for knowledge, even though it may be of the most trivial description.

And if a mother wishes to make her children's happiness complete, she should join in their romps and games now and again; treat them to little pleasant surprises at times, and if a present is given to a boy or girl, make it doubly precious by the way in which it is given. Hide it in some snug corner where it is sure to be found out; in the little shoe or in the pocket, or even let it come through the post addressed to the intended recipient. Such little plans will make a child doubly happy and fills its heart with fresh joy each time he or she thinks about them.

State of Ohio, City of Toledo, Lucas County, ss. Frank J. Cheney makes oath that he is the senior partner of the firm of F. J. Cheney & Co., doing business in the city of Toledo, county and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of catarrh that can not be cured by the use of Hall's Catarrh Cure.

FRANK J. CHENEY.
Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1886.
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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 apertures 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.

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6 Table Forks, for	1.80	1.90
6 Dessert Spoons, for	1.90	1.00
6 Teaspoons, for	1.25	1.25
6 Orange Spoons, for	1.00	1.00
6 Coffee Spoons, for	1.25	1.25
1 Cold Meat Fork, for	.90	.90
1 Butter Knife, for	.25	.80
1 Sugar Shell, for	.25	.80
1 Child's Set—Knife, Fork and Spoon,	1.10	

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Deformity of the hands in general Chronic Articular Rheumatism.

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PROSPECTS FOR A STATE FAIR.

(Continued from page 249.)

passes some permanent State fair bill." On Monday of this week, Senator Morrow, of Washington County, introduced a resolution asking that the Ways and Means Committee of both branches of the Legislature provide a suitable appropriation for 1903 and 1904, in the miscellaneous appropriation bill for the preparation, publication and distribution of the annual proceedings of the Kansas Improved Stock-Breeders' Association, and the Kansas State Dairy Association. This report was adopted with a rush and it now remains for the House to concur in this good movement. The KANSAS FARMER desires to congratulate the members of the Senate for their manifest interest in matters pertaining to the agricultural and live-stock resource of Kansas, and we believe that a majority of the House are equally as well disposed towards these matters. In any event the members of this Legislature will be put on record by the farmers and stockmen of the State during this session of the Legislature.

A FARMERS' INSTITUTE SPECIALIST FOR THE OFFICE OF EXPERIMENT STATIONS.

The Secretary of Agriculture has created a new position in the Office of Experiment Stations in order to bring the United States Department of Agriculture into closer touch with the great farmers' institute movement throughout the country. Last year about 2,700 institutes were held in forty-four States and were attended by over 800,000 persons. The institutes have thus become a powerful agency for the practical education of farmers and the movement has reached a point where it is felt that a National office cooperating with the State managers of institutes may be of great benefit. Much of the work of the institutes is done with the aid of the agricultural colleges and experiment stations, and it was therefore deemed appropriate that the Department should extend aid to the institutes through the Office of Experiment Stations, which represents the Secretary in his relations to the colleges and stations and which has already done much to promote the general interests of agricultural education in this country. The new officer, who is to be called a farmers' institute specialist, will be under the general supervision of the Director of the Office of Experiment Stations, and have his headquarters at the Department at Washington. As the result of a Civil Service examination held to fill this position, Prof. John Hamilton, now Secretary of Agriculture in the State of Pennsylvania, has received the appointment and will soon enter on his new duties. Professor Hamilton was born on a farm in Juniata County, Pennsylvania, and served in the Army of the Potomac for three and one-half years, becoming a sergeant major of the First Pennsylvania Cavalry. He afterwards graduated at the Pennsylvania State College, performing the duties of superintendent of the college farm during an interval in his course. He was then professor of agriculture in the same institution for about ten years, and has since been business manager, treasurer, and trustee of the college. He was one of the original members of the Pennsylvania State Board of Agriculture, and when the State Department of Agriculture was organized, he became deputy secretary and director of farmers' institutes, and in 1899 he was appointed Secretary of Agriculture by Governor Stone. During his period of service in the State Department of Agriculture, the farmers' institutes of the State have greatly increased in attendance and efficiency, and he has also been very active in promoting the betterment of the rural schools, especially through the introduction of nature study relating to agriculture.

KAFIR-CORN, CANE SEED, AND CORN.

EDITOR KANSAS FARMER:—I would like some information through the columns of the KANSAS FARMER. Is Kafir-corn seed better for growing hogs than corn? Is cane seed of any feeding value for hogs or cattle?

Marion County. R. R. LEHMANN.

Neither Kafir-corn nor cane seed is worth as much, pound for pound, as corn. The relative nutritive values of the grains are about as follows:

Corn.....	100
Wheat.....	115
Rye.....	111
Barley.....	102
Oats.....	97
Kafir-corn.....	92
Sorghum-seed.....	84
Broomcorn-seed.....	86

To get the best results from many of these grains grinding or crushing is

advisable. Corn and oats are probably better than any of the others adapted to use without grinding. In general the farmer who has good corn and plenty of it, together with some feed rich in protein as alfalfa, cow-peas, soybeans, or skim-milk, is well fixed for producing pork at a profit. The other feeds are good and are sometimes more easily produced than corn. They also need supplementing with protein yielders. Oats, barley, and wheat, in the order named, are comparatively rich in protein. They are usually too expensive for the economical production of pork.

THE MARYSVILLE FARMERS' INSTITUTE.

In spite of adverse conditions the farmers' institute held at Marysville on February 25 and 26 was a decided success. The daily sessions were held in the large court room and the evening sessions at Turner Hall. The attendance was good and was especially characterized by the large number of ladies present. A very interesting program was given which covered many of the points of interest in the daily lives of the farmers. The Wednesday evening session was a most interesting one with several papers of value. Miss Edith McIntire, professor of domestic economy at the Agricultural College, gave a talk on 'Household Economy' which was especially interesting. Prof. Albert Dickens, of the Agricultural College; County Supt. Geo. H. Thompson, who is a graduate of the Agricultural College, Mr. John Frost and a number of other ex-Agricultural College students were present to aid in making the meeting a success.

We shall not attempt to make a report of this meeting, further than to say that a number of the valuable papers presented have been secured for publication in the KANSAS FARMER.

This meeting illustrates the interest which attaches to such gatherings of farmers and insures for the neighborhood in which they are held an intelligent and progressive sentiment indicative of progress and good citizenship. The institute was very much interested in a rumor to the effect that the legislature contemplated the passage of a bill permitting the county commissioner to appropriate \$50 each year for the holding of a county institute.

"We are well pleased with the Pack-er we bought from you last March. We would not attempt to farm without it."—H. C. Colburn.

KANSAS FARMER'S NEW WALL ATLAS.

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

Tables showing products of the United States and the world, with their values, the growth of our country for the last three decades, and a complete map of the greater United States are given. This is an excellent educational work and should be in every home. The retail price of this New Wall Atlas is \$1.

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

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

"We have used one of your Packers during the last season. It does good work. Would not do without it."—Wellhouse & Son.

Marble Headstones.

And monuments are made and lettered to order by W. J. Moore, ... Third St., Sterling, Ill., at prices from \$4 upward, and shipped to any station with instructions for setting. Mr. Moore guarantees his work and to save you the agent's commission, and has a record of satisfactorily supplying customers in nearly every State of this Union. He will send his illustrated catalogue to our readers on request.

Every beekeeper in Kansas will be interested in the new advertisement in this issue of bee supplies by the Walker-Brewster Grocery Company, 423 Walnut Street, Kansas City, who carry a complete line of aparian supplies at factory prices. Write them for catalogue and mention Kansas Farmer.

Food Products from Diseased Animals.

E. N. MARTIN, M. D., EDGERTON.

Products from the animal world furnish the great bulk of American food. From the poultry pens, barnyards, and pastures we derive the principal articles of diet. We are becoming specialists in the animal industry. We are seeking to produce quality as well as quantity. Every farmer and stock-raiser, while he seeks the highest market prices, at the same time seeks to produce something first-class. Animal industry in this country is rapidly assuming a magnitude almost beyond human comprehension. The shipping of food animals to the great Pacific centers is even more constant than the flow of our great rivers. Year after year the demand for animal foods increase, and the supply in the same ratio.

How many of us have visited one of the great packing centers, and been appalled by the enormity of the packing industry; and this is but one of the fifteen or twenty great companies to which cattle and hogs from almost every farm in Nebraska, Kansas, Oklahoma, and in fact all of the Western States, which tax the railroads to their utmost for transportation.

Conceive, if you can, the great flow of dairy products, from sixteen and one-half million cows, and the hundreds of millions of birds consumed yearly as food, game in unmeasurable quantities prepared annually for the American table.

Unfortunately, animals are subject to a great many diseases, from the simplest functional disorder to the most serious organic changes and most deadly forms of contagion. I say unfortunately, because we, as laymen, have very little idea of the meaning of animal pathology; and through indifference due to a lack of knowledge, pay very little attention to animal sanitary conditions. Only educated veterinarians and those who are pursuing scientific study of pathology are able to appreciate the evil effects of food products from diseased animals.

Active scientific research in the last decade has given us much light; but our ideas are yet vague, distorted and misleading. I shall only touch upon a few of the important diseases, as this paper is designed to be suggestive rather than exhaustive in treating these subjects. Tenia Solium, an ordinary tape-worm, is one of the most common parasites which we have to deal with. The adult tape-worm lives in the dog and this animal scatters the eggs broadcast to infect other animals. This parasite has a peculiar life-cycle, in that it must pass through the intestinal tract of at least two animals before it arrives at maturity.

Echinococcus, the parasite causing Hydatid disease, is perhaps one of the most dangerous acquired from animals. It also lives primarily in the hog and sheep. Trichina is a very common parasite found inserted in the muscular portions of pork. It also is very fatal but not very common in man. I have a record of but one case of trichinosis which came under my observation, and in this case was the remote and not the immediate cause of death. It is a disease extremely hard to diagnose, and only by means of the microscope are we able to make a positive diagnosis. By common methods of inspection it is impossible to detect this disease in the swine.

Texas fever among cattle, scabies among sheep, and the most common of all, cholera among hogs are other diseases of special importance. In the year 1901 32,800 cholera hogs were condemned. Actinomycosis, or lumpy jaw, is also a disease very common among cattle. During 1901, 2,427 cases were condemned for this; 737 cases of Hydatids were discovered occurring the same year.

The above figures were cases in which the diseases were active and in a stage of rapid progressive development. In how many cases the diseases were latent can not be estimated.

Many animals sustain injuries in the process of transportation, some only slight it is true, but many suffer from serious injuries, even septic infection, and gangrene. In these cases, it is often a serious question as to whether all or only a part of the cases should be condemned. The indifferent condemnation of these carcasses would involve a great, and perhaps in many cases an unnecessary loss. These conditions deserve careful consideration on the part of the Government inspector.

DISEASE IN DAIRY PRODUCTS.

Let us turn for a moment to dairy products. No food is more universally used than these, yet there is perhaps a greater likelihood of danger in these



Why don't you get a Horseshoe Brand Wringer?
It will lighten your day's work
Every wringer is warranted from one to five years. The rolls are made of Para Rubber. They wring dry, last long, and will not break buttons. Our name and trade-mark is on every wringer and roll.

The American Wringer Co.
99 CHAMBERS ST., NEW YORK CITY
We manufacture the Wringers that wring the Clothes of the World

Free By Mail.
Send us a Postal for our
..NEW..
Spring Catalogue

It has samples of cloth and latest spring styles for Men and Boys.
Address **PALACE CLOTHING CO.**
TOPEKA, KANSAS.

than in meats, since dairy products are not subjected to a heating process before using. The avenues for importation are also more numerous. We have very stringent laws prohibiting the dairyman from diluting milk with good sterilized water, but we have no laws requiring the milkman to wash his hands before going to milk, or requiring him to keep his cows in clean sanitary barns. Any old shed will do for the dairy cows and the pigs, but the horse and dog must have a clean, warm place to sleep in. Any one not thoroughly familiar with dairy work can hardly appreciate the conditions under which they are usually kept. Inflammations and catarrhal conditions of the udder are very common affections among dairy cows. The pathological secretions from these apparently trivial difficulties, and even from abscesses opening into the lacteal ducts, pass out with the milk and eventually are used as food.

Tubercular bacilli are found in the milk of tubercular cows, even though the seat of disease is not found in the udder. Whenever there is tuberculosis of this gland, of course there is greater danger to the consumer. The tuberculosis reaction has assisted materially in investigating the matter of bovine tuberculosis. The average number of dairy cows infected in the United States, is perhaps not more than 80 or 90 per cent, yet it is not uncommon to find 40 or 50 per cent among some herds. Prof. Koch has given a theory and some valuable knowledge as to the identity of human and bovine tuberculosis.

Poultry and other birds are not such fruitful sources of disease, as the whole bird is discarded if there be any indications whatever of abnormal conditions. Wild meats are also very much the same as poultry, although it is quite possible that these, too, are many times unwholesome, and entirely unfit for food.

Besides the above mentioned, there are many other diseases all attended by inflammation of various organs, fever, and general emaciation tending to render the meats of such animals unwholesome and even injurious.

GOVERNMENT INSPECTION

is a long step in the right direction; but it is too often a matter of politics rather than scientific knowledge and sound judgment. But I would not for one moment cast a reflection upon the meat inspection as it is carried on in our country, for it is certainly a great

and grand work, that results in much good. Meat inspection is too often misconstrued; it should not be looked upon entirely from a commercial standpoint, although that may be of secondary importance. The prime object should be to prevent the slaughtering and shipping of diseased animals as food.

Matters of fraud confront the American inspector. Dog and goat meats are offered as mutton. Horse and mule meats are offered as beef. Animals afflicted with lumpy jaw are smuggled into trade; cholera hogs are shipped into market, and the true character of their condition is not known. There are countries in which dog meat is preferred, but no American inspector would knowingly allow such meat to be placed on the market.

It would even be injurious to us to have the meat of an old stag placed before us, but there are those who, on the whole, prefer it on account of its possible cheapness, caring little for the after effects. The meat of goats is often sold for mutton, and the carcasses are seldom condemned for it. The government meat inspector often finds himself placed in very embarrassing positions; for, on the one hand, his duty is to protect the public health, and on the other, no less his duty to avoid needless destruction of property. I have personally witnessed on several occasions government inspection, and I assure you that the task of the inspector is not an easy one.

What effects do food products from diseased animals have upon public health? This is a question easily asked and almost as easily forgotten. Our knowledge along this line is sadly deficient. We must awake from our state of lethargy and seek diligently to solve the intricate problems that affect so materially the public welfare of our people.

Unquestionably, the products of many badly diseased animals find their way to the market and eventually to the tables. How many of the common diseases of the intestinal tract are due to infection from meats cooked rare and milk not sterilized? How much of indigestion, dysentery, cholera morbus and other diseases are due to bacteria or the result of bacterial activity found in meats? I will leave these questions with you for your consideration, but while you are awaiting their solution, let well-cooked meats and pasteurized milk be your safeguard and heat your sword of defense.

The Veterinarian.

We cordially invite our readers to consult us when ever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color, and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the inquirer's postoffice, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kansas.

Poll Evil.—I have a black mare 10 years old, who lost her colt early in December, having been in foal about five months. She had been fed on Kafir-corn and sorghum—had not been worked any all fall and winter. She seemed to get along all right after the abortion, and January 1 I drove her sixty miles in fourteen hours. She became very warm and tired, but I blanketed and cared for her well, and she seemed all right. I grained her good, and in ten days made the same trip again. She became warm but stood trip much better. Since then she has not been used; has eaten and drunk well, but loses flesh. I gave her condition powders in chop and oats and her secretions seem to be acting all right, but she still goes down in flesh and looks badly. This morning she holds her head as if her neck was stiff and finches when you press behind the ears and on top of head between the ears. There is a swelling forming about one and one-half inches behind the left ear. She has no cough, nor any running at eyes or nose. I am bathing head with arnica and still feed condition powders. She has been in barn lot in daytime and barn at night ever since her trouble began. Can you tell me what ails her and what I can do to effect a cure?

Russell County. C. C. CLARKE.
Answer.—Keep her up and feed bran and oats out of a manger where her head will be level; clip off the hair and take one ounce of Russian Cantharides in three of hog's lard, mix and boil, and when cool stir it up and apply with the hand over the swelling. Repeat it every six days for three times. Report in thirty days.

Fistula.—I have a coming-3-years-old

bay stallion that has been running in stalk-field and blue-grass timber pasture all fall and winter up to about two weeks ago. Just one month ago I noticed a running sore where fistula usually starts. I examined and found a bad sore about two inches square. It discharged badly for about three weeks, then stopped on one side, and in about four or five days broke open on the other side; swelled up to about six inches in circumference, discharged freely. Swelling has gone down now, and colt looks and feeds better. There are more stud colts of same age running in the pasture and they bite each other. Is it fistula, and what shall I do? Is fistula contagious?

Brown County. JOHN D. ZILLER.
Answer.—This case was probably caused by the other colts biting him, there and is not so apt to be contagious or infestious. Keep it clean and wash out with carbolic acid 1 to 30, and feed out of manger. Keep him by himself.

Lice.—I have a Clyde colt coming 2 next April, who took a splint early last autumn on his right front leg just below the knee on the inside. I got some mercury blister of a veterinarian in town last autumn who told me to put it on once in every thirty days. I did put it on three or four times, but the splint is there yet. Also, he has some kind of an itch. Can he be cured, and how?

Shawnee County.
Answer.—Wash him once a week for about three applications with Zenoleum 1 to 20 or 30 parts of hot water. You can purchase it of the Zenner Disinfectant Company, Detroit, Mich.

Eczema.—We have a 13-year-old gray mare who has or seems to have some sort of itch. The first symptoms were noticed about a month ago. She wants to scratch herself a great deal, mostly on the underside of her body. She has scratched a considerable amount of her hair off. It is not lice. She is somewhat hidebound. She has been in good flesh, but seems to be losing gradually now. Her ration has been corn and oat-straw with now and then a meal of oats instead of corn. What affects her and what is a remedy?

Marshall County. SYLVESTER BARRINGER.
Answer.—Wash her all over with Zenoleum 1 to 20 of warm water and repeat in a week. Pick a warm day to wash and keep in the sun afterwards. Give a desertspoonful of Fowler's Solution twice a day for two weeks. Feed oats and bran and whitewash your stable and see that there are no chickens near.

Probably Mange.—My neighbor's cattle have some kind of skin disease which I have never seen or heard of before. Neither they nor I know what causes it. About five months ago my brother bought their yearling steers; one of them was affected with the disease, and died about two weeks ago. When the disease first appears, the hair comes out in little bunches pasted together on the ends next the skin. After a while the hair comes out in larger bunches and makes large sore spots on the hide. What is it?

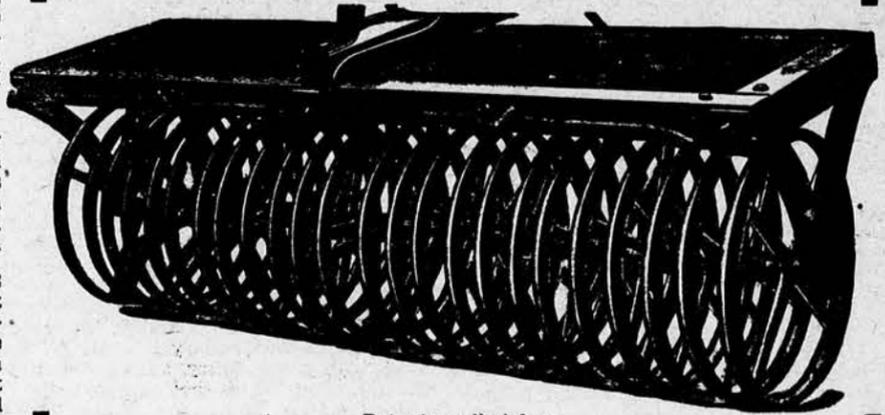
W. E. SCHWANKE.
Wabaunsee County.
Answer.—Scrub them once a week with Zenoleum 1 to 20 of hot water.

Blackleg.—Please tell me what was the matter with my calf which died suddenly yesterday. It was a fine, thrifty, 6-months-old steer calf in splendid condition. Yesterday morning it appeared all right, ate well; but towards noon I found it lying down; it did not want to move and neither ate nor drank. Toward evening it seemed very lame in the left shoulder, and I thought it must have hurt itself in some way. I examined the shoulder, feeling carefully all over it, and noticed a kind of gurgling sound when passing my hand over the shoulder-blade as though some liquid had accumulated there. There were no swellings or eruptions there or anywhere on its body, no blemish of any kind, neither was it bloated. It got up several times but could not walk or stand up long, but tottered right down again; seemed very lame and stiff in the shoulders but nowhere else, although it humped its back when it stood up. It died in about twelve hours. This morning after it was dead a good deal of bloody froth was all about its mouth. I had five calves that I raised by hand, fine healthy calves when they were born. I fed them fresh sweet milk until 6 weeks old, then gradually fed creamery milk; always fed them some grain, bran and oats at first, then oats and shelled corn, about a peck morning and evening, with good prairie hay, and they had access to fresh water. During the day, I turned them out on

When the frost is out of the ground and the wheat field is like an ash heap, use

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to bring the moisture to the surface.



Patent applied for.

The Topeka Foundry Packer

has more humps than the "Campbell," and can pack both the surface and the sub-surface.

Nothing better for putting the ground in fine condition for seed-bed. Write for prices and circulars.

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Topeka Kansas.

OUR SPRING CATALOGUE is ready to mail to those who WANT Berry Plants. It tells the whole story about soil, varieties, planting, tillage, and the great "Kenover" Blackberry. Sixty varieties—old and new sorts.
B. F. SMITH, Post Office Drawer C, LAWRENCE, KANSAS.

the wheat-field where they picked off some volunteer wheat. For over a week I turned them into the corn-stalks with the other cattle, but left all the cattle out only a few hours as there was considerable corn left in the field. Calves had good warm stable and dry bedding. None of the other calves seemed affected. I gave no treatment while sick and it would only drink a little fresh milk. Please explain to me fully what ailed it, the cause, and what treatment it might have had, and if there is danger of the others being affected in the same way.

Dickinson County. ANDREW GRIMM.
Answer.—You have had a well-marked case of blackleg, and it would be best to have them vaccinated against it as soon as possible.

Garget.—1. I have a cow that has had the garget for the past three years. I understand her mother has the same disease. I have done nothing for it except to bathe the bag with hot water or a mixture of turpentine and oil, to reduce the swelling, till this winter, when I commenced to give her poke-root, six drops night and morning, in her feed. I have used it only about two months. At this time the milk seems all right (cow is fresh), though at times the bag swells tight, the swelling being confined to the back parts of the bag. Two years ago, her milk was bloody and stringy. Last year the blood was not in evidence, but at times the milk was stringy. This year neither of the above-named conditions exist, but the swelling still returns at frequent intervals. 2. Is there any cure for the cow? 3. Can the calves be cured of it? The poke-root does not seem to do any good. 4. Would iodide of potassium do any better?

W. R. BENTLEY.
Republic County.
Answer.—Garget. 2. No. 3. Yes. 4. Yes. Iodide of potassium would be better.

Indigestion with Inflammation.—There is a disease among my calves that I do not understand. First symptoms appear two to three days before death. The calf will stand with all four feet close together, sides and back drawn up; it grinds its teeth, loses flesh rapidly, gets very weak, and at last it lays on one side and trembles or shakes with convulsions. Appetite is good and will eat any time when able to get up. When it becomes too weak to get up death follows in two or three hours. I have lost four calves

every young calf since disease appeared. All showed the same symptoms. Excrement was pasty, white, and very ill smelling. The first three were near the same age, 4 to 5 weeks, and were taken in rapid succession. I cleaned the stable thoroughly with carbolic acid before I put the next calf into it. It showed the same symptoms when about 4 weeks old. I gave it one-half dram laudanum and one-half ounce castor oil in its milk for one feed. That seemed to give relief for about ten days when symptoms returned and I repeated the dose, but by the next morning it was down, and died in a few hours. Older calves in same stable and fed the same have not been affected. My method of feeding is to let the calf go to the cow for four days, when I take it away and leave it twenty-four hours, when I give it one and one-half to two quarts new milk at first, feeding twice a day, and slowly increasing the amount. When calf is a week old give it part skim-milk and part new milk. By the time calf is 2 weeks old it eats twice a day skim-milk only, fresh from hand separator. A handful of bran is thrown in bucket after calf has finished the milk. Hay and alfalfa are kept where calves can get to them. Can you inform me what the cause is and a remedy?

Pawnee County. J. A. FLEMING.
Answer.—Feed three times a day and give less milk at a time. Your treatment was of the right kind only give twice as much; also give a tablespoonful of Castoria. Then follow up with lime water and pepsin after each feed.

With the exception of strawberries, says Prof. A. G. Gilbert, it takes three years to realize on small fruits; a milch cow does not approach her full production short of three and a half years; apple trees do not begin to bear freely short of seven or eight years. How about the hen? Three weeks from the setting of the hen you have a batch of chickens; from four to four and a half months from hatching the cockerels are ready for the market, and in five to five and a half months the pullets will begin to lay. Add to this the fact that in Canadian cities at the present time fresh-laid eggs are selling at 30 to 35 cents a dozen, and it is clearly demonstrated that poultry-raising, well managed, is one of the most profitable branches of farming.

"The Topeka Foundry Packer is a good implement to pack the surface and pulverize the clods."—D. H. Otis.

PILES NO MONEY TILL CURED. 25 YEARS ESTABLISHED.
We send FREE and postpaid a 200 page treatise on Piles, Fistula and Diseases of the Rectum; also 100 page illus. treatise on Diseases of Women. Of the thousands cured by our mild method, none paid a cent till cured—we furnish their names on application.
DRS. THORNTON & MINOR, 1007 Oak St., Kansas City, Mo.

The By-Products of Corn.

(Continued from page 252.)

adapted to this purpose because of its absolute purity and healthfulness. You no longer buy cane syrup adulterated with corn syrup. The proposition is now reversed and when the two products are combined at all, the cane syrup is the adulterant. The several brands of corn syrup now on the market are sold for just what they are—the formula is clearly printed upon each can. Although corn syrup in its purity is sweet, it is without flavor, therefore a small percentage of cane syrup is added to supply the flavoring. The most popular brand of syrup contains 90 per cent corn syrup and 10 per cent cane syrup. The demand for this article is very great and constantly growing. The sales last year were more than a million cases. The low price of corn syrup commends it to the working man and the delightful flavor attracts the man of wealth.

CORN GERMS.

Leaving the glucose department we will now return to the germ or heart of the corn. These germs are thoroughly dried and ground to a very fine powder. This powder is then cooked and placed in a hydraulic press, the oil being extracted at a very high pressure. The residue comes from the press in the form of a very hard cake about an inch in thickness. It is known commercially as corn-oil cake and when ground, as germ oil-meal. An enormous quantity of this cake is exported to England, France and Germany for feeding live stock. There is a heavy demand for germ oil-meal by our own hog feeders and breeders as well as by breeders of cattle.

Corn-oil is the most valuable product we manufacture, although the quantity we make is very small compared with that of starch. This oil is used by paint manufacturers, soap-makers and in the manufacture of rubber substitute. The demand for corn-oil is so great that we often sell one to three thousand barrels at a time.

Vulcanized corn-oil, or corn-rubber, as we will call it, is made by submitting the oil to a vulcanizing process, which solidifies it and gives to it identically the same smell and appearance of pure rubber. You can readily understand what a boon this is to manufacturers of rubber goods when I say that pure Para rubber costs six times as much as corn-rubber. Corn-rubber, however, can not be used exclusively in the manufacture of rubber goods because it has not sufficient elasticity, and requires the addition of a small percentage of Para rubber. The greatest advantage derived from the use of corn-rubber is that boots and shoes from which it is made will not crack, therefore will last longer. The largest consumers of corn-rubber are manufacturers of rubber boots, shoes, garments, belting and hose.

We have now arrived at the department which is of greatest interest to you because we have to deal with that part of corn which is adapted only to the feeding of live stock—the bran and gluten of corn can be used for nothing else. It is, in fact, the very best feeding part of the grain. The bran, which was left on the silk frames or shakers, is now thoroughly washed by sprinklers to free it from the adhering starch. It is then removed to large revolving drums, heated by steam and thoroughly dried after which it ready for market.

In the New England and middle Atlantic States it has been the standard of excellence and reliability for sixteen years, almost entirely superceding cottonseed and linseed meal. I am almost tempted to give you a gluten-food talk and tell you of the astonishing results obtained by one of our Illinois feeders whose cattle were fed on gluten feed at a cost of only fourteen cents per day and shrunk only five pounds in shipping 225 miles—you will kindly pardon me for this reference.

You know now something of the commercial side of corn. We manufacture about forty articles, namely, six varieties of starch, six of glucose, three kinds of gum, four varieties of sugar, six brands of syrup, special starches for brewers, corn-oil, corn-rubber, corn-oil cake, germ oil-meal, and Buffalo gluten feed. The firm I represent is the largest cash buyer of corn in the world, the daily purchases when all the plants are running full capacity amounting to about 180,000 bushels.

This gives employment to nearly 15,000 people.

As before stated, the starch and oil are the most valuable parts of the grain. Oil is always worth twice as much per pound as the starch. The grain of to-day, as it runs on an average contains about 3 per cent oil and 60 per cent starch exclusive of the moisture. In view of these facts the farmers of this country should work to improve their corn by increasing the content of oil and starch. The farmer who will produce year after year a crop of corn containing six to eight per cent oil and seventy per cent starch may easily dispose of his crop at a handsome premium. It is only a question of time when the large users of corn, such as the starch and glucose manufacturers, hominy mills and distillers will buy the grain on a chemical analysis.

Number and Value of Farm Animals.

The Statistician of the Department of Agriculture has completed his estimate of the number and value of farm animals in the United States, by separate States, on January 1, 1903. The totals for the country are shown in the following table, together with the corresponding figures for January 1, 1902:

Farm animals.	Number.	Average price per head.	Value.
Horses.....	16,557,373	\$32.25	\$1,000,705,969
Mules.....	16,531,224	58.61	968,935,178
Milch cows.....	2,728,068	72.49	197,753,327
Other cows.....	2,757,017	67.61	186,411,704
Milch cows.....	17,105,227	30.21	516,711,914
Other cows.....	16,686,802	29.23	488,130,324
Other cattle.....	44,659,206	18.45	824,054,902
Sheep.....	44,727,797	18.76	839,126,073
Swine.....	62,964,876	2.63	166,315,160
.....	62,029,091	2.65	164,446,088
.....	46,822,624	7.78	364,375,068
.....	48,696,890	7.03	342,126,780

The above table shows a net increase during 1902 of 26,149 in the number of horses, 408,425 in that of milch cows, and 1,925,785 in that of sheep, and a net decrease of 28,929 in the number of mules, 68,591 in that of cattle other than milch cows, and 1,776,266 in that of swine.

There is an increase in average value per head amounting to \$3.64 in the case of horses, \$4.88 in that of mules, 98 cents in that of milch cows, and 75 cents in that of swine, with a decrease of 31 cents per head in the case of cattle other than milch cows, and of 2 cents in that of sheep, the total value of all farm animals being \$3,102,515,540, as compared with \$2,989,170,150 on January 1, 1902, an increase of \$113,345,390.

In the compilation of this report the Department has not only had returns from its State Statistical Agents and its county and township correspondents, but it has sent to every State in which the live-stock industry constitutes an important branch of the State's entire farming operations, as well as to every great live-stock market, special agents, whose duty it has been to examine State official records and market receipts and generally to obtain all possible information calculated to throw light upon the recent fluctuations in the live-stock industry.

Siberian Millet.

EDITOR KANSAS FARMER:—All my red clover having frozen out last winter I began to look through the columns of the KANSAS FARMER to find what to sow for cow feed. I read about cane, Kafir-corn and other forage plants, but when I read the letter written by J. C. Norton, on Siberian millet, I decided to give it a trial.

I had sown four acres to rye the previous fall, which I intended to pasture, then plow under in the spring and plant to corn.

Having changed my mind, I sent to the State seed-house at Lawrence Kans., and purchased sixty pounds of seed, costing \$1.50 per bushel. May 20, I began plowing the rye under, using a Cassidy riding plow with three horses hitched to it, and the fourth horse hitched to one section of a harrow, then jockeyed him to the furrow horse. When I was through plowing I had the ground harrowed three times and in fine condition. May 22, I put

We Sell Direct to the Planter

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N. T. CONKLIN, Pendleton, Oregon.

the millet seed in the seeder box of my hoe drill, set to sow one peck to the acre.

As soon as I finished sowing I harrowed and rolled the ground the same day. The millet came up fine, but I thought too thin on the ground. I remembered J. C. Norton said, in sixty days from time of sowing the millet would be ready to cut for hay, so I kept the date and July 22 it was ready to cut; but I decided to get a crop of seed. When the heads were ripe, the blades and stalks were green, so I waited one week longer and yet it was green. When cut, I found some of it four feet high and so heavy that I could only take one-half of a cut with a seven-foot McCormick binder, and it took four pounds of twine to the acre to bind it in large sheaves. Then the rains came, and I could not thresh it for a month. The caps and outside of the stacks were bleached and looked as if it was ruined; but when we threshed it we found the outside only was damaged. We threshed 106 bushels of seed and got eight tons of hay which I am feeding to my horses and cattle. They eat it much better than the German millet. I think if it had been cut when the sixty days were up it would have been first-class feed, especially for cattle.

In September I plowed the millet stubble under and sowed to wheat, and at this writing it looks as good as wheat by the side of it, sowed on oats stubble which was plowed early in August.

CHAS. E. THUMA,
Brown County.

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Emporia, Kans., October 18, 1901.
Dr. D. M. Bye Company, Indianapolis, Ind.

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LA CROSSE WIS.

Horticulture.

Remedies for the Melon Louse.

PRESS BULLETIN, OKLAHOMA EXPERIMENT STATION.

The melon-growers of Oklahoma all know what a serious pest the melon louse has been in the Territory. And most of them who do not already know of the facts will be glad to learn that we have reports of the successful use of remedies against this pest in some of the States. To such as have not found a solution of this problem we make the recommendation that they give one or more of these remedies a fair trial during the coming season. To do this preparations for destroying the bugs must be made before the melon seeds are planted. This is because the only successful destruction of the lice must be done very soon after they make their first appearance on the young vines. Therefore, to insure success, if that be possible, the method of killing the bugs should be chosen now, and all the necessary materials and appliances should be procured at the earliest possible date.

No preventive measures which may contribute to success should be neglected. The most important of these is the clearing up and burning of rubbish and weeds in and around fields which have previously been infested with the melon louse. The best time to destroy infested vines is the moment they are regarded as being of no further use. Too much in the way of results should not be expected from the destruction of infested vines and weeds, for the melon louse lives on many other plants, for example, the cotton, and there are many sources from which the insects may come to the melon vines.

The young vines should be carefully examined from day to day for the first appearance of the lice, and the work of destroying them should begin as soon as they are found. It has been observed that in some fields they make their attack at first on only a few vines, and then spread from these over the whole field. In such cases the advantage of early destruction is plain to all. Another reason for promptness is the fact that the vines are more easily treated for the bugs when they are small, and still another reason is, that if the leaves become curled it is difficult, if not impossible, to make a thorough application of a spray to the undersides of the leaves, where most of the lice are located. And it is to be remembered that the insects multiply with very great rapidity.

TOBACCO AND KEROSENE.

The principle means used for killing plant lice on melon vines and other plants are spraying with tobacco decoction or kerosene emulsion, and fumigating with tobacco or carbon bisulphid (hokey pokey). Whatever remedy is chosen, it should first be tried on a few of the infested plants to test its efficiency. When it is certain that it kills most of the insects but does not injure the vines, it is to be applied to all of the affected vines. It is a good plan to make a second application of most remedies, and to do this soon, so as to prevent a large increase of bugs from such as have escaped the first operation.

Spraying with a tobacco decoction is recommended as a remedy least likely to injure the vines. This is to be done with a spray pump and a nozzle which will throw the spray on the underside of the leaves of the infested plants. The tobacco decoction used should be prepared in such a way that it may always be duplicated by a decoction of about the same strength. One of the easiest ways to secure this result is to make it by adding a commercial extract of tobacco to water in a definite proportion. The "Rose Leaf" extract of tobacco sold by dealers in seeds has been used as a spray for the melon louse by adding it to water at the rate of three tablespoonfuls of "Rose Leaf" extract of tobacco to one gallon of water.

Two gallons of hot water poured on one pound of good tobacco stems in a wooden pail and allowed to stand overnight or longer give a tobacco decoction that has been used with good results, but this decoction varies in strength with the quality of the tobacco stems. There are other preparations of nicotine on the market which may be used in making the decoction for the spray. In whatever way the spray be prepared its effect on the vines and insects should be tested before it is applied to any large number of plants, and sufficient time should elapse after the test spraying for the plants to show any injury which the

spray may cause, and for the insects to revive if they have been stupefied instead of killed. As soon as it is certain that the spray kills the bugs without injuring the plants it should be applied thoroughly to the vines and especially to the lower sides of the leaves of all the affected plants. It may be well to repeat the spraying one or twice after a few days, so that any insects which escape the first spraying may be caught the next time. Though such insects may be too few to be noticed at first, they may multiply rapidly under favorable conditions.

When diluted kerosene emulsion is used as a spray against the melon louse, care should be taken to test the effect of the emulsion on the plants, before applying it to the whole crop. Then, if it be found too weak for the bugs or too strong for the vines, it may be made weaker or stronger as required. A formula recommended for the preparation of an emulsion for plant lice is as follows:

One-half pound soap (whaleoil if possible), 1 gallon water, 2 gallons kerosene. For use against the melon louse add one gallon of the above emulsion to nine gallons of water. To be effective this must be sprayed so as to reach the entire lower surface of the leaves of the plants.

The simplest way to use tobacco for fumigation of the melon louse is to burn half an inch of "nikoteen punk" under a tight box or tub placed over the young vines and pressed into the soil. When this is done the box should be left over the vines long enough for the insects to be killed. In treating a large field enough boxes may be used so that by the time a man has put all the boxes in place it is time to change the first box to another plant. This remedy should also be tested to determine what is the best amount of punk and the proper length of time with the size of box used.

Treating the melon louse with the fumes of carbon bisulphid (hokey pokey) is a comparatively simple operation, but has the disadvantage that unless it is done with care not to use too large a dose or expose the plants too long to it, it may injure the vines. Two tablespoonfuls poured into a saucer or a pan and placed beside the plant to evaporate, the whole to be covered immediately with a tight box pressed into the soil and allowed to remain in that position for an hour and a half, has been found to do the work of killing the insects. In making the test of this method before applying it to the field it will be well to see that the test is made with the temperature as high as it is likely to be in practice.

Home Floriculture.

This is a practical guide to the treatment of flowering and ornamental plants in the house and garden, by Eben E. Rexford. It is illustrated, 5 by 7 inches, 300 pages, cloth. Published by Orange Judd Company, New York.

This fascinating book is written by one of the most experienced amateur floriculturists and most pleasing writers in this country. His intimate knowledge of the wants of the people have convinced him what is wanted in this direction is not scientific text books, but plain, practical, easily understood information which will enable those who love flowers to grow them successfully. It has been written from the author's life-long personal experience among flowers, and not from theory. Every detail in the principles and practice of plant growth and management is concisely, clearly, and minutely explained, and yet there is not an unnecessary line in the book.

It treats on the soil for plants in pots, potting, watering plants, insects and how to fight them, care of house plants during summer, fertilizers, diseases of plants, winter precautions, dormant plants, appliances for the amateur's use, small greenhouses. Very complete lists and descriptions of plants best adapted to window culture are given, also of the best outdoor annuals, hardy perennials, shrubs, and plants for various purposes. The closing chapter, entitled "After Thoughts," forms a unique and pleasing combination of floricultural odds and ends, without which the book would have been deprived of one of its most instructive and attractive features. Over seventy excellent illustrations add considerably to the artistic appearance of the book.

Encourage Tree-planting.

EDITOR KANSAS FARMER:—In answer to your invitation to your readers to send in their views on needed legislation, I would say it would greatly benefit the State if laws could be enacted that would encourage the farmers to

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Probably you have heard of this famous motto for many years but have you proved for yourself that Burpee's Seeds are the

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If not, write to-day for Burpee's Farm Annual for 1903—so well-known as "The Leading American Seed Catalogue." It is an elegant book of 184 pages, with beautiful colored plates and will be sent FREE to planter, everywhere;—to others upon receipt of 10 cents, which is less than cost per copy in quarter-million editions. Write TO-DAY. Do not delay! It is sufficient to address simply

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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, Nebr., Box 625**

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R. E. DIETZ COMPANY, 95 Laight Street, New York.

plant forest-trees. It has been learned by experience that there are different kinds of trees adapted to the climate, that can be successfully grown in all parts of the State, with the possible exception of the extreme Western part. If every farmer had a few acres planted to trees it would greatly beautify the appearance of the country. That it would tend to equalize the climate will be denied by no one. The force of the hot winds of summer as well as the cold, stinging blasts of winter would be broken. That the annual amount of rainfall in different parts of the country is to a great extent in proportion to the number of trees, will be generally conceded. It will no doubt, be difficult to induce all farmers to plant trees, but if laws were enacted that would provide for the growing and free distribution of seedling-trees to those wishing them, the general distribution of literature pertaining to forestry, and the exemption from taxation of that part of a man's farm on which forest-trees are planted and cared for; such laws would not be devoid of good results.

Some Sprays for the Orchard.

EDITOR KANSAS FARMER:—I want to spray my orchard this spring. Will you kindly inform me what solution is best adapted to the orchard? Chase County. F. LALOGUE.

There are several formulas for sprays for the orchard. In choosing which to use the orchardist must be guided by the purpose for which the spray is to be used. Poisonous sprays are used to kill insects which bite. For fungus diseases or enemies of the orchard another kind of sprays are necessary. In Kansas, however, nearly all orchard spraying is done with poisons with a view to destroying canker-worms, codling-moths, and other predacious insects possessed of masticating apparatus. For this purpose some form of arsenic is used. Following are a few of the standard formulas for insecticides:

PARIS GREEN.—DRY.

1 pound Paris green.
20 50 pounds flour.
Mix thoroughly and apply evenly; preferably when dew is on the plants.

PARIS GREEN.—WET.

1 pound Paris green.
1-2 pounds quick lime.
200 gallons water.
Slake the lime in part of the water, sprinkling in the Paris green gradually, then add the rest of the water. For the peach and other tender-leaved plants use 300 gallons of water. Keep well stirred while spraying.

ARSENATE OF LIME.

1 pound white arsenic.
2 pounds fresh-burned lime.
1 gallon water.
Boil together for forty-five minutes and keep in a tight vessel. Add one quart of this to a barrel (50 gallons) of water for use.

This insecticide has been recommended by a number of experiment stations, but has not as yet been sufficiently tested at the Massachusetts Experiment Station to receive an endorsement.

ARSENATE OF LEAD.

4 ounces arsenate of soda (50 per cent strength).

11 ounces acetate of lead.
150 gallons of water.

Put the arsenate of soda in 2 quarts of water in a wooden pail, and the acetate of lead in 4 quarts of water in another wooden pail. When both are dissolved mix with the rest of the water. Warm water in the pails will hasten the process. For the elm-leaf beetle use 25 instead of 150 gallons of water.

For canker-worms it is sometimes necessary to make the poison much stronger than those specified in these formulas. Judge Wellhouse sometimes doubles the strength, taking care to increase the lime in like proportion to the arsenic.

The KANSAS FARMER will very soon publish a complete spray calendar with formulas for all kinds of sprays for all kinds of fruits.

Farm Notes.

N. J. SHEPHERD, ELDON, MO.

Clover makes a richer manure than corn.

In nearly all cases early sown oats yield the best.

Good stock must have good fare and good attention.

Economizing waste places on the farm is an item of no small importance.

The first year's feeding largely determines the growth of any animal.

Castrating the pigs before weaning prevents a setback in growth.

In sowing grass-seed it is important to use plenty of seed.

Never get in such a hurry as not to give the teams plenty of time to eat.

When it can be done it is always best to set out trees at the first possible opportunity.

With all market animals the profitable line of production is to maintain good health with early maturity.

Every day that an animal is kept longer than is necessary to fit him for market the cost is increased.

The best time to dehorn is soon as the horns begin to appear on the calf.

A sharp knife will then do the work.

The important factor in producing cheap pork is to get the hog to market in the shortest time possible.

In raising calves by hand, care must be taken not to give too much rich food, as digestion may be impaired and bad results follow.

In all stock feeding something must be paid for everything, for it is impossible to produce anything from nothing.

For grazing alone, blue-grass is one of the very best grasses that can be grown on the farm. Once established it will withstand more tramping and close grazing than any other.

Feed the plants by feeding the ground. Nothing is gained by attempting to grow a crop upon land that can not supply the necessary plant-food.

To a considerable extent, absence of uniformity in form and color in a herd may be taken as indication of faulty breeding.

The cost of production, and the expense of marketing, are two great factors in determining the cost of a crop.

Under average conditions the manure, if properly handled, will always pay for labor of feeding and caring for the stock.

To make the most out of manure, it should be taken out and applied to the land as fast as made in order to avoid loss by evaporation or seeping.

Plan and work now to have everything in good shape for spring work, so that the seeding or planting can be done in good season and in good condition.

On the majority of farms as little fencing as can be gotten along with should be the rule, in order to save time, labor and outlay.

GRAPE VINES

STARK GRAPE NURSERIES Portland, N. Y. are in the heart of the famous Fredonia-Chautauqua Grape Belt, which produces

the best vines of any locality in the U. S. An Immense Stock.		1-Yr. No. 1	2-Yr. No. 1
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CONCORD, well known "Old Stand-by"	3.50	25.00
DELAWARE, a most excellent red	4.50	35.00
DIAMOND, finest white; very early	4.00	30.00
IVES, black; fair quality, hardy, healthy	3.50	25.00
MOORE EARLY, large black; very early	4.00	30.00
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WORDEN, richest, FINEST black, early	4.00	30.00
CURRENT, Fay, needs best of care	4.00	30.00
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GOOSEBERRY, Houghton, Old Reliable	5.00	40.00
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A general assortment of Fruit Trees, including 250,000 Japan Plum and 1,000,000 Peach; Raspb'y, Blackb'y, Mulberry, 3 best varieties; Chestnut, Weir's Maple; Root Grafts and an extra fine stock of Apple Seedlings. Send for Colored Plate and Descriptive Circular of STARK-STAR, best of all late grapes. We Pay Freight on \$12 orders, box and pack free.

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T. LEE ADAMS, OLOVER, TIMOTHY, GARDEN TOOLS, BLUE-GRASS SEED. 420 Walnut Street, KANSAS CITY, MO. Landreth's Garden Seeds Poultry Supplies.

Seeds

Alfalfa seed a specialty. Alfalfa—the king of drought-resisting Forage Plants. Pure and fresh 1902 seed, plump and vigorous. In car or bushel lots. Also all other Field Seeds. Write us for prices. MERTH & KIRKSON, Garden City, Kansas.

STRAWBERRY PLANTS THAT PAY

TO PLANT. Sure to produce BIG RED BERRIES. You cannot fail if you plant our plants. We have been growing berries in Kansas 21 years; began when 12 years of age, and know just what you need. Our catalog tells you all you want to know. Have Raspberry, Blackberry plants etc. Write for Free Catalog. Address F. W. Dixon, Holton, Kansas.

SEEDS

FIELD-GARDEN-FLOWER Everything for Farmer or Gardener. Choice quality, high germination. Planet Jr. Garden Tools, Seed Sowers, Bale Ties, Onion Sets, Clover, Timothy, Alfalfa, Millet, Cane, Kafir, Seed Corn, Potatoes, Blue Grass, Orchard Grass. Good Treatment to Everybody. Write for our Catalog—Free.

TRUMBULL & COMPANY, 1426 St. Louis Avenue, KANSAS CITY, MISSOURI.

TREES

Ours have stood the test of 50 years. Send for Catalogue. 600 Acres, 13 Greenhouses. Established 1882. PHOENIX NURSERY COMPANY, 1250 Park St., Bloomington, Illinois.

J. G. PEPPARD

MILLET CANE SEEDS. 1101 to 1117 West 8th St. CLOVERS TIMOTHY GRASS SEEDS. (Near Santa Fe St.) KANSAS CITY, MO.

KUMLER & BUSCH

Dealers in all kinds of GARDEN and FIELD SEEDS. Send in your samples; ask for ours. 600-602-604 Mass. Street, Lawrence, Kansas.

KENTUCKY BLUE GRASS SEED.

For a Beautiful as well as a Most Profitable Pasture sow BLUE GRASS. The genuine Kentucky seed is what you want, and from September until June is the proper time to sow. For pure seed of our own raising, and full particulars, write MT. AIBY SEED FARM, Paris, Kentucky

Seed Corn

We have best varieties of Field Corn, Iowa Silver Mine (white), Early Gem (yellow), and White Rose. We also have best of seed wheat, White Russian oats, and cane seed. Write for price list and other information. Prompt attention to all orders.

ROSS & FERRELL, - - FARRAGUT, IOWA.

Plant Trees for Posts

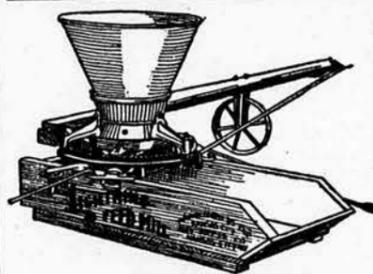
Catalpa, Orange, and Russian Mulberry Seedlings, one year old for planting. The Catalogue are from seed selected from known Specie's trees. Write for prices stating number wanted.

PETERS & SKINNER, North Topeka, Kans.

SEED Tested-Tried-True CORN

Send a 2 cent stamp for 40 page book "Hints on Corn Growing" and samples of some of our different varieties of Seed Corn. We originated the 3 famous varieties Early Yellow Rose, Snowflake, and White Salamander. We ship both in the ear and shelled. Write for prices on Corn, Oats, Cane, Rape, Clover, Timothy, Etc., Etc. Shall we send you our Garden Seed Catalogue? J. B. ARMSTRONG & SONS, Shenandoah, Iowa

Lightning Feed Mill



Greatest Capacity, Lightest Draft, Quadruple Gear, Roller Movement. KANSAS CITY HAY PRESS CO., 199 Mill Street, Kansas City, Mo.

Buy Your Seeds Early

ALL VARIETIES ARE SCARCE THIS YEAR.

Don't depend on your neighbor any longer but get Fresh and Reliable seeds of the KANSAS SEED HOUSE.

We sell everything in the line of SEEDS. Seed for the Garden, for the Field, the Farm, and the Flower Garden. Headquarters for ALFALFA—very scarce this year, too—Cane, Millet, Kafir-corn, Seed Potatoes, Onion Sets, and Gardening Tools. The Wonderful MACARONI WHEAT, the RUSSIAN PELETZ, and the Hardest known forage plant HUNGARIAN BROME GRASS. Send at once for their Free Catalogue telling all about everything in SEEDS.

Kansas Seed House. F. Barteldes & Co

strong, healthy, perfect and thrifty by all who saw them, and indeed they did nothing but thrive and grow. The cockerels were ready for market in good time, and from these two hatches, marketed at an ordinary price, they more than paid for the incubator, besides a large number of fine pullets left that began laying in November and kept at it all winter and spring. They almost paid for the machine, to say nothing of the later hatches which were equally good; but you all know it is the March and April chicks that pay best and do best. Without a good incubator we can not get so many chicks nor have them so near of an age, which are two great advantages for profit in both caring for and marketing them.

The ten successive hatches made from March 21, 1901, to April 21, 1902, gave us an honest average of 92 per cent of fertile eggs. I consider that a fine record for one who had never seen an incubator nor had any help but printed instructions.

MRS. ALBERT RAY,
Morris County.

Poultry Notes.

N. J. SHEPHERD, MISSOURI.

Buckwheat is considered a good food for poultry when used in connection with other grains, and tends to stimulate egg production, being rich in gluten and albumen.

Feeding dry or whole grains to fowls in restricted yards is more or less a necessity, but it should be varied to suit the requirements of such cases and induce health and productiveness.

Even when the farmer does not care to make a specialty of breeding pure-bred fowls, it will pay to keep at least pure-bred males to mate his common hens. Under present conditions it is poor economy to breed from common mongrel stock when pure-bred can be had at so small expense.

It is never good economy to buy eggs or fowls for breeding purposes. The best can not be reared at the lowest price, and it is more economical to pay a responsible breeder a fair price and secure good stock than to run the

risk of loss and disappointment of getting poor.

In raising ducks, far the most profit and one of the most important items is the breed. In all cases, one of the large breeds should be selected, Pekin, Aylesbury, or Rowen. A drake and two ducks will, with ordinary care, give a very good start. They commence to lay very early and will lay very regularly until hot weather. On account of their roosting on the ground they should have separate quarters from other fowls. Provide plenty of straw for bedding, changing sufficiently to secure proper cleanliness. Keep penned up until rather late in the morning in order to secure all the eggs. They are voracious feeders, and if given all they will eat will become too fat. More than any other class of poultry, unless we except geese, the ducks require bulky food. Cooked vegetables, such as potatoes, or even clover with bran, is better than too much grain. While they may be reared in close confinement, better results in every way can be secured by giving them free range. Let the hens hatch out the eggs. Ducks do not make good mothers, and it is more economical to allow ducks to lay, but hatch the eggs under hens.

Farm range produces the best, hardest, most hustling poultry. Many a fancy breeder would give a great deal for a good range.

Do not duplicate the mistakes of last year in the present one. See our "Blocks of Two" proposition.

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.

For Good Road Making.

At the auditorium in the city of Chicago on the evening of February 20, the National Good-Roads Convention assembled for its opening session. The National Highway Commission appointed by President Roosevelt and consisting, among others, of such distinguished members as Gen. Nelson A. Miles, Col. John Jacob Astor, and Col. Albert A. Pope, was liberally represented. The governors of most of the States in response to the invitation appointed delegates, and representatives were also present from every local good-roads association of any consequence in the United States.

An assembly constituted as this one was should have been able to shape some policy to bring order out of a very chaotic but all-important subject. A most healthy sign was the presence of the strong hand of the general Government, heartily seconded by the different States.

broad-tired vehicles on the road. The same benefits are to be derived from it that flow from the use of the steam roller. And in its use the cost would be nothing to the county or township authorities, the mere use of such wheels instead of wearing out the roads, constantly improve them. Where the narrow wheels rut and furrow and lead to washing, the broad tires roll and make compact and permanent. It is only necessary to behold the road districts in regions where the broad-tired wheel is in general use to at once become an advocate of their general employment. Many towns with unpaved streets set a limit by ordinance to the width of tires which may be used, the tires being required in all cases to have at least such a tread as will give the needed packing and rolling and avoid the cutting and rutting which necessarily creates far heavier draft and frequently makes the street absolutely impassable.

The illustration herewith well illustrates our meaning. We reproduce it by



We can not conceive of any field in which State or Nation can direct or encourage the spending of money which will bring to the great body of rural people such a direct and permanent good as the improvement of its highways. Necessarily the convention concerned itself with general topics. No definite plan was formulated for the detailed work of road improvement. Yet something in this line would have been a step in the right direction and of all things the most practical. We instance the elementary principles of road-making, namely, drainage, raising centers of roads and rolling. Even outside of paving, these are considered prime essentials in municipalities. They should be also first essentials in the country. The first two are correlative, the one being the necessary result of the other. As to the rolling and packing of the road-bed, if the purchase of heavy engines for the purpose, such as are used in cities and towns, be too radical a preliminary step, the convention would have adopted at least one good practical measure, if it had passed a resolution advocating the general use of

courtesy of the Electric Wheel Company, of Quincy, Ill., who by the manufacture of a wheel admirably adapted to the purpose we are considering, is doing much to further the cause of good roads all over this country. It will be apparent that the draft must be much lighter for the broad-tired wheel than the narrow one, even for the first tracking over a given point. All subsequent passages must continue to pack and improve the bed and still further lessen the draft, while exactly the reverse is true of the narrow tire. If the practical experience of every farmer did not unequivocally settle this fact, the experiments made by the experiment station at the University of Missouri would place the matter beyond cavil. There are other essentials which will enter into road-building of the future. This is one—a very important one, all the more important because so fruitful of good results at no cost whatever to the authorities, and attended with no extra expense to the user of the broad-tired wagon, but on the other hand permits the hauling of larger loads with lighter draft and with far greater convenience than in any other way.



Mrs. Anderson, a prominent society woman of Jacksonville, Fla., daughter of Recorder of Deeds, West, who witnessed her signature to the following letter, praises Lydia E. Pinkham's Vegetable Compound.

"DEAR MRS. PINKHAM:— There are but few wives and mothers who have not at times endured agonies and such pain as only women know. I wish such women knew the value of Lydia E. Pinkham's Vegetable Compound. It is a remarkable medicine, different in action from any I ever knew and thoroughly reliable.

"I have seen cases where women doctored for years without permanent benefit, who were cured in less than three months after taking your Vegetable Compound, while others who were chronic and incurable came out cured, happy, and in perfect health after a thorough treatment with this medicine. I have never used it myself without gaining great benefit. A few doses restores my strength and appetite, and tones up the entire system. Your medicine has been tried and found true, hence I fully endorse it."—Mrs. R. A. ANDERSON, 225 Washington St., Jacksonville, Fla.

Mrs. Reed, 2425 E. Cumberland St., Philadelphia, Pa., says:

"DEAR MRS. PINKHAM:— I feel it my duty to write and tell you the good I have received from Lydia E. Pinkham's Vegetable Compound.

"I have been a great sufferer with female trouble, trying different doctors and medicines with no benefit. Two years ago I went under an operation, and it left me in a very weak condition. I had stomach trouble, backache, headache, palpitation of the heart, and was very nervous; in fact, I ached all over. I find yours is the only medicine that reaches such troubles, and would cheerfully recommend Lydia E. Pinkham's Vegetable Compound to all suffering women."

When women are troubled with irregular or painful menstruation, weakness, leucorrhoea, displacement or ulceration of the womb, that bearing-down feeling, inflammation of the ovaries, backache, flatulence, general debility, indigestion, and nervous prostration, they should remember there is one tried and true remedy. Lydia E. Pinkham's Vegetable Compound at once removes such troubles.

The experience and testimony of some of the most noted women of America go to prove, beyond a question, that Lydia E. Pinkham's Vegetable Compound will correct all such trouble at once by removing the cause and restoring the organs to a healthy and normal condition. If in doubt, write Mrs. Pinkham at Lynn, Mass., as thousands do.

No other medicine in the world has received such widespread and unqualified endorsement. No other medicine has such a record of cures of female troubles. Refuse to buy any substitute.

\$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.

Advice to WELL DRILLERS

Sell your old style machine to some man who isn't posted—then buy one of our late improved machines. They are great money earners. Address
LOOMIS MACHINE CO., Tiffin, Ohio.

PAINT Anti-Trust, Fireproof Economical—Durable.
Saves you 50 to 80% on your PAINT BILL. Instructive booklet, "Economic Painting" and sample of Paint mailed FREE. We are not in the trust.
WARD PAINT CO., 721 Larrabee St., Chicago.

Mark the Grave of your departed.

Headstones \$4 up
Monuments \$11 up
Blue or White Marble
nicely lettered. Instructions for setting. Save agent's commission. Send for Catalogue.
W. J. MOORE,
338 Third St. Sterling, Ill.

Free Rupture Cure

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

THE SHARPLES Tubular Dairy SEPARATOR

Here is a sample of the kind of letters we get every day:

"Have often heard of the Sharples Tubular Separator, but never investigated it until now. I thought all separators more or less alike until I tried your Tubular. I have used other separators, but never knew what a separator could be or should be, until I got this. No fat left in the skim-milk—half the labor to turn it—one-tenth the number of parts to clean. The talk of others misled me to my own loss, but now I know better."



Every dairy farmer can have a free trial of the Sharples Tubular and decide in accordance with his own judgment—not talk. Catalog No. 105 free.

SHARPLES CO., P. M. SHARPLES, Chicago, Ills. West Chester, Pa.

Let us put your name on the free list of the "SEPARATOR"—a good paper for dairymen and farmers.

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.

A Plan of Campaign.

How many of us plan ahead so that thinkable contingencies may be provided for?

"Take no thought for to-morrow," "Sufficient unto the day is the evil thereof," may do for man's spiritual welfare, but here in this material world we must needs think of the morrow. We do not live to ourselves alone; on everyone depends something. It may be family and loved ones, it may be those whom we employ, or it may be our business, the future crops of grain or the future well-being of our herds depending upon our taking thought for the morrow. The dairyman is handling one of the most gentle and at the same time the most highly organized of the animal creation. She has certain needs that must be met by her owner if she is to do her best. In order to supply these needs every month in the year we must plan ahead. It is approaching the time to lay out one's crop plans if we have not already done so. Have we so planned that the needs of the dairy cow will be supplied every month in the year?

Every farmer looks forward to the coming of grass. The succulent, nutritious grasses, native or cultivated, are recognized to be nature's best food supply for our stock. We all recognize the value of good pasture. We recognize that through it we get the best flow of milk and that when the drouth comes on we are at its mercy. Do we stop here to plan a little? Can we in any way overcome the difficulty of this almost sure drouth? Can we not prolong the season of green and succulent feed so necessary to the best for milk production?

Many thoughtful dairymen have overcome these difficulties and have added much to their income by planning ahead for seasons of drouth and for winter.

Plan now for some feed that you can cut and feed green during the dry spell in summer; alfalfa, oats, sorghum, or corn will do splendidly. The rich pastures of June and early July force the cow to her utmost capacity. When the pastures turn brown the heat is excessive and the flies worry her, and she dries up entirely, or loses much in milk yield. Later rains may come and nature again smile in her luxuriance, but the cow has lost her power to produce milk. The food that should go for this purpose is largely turned into other channels and we never regain what was lost.

A little succulent feed through this trying time to supplement the deadened pastures would keep up the flow of milk, maintaining it until late in the season.

In our dairying operations we should plan to have the greatest amount of product when the prices for that product are the highest. Have we thought enough of winter dairying? Have we planned to so breed our cows that the calves will come in the fall? Have we ever stopped to think that nature's way may not always be best? Although she gives us the June pastures she does not provide for the later dry spells. Man must do that.

Nature so arranges things that the calves are dropped in the spring and the cow has a short season in which to rear her young, yet that may not be the best way for man's purposes. Naturally the cow gives only enough milk to feed her calf. All obtained above and beyond that is the result of an improvement on nature's ways by man. We have made the cow give more milk than nature intended. Let us plan to have her give this extra milk when it will be most profitable to us. When she comes fresh in the fall, and we have provided a wise and generous ration we get a large flow of milk through the winter; while her sister that brought forth her calf in the spring is boarding off of her owner. When spring comes, this fall cow goes on grass, and the feed favors her until the dry season of summer; then she is dry at the time when butter is lowest, weather is hottest, flies are fiercest and pastures shortest. Plan ahead for the little things like this that may mark the dividing line between profit and loss. E. H. W.

Farm Testing of Hand Separators. Send for catalogues of different makes of machines. Do not believe all the catalogues say in regard to superiority or you will get badly mixed after reading several. Be your own judge.

400,000 Farmers

Scattered all over the World are finding a

De Laval Cream Separator

the best investment they ever made in dairying.

Might not this be true with you too?

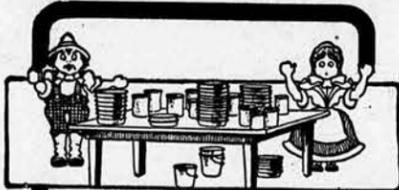
Let the nearest local agent bring you a machine to see and try for yourself.

That is his business. This will cost you nothing. It may save you a great deal.

If you don't know the agent send for his name and address—and a catalogue.

The De Laval Separator Co.

RANDOLPH & CANAL STS. CHICAGO. General Offices: 337 YOUNGVILLE SQUARE, MONTREAL.
1213 FILBERT STREET, PHILADELPHIA. 74 Cortlandt Street, 75 AND 77 YORK STREET, TORONTO.
217-221 DRUMM STREET, SAN FRANCISCO. 248 McDERMOT AVENUE, WINNIPEG.



A long time ago, when they first began To keep milch cows, poor Dairy Dan And Milkmaid Molly had troubles galore, And always seemed to be getting more. They'd work and worry and stew, and fret And always would end the year in debt. But by and by they found a way To lessen their work and get more pay. They bought an Empire, and every cow Is yielding a handsome profit now. They're Jolly Molly and Dandy Dan Since they adopted The Empire Plan.



The Easy Way is not always the best way, but it so happens in the case of the

Empire Cream Separator

that it is both the easiest and the best. The Empire runs more lightly than any other separator of the same capacity; it is more easily cleaned, because it has few parts; it lasts longer and costs less for repairs, because it is better built and freer from intricate mechanism. In short, it is the simplest, most efficient hand power cream separator made. We guarantee that it will do better work with less labor and trouble, than any other separator, and all we ask is a chance to let you prove our claims to your own satisfaction. What do you say?

Let us send you our good book on "Making the Dairy Pay." It's free for the asking.



Empire Cream Separator Company, Bloomfield, New Jersey. Western Office, Fisher Building, Chicago.

U S U S U S U S U S

98½ POINTS

Highest Score at any Dairymen's Convention

this season, was received by butter made from cream separated by a U. S. Separator at the Vt. Dairymen's Meeting, Rutland, Jan. 6-8, '03.

THE U. S. SEPARATOR WINS HIGHEST HONORS AT MANY OTHER STATE CONVENTIONS

New York, JAMESTOWN, Dec. 9-12, '02, THE HIGHEST SCORE - - - - 98 POINTS.

Maine, WATERTVILLE, Dec. 3-5, '02, HIGHEST, SECOND HIGHEST AND THIRD HIGHEST SCORES.

New Hampshire, LITTLETON, Dec. 2-3, '02, HIGHEST IN DAIRY TUB, DAIRY PRINTS AND CREAMERY PRINTS.

Nebraska, LINCOLN, Jan. 22-23, '03, HIGHEST SCORE OF ALL.

Buy the U. S. Separator if you wish to make the Best Butter.

For Western trade we transfer our Separators from Chicago, Minneapolis and Omaha. Address all letters to Bellows Falls, Vt.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

U S U S U S U S U S

Choose one which promises to please you, all things considered, and have it sent to you on trial with the understanding that it must give satisfaction.

The hand cream separator is a machine that must be run twice a day through a hundred and sixty-five days in the year. It should be able to do from six to ten years. Unless the buyer has plenty of money to invest, he should be very careful in making his first choice in this line. It is best to buy one of the standard makes, and let the other fellow try those which have been out only two or three years.

A separator to be practical must be durable, skim clean, leave little cream in the bowl after skimming, require little time to wash, and have a capacity to suit the herd. Secondary points to be desired are: Light running, convenient oiling, easily accessible parts, protected gearing, inexpensive repairs, and a moderate price, etc.

The writer tested a machine which left 0.12 per cent fat in the skim-milk, under average conditions. This loss means 0.24 of a pound daily, or 86.4 pounds yearly, when the herd yields 100 pounds of milk twice a day. At twenty cents a pound the loss would be \$17.28. Enough to soon pay the difference between two grades of separators.

Throwing Butter Away

by the old method of skimming milk is rank folly. With a National Cream Separator you can save 50 per cent. of the butter-fat you are now throwing away. It separates both warm and cold milk, light or heavy cream and skims practically clean. We send it

Free for 10 Days

trial. Let you test it—see for yourself the saving it makes. If not satisfactory, send it back—we pay all costs. Catalogue free. National Dairy Machine Co., Newark, N. J.

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 Omega Creamery Co., 225 Concord St., Lansing, Mich.

A VILLAGE WONDER

THE HAMLET OF BIG SPRING, WIS.,
HAS A SENSATION.

Agitation Over the Story of a Woman Who
Wanted to 'Is—Her' Condition Due
to Serious Ill Health.

Big Springs, Adams County, Wisconsin, is much the same as other country villages where every resident's affairs are pretty well known to everybody else. It was no secret, therefore, that Mrs. Jennette Wilber led an unhappy life and had wished for death as a relief from her suffering. "For twenty-five years I was tortured with indigestion," she says, "but now I am well, thanks to Dr. Williams' Pink Pills, and I have told all my friends of the almost miraculous way in which I was cured.

"Every one in the village knows of my long sickness. After each meal, gas would form in my stomach and cause me great distress. So great was my suffering that I thought many times it would be a relief to die. Of course I was treated by the best doctors in our section, but the help they gave me was only temporary. I was very careful of my diet but as I became worse I had difficulty in retaining the simplest food, in fact, the smell of food often nauseated me. One day I saw Dr. Williams' Pink Pills for Pale People mentioned in a newspaper and, although I had tried many medicines without being benefited, I decided to try them. I know that my case being of long standing, could not be cured in a day and I gave the pills a thorough trial. I began to improve slowly after taking the first box and in a few months I was entirely free from indigestion and could eat anything I wanted. Since that time I have been troubled but once when I became run down from overwork. I resorted to Dr. Williams' Pink Pills again and was soon entirely well."

Any one having indigestion or dyspepsia can be cured if Dr. Williams' Pink Pills for Pale People are given a sufficient trial. These pills act, not on the symptoms, but on the cause of diseases arising from impoverished blood or shattered nerves. They cure partial paralysis, locomotor ataxia, St. Vitus' dance, sciatica, neuralgia, nervous headache, after-effects of the grip, palpitation of the heart, pale and sallow complexions and all forms of weakness. At all druggists, or direct from Dr. Williams' Medicine Co., Schenectady, N. Y., 50 cents per box; six boxes for \$2.50.

Another separator left 0.052 of a pound of butter-fat in a bowl after being flushed with skim-milk at the close of the run. This means 0.104 of a pound daily. Not enough to count, many farmers may say, but it amounts to thirty-eight pounds yearly, or \$7.60 at twenty cents per pound—enough to buy a pretty good calf, which could soon grow to be worth \$25.00.

Method of testing: Set up the machine. Make a run according to directions. If 55 to 60 turns of the handle per minute are prescribed, turn 60 and no more. If the agent is present, do not let him run the machine at a still higher speed, or partly shut off the feed, in order to make a better record of close skimming. Notice the length of time required to separate a can of milk, to see whether the advertised capacity is reached. Have the temperature of the milk as high as 85 degrees Fahrenheit, even if it is necessary to blanket the can or set a lantern under it while milking. To get a sample of skim-milk, hold a bucket under the skim-milk a few seconds, several times during the run when speed and feed are normal, or take a sample from the skim-milk can, well mixed by pouring several times. To make a test of cream left in the bowl: Flush the bowl with skim-milk at the close of the run. (Water at 90 degrees Fahrenheit will clean the bowl better than skim-milk.) Carefully lay the cream-pan in a clean bucket. Into the cream bucket empty the skim-milk from the bowl. Carefully rinse the cream off of the bowl and cream-pan, not neglecting the top of the bowl. The slime may be washed out also, and thus be sure of getting all the cream. If a brush is used, be careful to leave what cream adheres to it in the washings. Weigh the water contained in these washings. Add enough more to make an even number of pounds, then thoroughly mix by pouring back and forth, and quickly take a sample in fruit jar or a large-mouthed bottle. Take this sample and that of the skim-milk to the skimming station

and have them tested for butter-fat. The skim-milk should test from .01 to .05. The bowl washings, the less the better. Suppose the washings weigh 5 pounds and test 1.2 per cent. This would mean a loss of .06 of a pound of butter-fat each run, .12 of a pound daily, 43.8 pounds yearly—equivalent to a loss of .07 per cent in the skim-milk when a herd yields 200 pounds of milk daily. F. E. UHL.
Gardner, Kans.

"As to the value of your Packer and Pulverizer, words will not give to it the merit that it deserves as a farm implement."—Joshua Browning.

Miscellany.

Better-Bred Grain and Corn for Kansas.

A. M. TEN EYCK, AGRICULTURIST, KANSAS
EXPERIMENT STATION.

There are a few simple rules, if they are observed, by which any farmer may improve the quality and productiveness of his corn and other grains.

The vitality of seed depends largely upon three factors, viz., the maturity of the seed, that is, its perfect development; the vigor and healthiness of the parent plant, and the saving and storing of the seed.

Seed-corn should be selected in the field, so as to observe the stalk as well as the ear. Select the best ears (those which hang down indicate weight and small shank) from strong, healthy, leafy stalks. Gather two or three times as much corn as you need for seed, and after shucking, select only those ears which are sound and true to type, well dented, with deep, wedge-shaped kernels and straight rows, well filled out at butts and tips. Thoroughly dry the corn in a well-ventilated room, supplying artificial heat when necessary, and store in a dry place away from rats and mice.

So important is it to save seed only from the strongest and most productive plants that every farmer ought to select the field in which to grow crops for seed. Give the land special preparation, plant at the most favorable time in order to secure quick and sure germination, and give the crop the best possible care and cultivation, so as to get the fullest development of the plants.

Sow the grain or plant the corn thinner than you do for the general crop, in order that the plants may be vigorous and fully developed in productiveness. Seed from large, productive plants is more apt to produce large, productive plants than seeds from stunted, crowded plants.

Allow grain to become fully ripe before harvesting for seed, keep it from getting wet in the shock if possible, and thresh it only when it is thoroughly dry, so that there will be no danger of heating in the bin. Store in a dry place. Always clean your seed-grain, removing all fowl seed and light kernels. Like produces like with the plant as with the animal. If you want to produce heavy, plump grain, plant heavy, plump grain.

The Agricultural Department of the Experiment Station will begin a series of experiments in 1903 for the purpose of testing and comparing all kinds of grain and corn which are being grown or recommended for planting in Kansas. These trials will be made at this station and duplicated, as far as possible, at the Fort Hays branch. I wish to secure seed of all the best varieties of grain and corn, which are now being grown by the farmers of Kansas. If you have a good strain of corn, wheat, oats, barley, flax, Kafir-corn, sorghum, etc., which you would like tested in this trial, send a sample of seed to the Agricultural Department of the Experiment Station, Manhattan.

For all varieties which it is desirable to grow here and at the branch station, one bushel of grain and one peck of corn will be required. For a single trial, one-half bushel of grain and one-half peck of corn is sufficient. I prefer to have the corn not shelled, but in the ear, in order to compare varieties and make some selections for breeding purposes.

The results of the variety trials will be published, and it is the purpose, if certain varieties are found to be better adapted to the State or to parts of the State than others, to propagate and improve them and ultimately to distribute to the farmers of the State better varieties of grain and corn than those grown at present.

I believe that the surest and quick-

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.

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est way to get improved varieties of grain and corn for Kansas is to begin with the best native varieties—those sorts which have been planted and grown in the State for a long time, until they are thoroughly adapted to the soil and climate. These varieties have the stamina to withstand adverse conditions; all they need, perhaps, is a few years of careful and scientific breeding and selecting to improve them and make them superior to the best we can get from other States. Some who have planted the high-bred corn from Illinois have reported that the crop from the Illinois seed was much inferior to that from their own Kansas-grown seed. It does not follow

from this that we should discontinue the testing of varieties from other States or climates, but the suggestion is that such trials should be made on a small scale at first, and if a variety proves to be hardy and adapted to Kansas conditions, then begin planting it in a larger way. Meanwhile let us breed up the best Kansas stock.

I earnestly invite the farmers, and especially the grain- and corn-breeders and seed-growers, to cooperate with the Experiment Station in this work.

"It gives me pleasure to tell you of my entire satisfaction with the work of the Packer which I bought of you."
—Frank J. Adams.

THE MARKETS.

Kansas City Live-Stock and Grain Market.

Kansas City, March 2, 1903. The cattle market here advanced 15@25c last week while Chicago declined 10c. Runs in the East continued liberal all week and there was a world of fat steers before the killers, while in the West the supply showed a heavier proportion of feeding steers and fewer fat cattle. This infused more life into the local beefsteer trade. The top for the week was \$5.20, given on Tuesday for a drove of 1,675-lb steers brought in by Dick Carson of Chilhowie, Mo. The next highest price of the week was \$5.10. The bulk of the fat cattle sold at a range of \$4.25@4.75, while it took pretty fancy steers to bring better than \$4.75. Receipts at Kansas City last week were 32,600 head, over 10 per cent larger than a year ago. Five big markets had 142,000 head against 122,000 last year. There is at present no sign of a diminution in receipts and until the supply becomes lighter there can be no hope of a pronounced improvement in prices. The general impression, however, is that spring will see a decided betterment in the beef-steer market. Average prices for cows and heifers last week were the highest of the winter, heifers selling from \$3.50@4.25 and cows of the better sort from \$3@4. An active, brisk demand was had for stock and feeding cattle. Stockers at present command \$3.50@4.50 and best feeders from \$4@4.40. Hog receipts amounted to 43,500 head, a loss of only 3,300 head from a year ago. The supply at the five markets footed up 353,000, a slight increase over the same time last year. With this bigger supply in sight the packers took heart and bore down on the market securing the biggest decline for many weeks. Prices closed about 5@10c lower for the week. Even at the decline, best hogs are now bringing over \$7 and are still very high, the price of corn and cattle being taken into consideration. Compared with February a year ago swine are at present 75c@1 higher. Some traders still adhere to their belief in \$8 hogs but the general impression is that there will be no material advance in the market for the next few weeks, although light receipts may have a more bullish effect than is looked for. A. E. Beggs, for twenty-five years head hog-buyer for Armour & Co., at this point, died last week of paralysis. The sensational advance in lambs the previous week, was cruelly checked last week when killers sliced 15@25c off prices and in some cases bore down to the extent of a 35c decline. A bad market in Chicago accounts for the local weakness as receipts here were light at 16,500 head. Top lambs sold up to \$6.65, but killers are now buying a good class of natives and Westerns at \$5@6.25. Yearlings topped the winter at \$6.20 and closed fully 25c lower. Native wethers sold up to \$5.50 and Western ewes from \$4.40@4.70. S or n lambs from New Mexico brought \$5.50. Traders look for no pronounced decline in sheep for some time yet. Texans are not due for several weeks and until they come it looks as though there is no danger of the market being glutted with supplies. Horse and mule receipts were right around 2,200 head. Chicago and St. Louis reported lower prices, but the local market held firm to a little higher because of a big demand from the Atlantic seaboard. Mules did not hold up so well as horses, a decline of \$5@10 per head featuring this branch of the trade. A poor Southern demand accounts for the depression in mules. Shippers are advised to keep in close touch with the market from now on. Eggs held steady last week and traders have every reason to believe that prices will take an upturn during the present week. Poultry eased off a little last week, but the decline was very slight. Eggs are quoted at 12 1/2@13c; hens 10c; springs 12c; roosters 20@25c; turkey hens 13@14c; gobblers 12 1/2c; geese 8c; ducks 12 1/2c. There were no startling features present in the grain market last week. Wheat closed a trifle easier while corn went up a fraction of a cent. The coarser grain is in good request all over the country at present and is more than holding its own. Kansas City quotations are: No. 2 wheat 68 1/2@71 1/2c; No. 4, 59@65c; No. 2 corn, 33@41c; No. 4, 32@33c; No. 2 oats, 34@36 1/2c; No. 4, 32@33c; rye 44@45 1/2c; bran 75@79c; tame hay \$8.50@11.50 per ton; alfalfa \$8@12; straw \$4@5. H. A. POWELL.

South St. Joseph Live Stock Markets.

South St. Joseph, Mo., March 2, 1903. Although receipts of cattle were fairly liberal the greater part of last week, the demand was so vigorous from all the buyers that prices advanced 10@20c, the wants of the dressed beef men being ahead of the offerings at the good prices. There were more good fat kinds included than of late, with good, well-finished Nebraska grades topping the market at \$5.25. Cows and heifers continued in light supply and the demand far in excess of the offerings, which caused values to rule 25@35c higher for the good to choice kinds and 10@15c for medium offerings. Canners were of dull sale with no improvement in values. Under moderate supplies and a free movement for the country, combined with the improved fat cattle trade, stock cattle sold freely on each and prices advanced mostly 25c. Owing to the increased marketing and the lower trend of the market for provisions, the course of the hog market was against the selling interests and prices showed a sharp decline. The demand, however, was good at the lower range of values. The quality continues good and weights showed some increase with the last several weeks. The range of prices to-day was from \$6.95@7.25, with the bulk selling at \$7.05@7.15. Receipts of sheep were fairly liberal, but the demand was fully equal to the supplies. With a sharp break in prices in the East and at competitive points, local prices showed a decline of mostly 25@35c for the good class of yearlings and lambs, with the common and medium kinds even more in most cases. The good class of wethers sold fully steady, but ewes lost 15@25c, while the commoner grades of sheep sold generally lower. Native lambs topped the market at \$7; Colorado yearlings, \$6.25; Colorado ewes, \$5.15.

"I can say that I like the Packer very well, and had folks to look at it from fifteen miles around. I would not be without it."—Phillip Laplante.

Lawrence Seed Markets.

Lawrence, Kans., March 2, 1903. We give you to-day's buying prices in our market. Outside prices are for best grade: Per 100 lbs. Red clover..... \$9.00@11.00 Alfalfa..... 8.00@11.00 Timothy..... 2.75@ 3.25 English blue-grass..... 2.50@ 3.50 Millet..... .75@ 1.00 Cane-seed..... .55@ .60 Kafir-corn..... .50@ .52 F. BARTELDIS & CO.

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"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. Initials or a number counted as one word. Cash with the order. It will pay. Try it.

CATTLE.

RED POLLED BULLS FOR SALE—Eight head choice young registered bulls, good flesh, different ages, price right. Come and see them. H. L. Pellet, Route 2, Eudora, 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.

BOTTOM OUT OF PRICES—Shorthorn bull and heifer calf sired with white marks, or nears, 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. Visit us net 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 1 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 134946, 4 years old, dark red, weight 2,300 pounds, got by Giant 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 Ev-rogen strain, bred by Lee 121222. Address Pearl I. Hill, Great Bend, Kans.

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

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

HORSES AND MULES.

FOR SALE OR TRADE—A well-bred, promising horse it will be 2 year old in June; sired by Belmont 2144, and out of Bess Pa chen, by Cafren Patchen, by G. M. Patchen, by H. H. Clav; grand dam by Beecher, a thorough bred. Both the sire and dam of this colt are over 16 hand high and weigh about 1,800 pounds each. So you get both size and quality. ARTHUR A. PATTERSON, Ellsboro, Kan.

STOLEN—Bay mare, old, four white feet, wire brim on right front foot; reward C. E. Burks, Wellington, Kans.

FOR SALE OR TRADE—A black Kentucky Jack, 14-3, sure foal-getter; would trade for heavy draft stallion. L. K. Hentzler, 921 Kansas Ave., Topeka, Kans.

FOR SALE—Two first-class draft stallions, one a registered Percheron, weight 1,700 pounds, a beautiful black, can bone, fine style and action, sound and all right and a sure breeder; was 10 years old last September. The other is an imported French draft, color gray, weight 1,850 pounds, in fair breeding condition, sound and all right an first-class stallion in every respect; was foaled March 12, 1888. Write for full description. C. M. Garver, Abilene, Kans.

FOR SALE OR TRADE—For young cattle, one Percheron stallion, sure foal getter. J. W. Holsinger, Cottonwood Falls, Kans.

FOR SALE—Percheron brood mares bred right, made right sold right. Weights 1,500 to 1,700 pounds, bred to imported horse. Also Shorthorn bulls, just ready for service, and one double standard Poll Durham. J. M. Slonaker, Garnett, Kans.

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

SHIRE STALLION FOR SALE—Newton Echo 4554, dark bay, black points, blocky, a good breeder and a sure foal-getter. Ben Lomond (7155), black, 6 years old, imported, sired by Dunsmore Bounding Willow (180-3), 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, Alida, 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.

LEAVENWORTH CO. JACK FARM—34 head of jacks and jennets on hand. O. T. Corson, Forter, 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 Castilian jacks in Kansas, black, with mealy points; 2 years old Oct 30, 1902. Would prefer to turn him for registered English Red Polled cattle. Address L. Box 53, Sterling, Kans.

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

SWINE.

WANTED—A good Duroc-Jersey sow, bred for April farrow. W. E. Mason, Berrington, Kans.

FOR SALE—Five July Duroc boars. A. G. Dorr, Osage City, Kans.

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

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

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SHORTHORN RANCH AND STOCK FOR SALE—In the great wheat belt of Kansas; 1,520 acres, 650 in cultivation; excellent soil for wheat, rye, oats, corn, sorghum, Kafir, and alfalfa; 3 houses, 4 never-falling wells, 3 windmills, with barn and sheds for horses and cattle, 100 head of high-grade Shorthorn cows and heifers, served by registered bulls (Jubilee of So dier Creek is one of the finest 3-year-old bulls in this State); ten good farm and road horses, with farm tools—all for sale at a great bargain. Only two miles from depot. Call on or address E. P. Miller, Medicine Lodge, Kans.

SNAP NO. 2—200-acre farm, 7-room house, 2 cellars, wood bank barn, 8 necessary out-buildings, un-falling wells, water works, 500-tree orchard. Near school & d town. Price \$3,500. Farms all sizes cheap. Write us. Garrison & Studebaker, Florence, Kans.

FOR SALE—Wheat and alfalfa farms in Central Kans., and cattle ranches in Western Kansas. Alfalfa seed for sale; mail samp e 10 cents. Write us. Dawson & Zutavern, Great Bend, Barton County, Kansas.

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

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

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FOR SALE—320 acres fine pasture land in Wa-bansee County, 3 miles from Halifax, good grass and never-falling water. H. R. Rice, Tecumseh, Kans.

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ENGLISH BLUE-GRASS SEED—For English blue-grass seed write to John G. Hinkle, Eureka, Kans.

ENGLISH BLUE GRASS SEED—\$1 25 per statutory bushel or 22 pound; Sound seed, crop 1902. Seamless American "A" sacks 16 cents; three bushels to sack. Write Jno. S. Gilmon, Fredonia, Kans.

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

FOR SALE—250 bushels G rman millet seed, 150 bushels S-berian 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 stalk 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 60 cents. J. P. Overlander, 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. Brook-over Bros Eureka, Kans.

HONEY LOCUST—300,000 plants sorted in two sizes—\$3 50 and \$2.75 per 1,000, 13 to 24 inches. The only tree for middle and western Kansas. J. E. Mellecker, Spearville, Kans.

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SILVER LACED WYANDOTTES—Exclusively the American Beauties. Choice birds. Sixteen years a breeder. Eggs \$1.50 per 15. D. Tennyson, Frankfort, Kans.

FOR SALE—Thoroughbred White Plymouth Rock cockerels at \$1 each, if two or more are taken. Fine for crossing on barnyard fowls. Also eggs from high-scoring W P Rocks, \$2 per 15, expressage prepaid. Thomas Owen, editor Western Poultry Breeder, Topeka, Kans.

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

SCOTCH TERRIERS—Finest bred in this county. try. Heather Prince the champion of Scotland, and sire of Nosegay Foxglove, out of the champion imported Romney Ringlet, best service at our kennels. G. W. BAILEY, BEATTIE, KANSAS.

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SHEEP FOR SALE—500 ewes from 2 to 6 years old. H. W. Otken, Oakley, Kans.

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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 19.

Bourbon County—Lydia Barton, Clerk. STEER—Taken up by F. M. Wax, one-quarter mile south of Rockford, one large ed 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.

Week Ending March 5.

Johnson County—J. G. Rudy, Clerk. MARE—Taken up by Wm. Colson, in Gardner tp. (P. O. Gardner), Feb. 9, 1903, one brown mare, 15 1/2 hands high, knot on right knee, about 14 years old; valued at \$25. Greenwood Co.—C. D. Pritchard, Clerk. CALF—Taken up by B. C. Williams, in Eureka tp. (P. O. Eureka), Feb. 10, 1903, one black steer calf, white face, white streak on top of neck.

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DO YOU imagine that I am a Real Estate Agent? I am not! I simply offer for 12 cents to furnish reliable private information concerning the production of hay, grain, fruit, dairying, poultry keeping, or any matter that may be of interest to you. Thanking you for your attention, I am, Most sincerely yours,

JAMES H. ENDSLEY, Ellensburg, Wash.

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We offer 30 head of well-bred cattle of the leading strains of breeding, young stock, all sired by our Herd Bull, Gudgeil (94011), who is a son of the noted Cor-rector; cows of Anxiety Lord Wilton breeding, which are as follows: Lot No. 1—Our herd bull, Gudgeil 94011; lot No. 2—9 bulls, 11 to 20 months old; lot No. 3—12 heifers, 11 to 20 months old—4 are bred, and more will be soon; lot No. 4—8 cows, 5 to 8 years old—4 have calves at foot, 2 to calve soon, and 2 to calve in April. All the above stock is in fine fix and are not cults, but a good, strong, and useful lot of cattle. E. A. Eagle & Son, Rosemont, Kansas

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EXECUTIVE COMMITTEE.

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

Stockholders' Meeting.

The semi-annual meeting of the stockholders of the Johnson County Cooperative Association was held in Society Hall in Olathe, Tuesday afternoon, February 10.

Mr. I. D. Hibner, president of the association, in opening the meeting, delivered a very interesting address, reviewing the business of the past six months, and submitted some excellent recommendations.

The attendance of the stockholders was larger than usual. They took a deep interest in the business presented and the result was conservative action and beneficial results.

The reports of the involcers and auditors gave an itemized statement of the financial condition of the association, and their reports were very satisfactory.

The most important business presented was a resolution amending rule 16 to reduce the interest on capital from 8 to 7 per cent. The matter was considered at length, and resulted in the defeat of the resolution by an overwhelming majority.

The meeting then proceeded to the election of officers, which resulted in the election of Mr. I. D. Hibner, president; Geo. Black, secretary; J. F. Hastings, Chas. Delahunt, J. W. Robinson and W. C. Brown as directors; Capt. E. Clark, auditor, and J. T. Nichols, treasurer, for the year ending January 31, 1904.

The business of the association for the year just passed was very materially increased, and the meeting adjourned feeling that a good work had been accomplished.

Following is the official statement of business during the past six months:

ONE HUNDRED AND FIFTH AND ONE HUNDRED AND SIXTH QUARTERLY REPORT OF THE JOHNSON COUNTY COOPERATIVE ASSOCIATION.

August 1, 1902, to February 1, 1903.		
Capital stock.....	\$100,000.00	
Surplus fund.....	28,468.28	
Total.....	\$128,468.28	
	Av. daily sales.	Monthly sales.
August.....	\$1,145.92	\$29,793.94
September.....	1,105.05	28,731.05
October.....	1,206.58	32,550.72
November.....	1,009.49	24,227.85
December.....	972.85	25,292.41
January.....	761.23	20,533.09
Total.....		\$161,129.06

PROFITS.

Profits on sales, 105th quarter....	\$9,720.98
Profits on sales, 106th quarter....	9,606.43
Total.....	\$19,327.41
Interest on money invested, \$4,000.00	
Clerk hire, etc., 105th quar. 4,880.14	
Clerk hire, insurance, taxes, etc., 106th quarter.....	5,792.26
Total expenses and interest.....	\$14,652.40
Net profits.....	\$4,675.01
Carried to surplus fund.....	468.28
Net dividends.....	\$4,206.75

DIVIDENDS.

Per cent rebate to stockholders, 105th quarter.....	.08
Per cent rebate to patrons, 105th quarter.....	.04
Per cent rebate to stockholders, 106th quarter.....	.055
Per cent rebate to patrons, 106th quarter.....	.0275
Sales for the year.....	\$300,147.02

E. Clark,
G. L. Collins,
Auditors.
W. H. Zimmerman,
J. W. Robinson,
J. F. Hastings,
H. Rhoades,
Involcers.

Rock Valley Grange No. 1438.

Our grange gave a box supper February 14, with a short program (which proved to be quite lengthy), the proceeds amounting to \$37.85. For a small grange—twenty-seven members—we think this is doing well. We have never had banges or tools of any kind, and the box supper was for the pur-

pose of raising money to buy some of these things. To-day we ordered \$30 worth of badges, staff-mountings, a box of tools, ballot-box and a few other needed things. In the future we intend to give another similar entertainment, and buy a banner, and some other things we need. March 13, we are to have a public debate, subject, Is oleomargarine a detriment to the farmer? We will also have a short program, and I. D. Hibner, insurance secretary, will explain the work of the Patrons' fire and tornado insurance company, so that the grange people will understand the benefits derived from insuring in that organization.

Our grange holds meetings regularly and all have a good time.

On account of the death of Secretary Trimble, our grange charter was decorated thirty days. IDA E. FLIER, Lecturer.

Madison, Greenwood County.

Anti-trust Bill Amended.

RUTLAND, VT., Feb. 17, 1903.

To the Patrons of Husbandry of the United States:

The Littlefield anti-trust bill was amended yesterday by Senate committee. From the press reports the amendments seem to be along the line to make the bill more effective.

I trust our members will wire and write their members and senators to work and vote for the amended bill, No. 17.

This bill is the best we can hope to secure at this session.

No time should be lost in informing Congress how important to the interest of the country we feel this measure to be.

AARON JONES,
E. B. NORRIS,
N. J. BACHELDER,

Legislative Committee of the National Grange.

Ocheltree Grange No. 468.

Our Grange hall will look very attractive by the time of our next meeting. There has been a stage built across one end of the room which will be carpeted and curtained and be in readiness for the literary exercises.

Rowes Corners Grange, Maine, Hall was formally dedicated January 27, by State Master Gardner. This grange was organized February 8, 1902, with 123 charter members. One year has rolled around and finds the grange with 180 members and property valued at nearly \$7,000. State Master Gardner expressed himself as pleased with the work of the grange. Dinner was served at 12.30 and the afternoon was occupied with addresses by the visiting members, including State Master Gardner and Sister Gardner, L. W. Dyer and wife, John T. Griffin and wife, Sister Abbott, L. C. Bateman, Seth F. Sweetsir and others. In the evening a grand ball was held and a large crowd attended. Over \$100 was realized from the dance and dinner. The music was furnished by Drinkwater's orchestra.—E. G. Larrabee.

Shawnee Grange No. 168 at the annual election chose the following officers for the ensuing year: Master, Thos. Watson; overseer, Mrs. G. M. Switzer; lecturer, Mrs. J. D. Jessup; steward, A. L. Crooks; assistant steward, Clarke Switzer; chaplain, John Marty; treasurer, A. M. Householder; secretary, E. M. Switzer; gatekeeper, Earl Jessup; Ceres, Miss Jessie Marty; Pomona, Miss Fern Jessup; Flora, Mrs. A. L. Crooks; L. A. S., Miss Grace Watson.

Mr. and Mrs. J. H. Kelley are visiting relatives in Rosedale and Westport. They expect to be away about four or five weeks.

Spring Hill Grange recently had a "gala day." Six candidates received their final degrees. At the subsequent feast some 200 of the order and their friends sat down to such "chicken fings and things," as only sisters of our grange know how to dish up. The order is flourishing as never before.—New Era.

No wonder the Patrons of Maine are proud of their mutual fire insurance companies and the record they have made. With almost \$6,000,000 in risks the fire losses of 1902 in the Androscoggin Patrons' Company amounted to only \$8,000 and the average assessment on \$1,000 for seven years, ending December 31, 1902, was only \$2. This record can hardly be duplicated and neither can there be found another company outside the State doing this large amount of business at a total cost for salaries, fees, etc., of only \$1,400. Care in taking risks, economy of administration, and critical supervision are the determining factors in securing such results.—American Grange Bulletin.

The Practical Man

appreciates the saving in wear and tear, in friction, draft and labor gained by the simplicity of

Plano Mowers

He knows the value of abolishing needless mechanism and applying power direct.

Plano's simple, automatic Clutch Shift, strong internal Drive Gear, easy-acting Vertical Lift Device and self-adjusting Draft Rod are the kind of Mower improvements that appeal to him. They are the outgrowth of experience and scientific ingenuity.

Our catalogue explains them and tells about some other interesting products of the Plano shops—Grain Binders, Headers, Reapers, Mowers, Rakes, Corn Binders, and Huskers and Shredders. The "Plano" is the Husker famed for its safe, swift and satisfactory work. Catalogue free.

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International Harvester Co. of America
CHICAGO, ILL.



LABOR SAVING WAGONS

THE FARMERS' HANDY WAGONS

are useful and time and labor saving every day in the year. Low down, they load easily; low draft, they are easy on the horses; wide tired, they do not cut ruts across the fields. The wide platform will carry a big load without building it high. For hauling tools to and from the field, hauling manure, hauling hay, grain, logs, lumber, or anything else where a big, wide load is to be moved the Farmers' Handy Wagon is better than any other vehicle. Stronger and more durable than any other wagon. Wooden wheels guaranteed to hold tires five years. Iron wheels have spokes hot-forged in, not cast in. Dealers sell them. Send today for latest catalogue containing full details of the many ways in which our wagons are superior to others.



If your dealer cannot or will not get this wagon, do not buy any other without first informing yourself concerning the Farmers' Handy Wagon. Remember no other is "just as good."
FARMERS' HANDY WAGON CO.
SAGINAW, MICHIGAN

A FARM AND HOME IN THE SOUTHWEST

TRIBUTARY TO THE



is most desired by those living in the North where the winters are long and severe. Garden planting has already begun HERE.

Lands are now cheap considering their wonderful productiveness. The tide of immigration is turned this way, consequently land values are increasing daily.

Are you seeking land either for a home or an investment? If so, NOW IS THE TIME TO BUY.

Authentic, reliable and specific information regarding this undeveloped section and special railroad rates will be furnished upon request.

S. A. HUGHES, General Immigration Agt., St. Louis, Mo.

200 Sold 1898

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.

1902
5,300 Sold

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Are You Seeking an Investment?
Are You Seeking a New Home?
Try the GREAT SOUTHWEST.
Missouri, Kansas, Indian Territory, Oklahoma and Texas.
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Low Rate Excursions
On the first and third Tuesdays of each month. Write for particulars.
"KATV," St. Louis, Mo.

STEM-WIND WATCH AND CHAIN.

We will give you a fine Stem-Wind Watch, warranted, also Chain and Charm for selling 19 packages of Blaine at 10 cents each. Write at once and we will send you the Blaine and our large Premium List, postpaid. No money required.
Blaine Mfg. Co., Box 94, Concord Junction, Mass.

Man

on, draft

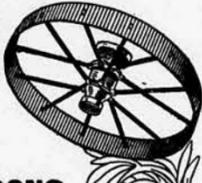
mechanism

internal and self-movements experience

out some—Grain Binders, Husker catalogue



ING



Y WAGONS

ing every day in easily; low draft, tired, they do platform will carry a big tools to and from the logs, lumber, or anything ed the Farmers' Handy tronger and more durable ranteed to hold tires five, not cast in. Dealers sell containing full details of he many ways in which ur wagons are superior to thers.

If your dealer cannot or will not get this wagon, do not buy any other without first informing yourself concerning the Farmers' Handy Wagon. Remember no other is "just as good." **FARMERS' HANDY WAGON CO. SAGINAW, MICHIGAN**

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THE SOUTHWEST

FRISCO SYSTEM

the North where the planting has already ing their wonderful uration is turned this ecreasing daily. a home or an invest- O BUY. nformation regarding railroad rates will be n Agt., St. Louis, Mo.

300 Sold 1896

the Cultivator

est. Saves the roots preserves the moisture, heir points. Increases twenty-five per cent, raising corn? on Corn Culture and we have no agents. 14th St., MENDOTA, ILL.

1902 5,300 Sold

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ill give you a fine Stem-Wind warranted, also Chain and for selling 19 packages of Buine's to each. Write at once and we will u the Buine and our large Pre- list, postpaid. No money required. **Mfg. Co., Box 94, Concord Junction, Mass.**

ROSS CUTTERS AND SHREDDERS SAVE FEED, TIME & MONEY OUR FREE **1100** **34** **NO** **117** **PA** **URE** THIS IS NOW HOW TO GET IT SEND FOR IT THE F. W. ROSS CO. SPRINGFIELD - OHIO

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STEEL ROOFING Strictly new, perfect, Semi-Hardened Steel Sheets, 2 feet wide, 6 feet long. The best Roofing, Siding or Ceiling you can use. No experience necessary to lay it. An ordinary hammer or hatchet the only tools you need. We furnish nails free and paint roofing two sides. Comes either flat, corrugated or "V" crimped. **\$2.00 PER SQUARE.** A square means 100 square feet. Write for free Catalogue No. 51 on Farm supplies of every kind. **CHICAGO HOUSE WRECKING CO.,** W. 55th & Iron Sts., Chicago

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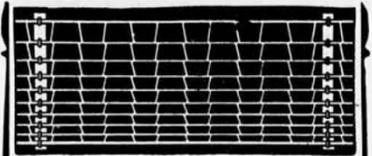
FREE CELEBRATED CREAM SEPARATOR Automatic; SAVES \$20 per cow each year. Cheapest and Best. \$9 to \$18 weekly for you, your boy or girl at home. \$40 Gold Watch Premium Additional. **CHECK EVERY MONDAY** for previous week. If you really want to earn money, write, sending nearest freight office. **Harris-Goar Mfg. Co.,** 606 Wyandotte St., Kansas City, Mo.

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Calves Fenced With Page Fence never grow into breachy cattle. **PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.**

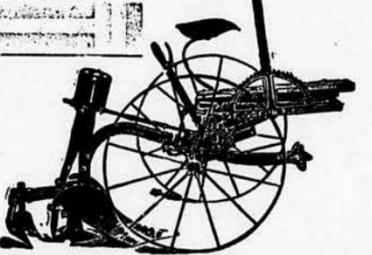
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A GOOD TIME To think about your **WINDMILL** is before you buy it..... **If you get THE DEMPSTER** You won't have to think about it so much afterwards. Made in 6, 8, 10, 12 and 16 foot sizes. We also make Vaneless and Solid Wheel Mills. **BUILT FOR HARD, HONEST, EVERYDAY WORK.** If your dealer is not posted, write us at Beatrice, or Omaha, Neb., Kansas City, Mo., Sioux Falls, S. D. **Dempster Mill Mfg. Co.**

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

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

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

SECURITY WORM POWDER. Because your hogs seem paralyzed in their hind parts, have no appetite, cough and show a general poor condition, don't jump at the conclusion that it's cholera. Ten chances to one it's worms. Try the worm powder first. If it don't cure them, we will refund your money. We make this offer because experience has shown that we are safe in doing so. Don't accept something "just as good." Insist on **Security Worm Powder for Hogs.** Write for testimonials. **AT YOUR DEALER'S.** **SECURITY STOCK FOOD CO., MINNEAPOLIS, MINN.**

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Registered Stock, DUROC-JERSEYS, contains breeders of the leading strains. N. B. SAWYER, CHERRYVALE, KANSAS.

G. W. BAILEY, BEATTIE, KANS. For Sale, G. Famous Pedigreed Duroc-Jersey Swine. Registered Scotch Terrier dogs. Fine, young stock 6 months old. Nosegay Foxglove at stud. Correspondence solicited.

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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.

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DUCK CREEK HERD OF Duroc - Jersey Swine. 200 head to choose from. Write us your wants. Mitchell Bros., Buxton, Wilson Co., Kans.

ROCKDALE HERD OF Duroc-Jersey Swine Everything is sold except a few pigs of September farrow. An also offer one of my herd boars for sale. J. F. CHANDLER, Frankfort, Kansas.

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.

Has me 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.

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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 extra fine gilts bred, also some fall boars. Will sell them. I know, he by Perfect I know. Address— F. P. MAGUIRE, HUTCHINSON, KANS

..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

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

I am cleaned up on boars and bred gilts. I have some nice open June gilts and can spare a few yearling bred sows. Orders booked for spring pigs by Keep On 61015, Imperial Chief 3d 28978, Black Perfection 27132, and Corwin Improver 25768. On Missouri Pacific R. R., one mile west of Kickapoo, Kans. JOHN BOLLIN, R. F. D. No. 5, Leavenworth, Kans.

POLAND-CHINA SWINE.

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

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.

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 70656, and U. S. Wilkes 25821. J. N. WOODS & SON, R. F. D. No. 3, Ottawa, Kansas

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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. 24200, 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. Button, 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. ROAT & 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.

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BLUE BLOODED IG BONED ROAD BACKED BERKSHIRES . . . Young stock of all ages and both sexes, and bred sows for sale. E. W. MELVILLE, EUDORA, KANSAS.

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FOR SALE, QUICK, AT A REASONABLE PRICE We have for sale a few choice yearlings, sired by Baron Duke 30th 50017, he by Baron Lee 4th 3548, and out of Duchess C 35th 3568. The dams of these boars are 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.

BERKSHIRE SWINE.

EAST LYNN HERD OF LARGE ENGLISH BERKSHIRES

Herd headed by Premier 4th 55577 assisted by Rutger Judge 2d 61106. ONLY THE BEST.

Imp. Lady Elma 4th 44668, 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. WILL-H. RHODES, Tampa, Marion Co., Kans.

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. E. S. COWE, 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.

D. P. NORTON'S SHORTHORNS.

DUNLAP, MORRIS CO., KANS. Breeder of Pure-bred SHORTHORN CATTLE. Herd bull, Imported British Lion 133692. Young stock for sale.

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 157068. T. P. BABST & SONS, AUBURN, KANS. (Telegraph Station, Valencia, Kansas.)

North Elm Creek Herd Pure-Bred Shorthorns and Poland-Chinas

Scotch-topped Young Mary females with 9th Knight of Elmwood 161507 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 descended from Lord Wilton, Anxiety 3d, Earl of Shadeland 2d, Horace, The Grove 3d Heald. 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. Knappenburger, of Penasco, 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.

..Hazzford 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 71634. A few choice young bulls for sale. Robt. H. Hazzlett, 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 Pringle, County, Kansas.

SHORT HORNS

Imported Scottish Knight 136871 heads the herd. All sale animals reserved for the great South Omaha sale on March 18, 1903. H. W. WEISS, Formerly of Sutherland, Iowa. Westphalia, Kas

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.

COBURN HERD OF RED POLLED CATTLE. Herd now numbers 115 head. Young bulls for sale. Geo. Greenmiller & Son, Centropolis, Franklin Co., Kans.

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

E. E. WOODMAN, Vermillion, Kans.

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.

MODEL BLUE GRASS FARM HEREFORDS.

Stock for sale. OVERTON HARRIS, Harris, Mo

Glenwood Herds SHORTHORN CATTLE

POLAND-CHINA HOGS VICTOR OF WILDWOOD 126054, a pure Crulck-shank-Orange Blossom in service. Females of fine quality, pure Scotch and Scotch-topped choice bulls for sale; also females. C. S. NEVIUS, Prop., CHILES, MIAMI COUNTY KANSAS. 40 miles south of Kansas City, on Missouri Pacific Railroad. Telephone at farm

..Clover Cliff Farm.. REGISTERED GALLOWAY CATTLE

Also German Coach, Seaside, and trotting-bred horses. World's Fair prize Older Coach stallion Habb, a saddle stallion Rosewood, a 16-hand 1,100-pound son of Montrose in service. Visitors always welcome. BLACKHERE BR, ELMDALE, CHASE COUNTY, KANSAS.

E. H. WHITE, ESTHERVILLE, IOWA

Importer and Breeder of GALLOWAY CATTLE

Herd Foundation Stock A Specialty. A Few Choice Females and 14 Bulls For Sale. Inspection or Correspondence Invited.

CARBONDALE HERD HEREFORDS and SHORTHORNS

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

..THE..

..N. MANROSE..

Shorthorns

Rural Route 5, Ottawa, Kans. Giltsup'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 106676, and Good Sign 140887, as Service Bulls, will be represented at South Omaha, January 22-23—get a Catalogue and Kums. 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.

Walnut Valley Stock Farm

Breeders of Scotch and Scotch-topped SHORTHORNS

The Prize-winning Bull, SCOTT JUNIOR 124222 now for sale. W. J. SNODGRASS, Gordon, Butler Co., Kans.

Cherry Creek Herd Pure Scotch and Scotch-topped

Shorthorns

Imported Scottish Knight 136871 heads the herd. All sale animals reserved for the great South Omaha sale on March 18, 1903. H. W. WEISS, Formerly of Sutherland, Iowa. Westphalia, Kas

CATTLE.

ALLENDALE HERD OF Aberdeen - Angus Cattle.

The Oldest and Largest in the United States. Splendid recently imported bulls at head of herd. Registered animals on hand for sale at reasonable prices at all times. Inspect herd at Allendale, near Iola and I. Harper; address, Thos. J. Anderson, Manager, Iola, Allen Co., Kans., R. R. 2, or—Anderson & Findlay, Proprietors, Lake Forest, Ill.

THE SUNFLOWER HERD PURE-BRED Angus Cattle.

Herd headed by HALE LAD 20645. Herd numbers 250 head, the largest herd bred by owner in America. Stock for sale. Address: PARRISH & MILLER, Hudson, Stafford Co., Kans.

CHAMPION GALLOWAYS FOR 1902.

Up-to-date Galloway Cattle, All Ages, For Sale. Personal Inspection or Correspondence solicited by C. N. WOODY, Breeder, ATLANTA, MO.

POLLED DURHAM HERD FOR SALE.

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

..GREENDALE RANCH.. BREEDERS OF ..PRIZE-WINNING.. SHORTHORN CATTLE, BERKSHIRE SWINE, and SHROPSHIRE SHEEP

Great constitution and lung capacity gained in high altitudes. A few select young swine and sheep for sale. ED. GREEN, MORRISON, COLO.

Elder Lawn Herd Shorthorns

Headed by GALLANT KNIGHT and Imp Tilly Cairn. Bulls, Cows, and Heifers, for sale at bargain prices. Can supply females in car-load lots if desired. Some show yard material. T. K. TOMSON & SONS, Dover, Shawnee Co., Kans

Bill Brook Breeding Farm.

SHORTHORN CATTLE and ANGORA GOATS. Herd Bull, IOWA SCOTCHMAN 2d 139687. Write for what you want. Address H. O. Tudor, Holton, Kas

Rocky Hill Shorthorns and Saddle Horses

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

Registered Herefords.

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

COPELAND'S Shorthorns

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

PUBLIC SALE! REGISTERED Hereford Cattle

At Arkansas City, Kans., March 31, 1903, consisting of 13 Bulls and 4 cows. Sale will be under cover. For Catalogue, address L. F. Johnson & Son, R. R. 4, Souda Springs, Kas COL. LAFE BURGERS, Auctioneer.

Mt. Pleasant Herd SHORTHORNS.

Herd bull for sale—Acorn Duke 18th 142177, is worth looking after; also 13 young bulls ready for service, a d eight young cows with calves by Acorn Duke 18th. Inspection invited. A. M. ASHCRAFT, R. R. No. 3, Atchison, Kans.

CATTLE.

MAPLE LEAF HERD OF THOROUGHbred SHORTHORN CATTLE and POLAND-CHINA SWINE.

Farm is 2 miles south of Rock Island depot. JAMES A. WATKINS, Whiting, Kans.

100 Choice Herefords For Sale

I will sell in lots to suit purchasers, 10 choice registered Herefords, which include 12 bulls of serviceable age, cows bred, heifers bred and unbred and calves. Will make the price an object to buyers. Will sell anything except be d bull. Come and see me, or address H. B. Clark, Geneseo, Rice Co., Kans

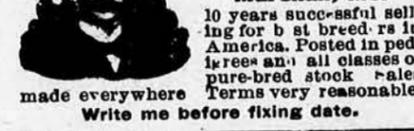
HERD BULL For Sale Or Trade.

Having used my herd bull on my small herd of Shorthorn cows as long as practical I offer him for sale or trade. He is out of a pure Duchesse cow and by a pure-bred Crutck hank bull. Guaranteed a breeder and all right. For particulars address DR. C. M. COE, 915 Walnut St., Kansas City, Mo.

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Marshall, Mo. 10 years successful selling for best breeders in America. Posted in pedigrees and all classes of pure-bred stock sales made everywhere. Terms very reasonable. Write me before fixing date.



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SALES MADE ANYWHERE. I am booked for some of the best combination sales of high-class stock held in America. Posted on pedigrees and individual merit. Wide acquaintance with breeders in Kansas, Oklahoma, Indian Territory, and Texas. Wire or write for dates.

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Special attention given to selling all kinds of pedigreed stock; also large sales of graded stock. Terms reasonable. Correspondence solicited. Mention Kansas Farmer.

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Davenport, Iowa. Have an extended acquaintance among stock breeders. Terms reasonable. Write before claiming date. Office, Hotel Downs.

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A bright man, with light team, in every county. Steady work and good wages to the right man. Reference required. For particulars address, KOCH V. T. CO., Winona, Minn.

\$20 A WEEK Steady salary and expenses to men with rigs to introduce our Patent Mixture in country; year's contract weekly. Address with stamp, Research Mfg. Co., Box 1119, Springfield, Ill

HORSES AND MULES.

Prospect Farm



H. W. McAFEE, Topeka, Kans. Breeder of

CLYDESDALE HORSES, SHORTHORN CATTLE

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

Cheyenne Valley Stock Farm.



F. H. Schrepel, Ellinwood, Kans. Breeder of

PERCHERON HORSES, AND POLAND-CHINA HOGS

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

HORSES AND MULES.

PERCHERON HORSES, AND ABERDEEN-ANGUS CATTLE.

F. GARRET HURST, Breeder, 27RA, SUMNER COUNTY, KANSAS. Young stock for sale, of either sex. All registered.



102 Black Jacks and some bred Jennets, Mammoth and Spanish, 14 to 16½ hands. Registered rotting and saddle studs. Everything for sale low now. Come or write for prices on what you want. G. A. FEWELL, Leston, Johnson Co., Mo.

SHREK. Anoka Flocks

Cotswolds and Rambouillets. Foundation for flocks a specialty. Correspondence and inspection invited. HEO. HARDING & SON, WAUKESHA, WIS.

McFADDEN BROS., WEST LIBERTY, IOWA. Breeders of PRIZE-WINNING Shropshire Sheep

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

George Allen, IMPORTER AND BREEDER OF SHROPSHIRE SHEEP SHORTHORN CATTLE

For Sale—100 Rams and 100 Ewes. Greatest winner of any Shropshire breeder in America. Address ALLESTON, VERMILION CO., ILL.

A BARGAIN IN Shropshires

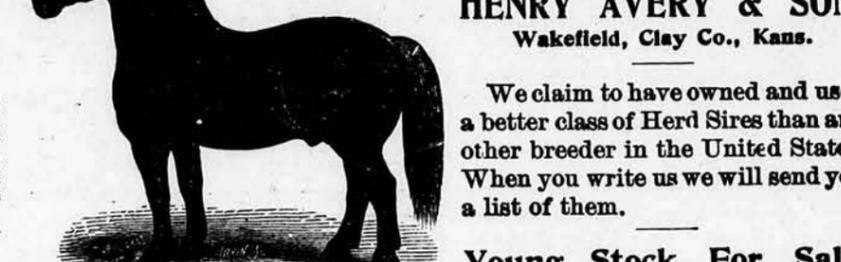
1-80 head of registered ewes bred to imported rams; 15 head of high-grade ewes bred to a registered ram; 6 head of English imported ewes bred by Hardin and McIntosh; 45 head of 1-mos, rams, and ewes from imported sire; 40 head of 1- and 2-year-old ram; 4 head of yearling rams from imported sires and 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.

Robison's Percherons:

We have for sale now—some good, black Stallions; all registered; both imported and home-bred. Write at once, as we wish to close them out to make room for younger ones. Address J. W. & J. C. ROBISON, Importers and Breeders, TOWANDA, KANSAS.

PERCHERONS.

HENRY AVERY & SON, Wakefield, Clay Co., Kans.



We claim to have owned and used a better class of Herd Sires than any other breeder in the United States. When you write us we will send you a list of them. Young Stock For Sale.

German and Orenburg Coach Horses

Our Last Importation Arrived January 3, 1903, making Our Fifth Importation in the Last Nine Months. No other importers buy direct from breeders in the old country. The oldest member of our firm resides in Germany on a 1,000 acre farm on which are kept constantly 50 to 75 stallions of service age. He is active twelve months in a year, buying the choicest blood of the breed, and thus as a resident buyer avoids large expense of interpreter, commissions, etc. He is on duty 24 hours by rail from the DRAFT HORSE districts of Belgium and France. All imports and breeders will save time money, and risk by buying coach and draft horses from us at our Illinois stables, at "old country prices." A full stock of GERMAN COACH, BELGIAN, and PERCHERON STALLIONS constantly for sale. OLTSMANN BROS., Waukegan, Illinois, 77 miles south of Chicago, on C. & E. I., and T. P. & W. Railways

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5 DAILY TRAINS 5 Kansas City to St. Louis.



"Follow the Flag" UNSURPASSED SERVICE. SMOOTH TRACK, FAST TIME Wabash trains run directly through the World's Fair Grounds, St. Louis, in full view of all the magnificent buildings. The only line that does it. Ask your ticket agent for tickets over the Wabash.

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Are sensations to his buyers, his low prices are "warm propositions" to his competitors. Iams will show you MORE stallions of big size, quality, and finish than ALL IMPORTERS IN NEBASKA, and horses you will wish to buy or pay your fare to see him—you the judge. If you will pay cash or give bankable note, you will sure buy a stallion of IAMS. In October, 1907, he imported 63 black and bay stallions, they can not be duplicated in any importing barn in the United States for the number, for big size, quality, finish, royal breeding and bargain prices. They are all

TOP NOTCHERS.

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." Say, Iky! see the six black 2,300-lb. 4-year-olds he is showing to those Ohio men. They are the BEST I EVER SAW. Say, boys! look at this \$1,100-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.

117-Black Percherons, Belgians, and Coachers-117

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 INTERMEDIARIES. 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 a first class stallion at 50 cents on the dollar, and saves his buyers from \$500 to \$1,000 on each stallion. FARMERS: Form your own stock company, why 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 \$1,200. 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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ST. PAUL, HOWARD CO., NEB. ON U. P. and B. & M. RYS.

THE LINCOLN IMPORTING HORSE COMPANY

A. L. Sullivan, Manager. Lincoln, Nebraska.



We Import More FIRST-CLASS

Percheron, English Shire, and German Coach Stallions

than any other two concerns in all the West. No company can buy for less money; neither can they import and acclimate for less money. In answering inquiries for stallions at \$1,000, we beg to say we have no cheap, broken down, old, barren, trumped-up-pedigree stuff but will absolutely sell a FIRST-CLASS, Pure-bred, Imported Stallion for less money than any other responsible concern to be found elsewhere.



Spot Cash Talks. Write S. A. SPRIGGS

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



In order to make room for stallions, will sell 30 mares from 1 to 3 years old, at a bargain. Telephone 292. Best Terms and Long Time Given Responsible Parties. Take Washington Park Car to the Farm. Wm. KATON-MOORE, Prop., SPRINGFIELD, ILL.

WILLEMORE STOCK FARM IMPORTER AND BREEDER OF German Hanoverian and Oldenburg Coach Horses

Stallions of all ages for sale. Both imported and home bred. Prize-winners both in Europe and America.



America's Leading Horse Importers

Ours were the Favorite Percherons at the recent International Live Stock Exposition, Chicago. Five of our importation won First Another one of ours won Championship. Our stallions won 10 out of a possible 17 prizes. Our French Coach Stallions won Every First prize at the great Chicago Horse Show. With our Percherons and French Coach Stallions we won Every First at the Iowa State Fair, Kansas State Fair, Kansas City Horse Show, Central South Dakota State Fair, and Ohio State Fair including Grand Sweepstakes all draft breeds competing. In France our horses were equally successful in the show ring, fifty of them being prize-winners in the two leading shows.

We Import More and Therefore Can Sell Cheaper Than Anybody Else. McLAUGHLIN BROS., COLUMBUS, OHIO. Emmetsburg, Iowa; Kansas City, Mo.



M. L. Ayres' Percherons

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.

M. L. AYRES, SHENANDOAH, IOWA.



Draft Stallions.



Percherons, Shires, and Belgians.

60 Head to Select From—ALL IMPORTED BY US AND GUARANTEED....

\$1,000 buys a good one from us this fall. It pays you to buy one now as you get him cheaper and keep out competition. Don't pay a big price for a horse, but come and see ours and get a good one for less money than a small importer can possibly sell for. Our stables are across the road east of the Burlington Depot. WATSON, WOODS BROS. & KELLY, Lincoln, Nebraska.

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SERVICE BULLS: HEREFORDS—Columbus 17th 91264, Elvina's Archibald 75696, Jack Hayes 2d 119761, Jack Hayes 2d 124109. SHORTHORNS—Jubilee Stamp 129017, Orange Dudding 149469, POLLED—Scotch Emperor 133648, Ottawa Star 118108. Herds consist of 500 head of the various fashionable families. Can suit any buyer. Visitors welcome except Sundays. Address JOSEPH PELTON, Manager, Belvidere, Kiowa County, Kansas.



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Breeders of SELECT

HEREFORD CATTLE

Young Stock for Sale. Inspection or Correspondence invited

Scott & March, Breeders of Pure-bred HEREFORDS.

BELTON, CASS COUNTY, MISSOURI.

BULLS In Service: HESIOD 29th 66304, Imp. RODERICK 80156, MONITOR 58975, EXPANSION 98603, FRISCOE 98674, FULTON ALAMO 11th 88731.

2 1/2 miles south of Kansas City on Frisco; Ft. Scott & Memphis; and K. O., P. & G. Railroads.

GLENDALE SHORTHORNS

Imp. Prince Lovely 155860 and Scotland's Charm 127264 in service. Fifteen young serviceable bulls for sale. One extra good young Scotch bull, sired by Imp. Royal Favorite 140612, dam Imp. Pavonia. Also 50 heifers and young cows mostly bred, some with calves by side. Visitors always welcome. Long distance phone at farm.

C. F. Wolf & Son, Ottawa, Kansas.

SILVER CREEK SHORTHORNS.

The Scotch bull, Gwendoline's Prince 130913, in service. Also the imported Scotch Missile bull, Aylesbury Duke. 100 head of the best Scotch, Bates, and American families.

J. F. Stodder, Burden, Cowley Co., Kas.

Pearl Shorthorn Herd Bull For Sale.

I now offer for sale, my great Cruickshank herd bull, Lafitte 119915, bred by W. A. Harris, got by Royal Knight 117203, out of 16th Linwood Lavender Vol. 38. Address

G. W. TAYLOR, PEARL, DICKINSON COUNTY, KANSAS.



Closing Out Rome Park Poland-Chinas and Berkshires

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. T. A. HUBBARD, ROME, SUMNER COUNTY, KANSAS.

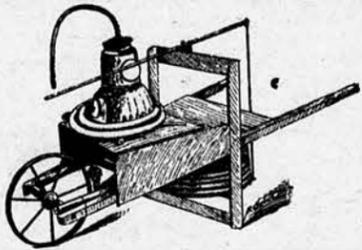


THE WILLOWDALE BERKSHIRES

ROYAL BARON 58846, the Greatest Show Boar in the World, at head of herd. Home of the Winners. Young Stock of All Ages For Sale.

G. G. Council, WILLIAMSVILLE, ILL.

SURE DEATH TO PRAIRIE DOGS AND GOPHERS!



Also Fleas, Poultry Lice, Roaches, Bedbugs, and any other animal or insect pest, Scale Louse, San Jose Scale, and Greenhouse Pests, Canker Worms, and other Orchard Pests.

A Positive Guarantee with Every Machine. Cheap and Easy to Operate.

No Danger to Stock or Vegetation.

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MacFARLAND CHEMICAL COMPANY, MANUFACTURING CHEMISTS
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The Company's property consists of about 60 acres of land in the highly mineralized territory on the northerly slopes of Pike's Peak and is fifteen miles from the city of Colorado Springs. Seven veins of gold-bearing rock cross this property and croppings of ore at the surface show excellent gold values. In the Cripple Creek District the best ores are first encountered at a depth of from 200 feet to 600 feet.

The Gold Standard shaft is now 290 feet deep, and the work is being pushed day and night. Some very rich samples are being found daily and the Superintendent of the mine has confidence in his ability to make the mine a dividend payer in less than three months. When that desirable condition is realized the stock will easily be worth \$1 a share and perhaps, eventually, many times that amount.

In September last, a fine steam hoisting plant was purchased and installed. At the same time a large corrugated iron shaft house was built, besides many small improvements, too numerous to mention. All of these improvements have been paid for and the company have money in the treasury. In making these improvements the strictest economy has been observed. No member of the company draws a cent of salary, although both its President and Secretary have devoted their entire time to the Company affairs since becoming a corporate institution. It is improbable that a large amount of stock will have to be sold before the mine is in a paying condition, and the opportunity to get in on the ground floor will be limited to a short time. The stock is now selling at 30 cents per share, regardless of the amount taken. The purchase of a few hundred or a few thousand shares right now will be sure to prove a wise investment and will yield quick returns. No certificate will be issued for less than fifty shares.

Remit by draft or P. O. money order, when practicable.

THE GOLD STANDARD MINING CO., Green Mountain Falls, Colo



COMBINATION SALE!

.....OF.....

60 GALLOWAY CATTLE 60

to be held in the

New Sale Pavilion, South Omaha, Nebraska, March 18, 1903.

40 COWS AND HEIFERS AND 20 BULLS.

This sale includes offerings from seven of the most prominent herds of Galloway cattle.

BROOKSIDE FARM CO., Fort Wayne, Ind. T. J. DAVIS & SON, Triumph, Illinois.

C. B. ROWLAND, Rose Hill, Iowa.

PHIL GRACE, Rose Hill, Iowa.

J. P. MARTIN, Sutherland, Iowa.

C. N. MOODY, Atlanta, Missouri.

This offering of cattle is of the best types of each and every herd and of the best Galloway blood. There are several show and imported cattle to be sold. This is one of the best offerings of Galloway cattle ever sold. Write for Catalogue to

R. W. Park, Sec'y, Kansas City, Mo.
Or C. N. Moody, Atlanta, Mo.

Cols. Edmonson, Sparks, Gross, and Butler, Auctioneers.

C. N. Moody, Manager.



IF YOU WANT CASH

FOR YOUR

FARM, HOME, OR BUSINESS

I CAN GET IT

No matter where your property is located or what it is worth.

If I did not have the ability and facilities to sell your property, I certainly could not afford to pay for this advertisement. This "ad." (like all my other "ads.") is practically sure to place on my list a number of new properties, and I am just as sure to sell these properties, and make enough money in commissions to pay for the cost of the "ad." and make a good profit besides. That is why I have the largest real estate business in the world to-day.

Why not put your property among the number that will be listed and sold as a result of this "ad"?

I will not only be able to sell it—sometime—but will be able to sell it quickly. I am a specialist in quick sales. I have the most complete and up-to-date equipment in the world. I have branch offices throughout the country and a field force of 2,500 men to find buyers.

I do not handle any of the side lines usually carried by the ordinary real estate agent. I do not make any money through renting, conveyancing, mortgages, insurance, etc. I MUST SELL real estate—and lots of it, or go out of business. I can assure you I am not going out of business. On the contrary, I expect to find, at the close of the year 1903, that I have sold twice as many properties as I did in 1902, but it will first be necessary for me to "list" more properties. I want to list YOURS and SELL it. It doesn't matter whether you have a farm, a home without any land, or a business; it doesn't matter what it is worth or where it is located. If you will fill out the blank letter of inquiry below and mail it to me to-day, I will tell you how and why I can quickly convert your property into cash, and will give you my complete plan (free) and terms for handling it. The information I will give you will be of great value to you even if you should decide not to sell. You had better write to-day before you forget it.

If you want to buy any kind of a Farm, Home, or Business, in any part of the country, tell me your requirements. I will guarantee to fill them promptly and satisfactorily.



W. M. Ostrander, Suite 1496, North American Bldg., Philadelphia.

If You Want to SELL, Fill Out, Cut Out, and Mail this Coupon to me To-day

W. M. OSTRANDER 1903
1496 North American Bldg., Phila., Pa.

Please send without cost to me, a plan for finding a cash buyer for my property, which consists of.....
.....
in the town or city of.....
County of and State of.....
and which I desire to sell for \$.....

The plan is to be based upon the following brief description of the property

.....
.....
.....
.....
.....
Name

Address

If you want to BUY, Fill Out, Cut Out, and Mail this Coupon to me To-day

W. M. OSTRANDER 1903
1496 North American Bldg., Phila., Pa.

With a view of buying, I desire information about properties which correspond approximately with the following specifications:

Kind of property.....
Size State

City or County or part of State preferred

The price must be between \$..... and \$.....

I will pay..... down, and the balance.....

.....
.....
.....
.....

Name

Address