

KANSAS FARMER

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\$1.00 A YEAR.

Breeders' Directory

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Inspection Invited.

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Pure Percherons.

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

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For Sale—25 Clydesdales, including 3 registered stallions of serviceable age, and 13 mares. Inspection and correspondence invited.

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100 head for this year's trade; all eligible to record.

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Only choicest individuals reserved for breeding purposes. J. M. GILBERT, Busby, Elk County, Kans.

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Has 90 pigs of March, April, and May, 1901, farrow for this season's trade at reasonable prices.
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Commodore Dewey No. 46187 head of herd, assisted by a grandson of Missouri's Black Chief. Young stock for sale reasonable. All stock recorded free.
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Registered Stock, DUROC-JERSEYS, contains breeders of the leading strains.
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Established 25 years. Over 2000 shipped. Four crosses. World's Fair, 4 highest priced strains of Poland-Chinas. Send stamp. W. S. Hanna, Richter Kans.

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Write for prices on choice spring pigs; 100 to select from. Third annual sale date, October 7.
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From best prize-winners. One spring boar, also fall and winter pigs for sale.
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Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

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We now have for sale some extra good young boars, and a lot of gilts 8 to 10 months old. All good. Gilts will be bred or sold open as desired. This is a choice lot of young stuff that will be priced cheap, quality considered.

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Herd headed by Big Joe 7363, and others. A few male pigs of March and April farrow. S. C. B. Leghorn eggs.

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Four boars December farrow, and two November farrow, for sale. No gilts old enough to breed. Spring pigs quoted also.

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Large-boned, Prize-winning. We have for sale 90 head of fall pigs—the best grown out lot we ever raised. We can furnish herds not akin, of any of the fashionable strains. We have several that are good enough to fit for next fall's show. Prices reasonable. Nothing but good ones shipped on orders.

WAIT & EAST, Altoona, Kans.

High-Class Poland-China Hogs

Jno. D. Marshall, Walton, Harvey Co., Kans.,
Breeds large-sized and growthy hogs with good bone and fine finish and style. FOR SALE—Thirty October and November gilts and 15 boars, also 100 spring pigs, sired by Miles Look Me Over 18879. Prices right. Inspection and correspondence invited.

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The prize-winning herd of the Great West. Seven prizes at the World's Fair. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 2841, Black Joe 2866, World Beater and King Hadley. FOR SALE—An extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra-large, richly-bred sows. Inspection or correspondence invited.

SWINE.

THOROUGHbred POLAND-CHINA HOGS

I have for sale a few October boars and gilts, 4 bred sows, and 70 winter and spring pigs, good head and ears, large boned. Come and see them, or write me.

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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.

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Breed the Horns off by using a
RED POLLED BULL.

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Breeders of Red Polled Cattle, Herd Headed by Powerful 4583. Pure-bred and grades for sale. Also prize-winning Light Brahmas.

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Sir Charming 4th at head of herd. Cruickshank top crosses on best American families. Young stock for sale.

Registered Herefords

Of either sex, at private sale. I also have 140 ¼ to ¾ high-grades at private sale.

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A few choicely bred young bulls, spring yearlings, for sale at very reasonable prices. Also 2 Shropshire and 1 cross-bred Shropshire-Cotswold buck. Address

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ALFALFA MEADOW STOCK FARM

1,800 acres. Pure-bred stock only. Herefords, Poland-Chinas, Light Brahmas and Belgian hares. Stock of all kinds for sale. Pedigreed hares, \$2.

O. B. WHITAKER, Proprietor,
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Maple Leaf Herd of Thoroughbred SHORTHORN CATTLE And POLAND CHINA SWINE.

Farm is 2 miles south of Rock Island depot.
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—SPECIAL OFFERINGS—
FOR SALE—Four yearling bulls, one imported 4-year-old bull, a few young cows and heifers.

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BREEDER OF PERCHERON HORSES And HOLSTEIN FRIESIAN CATTLE.

Representing Josephine, Mechtild and Parthena families. Poland-China hogs. Son of Missouri's Black Chief at head of herd. B. P. R. and B. L. H. chickens. Eggs in season, always guaranteed as represented.

125 RAVENSWOOD SHORTHORNS, C. E. LEONARD, BELLAIR, MO.

Males and females for sale. Inspection especially invited. Lavender Viscount 124755, the champion bull of the National Show at Kansas City, heads the herd.

ED. PATTERSON, Manager.
Railroad and Telephone station, Bunceton, Mo.

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Breeder of PURE-BRED SHORT-HORN CATTLE,
Herd Bull, Imported British Lion, 123492
YOUNG - STOCK - FOR - SALE.

Silver Creek Herd SHORTHORN CATTLE.

GWENDOLINE'S PRINCE 120018 in service, a son of the \$1,100 cow Gwendoline 5th. Best Scotch, Bates and American families represented. Also bred

High Class Duroc-Jersey Swine.
Can ship on Santa Fe, Frisco and Missouri Pacific railroads.
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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 La Harpe, Allen Co., Kans., and address Thos. S. Anderson, Manager, there; or

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Has for Sale a Few
CHOICE GALLOWAY BULLS,
Sired by a World's Fair winner. Also a few English Fox Terrier pups of finest quality.
FOR SALE OR TRADE—A 15-acre suburban property in Des Moines, Iowa. Information promptly furnished by the owner.

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Herd headed by Acomb Duke 18th 142177. Herd composed of Young Marys, Galateas and Sanspareils. Young bulls for sale.

A. M. ASHCRAFT, Atchison, Kans.
Inquire at R. F. D. No. 3,
Ashcraft & Sage Livery Barn, Main Street.

CLOVER CLIFF FARM REGISTERED GALLOWAY CATTLE.

Also German Coach, Saddle and Trotting-bred horses. World's Fair prize Oldenburg Coach stallion Habbo, and the Saddle stallion Rosewood, a 16-hand 1,100-pound son of Montrose in service. Visitors always welcome.
Address BLACKSHERE BROTHERS,
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Herd Bull, Sir Knight 124403.
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Representative stock for sale.
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20- Bred Cows and Heifers -20

Because of shortage of feed, we now offer for sale, cows that before we have refused to price. Cows safe in calf to, and calves by, the grand Waterloo Duke of Hazlehurst 11th 130723; also cows bred to the Cruickshank bulls, Sempstress Valentine, and Mayor, now in service.

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O. L. THISLER, Chapman, Dickinson Co., Kans., Importer and Breeder of *Percheron, and French Coach Horses, and Shorthorn Cattle.*
 For Sale—A few Shorthorn heifers, and Percheron stallions; also a Special Bargain on 9 Registered Hereford Bulls, 2 years old, and a few Full-blood Percheron Mares.

Draft Stallions OF THE SHIRE, CLYDE, AND... PERCHERON BREEDS.

Imported, and Home Bred. All Ages.
 POLLED DURHAM AND SHORTHORN CATTLE. POLAND-CHINA HOGS. Prices Right
 Snyder Brothers, Winfield, Kansas.



AMERICA'S LEADING HORSE IMPORTERS!

EVERY FIRST PRIZE: except one, at the Universal Exposition, Paris in 1900. NINETEEN MEDALS at the Great Percheron Show at Nogent-le-Rotrou in 1901. THIRTY-FIVE MEDALS at the Great Annual Show of France at Nantes and other shows throughout the Draft Horse Breeding Districts of that country.
 THE LARGEST SINGLE IMPORTATION ever made by ANY FIRM now in business just received at our stables.
McLAUGHLIN BROTHERS,
 SIXTH AND WESLEY AVES., COLUMBUS, OHIO.

GALLOWAYS.

Largest Herd of Registered Galloways in Kansas.

Young bulls, cows, and heifers for sale.

E. W. Thrall, Eureka, Kansas

50 Shorthorn Bulls For Sale.

The Bill Brook Herd of Registered Shorthorns

Have on hand for ready sale, 50 Young Bulls, from 6 to 30 months old; also a few good heifers.

Address.. H. O. Tudor, Holton, Kans.

Cattle, Sheep, and Hogs.

Owing to shortage in crops, I will sell a few registered red Bates Shorthorn cows or heifers, safe in calf to fine, registered bull, at famine prices. Will also sell registered Shropshire rams or ewes—nice ones—at reduced prices. Good April sow and boar Poland-China pigs at reasonable prices; also a few sows and gilts, bred for September and October farrow to Black Missouri Chief 28785, one of the best sons of Missouri's Black Chief 19899, and out of a sow from Chief Tecumseh 2d 9115, whose dam was by Kiever's Model, the great \$5,100 sire.

J. CLARENCE NORTON, Moran, Kansas.

Our Spot Cash Guarantee Reads--

Security Gall Cure will cure all galls from saddle or collar while horse is working. Sore Shoulders made well by use of Security Gall Cure. This is the truth. Try it now—your horses need it to-day. We assume all risk and will immediately refund money if you are not satisfied. Ask your dealer for a box or send us twenty-five cents.

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"BLACKLEGINE"

Pasteur Blackleg Vaccine, single treatment, ready for use.

No mixing, filtering, or injecting. Applied with a needle, furnished free.

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 BRANCH OFFICE: 408 Hall Bldg., Kansas City, Mo.

A Sure Preventive of Blackleg

Is Parke, Davis & Company's Blackleg Vaccine Improved. Ready for Immediate Use. No Expensive Outfit Needed.

All you have to do is to put the Vaccine in your syringe, add boiled water according to directions, and inject into your cattle. It will positively PROTECT your cattle from the dread disease, Blackleg, the same as vaccination prevents Smallpox in the human family. Specify Parke, Davis & Co.'s Blackleg Vaccine Improved, and get the kind that is sure to be reliable. EVERY LOT IS TESTED ON CATTLE BEFORE IT LEAVES OUR LABORATORIES. Write for Literature and Full Information, Free on Request. FOR SALE BY ALL DRUGGISTS.

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STEELE BROS., Belvoir, Douglas Co., Kansas.

Breeders of SELECT

HEREFORD CATTLE.

Young Stock For Sale Inspection or Correspondence Invited

SCOTT & MARCH,

BREEDERS OF PURE BRED

HEREFORDS,

BELTON, CASS COUNTY, MO.

BULLS in service, HESIOD 29th 66304, Imp. RODERICK 80155, MONITOR 58275, EXPANSION 93662, FRISCOE 93674, FULTON ADAMS 11th 83731. HESIOD 29th 66304 Twenty-five miles south of Kansas City on Frisco, Fort Scott & Memphis, and K. C., P. & G. Railroads

Sunny Slope Herefords

...290 HEAD FOR SALE...

Consisting of 200 bulls, from 8 months to 4 years old, and 90 yearling heifers. I will make very low prices on bulls, as I desire to sell all of them before May 1. Write me, or come at once if you want a bargain.

C. A. STANNARD, Emporia, Kansas.



GUDGELL & SIMPSON,

INDEPENDENCE, MO.,

BREEDERS AND IMPORTERS OF

Herefords

One of the Oldest and Largest Herds in America.

ANXIETY 4th Blood and Type Prevall.

BOTH SEXES, IN LARGE OR SMALL LOTS ALWAYS FOR SALE

T. K. Tomson & Sons,

* * Proprietors of * *

Elderlawn Herd of Shorthorns.

DOVER, SHAWNEE COUNTY, KANSAS.

GALLANT KNIGHT 124468 in service. How would you like a cow in calf to, or a bull sired by, Gallant Knight 124468? His get won 14 prizes at the National Cattle Show held at Kansas City last October. 100 head in herd. Correspondence and inspection invited.



PEARL SHORTHORNS

HERD BULLS:

BARON URY 2d 124970. LAFITTE 119915.

Inspection Invited

C. W. TAYLOR, Pearl, Kans

Tebo Lawn Herd of Shorthorns.

—HERD BULLS ARE—

IMPORTED COLLYNIE 135022 bred by Wm. Duthie.
 IMPORTED BLYTHE VICTOR 140609 bred by W. S. Marr.
 IMPORTED BAPTON MARQUIS bred by J. Deane Willis.
 ADMIRAL GODOY 133872 bred by Chas. E. Leonard.

FEMALES are the best QUICKSHANK families topped from the leading importations and American herds. These added to the long established herd of the "Casey Mixture," of my own breeding, and distinguished for individual merit, constitute a breeding herd to which we are pleased to invite the attention of the public. Inspection and correspondence solicited. Address all correspondence to manager.

E. M. Williams,
 Manager.

G. M. CASEY, Owner,
 Shawnee Mound, Henry County, Mo.

VALLEY GROVE SHORTHORNS

THE SCOTCH BRED BULLS

LORD MAYOR 112727, AND LAIRD OF LINWOOD 127149,

HEAD OF THE HERD.

LORD MAYOR was by the Baron Victor bull, Baron Lavender 2d, out of Imp. Lady of the Meadow, and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahad out of 11th Linwood Golden Drop. Lord Mayor heifers bred to Laird of Linwood for sale. Also breed Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

Address T. P. BABST, Proprietor, Dover, Shawnee Co., Kans

Agricultural Matters.

Wise Suggestions to Kansas Feeders.

PROF. H. M. COTTRELL, KANSAS AGRICULTURAL COLLEGE.

The first thing to do in arranging to get stock through the coming fall and winter is to use to the best advantage the crops now growing. The green stalks of corn, sorghum, Kaffir-corn and other plants used for roughness are worth more for feed green than they will be if fed as dry fodder next winter. If the stockman does not have the necessary pasture, and is obliged to feed now, it will pay him to feed his corn and other green crops and save hay for winter.

A great deal of corn is in tassel and drying up with no prospect for ears. Corn in such condition is not worth much, but if it is fed green cattle will get all there is in it, while if it is cut, shocked and left in the field until winter there will be only a pile of poor manure where the shocks have rotted down. If it is not necessary to feed the corn now, leave it as long as it stays green, then cut with a binder and when dry stack. Small shocks of immature corn will not keep in the field.

On the college farm July 13, twenty-six head of cows are being pastured on five acres of sorghum. The sorghum stands waist high, has not headed and even if we get no rain whatever promises to supply all the pasture these cows will need for at least a month. We have eight acres of sorghum in another field and when this heads out we expect to turn the cows on it and from present promises we will have enough feed on these 13 acres of sorghum to pasture the 26 cows until October 1. Our tame pastures are bare and furnish no feed whatever and we have the choice of either feeding hay now and saving the sorghum to be cut for winter or pasturing the sorghum and saving the hay for winter. The hay will be just as good for next winter as it is today. The sorghum fed green is worth much more than it will be if cut and fed dry.

The college has some high-priced pure-bred cattle and we are pasturing them on cow-peas and second growth alfalfa. Both these crops make good pasture in dry weather. We would not dare to pasture them when damp. If we needed it, we would pasture our soy-beans and Kaffir-corn, feeling sure that more can be gotten out of these feeds green than dry. We are pasturing 15 hogs on half an acre of rape and this will probably give all the pasture they will need until frost even though no rain should fall.

Alfalfa that was cut early has made a fair second or third growth and more feed will be obtained by pasturing it than by letting it mature into a short crop of hay. Alfalfa must not be pastured too close.

Where it is possible to keep the stock off dried up pastures and put them on sorghum or some other pasture, it should be done. If the stock are kept entirely off the grass it will make a slight growth no matter how dry and hot the weather may be and then if we get fall rains the pastures kept free from stock now will furnish much more feed later in the season than if tramped while dry.

Sorghum, Kaffir-corn, cow-peas, and alfalfa make safe pasture after cattle become accustomed to them, but great care must be used in starting stock on such pastures. At the college we fill the cattle with grass or hay in the morning and then turn them on the sorghum or other green crops only 15 minutes the first day, the next day 30 minutes, and then increase the time 15 minutes each day until we reach an hour and a half, when it is safe to let them stay on all time and not give them other feed. Cattle turned on such pastures at first if hungry will often eat a few mouthfuls and die in a few minutes or hours. The hay that they need when first getting them on feed

will be worth much less than the cattle that will probably be killed if hay is not fed.

CROPS TO SOW.

We do not know of any crop that sowed as late as August will make hay and the effect should be to obtain as much pasture as possible.

If it does not rain enough to soak the ground to depth of four inches it will not pay to sow anything for feed as sowing in dry ground simply wastes seed. It is too late to sow soy-beans. Cow-peas may be sown as late as August 1 with a prospect of a fair crop if we do not have early frosts. List shallow and drill in the furrows one-half bushel per acre sowing the Whippoorwill variety.

If the season is favorable early Amber sorghum sown broadcast, one bushel per acre, will furnish some pasture if sown as late as August 1.

Rape sown as late as September 1 will furnish pasture for hogs. Sow Dwarf Essex rape, 5 pounds per acre, broadcast, or 3 pounds per acre if drilled. It will do to feed in six weeks after seeding. An acre will pasture 10 to 20 hogs and as seed costs only 10 to 15 cents per pound the cost is light. If we get a good rain it will pay to sow turnips largely.

Wheat, oats, and rye will furnish a large amount of pasture if the season is favorable, and while these crops are in good condition cattle will do well on them without any other feed than straw. A farmer pastured his dairy cows on oats and sold during the fall seven dollars worth of milk for each acre of oats pastured, the cows having no other feed.

WINTER FEED.

It is too early to decide what will be the cheapest combination of feed for winter. Shortage will be in roughness. There is enough straw in Kansas to supply every animal in the State and with many stockmen straw will be the feed to use. Farmers usually feed from 20 to 30 pounds of hay or fodder a head per day to stock cattle. Very much less may be fed if a proper grain ration is used. In 1888 a milkman in Manhattan wintered his entire herd of dairy cows without a pound of roughness, and he sold milk all winter. The cows were fed all the grain they wanted and in the spring were strong, but they looked gaunt and rough. It always pays to feed a little roughness. The writer has brought cattle through the winter in good condition on 3 to 5 pounds of hay per head, feeding grain.

Bran will take the place of nearly all the roughness and can be mixed with cotton-seed, gluten, germ oil, or linseed meals, oats or corn, whichever is cheapest, and make a good ration at a reasonable cost. Wheat is worth about as much pound for pound as corn and middlings are worth more as a hog feed.

Fattening hogs fed all the alfalfa hay they will eat will fatten on much less grain than without hay. Sorghum hay is good for hogs. A few winters ago some farmers in northwestern Kansas carried their stock hogs through the winter on alfalfa hay alone. A little grain added would have been better.

The writer began his experience in Kansas in 1875 and has seen years when there was much less feed in the State than this year and cattle were wintered all right. It will not pay to rush good animals on the market to be sold for half what they are worth. Go slow, it is a good time to sell the culls from the herd, but it will pay to hold the profitable animals as they will be high next year. Kansas needs every good animal in the State and if the suggestions made in this letter are followed, the good stock can be carried through to spring pastures.

Macaroni Wheat for the West.

Prof. M. A. Carleton, cerealist of the United States Department of Agriculture, started July 17 upon a tour of some of the western States in the interests of his work in the establishment of the macaroni wheat industry in the United States. He has made arrangements for cooperative work along this line between the United States Department of Agriculture and the experiment stations of South Dakota, Kansas, Texas, and Maryland, and another year he hopes to add to this list three or four other important States.

Professor Carleton was the first person in the United States to suggest that the semi-arid regions of the West were exactly suitable for the growing of macaroni wheat, and, inasmuch as the American people imported all of the macaroni that was considered first-class he advised that experiments be made in its growing. Several persons fol-

lowed his advice and this year there is produced about 100,000 bushels.

Analysis shows it is fully equal in all respects to the best macaroni wheat of Europe and in some respects superior to them. The proportion of gluten is about the same, being 11 per cent. Professor Carleton says that all sections of the country extending from the northern part of the United States to the Mexican line which is divided in half by the 100th meridian and comprises nearly all of North Dakota, South Dakota, the western two-thirds of Kansas and part of eastern Colorado, nearly all of Oklahoma, and about half of Texas, is especially suitable to the growing of macaroni wheat; and this is the section which is now considered to be only suitable for spring wheat in the northern part and Kaffir-corn and alfalfa in the central and southern part of the sections named. He confidently believes that the product of this wheat grown upon this section of the country in 1902 will be 5,000,000 bushels, and thinks it ought to be 10,000,000 bushels. There can be no question as to the market for it, for there is a foreign demand for all that is produced even if we used no more of it in this country than we use now. For instance, Canada last year exported three and one-third millions to France.

The flour that is made from macaroni wheat is called semolina. Many are under the impression that semolina is good for the manufacture of macaroni only, but this is a mistake. It is just as good for making bread as the ordinary flour, and has the macaroni qualities in addition. There are at present in this country about fifty macaroni factories, but only one of them use semolina; but it is not known whether these are of domestic or foreign origin. Professor Carleton says that one macaroni factory, which also has a flour mill attached, has contracted to purchase all of the macaroni wheat that is grown in this country this year.

Here and There on the Farm.

EDITOR KANSAS FARMER:—Feed stuffs afford a most timely topic just now, but we should not lose sight of any hints which this season may afford. Rotation of crops has shown up well on land that has been in grass or small grain. Corn has made a good growth and will afford a fine crop of fodder.

Wise is the man who has not attempted to carry all of his water in one bucket this year, especially if that bucket holds corn or stock.

The bottom lands have produced a good crop of wheat, which, at present prices, affords a cheap feed and many people may be seen "gowing down into Egypt for corn."

Secretary Coburn says with corn at 40 cents wheat is worth 50 cents, and with corn selling at 60 cents, wheat should be worth 75 cents, straw \$5.32 1/2 a ton, alfalfa hay \$21.36, and other feeds in proportion. Using wheat at 60 cents for a basis will reduce these figures about one-fifth.

In times of peace prepare for war; in time of drouth prepare for rain. Haystacks, granaries and such things should be put in shape now.

The watchword on many farms will be, "Waste not." Most wagons will have the tires set and it will be a good thing to soak them in linseed oil to keep out the water when the weather does change.

Many people are selling chickens on account of feed, but remember nothing will pay as well for the grain eaten as the hen that lays.

This winter should impress on the minds of the people the value of good stock, as scrubs will scarcely be worth the feed they eat.

Farmers should stand together. Those who have feed to sell should sell to neighbors, thereby saving dealers profit and some expense in handling. While in town the other day I saw grain being bought and sold at the same elevator; 5 cents profit being made on each bushel.

In a season of drouth the ground slakes and land may be put in good condition for fall seeding of wheat, however, stubble or straw can not be easily covered, but where possible should be burned. Remember to harrow after each shower; you can't over do it, and nothing is ahead of a good steel harrow used with intelligence. Ozawkie, Kans. CHAS. WINANT.

Wheat—Early, Medium, and Late Seeding.

PRESS BULLETIN OKLAHOMA EXPERIMENT STATION.

The plan of this experiment was to make three seedings; first about the middle of September, next about the

Fainting Spells

always indicate a weak heart. They are usually preceded or followed by palpitation or fluttering, and there may be pain in left side, a smothering sensation and shortness of breath. Such a heart should be treated at once, before the disease develops beyond control. Heart disease is as easily cured as other troubles if taken in time.

"I was subject to fainting spells, and many times I have fallen on the street. I was often compelled to sit down while walking to avoid falling. When physicians failed to help me, I took Dr. Miles' Heart Cure and was completely cured."

CHARLES D. RANDALL,
Ellicottville, N. Y.

Dr. Miles' Heart Cure

is especially adapted to remove all irregularities of the heart's action. Sold by druggists on guarantee.

Dr. Miles Medical Co., Elkhart, Ind.



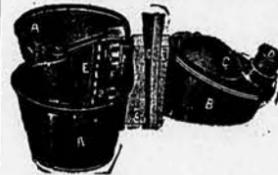
FLEMING'S LUMP JAW CURE
Easily and thoroughly cured. New, common-sense method, not expensive. No cure, no pay. FREE. A practical, illustrated treatise on the absolute cure of Lump Jaw, free to readers of this paper. Fleming Bros., chemists, Union Stock Yards, Chicago, Ill.

Save Your Pigs!
Runts are Unprofitable; Dead Hogs a Total Loss.

DR. JOS. HAAS' HOG REMEDY
Is Guaranteed to prevent and arrest disease, stop cough, expel worms. Increase appetite and growth.
Send \$1.25 for trial package, postage paid. Cans \$12.50 and \$6.50; packages \$2.50. State number, age, condition, food of hogs. Special advice free. 25 years experience. "Hogology" pamphlet and testimonials free.
JOS. HAAS, V. S., Indianapolis, Ind.

Hot Weather. Hog Cholera.

IMPROVED DEWEY DOUBLE STOCK WATERER.



Hogs suffer for water during hot weather. Plenty of pure water prevents hog cholera. The "Improved Dewey" saves a hired man's wages, increases the weight of hogs, and saves time during the harvesting and threshing season. Buy one now. They are very cheap this year. Do not buy the "Dewey" or other makes; demand the "Improved Dewey." Call on your dealer, or address THE B-B MFG CO., Davenport, Iowa.

middle of October, and last about the middle of November.

The experiment was situated on ground that was manured the spring of 1899. The ground for all the plats was prepared at the same time and in like manner and seeded at the rate of 1 1/2 bushels of red-Russian wheat.

In all cases the land was in fine tilth at the time of seeding, and the plants made a good start.

The growth of the September seeding was vigorous and on November 8 it stood 8 to 12 inches tall. As this was not desirable two-thirds of each of the September seeded plats were cut with a mower. The tops were left where they fell and in only a few spots did they damage the growth underneath. The cut and the uncut wheat continued to grow vigorously. No bad effects due to the large growth on the uncut portions could be seen in the fall, but when the winter nipped the tops, they

WANTED EVERY FARMER AND TEAMSTER WHO INTENDS TO BUY A WAGON

this year, to send us his address on a postal card. Don't put it off for we can do you much good. We will send you something that will interest you at least. One cent will bring you the information.

THE TIFFIN WAGON CO.,
1203 Union Ave., Kansas City, Mo.
or Tiffin, Ohio.

wilted down and smothered out patches from 1 to 2 feet in diameter, and damaged many other portions. It made these portions look very ragged in the spring and during the dry weather they suffered most. The cut and uncut portions were harvested separately and the results are given below.

The October seeding made about the right amount of growth. In the spring all the November seeding had was a single stalk per plant and only about 2 inches tall. It improved very rapidly as the spring advanced.

The following table gives the yields per acre:

Seeded.	Grain. Bushels.	Straw. Tons.	Test.
September 18.....	36.8	1.45	63
October 20.....	37.8	1.76	63
November 13.....	26.8	1.33	61
Seeded.	Grain. Bushels.	Straw. Tons.	Test.
September 18.....	43.1	1.55	63
Not mowed.....	24.1	1.24	62½

The lower yield of the November seeding can be partly accounted for by not enough plants on the ground and partly by the lighter grain due to premature ripening by rust.

It is very seldom that conditions are such that the growth is rank enough on wheat seeded after the middle of September to damage. This need not be expected only on rich soils and in wet falls.

In 1899-1900, September seeding yielded 2 bushels more per acre than October seeding and 13 bushels more than November seeding.

Farm Notes.

N. J. SHEPHERD, ELDON, MO.

Land which is covered always improves.

Keep only such horses as can be profitably used.

A brood sow should have strong tough bones.

The best qualities belong to the most desirable farms.

Variety in feeding belongs to profitable stock growing.

The bull is a dangerous animal no matter how gentle he may seem.

The greatest losses on the farm from feeding stock come from small leaks.

In giving a hog medicine the best and safest plan is to give it in his feed.

Chemical analysis does not always indicate the true feeding value of foods.

When the threshing is done stack the straw so as to save it in the best condition.

Cut clover that is to mature seed when most of the heads have turned brown.

One of the most serious mistakes in the raising of millet is to allow it to get too ripe.

Turnips may be sown as late as the first week in August and yet make a good crop.

To get the best results from plowing under clover plow whenever the plants are in full bloom.

The only safe rule in farming is never to allow anything to go to waste.

Gather all the manure possible and haul on the fields that are to be sown to wheat.

Good seed is an important item in the growing of a good crop of wheat. Secure it in good season.

On account of the long drought in many localities everything that will make feed should be saved.

It is a good idea to have the soil of a field that is to be sown to wheat worked into a fine tilth.

Better sow less acreage in wheat and have what is sown reasonably rich and prepared in good tilth.

The best way to increase the appetite of a horse, if such a thing is necessary, is to change his diet frequently.

It is not increased age that causes increase in cost, but rather increase in size.

In addition to its value as a feed for stock the roots of the clover plant make one of the best fertilizers for other crops.

Clover hay is not a good crop to sell off the farm; it carries too much of the fertility of the farm with it.

There is probably no forage that comes into use earlier in the spring than winter rye, and none that is better for hogs, sheep, or calves.

The hog is the animal for level, fertile grain land and the sheep for hilly, thin, and worn land, as sheep graze closer to the ground than any other farm stock.

It is in favor of the sheep that they will yield a profit under conditions so unfavorable that other farm animals, under the same conditions, will be unprofitable.

The Stock Interest.

THOROUGHBREED STOCK SALES.

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

October 7, 1901—Newton Bros., Duroc-Jersey swine, Walsing, Kans.

October 2-10, 1901—American Berkshire Association Sale at Kansas City.

November 21, 1901—Ernst Bros., Shorthorns, Tecumseh, Neb.

November 20-22, 1901—National Hereford Exchange, E. St. Louis, Ill. (Sotham management.)

December 10, 11 and 12, 1901—Armour-Funkhouser, Herefords, Kansas City.

December 13, 1901—H. C. Duncan, Shorthorns, Kansas City.

January 28 to 31, 1902, for Sotham's Annual Criterion Sale, at Kansas City.

February 25-27, 1902—C. C. Stannard and others, at Kansas City, Mo., 200 Herefords.

March 25-27, 1902—National Hereford Exchange, Chicago, Ill. (Sotham management.)

April 22-24, 1902—National Hereford Exchange, Kansas City, Mo. (Sotham management.)

May 27-29, 1902—National Hereford Exchange, Omaha, Neb. (Sotham management.)

June 24-26, 1902—National Hereford Exchange, Chicago, Ill. (Sotham management.)

The Ladies' Favorite.

B. R. VALE, BEFORE IOWA SWINE BREEDERS.

This title, in common with other expressive Americanisms, such as "American's First Love," "The Poor Man's Collateral," "The Feeder's Stake," "The Breeder's Eureka," etc., have long since been applied to the old and highly meritorious breed of our swine family, the Chester Whites. The Chester is known as the oldest distinctly American-bred hog. His origin and history are familiar to most of us and hence we will treat the subject as belonging to the immediate present. The Chester as a breed is one and the same throughout the United States and Canada. They had a common origin and have been perpetuated only by breeders of this country.

Owing to a prevailing weakness in the human family, for something new, a few "fads," and I might say "frauds," have been promulgated by certain prefixes to the title of Chester, claiming new and distinct breeds, possessed of superior merit and untold excellence. These are distinctions without a difference, and such claims at best can only cover family characteristics, or the peculiar trend and fancy of individual breeders, and not entitle such devotees to the claim of having created something out of nothing. When we say "Chester" we mean just what we say, and refer to the one breed of modern and improved swine, known as such, regardless of breeders' notions or speculators' crafty claims. The characteristics of the eastern bred Chester differ somewhat from those of such as we produce under different conditions in the swine belt of the West. These differences are not that of breed but rather of feed—of the manner of keep, etc., etc., to which each is subject. That the type of the modern Chester White hog differs, under present environments, from his progenitor of thirty or fifty years ago, no one will question, and the change has been greatly to his benefit. This transition has come about in common with the improvement of other breeds—all the result of an enlightened judgment, influenced by experience and conditions.

From the massive framed, angular, slow-maturing hog of long ago, we find the Chester taking kindly to his environments, and to-day he is the equal of any of the improved large breeds in early maturity, while he leads the procession in coveted profits when asked to market beautiful crops in protracted feeding, producing heavy weights. It is not a thing uncommon to make a gain of one and one-third pounds per day or six months, and I have had them keep up this pace until one year old when fed only for breeders and not with a view to flesh production.

As to the purity of the breed, it is only necessary to observe their prepotency or the power to leave their impress on the produce when crossed upon any other distinct breed. One dip only of Chester blood infused into a herd of black swine will require several generations to entirely eradicate. The direct cross of the Chester on one of the black family, mating them either way, will produce a result in color markings and individual characteristics more than "sixteen to one" in favor of the white hog.

In individual makeup he is in his modern or present state as nearly the ideal hog as is known in America. He has many things in common with other breeds of swine, but in certain features his excellence is undisputed and is justly the pride of his many admirers.

Dociety of disposition, lack of nervousness or fretfulness is a crowning feature of the breed, and hence we find them superior grazers, feeders and the kindest mothers. We appreciate the importance of the latter quality at farrowing time, when the necessities of

the occasion require many kindly attentions from the attendant. The Chester is noted as a prolific breeder, a kind mother and generous suckler—a happier trio of profitable graces it is hard to discover.

Touching their capacity as breeders I call special attention to the ability possessed by the sows at farrowing to perform the act of parturition successfully and without assistance. It is the uniform experience and testimony of those handling this breed of swine that little account is taken of fatality at farrowing time.

The matter of unfounded prejudice against the white hog deserves attention. The Chester will indulge in and enjoy as much mud and water, also endure as much exposure to inclement weather with as little detriment as any other breed. Uniformly of cleanly habits, he will seek the most favorable location in his department as his place of resort and for sleeping purposes. He is not subject to skin disease as is erroneously supposed, but if under very adverse sanitary conditions the test will be made between the white and the black, both being subject to the scalding tub, the result will prove favorable to the white by a large majority; and why? Because a dark spot on your white shirt is more apparent than on your black coat.

This is the secret to that false impression which sometimes prevails in exclusively dark hog regions, but which is happily expelled by the introduction and handling of a few of "The Ladies' Favorites" in connection with other improved breeds.

Thus with charity for all I solicit from the enlightened intelligence of all swine breeders that kindly consideration of the merits and excellence of this especial breed which the dignity of the occasion and the common interest of a common cause demands.

Mr. Fallor—What would you do if you had had time? (Laughter.) I presume I owe a word of apology for making that bad break. I told the gentlemen this afternoon that I was not going to speak long. I had not intended to say a thing. I listened to that a good deal more than you may think I did. It only indicates to you and to me that when one man has a good thing and knows it we glory in his spunk in sticking to it.

Mr. A. N. Caldwell, of Chicago—I think Brother Vale should be congratulated on bringing his nerve along, and he has evidently read the Bible, for he says "Ask largely that your joys may be full." (Laughter.)

The Stockmen's Convention.

It is with great pleasure that we acknowledge receipt of a copy of the proceedings of the fourth annual convention of the National Live Stock Association, which convened at Salt Lake City, Utah, January 15 to 18 last. The volume embraces a total of over 500 pages, encased in a substantial cloth binding. The pages are crammed full of reading matter of the utmost importance to all interested in the live stock industry, for the gathering at Salt Lake was without doubt the greatest convention of stockmen the world has ever seen, both as to number of delegates in attendance and the subjects handled. The book contains a stenographic report of the proceedings both of the convention and the

HOPELESS CASES.

When the doctor leaves and says the case is hopeless, what remains to be done? Nothing, if the doctor's word is final. Much, if you will listen to the statements of men and women who were

once "hopeless cases" given up by doctors, and who were perfectly and permanently cured by the use of Dr. Pierce's Golden Medical Discovery.

Nothing is more sure than that thousands of men and women with diseased lungs, obstinate coughs, hemorrhage, emaciation and night-sweats, have been restored to perfect health by the use of the "Discovery." Will it cure you?

It has cured in ninety-eight cases out of every hundred where it was given a fair and faithful trial. By that record you have only two chances in a hundred of failure and ninety-eight chances of being restored to perfect health. It is worth trying.

Abram Freer, Esq., of Rockbridge, Greene Co., Ill., writes: "My wife had a severe attack of pleurisy and lung trouble; the doctors gave her up to die. She commenced taking Dr. Pierce's Golden Medical Discovery and she began to improve from the first dose. By the time she had taken eight or ten bottles she was cured, and it was the cause of a large amount being sold here. I think the 'Golden Medical Discovery' is the best medicine in the world for lung trouble."

FREE. Dr. Pierce's Common Sense Medical Adviser containing over a thousand large pages is sent free on receipt of stamps to pay expense of mailing only. Send 21 one-cent stamps for the book in paper covers, or 31 stamps for the cloth-bound volume. Address Dr. R. V. Pierce, Buffalo, N. Y.



every act has been conscientiously noted and published. The interesting discussions following the reports of the sub-committees on land leasing and the Grout bill are given in full; then there is the full text of some twenty valuable papers on various subjects of value to all branches of the live stock industry that were read before the convention, and lastly, a complete and graphic description of the lively scenes attending the raising of the legislative fund for the Association—a circumstance that will never fade from the memory of those whose good fortune it was to be present on that memorable occasion. The appendix contains much more of interest in the way of important correspondence on the twenty-eight-hour law matter and President Springer's appearance before the National Humane Society in regard to it, and also before the Institute Commerce Commission in regard to freight discrimination. There is also a full list of the 1,412 delegates to the Salt Lake convention, the executive committeemen, the membership roll, active and honorary; the most important orders from the Bureau of Animal Industry regarding quarantine regulations, and the whole is em-

20,000 Harvest Hands

Required to Harvest the Grain
Crop of Western Canada.



The most abundant yield on the continent. Reports are that the average yield of No. 1 hard wheat in Western Canada will be over 30 bushels to the acre. Prices for farm help will be excellent. Splendid ranching lands adjoin the wheat belt. Excursions will be run from all points in the United States to the

FREE GRANT LANDS.

SECURE A HOME AT ONCE

and if you wish to purchase at prevailing prices, and secure the advantage of the low rates, apply for Literature, Rates, etc., to

F. PEDLEY, Supt. Immigration, Ottawa, Canada,

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

CANADIAN GOVERNMENT AGENT.

When visiting Buffalo do not fail to see the Canadian Exhibit at the Pan-American.

bellished with portraits of those who took an active part in the fourth convention and of scenes in the convention hall. This valuable book will be sent to every member of the Association free of charge. Other stockmen desiring a copy can have it by sending 25 cents to C. F. Martin, Secretary, Denver, Colorado, for the purpose of defraying mailing charges.

The Aberdeen-Angus Program for 1901.

Thos. McFarlane, Harvey, Ill., secretary of the American Aberdeen-Angus Breeders' Association, sends the Kansas Farmer the following information about the national show and sales in 1901:

Under the auspices of the American Aberdeen-Angus Breeders' Association sales of pure-bred Angus animals will occur in December at Chicago, Ill., during the International Live Stock Exposition of 1901, and in October, 1901, at Kansas City, Mo., during the exhibition of the Short-horn, Hereford and Aberdeen-Angus beef breeds of cattle. These notable exhibitions will doubtless ensure the attendance at both cities of nearly every prominent breeder of beef cattle. The Chicago exposition will be widely advertised by the Exposition Company and by the combined associations; an additional \$4,500 will be expended upon advertising, and general expenses attending the sale. These efforts together with the natural advantages enjoyed by Chicago will ensure a remunerative sale of animals of the first quality.

Kansas City is the gateway of the West. There, besides the attractions of the show of beef animals, some \$5,000 to \$6,000 will be expended in advertising and otherwise promoting the sales and meeting the expenses of selling. Sales made at this point promise much in future transactions for the sellers.

One hundred head will be sold at Chicago and the same number at Kansas City. Of these at each sale 75 will be females and 25 males. Members contributing will furnish three females and one male each, or if not contributing a male a less number of females will be taken. None but first-class animals will be accepted, the consigner taking all risks of rejection. Animals will be received only from members of the association. The charge per head for cataloguing, selling, etc., will be for the Chicago sale, \$20 per head, and for the Kansas City sale \$25 per head. This charge is paid by the contributor and covers all expenses except attendants, freight, feed, stall rent and use of pavilion, which items of expense will be borne by the contributors severally. Consigners so desiring can furnish their own feed. Contributors will recognize that satisfactory returns can be obtained only by furnishing the very best individual animals for these sales.

All correspondence relating to the two sales must be addressed to Mr. W. C. McGavock, Mr. Pulaski, Ill., who is the sole manager of the sales.

All communications relative to the exhibition of Aberdeen-Angus cattle, to be held in October, 1901, at Kansas City, Mo., must be addressed to Mr. H. W. Elliott, at Estill, Mo., who has full charge of Angus interests in the Kansas City show of 1901.

Rapid Growth of Bethany College.

Bethany College at Lindsborg, Kans., which will celebrate its 20th anniversary next October, finds itself the largest church school in Kansas, with property valued at \$165,000 and a corps of 38 instructors in 12 splendidly equipped departments. Its student membership during the last school year was 750. The college diplomas are recognized for post graduate work without examination by Yale, Chicago and other leading universities in the United States and Europe.

With manual training, a commercial course and art, music, scientific and literary departments, in charge of an exceptionally able faculty; elective courses of study and a fine college gymnasium, Bethany is a modern realization of the ideal school advocated by Goethe in Wilhelm Meister. The students have the privilege and opportunity of choosing a course of study that suits their special purposes.

The institution has the watchful care of Dr. Carl A. Swenson, founder and president, one of the most noted teachers and educators of the country, an eminent scholar and a man of masterly executive ability. In the beginning Bethany had no endowment and there was not a dollar's worth of property in building or lands where now is property of nearly a quarter of a million.

Lindsborg lies in the beautiful Smoky valley and is reached by the Union Pacific and Missouri Pacific railroads direct and also by connection with the Rock Island and at Herington. While the temptations of a large city are absent, social advantages are plenty and there are ideal surroundings for students.

The junior and senior years have four courses, with electives, all leading to the degree of A. B. The course in the normal department covers four years' work and leads to a three years' certificate to teach in the public schools of the State or to a similar certificate securing a life certificate three years later. The model school course is equivalent to the eight years' public school course. Here the normal students see a real, live, ideal school and they are themselves required to teach in this school, under the supervision of the professor of pedagogy, in order to make their normal studies as fruitful as possible.

The school maintains an excellent business college, fully equipped. Regular courses are given in typewriting, shorthand and practical business. The art department is in the hands of Prof. Birger Sandzen, A. M., a European artist who has spent two winters studying in Paris after having studied at Stockholm and other art centers.

The Sloyd department is a new feature at Bethany college and has been added as a recognition of manual training, or, properly speaking, monumental training as an educational factor. This department together with pyrography and art needle work, is in charge of Miss Amalia Rabenius, a graduate of the famous Naas Sloyd Institute of Europe.

The college has a two year course in elocution and physical culture, and the modern languages. French, German, Spanish and Swedish are taught. It is the intention of the college to open a law department this fall.

Music occupies a prominent part in the

curriculum of Bethany. The college lays claim to the largest conservatory west of Chicago. Sixteen professors and instructors go toward making up the department. The college offers exceptional advantages for piano, organ, violin, cornet, harmony, musical history, psychology of music and voice culture work.

The music department is equipped with three pipe organs, a number of pianos and cabinet organs, an orchestra, three bands and there is a famous oratorio chorus of 400 voices.

The "Messiah" festival is one of the greatest annual musical events in the West. This year it was repeated five times and excursion trains were run from all parts of Kansas.

Gossip About Stock.

H. W. McAfee, of Topeka, is expecting a lively trade in pure-bred Clydesdale horses this fall, and makes proper announcement of the same in this week's paper.

It is an ill wind that blows nobody good, likewise with the hot drouth just broken by the recent general rain. Many breeders who have very desirable stock are now offering to reduce the number by selling off a portion at half-price. It is the biggest opportunity for buyers during recent years. Notice the great offer this week of S. A. Spriggs, of Westphalia, Kans.

Secretary Coburn, secretary of the State Board of Agriculture and a regent of the agricultural college, recently visited the Aberdeen-Angus herd of cattle owned by Anderson & Findley, of Allendale, Kans., and purchased 2 cows and 2 calves for the college farm and experiment station. "The truth of the matter is," said Mr. Coburn to a representative of the Iowa Register, "Mr. Anderson's herd is better known and more appreciated in Scotland than it is in Allen County. I keep pretty close track of these things, and I have no hesitation in saying that it is the finest herd of Polled Angus cattle in this country, and probably in the world. Just think of it! Over three hundred head of cattle, every one of them registered and pedigreed. Why, it is simply wonderful. It is something that the State and country may well be proud of, to say nothing of the county."

Kirkpatrick & Son, Wolcott, Kans., have this week their annual announcement regarding Shropshire rams, a class of stock that should be in brisk demand. In a letter in connection with their advertisement, Messrs. Kirkpatrick make the following sensible and practical remarks: "Hold the sheep. They can be carried on cheaper feed than any other stock. They will pay their way even on high-priced feed. They are not boarders, they are working for you. Mate your ewes to good rams only, and if it is to a Shropshire you must not forget the old reliable Shropshire breeders, Kirkpatrick & Son, Wolcott, Kans."

Publishers' Paragraphs.

Poultry raisers should not fail to notice the advertisement, Cash Prizes, in our poultry department. Some one can easily earn \$10, with a second chance for \$100.

We have just received the stove catalogue of the Empire Stove Mfg. Co., of Minneapolis, Minn., whose advertisement appears on another page. They offer to our readers 5 different styles of steel ranges, 2 different styles of cooks, 7 different styles of cast cooks, 10 different styles of heaters, all in various sizes at the very lowest prices, as they add no catalogue supply house or dealers' profit to their prices. Their catalogue is mailed free on application.

We like to say a good word for anything that deserves it, so do not hesitate to endorse the Sterling Remedy Company, makers of the famous Cascarets. Within five years the sale of Cascarets has grown from a single box until last year it reached the enormous sale of over six million boxes. We mention this with pride because we have carried the advertising in the columns of this paper and it is only another proof that the right kind of advertising behind an article with real merit like Cascarets brings success. All druggists report an enormous demand for Cascarets that is steadily increasing.

The recent heart-rending dry spell has shown thousands of stockmen the necessity of having wells of sufficient depth for a permanent and regular supply of water. The Kansas Farmer has received the 1901 Encyclopedia of the American Well Works of Aurora, Ill., which gives all the necessary information on the subject. It contains illustrations, descriptions and prices of machinery demonstrated to be the most practical, including well sinking, prospecting, pumping, irrigating and hoisting machinery. Readers of this paper who need anything in this line should ask the American Well Works for their 1901 Encyclopedia.

A Good Thing for Farmers.

Small threshing machines for the individual farmer are coming more into popular favor every year, and in proof of this we give our readers part of a letter just received from Samuel J. Jones, of De Groat, N. Dak., dated July 7, 1901: "Two years ago we bought a 32 inch Columbia separator manufactured by the Belle City Mfg. Co., of Racine, Wis., and have run it with a 12 horse power Fairbanks & Morse gasoline engine and a Parsons feeder, to our entire satisfaction. As a farm machine, the Columbia has no equal. We average 50 bushels per hour, using four teams in the field, and our crew consists of seven men all told. We find that we have been able to thresh all kinds of grain, and put it in the wagon at a less cost than it would take to stack the same. We thresh from 750 to 800 bushels of wheat per day, and have threshed 1,400 bushels of oats in one day."

"King Corn" to the Rescue.

When the Pilgrim Fathers landed at Plymouth Rock in 1620 corn grew wild in North America, and during the first long winter, after the landing, the existence of the brave little colony depended upon the contribution of "Indian maize," or corn, which the Indians took from their slender stores and divided with the white strangers.

History repeats itself. After 280 years corn again comes to the rescue. Owing to

King Corn



"KING CORN" TO THE RESCUE. This year is apt to demonstrate that corn is king. Necessity has made the mother of new inventions. It was necessity that gave birth to the corn harvester and the husker and shredder—two of the greatest inventions that have ever blessed the agriculture of the world—and it will be necessity this year that will compel us to use them. Every stalk of corn that shoots from the ground this season must be utilized. Pastures are parched, meadows are scarce and the American farmer can turn with implicit confidence to the McCormick corn harvester and shredder and husker. Experimental days are far past in the making of these machines. The name McCormick on a corn harvester and husker is as much a guarantee of perfection of work as it is on a self-binder and a mower—and more than this can not be said.—*Editor Breeders' Gazette, July 17, 1901.*

B. L. REES, General Agent, Topeka, Kans.

the partial failure of the hay crop and the severe drouth which has prevailed throughout the corn belt it will be necessary for farmers to save all of their corn stalks for feed. Not only must all of the corn be cut, but it must all be shredded. To do this effectively, expeditiously and economically, farmers should provide themselves with both the corn binder and the corn husker and shredder—two machines that are now regarded by progressive farmers as being invaluable. These machines enable the farmer to save all of his corn crop in good condition and in the least possible time.

The most successful machines made for handling corn are the McCormick vertical corn binder and the McCormick corn husker and shredder. These machines are illustrated and described in detail in a handsome book entitled "King Corn," published by the McCormick Harvesting Machine Co., Chicago, U. S. A. The book is mailed free and we suggest that all readers of the Kansas Farmer write for it at once.

THE NEW YORK WORLD.

Thrice-a-Week Edition.—The Most Widely Read Newspaper in America.

Time has demonstrated that the Thrice-a-Week World stands alone in its class. Other papers have imitated its form but not its success. This is because it tells all the news all the time, and tells it impartially, whether that news be political or otherwise. It is in fact almost a daily at the price of a weekly and you can not afford to be without it.

Republican and Democrat alike can read the Thrice-a-Week World with absolute confidence in its truth.

In addition to news, it publishes first-class serial stories and other features suited to the home and fireside.

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Historic Precedent.

McJigger—Did you ever notice what frightfully bad grammar some of our statesmen use?

Thingumbob—Yes, I suppose they do their best to imitate Washington.

McJigger—What nonsense! Washington was a cultured man.

Thingumbob—And yet there is no doubt that he slaughtered the king's English.—Philadelphia Press.

Making Progress.

Penfield—How are you getting on in the noble profession of journalism?

Yellow Journalist—First-rate. Yesterday I was hiding under the table in the grand-jury room, while to-day I'm hustling subscriptions for a loving-cup.—Judge.

The Veterinarian.

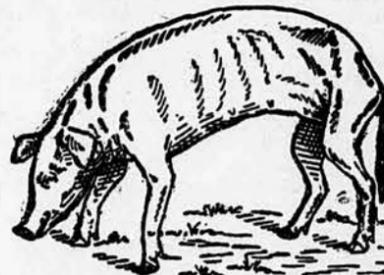
We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color, and sex of animal, stating symptoms accurately, of how long standing, 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 enquirer's postoffice, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kans.

Laminitis.—A very peculiar disease has attacked my sheep. They appear to be cramped in the bowels, and walk with their hind legs drawn under them, with their backs arched, and they are very stiff. They lie down a great deal, but do not seem to be losing their appetite. Some of them do not get poor, while again others are quite poor. Erie, Kans. R. B. PURVIANCE.

Answer.—Make a good soft bed in a shed or stable, darkened during the day time so they will not have to fight flies. Dip them in or spray them with Zenoleum, 1 part to 100 parts of water, every few days.

Rickets.—I have spring pigs, whose hind legs are swollen. On some it is one part of their legs and on others it is another. Their legs are hard and knotty like bone, and get so bad they can scarcely walk. They eat and drink all right, but do not seem to thrive. H. B. SCHLAFMAN.

Coffeyville, Kans.
Answer.—Give calcium phosphate 4 ounces and sulphate of iron 3 ounces. Mix and give a half teaspoon to each once a day in milk.



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The Home Circle.

JUST OUTSIDE MY WINDOW.

Ah, well! old tree, you've finally reached my window—
What you've been striving for, some fifteen years, I mind.
To peep at my affairs, e'er stretching, reaching, growing—
Still I will welcome you and give you greeting, kind.

And are you happier, sir, now you have reached my casement,
Than when you stood a sentry too far off to see?
And do the books and papers and the pictures scattered
Dispel the wish to know what all such things may be?

Ah! how you brush the panes, caress and stroke the casing!
How you nod "good morning" to me!
How you breathe "good night!"
And I could almost see you smile when the last sunbeams
Fall on you, twinkling, shimmering, giving you delight.

When the wind blows you seem the soul of exultation;
You toss your branches up and down like victors' palms.
You seem to me to be an army of plumed warriors.
Returned from Orient wars with spurs of spice and balms.

Again you "balance, swing," with grace "salute your partners"—
Real knights and ladies in rich dress and courtly dance.
Now, anger seems to sway some bustling, jealous lover.
Now laughter uncontrolled shakes all, sets all askance.

A new world opens in your restful, leafy shadows—
People and beings with strange grace and queer caprice.
I'm glad you're grown so large, so shady, and so friendly.
Long may you live, and toss, and may you still increase!
—Phoebe Parmelee.

THE MAN OF THE WEEK.

Isaac P. Roberts.

(Born July 24, 1833.)

"If a man has spent the greater part of his life as a teacher of agriculture and an experimenter, has been a successful farmer at the same time, and has had the advantage of much travel, his opinions upon farm methods should be invaluable to his fellows. If, in addition to this, he has had a philosophic turn of mind, and has persistently inquired into the reasons and results of all he has seen, it would seem to be nothing less than a public misfortune if he should fail to leave some of his wisdom in permanent and consecutive form." So thinking, the editor of the Rural Science Series persuaded Professor Roberts to write a book. When the book had been written, the editor of the series wrote a preface, in which he said what has already been quoted, and more, describing it as coming "as near to being a treatise on agriculture as any single volume can be. It appeals to me with especial force," he continues, "because it so well combines the best teachings of science with the philosophy of farm practice. It is the ripened judgment of the wisest farmer whom I have known."

How can it happen that a teacher of agriculture has been a successful farmer? In the most natural and logical but uncommon way. In 1870 the trustees of the Iowa Agricultural College did not know any better than to choose as professor of agriculture a man who was a successful farmer. Along with this ignorance, they had the good sense or good luck to select a man of brains and education—a man who knew the farm from childhood and who had spent the fourteen years from 1856 to 1870 as a farmer and builder in Indiana and Iowa. So, at the age of thirty-seven, Mr. Roberts came to his professorship knowing much more about the business of farming than he did about the "science of agriculture." No college had given him the degree of master of scientific agriculture, but in the impartial school of experience he had earned the right to be called a master of farming. So success went with him from the farm to the college.

In 1874, Professor Roberts went back to his native State to become professor of agriculture in Cornell University, where he still holds that position. But his duties and responsibilities have grown. He is also director of the College of Agriculture and of the Experiment Station, these departments of the great university having grown in greatness and usefulness under his wise management. And he has been more than a teacher of agriculture, more than a director of an agricultural college and an experiment station; he has been an investigator, a writer of bulletins, of official reports, of articles for the agricultural press; and he has also published two valuable books—"The Fertility of the Land," already referred to,

and "The Farmstead," both of which are the product of his own experience and thinking, and each of which is sure to interest and help every intelligent farmer who reads it. A few sentences from these books will indicate the practical wisdom of their author:

"The farmer is wise who adjusts himself to present conditions, so unlike those of his father. To do this, he must see clearly and think straight; he must have executive ability, as well as training and practice in well-defined business methods. To see clearly, the eye must be trained to take in a multitude of objects quickly, to sort, compare, and photograph on the sensitive brain those which are worth preserving. To think straight, many scientific facts, or items of knowledge, arranged in order, must be acquired, and these can be secured only by long, painstaking effort."

Professor Roberts is a man of faith—faith in men in general, in young men in particular. In his chapter entitled "A Chat with the Young Farmer," he says: "The world cares how you work, and it is interested in the progress of civilization. It asks that every one of you start from just where you are, without grumbling and with courage, and climb faithfully, honestly, and in harmony with nature's modes of action, and the bars which guard the wealth of soil and the accumulation of man's toil will then fly back at your bidding. But wealth should be sought, not for the pleasure of securing and possessing it, but as means to higher ends."

The following sayings from "The Farmstead" are suggestive:

"The first principle of agriculture is, follow up successes."

"A competence may be secured by following those branches of farming which require the minimum of labor and the maximum of skill and training."

"Not only follow up the successes, but do the difficult things; there will always be a throng seeking to do the easy things—things which require the maximum of muscle and the minimum of brains."

"Farming will never be carried on in America by trusts and syndicates."

"Good farming pays liberal profits even on rented land."

The reader of these books by Professor Roberts is sure that he could not have written them without the experience gained in the fourteen years of successful farming and building that were his period of apprenticeship. How shall a man whose interest in farming is merely professional, who never lived on a farm or used a farm barn, and whose knowledge has all been gained from books—how shall such a man teach others how to lay out farms and to manage them successfully, and how shall he teach them to build convenient farmhouses and barns? The ideal professor of agriculture needs to be a farmer—and more; he needs to be an architect of farm buildings; he must be able to see the relation between the productive power of the farm and its arrangement and the buildings that are to "home" the farmer and his family and house his stock, his crops, and his implements. For the farmer may not buy and build according to his desires, but must take counsel of the size and the earning power of his farm under such management as he can give it. And the best teacher of agriculture should be able to teach these truths as Professor Roberts teaches them—by knowing them from the practical as well as the theoretical side. D. W. WORNING.

Denver, Colorado.

A Camera Girl on the Midway.

We came in at the "back door" of the Exposition, for the sake of adding to the variety of our mental pictures. Then, too, it was nearer the Midway, and that was our openly avowed destination for the day.

"Let us have one full day of Midway sights and sounds," we had decided as we packed up our camera and Official Guide, and counted the tinkling shekels in our purses, and fondly looked our last upon their bright promises. We left behind us our notebooks and pencils. "This trip is for sensations and pictures, not for facts and data," we announced.

So we and our camera paraded along the first sunny stretches of the labyrinthine path of the treacherous Midway. We clutched each other in ecstasy when some quaint creature that had trotted by us, quite forgetting until he was just out of range that we were armed with a snap-shooter that would have laid him low for our future pleasure. And we had paid fifty cents for the privilege of lugging about our own camera all day long!

"Let's go to something that's going," suggested the Other One with more sense than was apparent, and the Girl-with-

the-Camera had a brilliant idea. The Infant Incubator! Surely that show was one that must continue night and day.

Quite a crowd of people surrounded the demonstrator—I beg his pardon—whatever the man is who explains things—before the little closet with glass doors and nickel-plated trimmings. There was a whole row of these little closets, and each was accompanied by certain pipes and delicately adjusted machines that warmed and purified the atmosphere before it could reach the fragile inhabitant.

Several were occupied, and the Other One likely never to get away from the entrancing little mortals. She was totally oblivious to the conversation between a Young Man and a Young Woman who stood near us.

"Yes," nodded the Young Man, loftily at the cherub, the subject under the hammering tongue of the exhibitor, "Yes, certainly that is a clever piece of realistic wax works."

"It has quite as much realistic vigor as that of the sleeping beauty in the Moorish Palace whose breast rises and falls so naturally," she remarked sarcastically, pointing at the infant who had stretched out its arms lustily, screwed up its cherub features and uttered a cry of protest that could be heard even without the walls of her tiny home.

A nurse from the next room came in, opened the doors of the cabinet, threw a comforter over the child and carried her forth for refreshment. Still was the Young Man unconvinced. Machinery has been made to do even more wonderful things than that of making a wax doll fling out its arms, open its mouth and emit a wail at regular intervals.

The crowd moved on to the nursery where a great plate glass window made plain all that went on in the room beyond. Then the incredulous Young Man looked silly, for the little, pink, wobbling-headed affair that blinked at the public as she was raised to view in the arms of the nurse was not a wax doll. Not by any means!

The babies were swaddled like French dolls, leaving their arms free but confining their feet. Around the body of each one was tied a broad band of ribbon, and at the edges of the tiny sleeves were narrow bands, blue for the boys and pink for the girls.

When the little Apache Indian baby arrived at the Pan-American the other day, quite ahead of the expectations of its friends, it was promptly brought to the Infant Incubator that its frail thread of life might be preserved. An infant of much less than three pounds was an item of interest even to the proprietors of the Incubator. Is any idea odder than the thought that the infant child of the wild Indians of the plains should be reared by one of the latest inventions of modern science, the Infant Incubator? Such an incongruity could hardly occur in any place other than the Midway of the Pan-American Exposition, which follows

Food.	Weight. Ounces.	Cost. Cents.	Total Food.	Protein.	Fat.	Carbohydrates.	Calories.
Salt pork.....	1.25	1	.07	...	.07	...	293.
Beans.....	5.00	1/2	.28	.08	.01	.19	538.
Bread.....	2.00	1/4	.08	.01	...	.07	160.
Butter.....	1.00	1	.05	...	.05	...	225.
Total.....	9.25	3 1/4	.48	.09	.13	.26	1,216.
Sirloin steak.....	4.00	5	.08	.04	.04	...	242.
Bread.....	2.00	1/2	.08	.01	...	.07	160.
Butter.....	1.00	1	.05	...	.05	...	225.
Sweet potato.....	4.00	1/2	.08	.005	...	.055	105.
Canned corn.....	1.00	1	.02	.003	...	.027	32.
Ice cream.....	4.00	6	.06	.02	.02	.02	165.
Cake.....	1.00	1/2	.08	.005	...	.055	100.
Total.....	17.00	14 1/2	.41	.083	.11	.227	1,029.

neither rhyme nor reason but is whimsicality itself.—Millicent Olmstead, in Modern Culture for August.

One Hundred Balanced Rations for a Man.

MARY WAUGH SMITH.

CHEAP VS. DEAR FOOD.

Cheap living does not always mean poor living. The man who consumes only \$2 worth of food per week may be better fed than his neighbor who pays out \$10 a week for his victuals. Porterhouse steak has pleased our palate and the price is higher, the man with the larger income buys it, and yet hamburger steak at 10 cents a pound contains as much digestible food. A lunch of bread and milk may be better suited to the needs of the body than an elaborately prepared lunch that costs very much more. It is not ruinous to health to live cheaply if the money spent is used to purchase the necessary food materials.

So many people have no idea of the value of food from any other standpoint than the amount it costs in money. These people have the idea that a food which costs more is better food. Buying on this plan they are sure to waste



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Made by Standard Oil Co.

money. A woman living a couple of blocks from the writer recently told us how economical she was in buying for her family (of two). She ended by stating that she always bought the best meat, it did not pay to buy cheap steaks and boiling pieces. She stated that chicken, which costs us 18 cents a pound at the very lowest in this market, was the cheapest meat one could buy, saying that a 75 cent chicken would last three meals. She is a woman who has very little to spend and one who is really economical in buying clothes and in all other expenditures. She has no idea whatever of the value of food aside from the money it subtracts from her allowance.

People waste more money in buying the necessary amount of protein than in the purchase of any other food principle. It can be obtained for 18 cents a pound or it may cost \$2 a pound when bought in the more expensive foods. Vegetable protein is cheaper than that obtained from animal food, but animal protein is a trifle more completely digestible. As we like it better, and prefer it to vegetable protein, we are willing to pay more for it if we have the money. Twenty-five cents spent for beans at 5 cents a pound will buy 1.16 pounds of protein, while the same amount spent for sirloin steak at 25 cents a pound will pay for .15 pound of protein. Five pounds of sirloin steak do not furnish the amount of protein obtained in 5 pounds of beans, yet those who can afford it prefer to take their protein in the steak.

In the hands of a good cook the cheaper materials are made into appetizing dishes and may be more palatable than the more expensive materials poorly blended and poorly cooked.

The following menus show the cost of food used and illustrate how much or little can be spent in purchasing the necessary nutrition for a single meal:

Food.	Weight. Ounces.	Cost. Cents.	Total Food.	Protein.	Fat.	Carbohydrates.	Calories.
Salt pork.....	1.25	1	.07	...	.07	...	293.
Beans.....	5.00	1/2	.28	.08	.01	.19	538.
Bread.....	2.00	1/4	.08	.01	...	.07	160.
Butter.....	1.00	1	.05	...	.05	...	225.
Total.....	9.25	3 1/4	.48	.09	.13	.26	1,216.
Sirloin steak.....	4.00	5	.08	.04	.04	...	242.
Bread.....	2.00	1/2	.08	.01	...	.07	160.
Butter.....	1.00	1	.05	...	.05	...	225.
Sweet potato.....	4.00	1/2	.08	.005	...	.055	105.
Canned corn.....	1.00	1	.02	.003	...	.027	32.
Ice cream.....	4.00	6	.06	.02	.02	.02	165.
Cake.....	1.00	1/2	.08	.005	...	.055	100.
Total.....	17.00	14 1/2	.41	.083	.11	.227	1,029.

In the second menu the cost is four times that of the food in the first menu and it will be noticed that there is not as much food although there is nearly twice the weight of food to be digested. The second menu could be increased in cost without noticeable addition of nutrients by adding celery, olives or other relishes, which, though good in their place, have practically no food value.

In the two menus given the difference in cost between animal and vegetable protein is illustrated. Protein in wheat flour, corn-meal, beans, peas, milk, potatoes, and skim-milk cheese is cheaper than can be obtained in even the cheapest cuts of meat. Ten ounces of bread and a pint of skim-milk make a perfect balanced ration and furnish more real food than the second menu given.

With a free use of milk and leguminous vegetables a very economical and yet an elaborate meal can be prepared. One is not likely to spend too much for carbohydrates or fats and in trying to save money on food the easiest way is to buy cheaper protein, which, rightly prepared, is nearly as appetizing and quite as nutritious as the more expensive forms.

The Young Folks.

THE BUTTES.*

O wind kissed summits,
That joy to face the mighty force of the
elements!
There is no power within you feels
This mystic gladness that round you steals;
And it makes me harbor a discontent
With the soullessness of the firmament.

Great peaceful hills
That never know this restles longing to
climb the heights!
What is that look on thy face I see
That seems to foreshadow eternity?
Ah! tis only the play of the dim half lights
So peacefully bids, Good night.

My childhood friends,
Outlined against the western sky,
Cared by clouds like spectre forms
That press to thy cold brow their lips
so warm,
Then dart away and upward fly,
My childhood friends, Goodbye.
Bridgeport, Kan. Inez Wheeler.

(*The Buttes are a low range of hills on the western borders of Saline and McPherson counties, Kansas.)

In the Philippine Village at the Pan-American.

HERBERT SHEARER.

For various reasons the Philippine village is one of the most attractive exhibits at the Pan-American Exposition; because the Philippines are now a possession of the United States and because there are so many interesting features to be seen here that pertain to the life, habits and personality of the inhabitants of this diversified country.

This little Midway village is a reproduction on a small scale of a typical Filipino town. Within the enclosure these people attend to the duties pertaining to their every day life, consisting of weaving, rope making, building houses, making toys, clothing and other necessary accessories to the usual village life. There is also a small theater in which the native jugglers, musicians and dancers render the innocent diversions that constitute the amusement of the Filipino.

Native workmen are constructing houses out of bamboo poles that are joined together with bamboo thongs made by splitting wood up thin and soaking the splints in water to render them tough and pliable. The sides and partitions are made of small bamboo rods or larger ones split through the middle. These houses are roofed with what the natives call nipa, which is the leaf of the palm tree folded in the middle and doubled back on itself and laid like shingles, though the reverse of shingles in the manner of laying them as the thick end is placed uppermost and the thin pointed ends lap over the lower layers. These leaf shingles are fastened to the roof poles by being sown fast with bamboo thongs. A good roof built in this manner is said to be absolutely and thoroughly waterproof, a condition that is especially essential in a country like the Philippines, where rains fall so copiously and continually for weeks at a time.

Doors and windows in these houses slide instead of being hinged, although in some instances the bamboo shutters that cover the shell windows swing out from the bottom when it is necessary as well as slide back on their upper support.

The windows themselves are quite a curiosity; no glass is used but they are made up of a natural substance that is translucent to a degree, and less liable to accidents than window glass; this is the shell of a large crustacea that is found in Philippine waters. The most striking difference noticeable between the Filipino house and our own is the manner in which their bamboo houses are built on posts sometimes ten or twelve feet high, which renders access possible only by means of a ladder.

There is or should be a reason in all things and the reason for this is that there are other inhabitants of the Philippines besides the human population. There are also certain caste distinctions that render fraternity objectionable at least to the human element, however, this subject is painful, or liable to be, to the inhabitants who disregard this elevating precaution.

FURNITURE.

The furniture and furnishings of one of these interesting bamboo houses furnishes suggestions for weeks of study. Bamboo furnishes the necessary material and the natives put it together by hand methods; the bolo knife alone being used by way of tools. Long practice in the handling of this simple instrument renders these handy experts in the manner of making and bracing furniture in such a way that it will stand the ordinary wear and tear of domestic use. Paint and varnish are not

required as this useful material is already varnished and as smooth as necessary. These people are adepts at basket weaving, which probably accounts for the basket-like construction of their chairs and stools. The same class of work is suitable, with proper variations for mats, veranda cushions, etc. Other vegetable fibers are woven on hand looms into sheets and cloth for other purposes.

In one corner of the grounds a church represents the plain manner in which these edifices are furnished. It shows the altar with its railing and the multiple bell that is rung at a certain time, to prepare the worshippers for the most impressive part of the service.

In making the rounds through this diversified settlement, considerable time is necessary to form even a passing idea of the different features represented. A very handy toy-maker is constructing dolls' houses in miniature very much after the manner in which some of our summer cottages are built. His handiwork is also displayed to advantage in the manufacture of sledges, boats, musical instruments, miniature weaving looms and other articles dear to the heart of native Filipino children. The juvenile population of this Pan-American village is already rather numerous and is constantly increasing. The recent christening of one little Filipino that is now three weeks of age and the preparation for the christening of another one in the near future, is indicative of progress in this direction. Yankee curiosity in regard to these little people is sometimes rather aggressive and it must be annoying to these sensitive people, though they good naturedly submit to a great deal of this sort of thing, probably because they are in the minority and can not help themselves. But our characteristic rudeness, which often borders very closely on impudence, shows our manners to great disadvantage and the pushing inquisitiveness that prompts the average Pan-American visitor to thrust themselves into what should be the sacred privacy of these inoffensive little Filipino women, is not well calculated to give them a good impression.

ROPE-MAKING.

Turning from building to manufacture, a most important subject is that of rope-making, which is carried on here in the same primitive manner and with the same hand tools that the great grandfathers of these villagers employed. Genuine Cebu abaca ropes are probably not made outside of the Philippine Islands except in this wonderful little vilage, as the fiber is so valuable that rope makers find it necessary to supplement their stock of Manila hemp, as it is called, by additions of ordinary flax or other fibrous materials.

Probably no other article of merchandise that is so extensively used is so generally misunderstood. Probably nineteen Americans out of twenty harbor the impression that Manila hemp grows like our linen flax. But it is a very different substance. Because of its importance and the general ignorance in regard to its source, nature and growth, I took special pains to interview "Pony" Moore, the globe trotter, and the Filipino bolo man. Mr. Moore needs no introduction but the bolo man is a stranger in these parts. He is a native of the Island of Jolo, was educated at Hong Kong, and speaks the English language with considerable precision. He is called a bolo man because he belongs to the Filipino Moro Mendanao tribe, the members of which fight with bolo knives. To my surprise they were the only men in the Philippine village who could give me any accurate information as to the nature and origin of this important Filipino product. It is the fiber of the abaca plant which partakes of the nature of the agave or pineapple family, and the fiber itself is grown in the leaf. Cultivation of the plant is extremely simple and the fiber is extracted by the most primitive hand methods.

WASHING CLOTHES.

The manner in which the native Filipino conducts laundry operations, is in keeping with their usual manner of doing things. A platform is built at the edge of the lake a few inches above the water. Clothing and other household linens are dipped into the water, rolled into a ball and spanked with a paddle. This operation is repeated until the necessary cleanliness and whiteness is obtained. Sometimes bleaching in the sun is resorted to when necessary, but generally speaking when the work is done, it is clean and bright in every way. The manager says that they would not accept such work as the Buffalo laundries turn out, and I don't blame them. In the Midway village, the men apparently do the washing as well as wait on the women in other ways.

While the men and women do the washing, the little boys and girls play about the water and paddle around in a big wooden bowl that looks like an overgrown butter bowl, but it seems to support at least one little fellow in the water, but when the second undertakes to climb in, they both get a ducking. This does not affect them very seriously as their amphibious propensities render them very much at home in the water.

Following the laundry operations from the lake to the ironing process, the Filipino can give us pointers in the manner of ironing plain clothes. Their smoothing iron is a round affair about eight inches in diameter; it is made hollow and has a charcoal fire inside of it to keep it hot. It is moved back and forth over the clothes to be ironed by means of a handle sixteen or eighteen inches in length. The weight of this brazier is sufficient to smooth out all wrinkles without additional hand pressure. The ironing table is also an article of interest to us, as it is only about eight inches above the floor, about the proper height for convenience according to the position in which the women sit on the floor to use it.

BREAD MAKING.

The Filipinos have their own ideas in regard to bread making, though a description of the intricacies of this process is too difficult for me to attempt. I might say, though, that the bread pan is made like almost everything else in the village, out of bamboo, which is plaited in basket work fashion, fine enough to hold the bread while raising.

My visit to the Filipino village has proved about the most interesting experience I have had and this incomplete chronicle is very unsatisfactory to me. If you are interested, however, the village is here and as the old song puts it—

"There lies the old hymnbook on the shelf,
If you want any more you must sing it yourself."

Short Stops.

It is easier to find an old friend than an old mother. Friendship begins with liking or gratitude—roots that can be pulled up. Mother's love begins deeper down.

In the love of a brave and faithful man there is always a strain of maternal tenderness; he gives out again those beams of protecting fondness which were shed on him as he lay on his mother's knee.

A love of self is, in truth, the very soul of sin. All sins are but as circles issuing out from this one productive center, expanding some more and some less widely, enclosing a narrower or a larger field of our spiritual life.

Girls should be veritable sunbeams, not only to the members of their own family circle, but also to everybody with whom they come in contact. Every room they enter should be the brighter for their presence.—Ruskin.

"What did Columbus discover?" asked the teacher of the juvenile class. "The Atlantic Ocean," answered the small boy at the foot of the class. "How do you know that?" asked the teacher. "Because," replied the youth-



ful student, "my book says he came across it."—Chicago News.

"Josiar," said Mrs. Cortossel, "what is these negligay shirts I see advertised in the bargain sales?" "Well, they ain't quite so prim an' scratchy as a b'iled shirt—that is to say, a reg'lar hard'b'iled shirt. I reckon negligay is what you might call a soft-b'iled shirt."—Washington Star.

Papa (severely): "Did you ask Mama if you could have that apple?" Five-Year-Old: "Yes, Papa." Papa: "Be careful now. I'll ask Mama, and if she says you didn't ask her I'll whip you for telling a story. Did you ask Mama?" Five-Year-Old: "Papa, I asked her. (A pause.) She said I couldn't have it."—Tit-Bits.

Blobbs: "Why does your old maid aunt always wear cotton gloves?" Slobbs: "She doesn't like kids."—Philadelphia Record.

Customer: (in restaurant): "Look here, waiter, I've found a button in this salad!" Waiter: "That's all right, sir; it's a part of the dressing."—Tit-Bits.

Rescuer: "Miss Properleigh, give me your hand." Drowning Maiden (preparing to sink for the third time): "Oh, Mr. Manley, this is so sudden; so unexpected! You will have to ask Mamma!"—Harlem Life.

The Foundation of All Prosperity.

Reuben Railfence—There's people gittin' buncoed every day in New York. Henry Hoecorn—That's jest what I've always said: take away the great agricultural classes from the country and the big cities couldn't subsist a month.—Puck.

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Established in 1863.

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

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NOTICE EXTRAORDINARY. 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.

There is time for millet to mature a big crop of hay if sown promptly.

To-day, feed whatever is available, and plant and sow to meet later needs.

The well-considered suggestions of Professor Cottrell presented on another page of this paper should be carefully read and considered by every owner of stock.

The Kansas railroad commissioners have asked the railroads to confer with them with reference to making reduced rates for the transportation of feeding stuffs within the State.

Last year's corn crop in the United States was estimated at 2,100,000,000 bushels. The president of the Chicago board of trade has estimated this year's crop at 1,600,000,000 bushels.

The danger of growing sorghum as a pasture plant for hungry cattle was painfully illustrated in the herd of Hon. John B. Sims, of Mission township, Shawnee County, last week.

hour. In this way fifteen minutes were added each day until it was deemed safe to allow the cattle to remain on the sorghum pasture. No losses occurred.

The feeding value of alfalfa hay is gradually forcing its way to recognition in the markets. Recent quotations at Kansas City were as follows: Timothy—Choice, \$14.50; No. 1, \$13.00@14.00; No. 2, \$12.00@13.00. Clover—Pure, \$12.00. Prairie—Choice, \$14.50; No. 1, \$13.50@14.00; No. 2, \$12.00@13.00; No. 3, \$10.00@11.00; No. 4, \$8.00@9.00. Alfalfa—\$12.00@14.00. Clover, mixed—No. 1, \$9.00@10.00; No. 2, \$8.00@9.00.

A successful farmer whose 35 years experience in Kansas lends value to his words said to the writer last week that he expected to make more money this year than he has made in any one year in the last five. He has 3,800 bushels of old corn in the crib. He has 100 acres of sorghum growing. He will buy 100 yearlings from people who are scared. He will buy 100 to 200 young hogs. He may buy some feed. He will have some good stock to sell next summer when, in his opinion, stock will be scarce and high.

GREAT RAINS.

The breaking of the hot weather and the drouth in Kansas has wrought a marvelous change in the spirits of the people. The amount of the rain which has fallen from last Friday to the time of this writing, Tuesday noon, has varied somewhat, but reports show that nearly the entire State received generous precipitation. At Topeka the total, according to the Government gauge, has been 3.72 inches. Some parts of the State received more than this liberal downpour.

Observer Jennings' map shows only what fell up to Saturday when his reports were mailed. It presents only a fraction of the rain enjoyed.

The rush to sell stock has ceased. Kansas City reports show that orders for cars in which to ship stock have been countermanded.

Stock water has been replenished and the pasture grasses which have lain dormant for weeks are springing up. The fields are in fine condition for plowing and preparations for late fall crops and for wheat are rushing.

The Kansas man who has not recovered his smile is beginning to feel lonesome. With characteristic promptness and energy the work of assisting nature to make the drouth of 1901 only a memory is being pushed in Kansas.

THE PRESENT PROBLEM.

The problem of the present resolves itself into two questions: First, what is the best available program for the present and the near future. Second, what are the best plans for the near and remote future!

The later rains have come to a large portion of Kansas. The pastures will doubtless respond quickly. Kaffir-corn, cane, millet, and cow-peas sown now will probably produce liberal crops of excellent feed for this fall and winter. Dwarf Essex rape may be sown later and will make good late pasturage. The quantities of seeds of the catch crops is likely to be short of the demand. But the best crop for fall, winter and early spring pasture is wheat and there is plenty of seed wheat. The best of it is that the wheat, after affording immense amounts of stock feed, stands likely to make a profitable crop of grain next season.

Kansas usually allows to go to waste enough corn fodder and wheat straw to furnish roughage for all live stock in

the State. Whatever may be the case with the ears the crop of corn fodder is now likely to be fairly good. If saved at the proper time it will carry cattle through the winter if only they have enough of it. The value of good bright wheat straw is little appreciated in Kansas. Owing to the usual abundance and cheapness of other roughage, straw has been deemed too low in feeding value to be worth saving. The farmer who doubts whether he will have feed enough for his stock may this season well consider the value of straw. When corn is worth 50 cents a bushel good bright wheat straw is worth not far from \$5 a ton. Straw is not easily protected from the weather. As ordinarily stacked it takes water badly. It is bulky and hard to shelter, and its value is greatly reduced on getting wet. But it will pay to study up some way to protect from the weather a feed that is worth \$5 a ton.

Kansas has and can produce this season enough feed so that no stock need be sacrificed. Kansas farmers have the gumption and the enterprise to make the most of the situation.

Much study has been and is still devoted to the problem of providing against the evil consequences of possible future experiences like the present. The dry spell of the summer of 1901 found us better prepared than we ever were before. The cultivation of drouth resisting crops had no small part in this preparation. Of these drouth resisters Kaffir-corn, soy-beans, and cow-peas are good, but alfalfa excels them all. Moreover of all farm crops possible to raise during a good season alfalfa yields more dollars per acre in clear money than any other. The enthusiasm of the farmer for alfalfa is in direct proportion to the amount of it he has produced and fed. Land plowed and well harrowed now, and harrowed again in two weeks ought to be in prime condition to sow in alfalfa. Use 20 pounds of seed to the acre, sow broad cast and cover with the harrow, or better, sow with the drill mixing bran or corn-meal with the seed to enable the drill to sow the right amount. Alfalfa comes up quickly. Don't pasture it. Don't let anything touch it this fall or next spring until it begins to bloom. This will probably be in May or early in June. Cut it, and cure it a little, and stack it while quite tough. If out of corn the teams can be worked on alfalfa. The cows will give plenty of milk when they get plenty of alfalfa. The drouth will be forgotten when that first crop of alfalfa is harvested. Don't pasture the second growth. It will begin to bloom in June or July. Cut it and make hay of it. Don't pasture the third growth. It will be ready to cut in July or August, unless indeed we shall have another drouth, in which case it may take a vacation. But don't pasture it at any time during the season. The fourth crop should be ready in September, possibly in August. Sometimes a fifth crop may be harvested if every one of the first four crops has been cut as early as is best for the plant and for the planter. But in any case let there be a growth of a few inches after the last mowing as a protection to the crowns of the roots.

On good land, well prepared, alfalfa sown during the last half of the present month should next season produce 3 to 6 tons of hay an acre. On irrigated land it has been reported to have produced as high as 10 tons of cured hay.

Let the farmer who has been unsuccessful with alfalfa try again. He will always bless the trial which brought success.

Most Kansas soils are adapted to alfalfa. A few are not. A soil in which there is a slaty layer near the surface prevents the roots from going into the depths of the earth as is their nature. They will usually find their ways among rocks, especially if the rocks be limestone, but slate is too continuous for them. A soil in which the ground water is less than 4 feet from the surface is to be avoided. A soil so deficient in lime as to leave the surface water soft is thought to be unsuited to alfalfa.

When Kansas shall have half her cultivated acreage in alfalfa and shall have the stock to eat it her net income will probably double its present figure.

The Office Farmer.

EDITOR KANSAS FARMER:—There are things besides the routine by which the supply of daily bread is replenished that makes one tired. There are things that produce a feeling akin to that peculiar sensation of the tempest tossed landsman on his first voyage and just now old Sol's most extravagant antics are discounted by the deluge of those things. They absolutely overwhelm the farmer—if he looks to the daily or weekly print for diversion. Almost any man may sit down at a safe distance

and tell the commanding general how he might have gained a victory and how many brilliant things are yet possible. This is true also of the genius who has deprived the world of a practical farmer to become a roaring ass masked behind an office desk. Before me lies half a dozen papers reproducing a proclamation credited to a Kansas man, the burden of which is "Hold your stock." Really that is complimentary to Kansas, especially as some of those papers are published hundreds of miles from Kansas, but what of the man quoted. Wouldn't it be great to see him handle some of the thousands of cattle in this (Butler) county for which there is not forage enough to splice out the already burned pastures until the end of the pasturing season, not to mention the six or seven months of feeding required to carry them to next seasons grass? "Oh but it will rain and yet make some corn and fodder." Some fodder is possible, but corn is not. We are wisely told to plant such crops as may yet grow forage—sorghum and cow-peas. That is good, but again there are difficulties. On the 19th inst. so much rain fell that it sent the Chicago board of trade into spasms and Sedgwick and Butler counties were the greatest beneficiaries of that rain, yet to-day (July 25) the seed for that fall crop had as well be cast into an oven as a seed bed in the path of that storm. There is still another difficulty—the seed for those crops was practically exhausted last spring, but that is of no importance to men who demonstrate their theories in an ash barrel in the hind end of a town lot and intensify their operation by the sweat of their jaw. All this stuff would merit no notice except for the actual damage resulting both directly and indirectly. Men who are dazed and confounded by the unprecedented conditions are being lulled into temporary security by these oracles, and, like an army, whipped and demoralized, are waiting for their retreat to be made more difficult.

It is only logical that the average farmer should class official whom they never meet in the same list and when one makes a break that leaves the farmer in the lurch the man, who's brain and muscle are quietly producing results of incalculable benefit to farmers, will be rated with noisy impracticables and pass by, the farmers again being the losers.

Suppose we face the situation as it is and prepare for it as best we can, instead of waiting for the inevitable.

Kansas can spare several million bushels of wheat and in fact is sparing a lot of it every day while parties are hagling over the question of who shall get it out of the State. If every bushel of it remained in the State a considerable per cent of the stock that is left foodless by the corn failure could be provided for and thus save some of the congestion that is inevitable when stock can no longer be held and must be moved out or die. Our Manhattan experiments have demonstrated the value of this wheat for feed, yet it is being rushed out of the State at less than cost of production, leaving practically nothing between the splendid herds of Kansas and starvation. Yet hold your stock is heralded as the way out, while the rush of wheat to indifferent markets goes bravely on. Verily the man with a desk, a pencil and a hobby, although noisy, may do no harm but add the public ear to the combination and the scourge of drouth is multiplied. Brainard, Kans. J. M. Foy.

Hot Weather Suggestions.

EDITOR KANSAS FARMER:—In view of the prevailing stress of heat, farmers who are suffering the most, by not having crops suited to present conditions, should begin now to lay plans for the coming year. Sometimes a little adversity mixed with prosperity is a good thing in the end, and it teaches us that in order to make steady progress our future operations should be governed by past experience. The present drouth in several of the western States is by no means a rare occurrence, as such visitations have been recorded from earliest history. Atmospheric conditions, beyond the control of man, seem to be responsible for these unwelcome agents, and worst of all people seem never to have taken such precaution as would lessen the effect of these devastating periods. While one part of the country is roasting and drying up, another portion not more than 1,000 miles distant, may be at the same time hampered by excessive downpours that discourage the hay-maker and cause much damage to property. At best the human subject is never satisfied, he is always complaining of the weather, be it hot or cold, dry or wet, the same grumbling disposition seems to take possession of his faculties. To

be sure it seems somewhat hard and unjust to be ruthlessly shorn of the fruits of our toil, but so long as man inhabits this earth he must make up his mind to be content with his lot, whatever may come. Knowing that such dry spells are liable to occur at unexpected intervals, it behooves farmers to make such calculations in the preparation of soil and seeding as will allow of the least distraction from hot winds and lack of rain.

Whenever a plentiful year occurs, every farmer should lay his plans to store away more hay and grain than is needed for immediate use, and always aim at least to have part of his old corn in the crib until the new crop is assured. A few tons of hay left over from year to year will pay a larger per cent. of interest than money in the bank. Where I am at present (in Maine) every farmer trims the grass along the road side and saves it with the same care as he does in his best fields. Let the western land holder use the same thrift and economy, that when the scorching and sizzling winds come he will be able to endure with out suffering at least one off year. Another matter of great interest to those who have not already done so, is to plant alfalfa, if enough rain falls during the next six weeks, ground should be plowed and put in shape for September [August is better] seeding, and this with a favorable fall and winter will afford one or two [August seeding has already given two crops this season] crops next season of first class alfalfa hay, and besides give pasture [better not pasture young alfalfa] for growing hogs. No farmer with suitable land should miss such an opportunity; 20 acres in alfalfa at this time is better than a gold or zinc mine. If the Prophets were to be heard to-day they would command us to store up from the seven years of plenty against one year of famine. A. E. JONES, Strong, Me.

[Mr. Jones is a Kansas farmer who is on a vacation among the scenes of his boyhood.—Ed.]

Who Has Kaffir-Corn or Cane Seed?

EDITOR KANSAS FARMER:—A great public emergency exists in eastern Kansas and Missouri. The drouth is broken, but a supply of cane seed or Kaffir-corn seed can not be had. The seedsmen say they do not know of a pound to be had anywhere in the world, unless on the continent of Africa. Can not the KANSAS FARMER make an appeal to the farmers of Oklahoma, western Kansas and Nebraska to make known the presence of unthreshed stacks of cane or Kaffir-corn or urge them to step forward with food supplies of same on hand and use other foods in their place? Surely the granaries must hold some Kaffir-corn. Price is no object in the face of the fact that live stock must be sacrificed if winter forage can not be had. Every day lessens the hope of full returns, although fodder crops can be sown as late as September 1 with every prospect of good results. Let the farmers who have seed notify at once the KANSAS FARMER or the seed houses and get a high price for what they have. Regular channels are exhausted. Barteldes & Co. are shipping back to Kansas a car of Kaffir-corn sent to New York for chicken feed. They say when this is gone they can't get a pound anywhere. GEO. W. MAFFET, Lawrence, Kans.

Opposites.

First Lady Passenger: "If that window isn't opened this minute I know I shall die."

Second Ditto: "Who opened that window? If it is not shut I shall die, I'm sure."

Philosophical Gentleman: "Conductor, please keep that window open till one of these ladies dies, then shut it and give the other an opportunity to quit this vale of tears."—Boston Transcript.

An Honest Man.

Judge—You are charged with stealing a gold scarfpin of the value of \$10. Are you guilty or not guilty?

Prisoner—Not guilty, your honor. The pawnbroker said it was throwin' money to the birds to let me have more than \$2 on it.—Detroit Free Press.

A would-be smart commercial traveler on an English train the other day, thinking to tease a Salvation Army girl, asked her if she believed the story of Jonah and the whale.

"I don't know," she said, "but when I get to heaven I'll ask Jonah if it occurred."

"But," said the funny man, "supposing he isn't there?"

"Then," said the girl promptly, "you can ask him."—Ex.

Brain Markets.

Conducted by James Butler, secretary of the Farmers' Co-operative Grain and Live Stock Association.

"The human race is divided into two classes,—those who go ahead and do something, and those who sit still and say, why wasn't it done the other way."—Oliver W. Holmes.

Grain Markets to 2 p. m., July 29.

There was almost a panic in the grain market to-day, caused by the copious general rains all over the country. Corn speculators, who have made plenty of money on the buying side of corn lately, were falling over one another to get out from under corn. The weather map showed good rains in the corn belt of Iowa and Illinois, which resulted in a 3-cent decline in that cereal in the Chicago market.

The weakness in corn carried wheat down with it, and that cereal, too, declined 2 cents per bushel from Saturday's price.

There was really no reason for this big decline in wheat, the primary receipts are but little over one-half as large as last year, and the exports have been enormous lately. During the week just past exports were nearly seven million of bushels and so far this month they have been over 20 million bushels. But the manipulators are in the saddle, they are concentrated in Chicago, while the farmers and holders are scattered; and usually these manipulators force down prices immediately after harvest, when the farmer is needing money, and must sell some wheat.

We have great confidence in the ultimate prices for wheat and believe it will pay those who can hold several months to do so. Of course these sudden breaks must be expected now and then, because the grain gamblers control the situation at present. Markets were as follows:

Chicago.—No. 2 hard wheat, 66 to 66½c; No. 2 red wheat, 67¼ to 68c; No. 2 corn, 51½ to 52c; No. 2 oats, 33 to 33½c.

Kansas City.—No. 2 red wheat, 64 to 65c; No. 2 hard wheat, 63c; No. 2 corn, 57 to 58c; No. 2 oats, 42c.

Reasons Why Farmers and Business Men Should Invest in the Capital Stock of the "Farmers' Co-operative Grain & Live Stock Association" of Kansas.

- 1. It is an organization that benefits to farmers directly, and every business man in the country indirectly.
2. In building up the company you are assisting one of the greatest enterprises and industries of the State and placing the producers in a position to get the full market price of their products.
3. As an investment it will pay you from 10 per cent to 40 per cent on your money invested and at the same time save from 1 to 4 cents on every bushel of grain you sell, compared with prices paid by the combine for the last year.
4. You help build up your own State, enable your people to cease paying tribute to the Line Elevator trust, which does not have its headquarters in this State, and you also liberate the farmers from the grasp of the Grain Dealers' Association.
5. You help to place the farmers of the State in advance of any other State in the union.
6. You will in this manner educate the producers so they will ascertain the average cost of producing staple farm products and eventually enable them to fix a cost mark on their goods, the same as is now done in all other lines of production.
7. You will stimulate business within the State and prevent the Grain Combine from extorting from the people of this State millions of dollars, which it is now doing, and hoarding it up in other States to the great disadvantage of our people.

This is a business proposition for farmers and business men in Kansas and elsewhere. Our local associations are meeting with success at every point in this State where they are managed by men who are familiar with the grain business. There is not a single association that has not proved a benefit to its members and the locality where it exists. In some instances our local associations have paid the farmers from 1 to 4 cents more per bushel for their wheat than was paid at adjoining stations where there are no local associations; and yet some associations have accumulated good bank accounts and have cleared enough money in one month's time to pay for a good elevator.

Our individual members everywhere, who have consigned their wheat under

REMEMBER! Farmer's Telephones for \$11.00 Wire and poles at lowest prices. Sold outright to you. No further rent or payments. Write to Kellogg Switchboard & Supply Co., 232 S. Green St., Chicago.

our directions, have obtained from 2 to 5 cents more per bushel for their wheat than if they had sold it in the local market. There has not been a single exception reported to this office nor has there been a complaint filed.

Our individual members can consign their wheat under our directions and secure every advantage from us that an elevator company can get. Remember that by cooperating with us you get all the advantages of the State association. You are not a mere individual standing alone, but you become a member of a corporation or association that gives you strength and influence.

The difference is simply this: The local association gives you the advantages accruing from local unity of action, while the State association gives you the advantages of a larger cooperation. It is well to have membership in both. But if you have no local association you can, if a member of the State association, get all the advantages of the market every time you have a car load to ship.

Do not understand that we are not favorable to local associations where they can be had; always organize where you can do so. But where you can't organize locals you can get protection by becoming a member of the State association where you can ship in car load lots and get the same advantages that a local association would get. It is an easy matter to ship grain. Write us for full instructions. It is also a very easy matter to organize a local shipping association. It is not necessary to incorporate or own an elevator. Five men can get together, each take a share of stock in the State association and form themselves into a shipping association, order cars and ship their own grain and that of their neighbors. They can select a man to look after the ordering and loading of cars, who will attend to that line of business. If the five men have as much as a car load each of wheat to ship they will save enough money to pay for the stock taken in the State association and in addition will receive dividend on the stock held. Why not act at once? Why not stand together and better your own condition? Why not ship your grain to the firm selected by the State association and receive the benefits?

Why patronize any other commission firm when you can do better by following the directions of the State association? Patronize the State association and thereby save money for yourself and help the State association. In union there is strength. To patronize those who do not openly fight your battles is weakness. The Grain Trust and their satellites are trying to prevent unity of action in selling. Their attempt is to divide the business as much as possible and thereby weaken the farmers' movement. Are you assisting them by going it alone? Or are you patronizing your own association? Are you too near sighted to see that going it alone means ultimate failure for you and an injury to the movement in the State? Give us your assistance and enable us to assist you more. Give us your cooperation and hearty support and our word for it we will rid ourselves of the line elevators and Grain Trust in this State.

Send in your application and money for membership. Organize shipping as-

sociations wherever you can. Do not wait to build elevators, we will see to it that you get cars to ship your grain. Who will be the first member to send us an application and remit \$100 for 10 shares of stock in our association? How many will send in their application and remit \$10 each for 1 share of stock in our association by the 10th day of August?

Freight Rate on Wheat.

The table below shows the rate of freight per bushel on wheat from some of the principal wheat shipping stations in the State to Kansas City. By looking over the list of stations the reader may easily figure the cost of carrying his wheat to Kansas City. The difference in carrying wheat 20 to 30 miles farther than from the station named, does in no case cost to exceed ¼ of a cent per bushel additional. By deducting the freight rate per bushel and 1 cent per bushel commission from the Kansas City price you will have the value of your grain on track at your station.

Ablene, 8.40; Atwood, 10.20; Beloit, 9; Bison, 9.75; Colby, 10.20; Ellinwood, 9.60; Ellsworth, 9.30; Grinnell, 10.20; Hays City, 9.75; Hoxie, 10.20; Harper, 9.30; Hutchinson, 9.30; Hill City, 9.75; Kingman, 9.30; Lyons, 9.30; Lincoln, 9.30; Larned, 9.60; Minneapolis, 9; Moberly, 9.15; Marion, 8.70; Ness City, 10.20; Norton, 9.75; Newton, 9; Oberlin, 10.20; Oakley, 10.20; Osborne, 9.30; Palco, 9.60; Phillipsburg, 9.60; Pratt, 9.60; Russell, 9.60; Smith Center, 9.45; St. John, 9.60; Wakeeney, 10.20; Winfield, 9; Wellington, 8.70; Wichita, 8.70.

Read This Notice.

Until further notice we have arranged with W. T. Redmon Grain Company of Kansas City to sell our grain in Kansas City, until such time as our association has its own means to handle this business.

We will have our agent look after your shipment to above named firm. He will see to it that your grain is sold at full market value and will look after every shipment in person. You should bill your grain as follows:

To your own order, Kansas City, Kans., Notify W. T. Redmon Grain Company.

You make your draft for three-fourths value of the grain on W. T. Redmon Grain Company and also write us at Topeka, of your shipment, giving car numbers, initials, and weights of grain, so that our man can properly look after the shipment. If you are shipping any live stock write us for information. Very truly yours, JAMES BUTLER.

Make written orders for cars when placing your orders with the station agents, and keep copies of each order. It is the duty of the railroad to supply you with blanks for this purpose, and you should demand them; but if the agent has no blanks, make written orders and keep copies; this course will no doubt be of advantage to you.

Happy Father: "We've got a new baby at our house." Friend: "So? What do you call him?" Happy Father: "We don't call him; he does all the calling himself."—Detroit Free Press.

Bethany At Lindsborg, Kansas. The largest Church College of the great Southwest. Thirty-eight Professors and instructors in 12 departments, with 750 students. Four College courses, junior and senior, elective. Largest Conservatory of Music west of Chicago. Splendid Business, Normal, Art, Elocution, Shorthand, and Sloyd departments. Football, Basketball, and Baseball teams, Gymnastics, Physical Culture. Unusual offers to High School and County Graduates. New Students Mentioning this Ad. and Paper Receive Special Discount on Tuition Charges. Use the Bethany Piano and Cabinet Organs. Best instruments ever offered for the money. Catalogue free. Special discount if you mention this paper and ad. "BETHANY SONGS" free for 2 cents postage by mentioning this paper. Fine collection of four-part songs—152-page illustrated catalogue of the Institution free. Bethany is the home of the famous "Messiah" festivals, next year in May. Write to-day to the President, CARL SWENSSON, Lindsborg, Kansas.

Horticulture.

The Cantaloupe.

About this time of year the delicious Rocky Ford melons are shipped to the great markets by carloads and by trainloads. While the soil and climate of that portion of the Arkansas valley doubtless has much to do with producing the superior quality which has made Rocky Fords famous and profitable, no doubt the method of cultivation is also a factor. For the information of melon growers the following excerpts are taken from Colorado Experiment Station Bulletin No. 62, by H. H. Griffin, superintendent of the Arkansas valley substation:

The Arkansas Valley of Colorado has for some years been famous for its cantaloupes.

During the season of 1900, 780 cars were shipped, which represent the product from about 2,500 acres.

The cantaloupe is known as the "Rocky Ford" from the town that has led in the industry. The variety grown is the Netted Gem, which Burpee claims to have the distinction of originating. Through environment it has become so perfected in the vicinity of Rocky Ford as to be unsurpassed in quality, and needs only to be introduced in any market to at once take possession of it.

The melon plant is of rank growth and succulent tissue. It thrives best under conditions of high temperature, dry air, and continuous sunshine, and a deep, warm, sandy loam soil. It is as delicate in constitution as in texture. It does not adapt itself readily to varying conditions nor to sudden climatic changes, and its tissue offers little resistance to the attacks of fungi.

CULTIVATION.

The first planting is done from the first to the tenth of May; seldom any advantage is gained by putting the seed in earlier than May 1. The land is put in good condition by rather deep plowing, harrowing and leveling. Furrows are then run with a shovel plow from 6 to 7 feet apart and the seed planted by the side of the furrows, making the hills from 5 to 6 feet apart in the rows. Uniformity of planting facilitates cultivation, as for a considerable time the field may be cultivated in both directions. Care must be exercised not to plant the seed too deep. The depth should not exceed one inch.

Some growers irrigate the furrows and plant afterwards, while others plant and then irrigate, permitting the water to reach the seed by percolation. I prefer subirrigation to germinate the seed, as the soil is apt to become crusted and dry if it is handled and pressed after irrigation.

Plenty of seed should be used—from 10 to 15 seeds to each hill—and when the plants have put forth four leaves, thin to three plants for each hill. Cultivate and hoe sufficiently to secure good tilth until the vines run well, or are from 2 to 3 feet across the hill. Then the irrigating furrows should be run and cultivation cease, giving such hoeing as will keep down weeds.

SEED.

Good seed is a prime requisite for success with the cantaloupe, but not enough attention has been paid to the selection of it. Few have made any systematic selection of seed, looking well to the shape, size, depth of flesh, seed cavity, color of flesh and quality. Many have bought from dealers who knew little of the quality of seed sold, and the result is that many melons sold as "Rocky Ford" are not up to the standard. The effect of poor seed is more apparent in those districts in which there are many amateur growers, than where the older growers predominate.

A pure Rocky Ford cantaloupe when ripe should have a silver colored netting which is lace-like in appearance. The skin should be green turning to a peculiar gray color when the melon is fit for shipping. The flesh should be green in color and so sweet and luscious that it may be eaten close to the rind. The melon should have a small seed cavity and the portion of the flesh immediately surrounding it be slightly tinged with yellow. The melon should weigh about 1½ pounds and be very solid and firm.

The cantaloupe growers should save seed from the very best melons, for in this way only can the quality be maintained or improved. No grower should save seed for his planting without testing the quality of the melon. Occasionally a melon may be perfect in appearance, but not of first rate quality.

HARVESTING.

Much seed is shipped to points outside the State and the product from

this seed is shipped to market as "Rocky Ford" melons. "Rocky Ford" melons, so-called, are on the market about the time the melon is setting on the vines in the Arkansas valley. A few melons are shipped the first week in August, but heavy shipments do not commence before the middle of the month. The melons are picked into sacks, carried over the shoulders of the pickers, and are at once taken to the shade-packing sheds being made for the purpose—where they are crated. The standard crate holds 45 perfect melons, in 3 tiers of 15 melons each, and weighs about 69 pounds. There are also used, to some extent, the two-layer crate, which is two-thirds the size of the standard, and the "pony" crate holding 45 melons, but smaller than those of standard size. The standard crate is (inside measurement) 22 inches long, 12 inches wide and 13 inches deep.

When it is proper time to pick for shipment, the stem slightly parts from the melon. No stem tissue should adhere to the melon, but there should be a smooth surface where the stem was attached. The netting and skin has a peculiar grayish appearance, which is easily distinguished when one becomes accustomed to picking.

The cantaloupe is very perishable and rapid transportation, in refrigerator cars, is required. By this means melons of good quality are placed in all of the markets of the eastern States. The shipping period (from the same vines) should extend over not less than thirty days; a more rapid ripening than this is generally indicative of unhealthy conditions. As high as 300 crates per acre have been taken from alfalfa sod, but 100 to 150 crates of marketable melons per acre is considered a good yield.

IRRIGATION.

The essential thing in irrigating is to keep the water confined to the furrow, reaching the roots only by percolation. This keeps the soil in good condition, does not cover the vines with mud, and leaves the fruit in dry condition. If the water stands on the fruit it is apt to induce decay or cause uncolored or soft spots, which make the product unsalable. It is common to irrigate every ten days, paying little attention to the needs of the plant. The tendency is to irrigate too often early in the season.

The most water is required about the time the blossoms commence to set well, previous to this giving only enough to keep the plant growing well. When the plant commences to bloom profusely, irrigate thoroughly and afterwards give only so much water as will keep the plant in good thrifty condition. A too moist condition is apt to increase the spread of any fungus trouble.

In 1899 three plats were used to test the effect of irrigation on quality and production. One plat had seven irrigations, June 19, 30, July 10, August 1, 17, 26, and September 4; another three irrigations, June 30, August 1, and September 4; and a third plat one irrigation, July 10. Heavy rains occurred in July, and considerable rain fell in August.

The plat irrigated but once did not yield so heavily as the others; the vines and fruit were smaller, but the fruit was of better quality. The plats numbered one and two yielded about the same, and as far as could be judged, the quality was the same. Evidently, plat No. 1 received twice as much water as was necessary.

FERTILIZERS.

Virgin soils produce good melons both in quality and quantity, but fertilization is soon a necessity. Since fungus troubles have become annoying, it is not advisable to apply any heating manure to the soil just previous to growing cantaloupes, as it has a tendency to increase the trouble.

A comparative trial in 1899 with melons grown on alfalfa sod, on cropped land manured with well rotted barnyard manure in the hill, and on cropped land fertilized with bone dust in the hill, showed the best results from the alfalfa. The product was nearly doubled, the quality was better, and the ability to resist fungus troubles greater. Alfalfa sod brings maximum returns, and in turn the melon easily subdues the alfalfa and puts the land in splendid condition for succeeding crops.

Invading European Fruit Markets.

"The recent Paris Exposition has taught us several things," says W. A. Taylor, assistant pomologist of the department of agriculture. "We have learned that Europe is very fond of our fruits—apples and pears—and that there is a great demand for them in the latter part of winter and the early portion of spring. We have demonstrat-

- ARMSTRONG & McKEELY Pittsburgh.
- BEYMER-BAUMANN Pittsburgh.
- DAVIS-CHAMBERS Pittsburgh.
- FAHNESTOCK Pittsburgh.
- ANCHOR Cincinnati.
- ECKSTEIN Cincinnati.
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- BRADLEY New York.
- BROOKLYN New York.
- JEWETT New York.
- ULSTER New York.
- UNION New York.
- SOUTHERN Chicago.
- SHIPMAN Chicago.
- COLLIER Chicago.
- MISSOURI St. Louis.
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ed to the world that fresh fruit can be shipped from this country to Europe in a perfectly sound condition owing to the refrigerating facilities on board the ships.

"But now we intend to invade the foreign shores just as our manufacturers and farmers have done, only we must go more systematically about it. We will make experiments in September with a view of investigating several interesting points. Should the fruit, after being picked, be stored in the place of production until wanted abroad; should it be picked, shipped to a sea port—say New York—and held there until wanted in February or March, or should it be picked and then transported to the distributing point, perhaps Liverpool, and held in cold storage there until wanted for consumption? These things must all be worked out. We have the market, but we must send the fruit in a marketable condition, or our advantage in that line will go for naught.

"We also must investigate other things. Should we pick the fruit before ripe and allow it to be heaped under the trees for several weeks, exposed to sun and rain before packed in the barrels—should it be barreled immediately and stored or should it be put under shelter at once? All these things are important. We also must learn how to pack. Should each piece of fruit be wrapped separately; should they be packed in boxes or in barrels?

"At the present time several shippers may be successful with one cargo which will bring fancy prices and be sold quickly. The next will go forward under seemingly the same conditions, but will arrive in such shape as to be entirely unavailable.

"Canada carries on a sort of inspection of the shipments of fruit, and also allows subsidies for the erection of storage establishments built according to the plans of the government experts. We shall do nothing of the kind, but will act entirely in co-operation with the fruit-grower.

"I remember an instance of some inspections made by the Canadian inspectors at Montreal last year. They had opened several barrels out of each lot intended to be exported and found quite a quantity of apples in such a condition as rendered them even then unsalable at home and consequently worthless abroad.

"All of these things, you see, have some weight and we shall go along slowly in order that we may understand all varying condition and methods of handling.

"Congress in the recent agricultural appropriation bill made provision for such fruit shipments as we contemplate, and while we probably shall confine ourselves alone to experiments with pears and apples, no doubt we also will adapt ourselves to other fruits."

Experiments With the Codling Moth.

EDITOR KANSAS FARMER:—It is a very easy matter to rear this pest from the "wormy" apples found on and under the trees in June and July. The apples may be placed in fruit jars or other glass vessels where the "worm" passes into the pupa state. In a short time it emerges as a perfect insect.

If the moth is taken from the jar at night and placed in a room where there is a lighted lamp, it at once goes to the light and circles about until it falls exhausted. When rested, it repeats the experiment.

Some people have the impression that the codling moth is not attracted

to the light at night. From repeated experiments I know this view of the matter is not correct. Even when confined in a glass vessel it makes great efforts to reach the light.

A curious thing about the larva of the codling moth is that if placed in an empty bottle which is corked it invariably bores into the cork where it spins its cocoon.

When several are placed in the same bottle all of them will be found after a few hours in the cork. Some of them will bore clear through and throw some of the chips on the outside.

This may not be new to others, but it certainly was new to me.

S. A. HOOVER, A. M.
Professor of Practical Agriculture,
State Normal, Warrensburg, Mo.

A Windmill Book.

The man who knows most about windmills has written a book. It is a 40-page book, with more than 100 pictures. Every page of the book is interesting to a man who wants a windmill. Not a word will he skip. And when he is done, he will know all that anybody knows about windmills and what they should do. He can not be fooled; but the man who buys a windmill without reading this book will regret it. Simply send your address, and the book will be mailed to you free.

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In the Dairy.

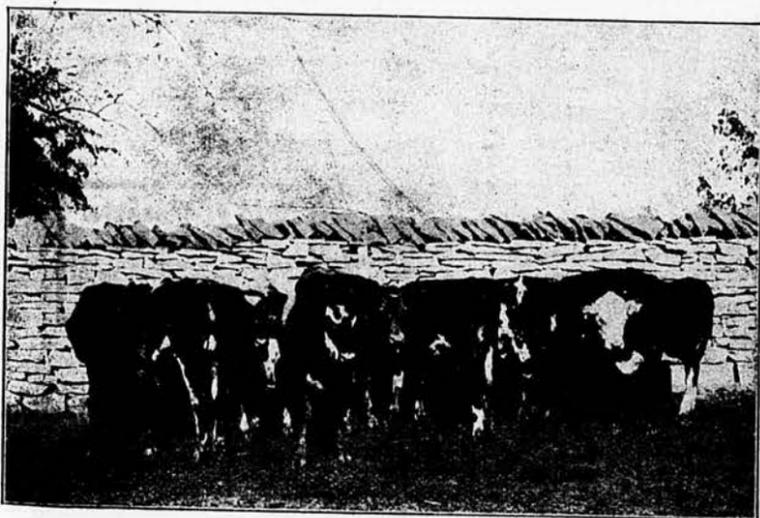
Conducted by D. H. Otis, Professor of Dairy Husbandry, Kansas Experiment Station, Manhattan, Kans., to whom all correspondence with this department should be addressed.

Threefold Calf Experiment at Kansas Experiment Station—1900.

Not satisfied with raising calves on skim-milk alone, in the spring of 1900 the Kansas Experiment Station started a threefold experiment. Twenty head of well formed beef calves, most of which were purchased in or near Manhattan, were secured and divided into two lots of 10 calves each. These calves were largely grade Shorthorns, with a few grade Herefords and Angus. The first lot was fed on sterilized creamery skim-milk with a grain ration composed of equal parts corn and Kaffir-corn-meal with all the alfalfa hay they could eat. The second lot was fed the same as the first with the exception of whole milk being used in the place of skim-milk. Each lot was fed all the milk the calves would consume without scouring and all the grain and hay they would eat. Both lots had access to a small pasture. In addition to these two lots the station secured the privilege of weighing 22 head of calves which were running with their dams. These calves belonged to a prominent Riley county farmer, who had them in a pasture near the college. They were all high grade Herefords and excellent specimens of their breed, and although their ages could not be told exactly their weights indicated that they were a little older than the calves in the other experiments. In respect to uniformity, age and breeding this latter lot had a little the advantage over the others. In the first two lots the calves were weighed each week, in the latter lot only three times during the summer. This experiment has been watched very closely and the results given herewith are both interesting and instructive.

CALVES ON SKIM-MILK.

It took about five or six weeks to pick up 10 head and get them changed gradually to skim-milk. At the beginning of the experiment, May 16, these calves averaged 110 pounds per head. The experiment lasted for twenty-two weeks, until the calves were six months old. During the period the 10 calves consumed 24,736 pounds of skim-milk, 1,430 pounds of corn chop, 1,430 pounds of Kaffir-corn-meal, and 641 pounds of alfalfa hay. On this feed they gained 2,331 pounds, or a daily average of 1.51 pounds per head. Figuring skim-milk at 15 cents per 100 pounds, the grain at 50 cents per 100 pounds and hay at \$3.00 per ton, the total feed cost of raising these calves was \$52.36, or \$5.23 per head. Allowing \$2.75 per head as the cost of labor we have a total cost for each calf during the experiment of \$7.98.



Skim-Milk Calves.

Average daily gain per head 1.51 pounds; cost per 100 pounds of gain, including labor, \$3.42.

For each 100 pounds of grain these calves consumed 1,061 pounds of skim-milk, 122 pounds of grain, and 27 pounds of hay. The feed cost per 100 pounds of grain amounted to \$2.24, the labor \$1.18, making a total of \$3.42. For each 100 pounds of grain these calves consumed 64 pounds more milk, 13 pounds more hay but 75 pounds less grain than the previous lot, recorded in the FARMER for July 18. The profits realized from feeding skim-milk, the results with whole milk, and from allowing calves to run with their dams will appear in subsequent articles.

D. H. O.

Wants a Balanced Ration for Milch Cows.

S. W. W. Hammond, Bourbon county, Kansas, writes: "How much each of clover hay and corn per day would make a balanced ration for milch cows? Also how much soy-bean-meal and sorghum hay would make a balanced ration?"

Clover hay is not rich enough in protein to make a balanced ration with corn alone. It can be made however by the addition of ground oats or a little soy-bean-meal. An excellent ration for a milch cow can be had by using twenty-five pounds of clover hay with eight to ten pounds of grain, composed of one part corn and three parts oats. Another good ration would be the same amount of clover hay with a grain mixture of six parts corn and one part soy-bean-meal.

With sorghum hay it is impossible to form a balanced ration without buying some concentrated feed. Doubtless the nearest approach to it is to give the cow all the sorghum hay she will eat with eight to ten pounds of grain daily composed of one part oats, two parts soy-beans, three parts corn chop, and three parts cottonseed-meal. Another good grain ration to feed with sorghum hay is a mixture of equal parts oats, bran and cottonseed-meal. D. H. O.

Points Well Worth Considering.

In a private letter to the dairy editor Euclid N. Cobb, of Monmouth, Illinois, commonly known as "Buff Jersey," has the following to say concerning his dairy work in Illinois and the possibilities in Kansas. While some of these suggestions may not help our Kansas dairymen out of present troubles the suggestions in regard to the silo may help them from being seriously affected by another dry spell, and while preparing for a dry spell they will be doing the very thing that will help them to make the most money in favorable seasons. Mr. Cobb says: "Dairy and farming operations are running along smoothly with us with a well stocked silo. Those who are handling cows without it find pretty rough sledding. We are selling from our herd weekly from \$100 to \$115 worth of cream at \$1.60 per gallon; so you can readily see that our 40 cows and heifers are paying us a good price for stalk and all. Not a cent of the above goes for hired help, it all goes to the Cobbs.

Clover hay has been a failure here for the past three years but we do not want it as we have something better, Canada peas and oats, southern peas, and soy-beans. Canada peas are cured finely and stored in the barn. I hope you will give the silo more of your attention. Kansas stockmen and dairymen need it badly. Just imagine every dairymen of your State having a silo just at the present time well filled with ensilage—he would be in the swim sure enough. We now have filled our full year's feeding from 55 acres of corn

hogs and 200 hens. I say hens as they got all they would eat during winter, three and four bushels per day. Can you tell me where 55 acres of crops could be put to yield such returns, and our land is not of the best either. This year we have 70 acres of corn and 12 of sorghum, two Deering corn binders and plenty of silo room."

Fighting Creamery Fires.

The writer wishes to call your attention to a plan whereby it will be impossible for your creamery or cheese factory to burn in case you have any steam at the time of the fire. The plan is very simple.

Arrange your factory so that you can turn steam into all your rooms, if it has an attic, be sure and run one pipe through the ceiling, so you can turn live steam into that in case the roof catches fire. Fix so you can turn the steam with a valve from below. Fully 50 per cent. of all the factory fires occur between 6 a. m. and 1 p. m., while there is ample steam to put it out easily. Most factories catch fire on the roof or near the roof in the boiler room and some in the cupola.

In case the factory is discovered on fire, either inside, outside, or on the roof, the thing to do is to take it cool. Turn the live steam into all the rooms and then close up all the doors and windows and let everything stay inside. Keep all the doors and windows closed and do not try to get things out, it cannot burn, the steam will consume all the oxygen and the fire will go out. If the fire is on the roof fill all the rooms the same and be sure and turn the valve to let the steam into the upper part. This will reach the shingles and the fire will not make any headway. You should have a ladder so that you can get on the roof after turning on all the steam and closing up all the windows and doors. Arrange so that all the windows can be closed from the outside if necessary.

The live steam on the inside will fight the fire better and more successfully than all the fire companies in the county. Of course the fire on the roof needs attention, and a few buckets of water handled carefully will soon get it under control, if taken in time; but it is a risky chance, and the proper thing to do is to have one or two steam pipe connections on the outside of the building, so from one or the other you can at any time attach a steam hose long enough to reach any roof on the creamery or additions attached thereto. The end of the hose needs a nozzle on it, so that you can turn the stream on as needed. Take the end of the hose, get upon the roof and use the steam the same as a stream of water, and you will be pleased with the way it puts the fire out.

There is no need of any more factories burning while steam is up. I will be but little short of criminal negligence to allow it. You say: "It will cost a few dollars to fix my factory." Suppose it does. Your insurance only covers up about two-thirds of the value of your plant, and in most cases, when you figure everything, including the loss of patrons on account of not being able to put the new factory up short of three or four weeks, you will find your loss double the amount you paid on insurance. This small expense will be worth many times its cost on account of the greater precaution it will throw round your factory.

Do not fail to fix your creamery as above, and as early as possible. If fire overtakes you before you have done this, be sure and remember that if the fire breaks out in any room that you can reach with your steam hose, you can fill the room all right. In all cases leave the steam turned on.

You understand in all the above cases you are to turn the steam on, leave the valve in that condition and close up the room. Live steam will continue to fill the room, and, in the event of a long fight, your buttermaker and the steam will be sure to come out victorious.

W. S. Furnas, in Creamery Journal.

A Kansas Boy to the Front.

A year ago Ed. H. Webster, who was assistant in dairying at the Kansas Agricultural College, went to Ames, Iowa, to the agricultural college and accepting a similar position there became also the student of Prof. G. L. McKay, who is beyond any question the foremost buttermaker of the American continent. Out of 829 packages of butter entered in competition at the National Buttermaker's convention at St. Paul last winter Mr. Webster's butter was that receiving the highest score. It is the opinion of the Dairy Age that Mr. Webster ranks next in his profession to Prof. McKay. He is Kansas bred and educated, and Kansas could not af-



ford that his energies be devoted to the building up of the butter business of other States. Mr. Webster on June 1 became connected with the Continental Creamery Company, of Topeka, at which place he is taking care of the scientific end of more than 25,000 pounds of butter manufactured daily.—The Dairy Age.

Local Dairy Meeting.

The Berryton Dairy Association will meet at Berryton Hall, August 8th at eight o'clock p. m. There will be important business to transact at this meeting. The presence of all persons interested is earnestly solicited. By order of the Association.

J. M. ELSTON, Secretary.

Alfalfa on many farms has proven itself a friend in time of need this season. Most fields produced a heavy first crop and a fair second crop before the dry weather set in. Two crops in one season would not be bad, but late rains are sure to produce a good third crop. More alfalfa is what the Kansas farmer wants and must have.—The Dairy Age.

Deafness Can Not Be Cured

by local applications, as they can not reach the diseased portion of the ear. There is only one way to cure Deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous lining of the Eustachian Tube. When this tube gets inflamed you have a rumbling sound or imperfect hearing, and when it is entirely closed Deafness is the result, and unless the inflammation can be taken out and this tube restored to its normal condition, hearing will be destroyed forever; nine cases out of ten are caused by Catarrh, which is nothing but an inflamed condition of the mucous surfaces.

We will give One Hundred Dollars for any case of Deafness (caused by catarrh) that can not be cured by Hall's Catarrh Cure. Send for circulars, free. F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75c. Hall's Family Pills are the best.

As She Remembered Him.

Mr. Skimmerhorn (as the participants in the debate became personal)—I was a thundering fool when I asked you to marry me. Mrs. Skimmerhorn—Well, you looked it, dear.—Chicago Tribune.

A Mild Attack.

"I think I've heard of one man who died of sea-sickness." "Heavens! I hope I won't." "Oh! you're not very bad, or you wouldn't care whether you'd die or not!"—Puck.

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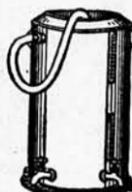
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The Poultry Yard.

Some Figures as to Egg Production.

C. F. Thompson of New Hampshire gives in the "Poultry Monthly" some results from 600 Brown Leghorns hatched during the last half of April. First, all under-sized or otherwise objectionable specimens were discarded. Then about 200 of the choicest, highest scoring birds were picked out to reserve for breeding, exhibition or sale. Then 300 of the largest left, all choice, healthy, well-matured birds, were dubbed of three-fourths of comb and wattles, a dash of alum water applied to prevent excessive bleeding.

They were put into permanent homes in flocks of 50 each, with no males, and with free range. An egg-stimulating diet was started, and by November 1 eggs were coming in plenty. The actual cost of production to this point was not over 40 cents per head, but as they possessed a selling value of 50 cents each, they are figured so November 1. From that date all eggs were credited at price received, and food charged at cost. On the first fall of snow, after the ground was frozen, the houses were drawn to a sheltered location between hills, and placed not more than two rods from each other, facing the south as before. Six inches of dry gravel were put on the floor of each house, which was rather small for 50 fowls, and would hardly do for larger breeds, being only 10 by 15 feet. The fowls were allowed to go out on mild days whenever there was bare ground around the houses.

From December 1 to March 15, the first thing in the morning, before daylight, an eight-quart pail of mixed grains was scattered into the straw and chaff that covered the floors on top of the gravel. Immediately after this the drinking founts were partly filled with warm water. This brought the hens into exercise as soon as they came off the roosts, instead of moping around, cold and hungry, while waiting for a warm breakfast, and gorging themselves with the same.

Meantime the hot mash was being prepared, consisting of mixed ground grains and cooked vegetables, varied so that no consecutive meals are exactly alike, except in the matter of potatoes. Small ones which ranged in price from 15 to 25 cents per bushel were used. They were washed clean and boiled or steamed until just done, then mashed, adding at same time the grains, meat scrap, egg food, sulphur, etc. Mr. Thompson used sulphur once in two weeks, three pounds for 300 hens; cayenne pepper daily, beef scrap, say 12 quarts for 300 hens, except on mornings when fresh beef was fed, which was twice a week.

As the potatoes are mashed add what grain the steam and moisture will wet and leave covered for about half an hour. The grain will cook and swell some in that time, and a small amount of bran or meal will be needed to bring to the crumbly, dry state desirable for feeding. Never feed quite all that would be eaten, and give in V-shaped troughs on the floor, and hang on nails on the sides of houses after using. Twice a week, for laying stock, were added to the mash, beef heads boiled until the meat fell off from the bones, and meat and liquor well mixed in. Chopped onions were added often, and skim-milk nearly every two days. There is no stock that pays better than poultry to feed milk to.

The next thing done was to give the daily allowance of green food, usually two or three small loose cabbages to each house, suspended about two feet from the floor. A light sprinkling of plaster was put over droppings on platform, under roosts, which were cleaned off entirely once a week, and kerosene poured over roosts and bearings, and roosts inverted. Old litter on floor was removed weekly, and replaced by fresh about six inches deep, small amounts of shaff, however, being put in nearly every two days, and one bushel of fresh gravel dumped on each floor weekly. Oyster shell, grit and crushed bone were kept constantly in a box on side wall. The hens found all the dusting places they wanted in the corners and along the sides.

At noon drinking founts were replenished with warm water and mixed whole small grains scattered into litter all over floor. At roosting time, what whole corn would be readily eaten was given in the troughs, and eggs were gathered, drinking founts emptied and shutters closed. Douglas mixture, as well as asafetida, was often used in the drinking water, and the food given was all good.

The pullets in coming to winter quarters were nearly all laying, and were

kept at it through the cold weather by the exercise and internal heat with stimulating as well as nutritious, egg-making diet. No artificial heat was used, but plenty of sunshine through the glass in south side of houses; they were kept warm at night, also, by closed shutters over all glass and door, and also closed ventilators in severe weather.

Early in March the houses were placed far apart again. Being non-sitters, the hens laid quite well all through spring and summer, getting insect food after May 1, and by August being about ready to let up for a rest and early moult, they were quickly fattened and dressed. They came to the block in good time for mountain hotel trade, and were as good as spring chickens, being plump and tender, dressed three and one-half pounds each, and brought 18 cents per pound. So we have the following statement:

DR.	
To 300 pullets November 1, 6 months old, at 50 cents.....	\$150.00
To feed 9 1/2 months, per hen, \$1.75.....	\$525.00
To care 290 days, at 40 cents.....	116.00
To balance, profit.....	700.00
Total.....	\$1,491.00
By 186 eggs, 15 1/2 dozen per hen, average price 28 cents, \$4.34 per hen, 300 hens.....	\$1,302.00
By 1,050 pounds poultry, dressed, at 18 cents.....	189.00
Total.....	\$1,491.00
Average profit per hen, 9 1/2 months, \$2.38 1/2.	

No credit was given for droppings, worth, probably, 25c. per hen, but they are considered as an offset against our personal supervision, care, etc. The same man worked for Mr. Thompson 15 years at \$15 per month and board.

Mr. Root's Fighting Rooster.

I wish to say a word, however, about that pugnacious rooster. He chases Mrs. Root out of the poultry house and he actually sent me off limping and with a wry face this morning. I was fixing a nest for a hen that wanted to sit. I thought he could not do much harm anyway, but he flew at my knee and struck it with both feet and with both wings, so that I was glad to beat a retreat. Now, I never before heard through any of the poultry journals of a rooster that would attack its keeper. After my knee got over hurting I tumbled him over and over in the grass and gave him a pretty good cuffing, and after some time I succeeded in getting him to run. Then I chased him out and in among the beehives until I thought he was conquered, but in a little while he was crowing lustily and wanted me to stop my work and engage in another "round." Now, then, does this trait of that particular fowl necessarily indicate unusual vitality, vigor, as well as courage? Will his chicks likely inherit this vigor? I think he would give a chicken hawk a pretty good tussle. He is not afraid of anything or anybody. Everything has to get off the walk and go around him—that is, when he is among his group of six pullets. If they are not around he does not care particularly about fighting. He regards the poultry house as his special domain, and he evidently thinks the eggs were not laid to be gathered. They are to hatch chickens. Now, is he a sport among poultry, or "are there others"? He will take a little run and spring high enough to knock a dish out of one's hands and give your hands and elbows such a thumping you will be glad to back off. I have heard of people who would go for you in a fight with "both feet." Well, he uses not only both feet, but both wings.

Later.—I have finally got three setting hens and they are behaving nicely in the trap nests. When I set one of them I carried out a basin of eggs. I had just got them put under the hen all right and had straightened up when "that rooster" made a spring, knocked the basin out of my hands, and not only the basin, but my nose glasses, too, went tumbling in the dust. Then he tipped his head to one side and gave me a look that evidently meant, "These sitting hens belong to me, and I propose to run this thing myself."—A. I. Root, in Gleanings in Bee Culture.

WEEKLY WEATHER CROP BULLETIN.

Weekly weather crop bulletin of the Kansas Weather Service, for the week ending August 1, 1901, prepared by T. B. Jennings, Station Director.

GENERAL CONDITIONS.

The temperature continued high through the week, but with some relief the last days, which was specially marked in the central eastern counties. Light showers occurred in nearly every part of the State, with fine rains in the central eastern counties the last days; some of the other counties report good rains falling as the week closed.

RESULTS.

EASTERN DIVISION.

The lower temperature, showers and damp atmosphere have materially improv-

ed the outlook, and with seasonable rains many counties will produce from one-fourth to one-half a crop of late corn. Pastures had dried out so that many had commenced feeding, new wheat being used in some counties for that purpose, but in many of the central counties pastures are showing a slight improvement. Apples have improved in Crawford and are holding well in Morris. Peaches have improved in Crawford. Plowing for fall wheat has begun in Crawford and Wilson, and in some of the other counties for late forage crops. The third crop of alfalfa is in bloom in Chase, but it is short.

Allen County.—Showers of the week have revived late corn and Kafir and part of a crop is expected. Anderson.—Lower temperature and light showers have afforded some relief. Hay about all cut, threshing nearly completed; cattle remaining in pastures need feed, which is unattainable. Atchison.—Some rain in south part, none

well though slowly drying; local showers, with more rain may yet have a fair crop as the late corn is still green.

Montgomery.—Week ends with cooler and cloudy weather; local showers; corn still holding well; pastures improved.

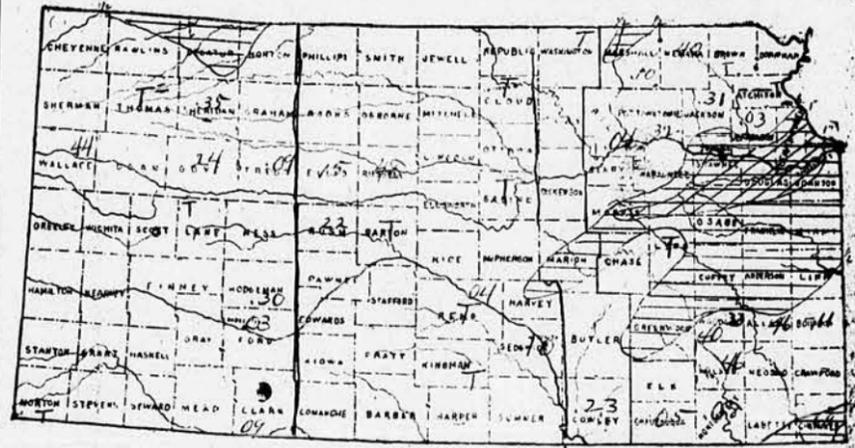
Morris.—Corn standing the drouth remarkably well except where too thick; Kafir and cane look fine; millet poor stand and very short; winter apples holding well; pastures brown.

Nemaha.—Many local showers; corn recuperating somewhat and promises fair crop, though much of it is beyond home; some grass freshening, much of it dead; wheat, very good yield; some oats fair.

Pottawatomie.—Will get some corn and enough fodder if rains continues.

Shawnee.—Hot winds on 24th hurt late corn in northwest part; late corn stood the drouth well and with a few more rains will make half a crop; new wheat being fed; a large acreage being devoted to late forage crops.

RAINFALL FOR WEEK ENDING JULY 27, 1901.



SCALE IN INCHES. Less than 1/4. 1/4 to 1. 1 to 2. 2 to 3. Over 3. T. trace.

In north; corn outlook very poor; all fruits badly affected by the heat; stock being sacrificed for want of pasture.

Bourbon.—No improvement in the drouth conditions.

Brown.—Wheat continues to show good yield and quality as threshing progresses; there is hope for a partial crop of corn if rain comes soon; generally abundant water for stock, but pastures are dry; some cattle being shipped to market and some to better feed.

Chase.—Growing cooler as week closed; pastures getting very dry, but stock water still holding out; third crop alfalfa blooming, but very short, second crop, where left for seed, filling well; early corn commencing to fire at the bottom, but late corn still remaining green.

Chautauqua.—North and east part of county had fine rain.

Cherokee.—Fair to good rains over two-thirds of county; corn prospect a light half crop; wheat yield continues good, generally testing 60 to 63 pounds; oats 5 to 48 bushels per acre of good quality; flax yielding mostly 3 to 5 bushels per acre.

Coffey.—Cooler at close of week, with good showers that will benefit fodder and pasture very much.

Crawford.—Light showers and cooler; corn has revived and promises a yield of good fodder with a little grain; plowing for wheat has begun; the change is improving peaches and apples.

Elk.—Some relief from the heat last of week, but no rain; corn fodder being cut; prairie hay very light; farmers feeding wheat to stock.

Franklin.—More hopeful since the rains, planting and sowing being rushed.

Greenwood.—Corn and fodder have held out better than supposed; the late rain will help to make about a fourth of a crop of corn; with more rain the later fodder crop will be good.

Jackson.—Wheat threshing about over, the grain will be used for feeding.

Jefferson.—A few light local showers; corn crop diminishing; many stock cattle shipped out; a fine rain falling as week closes.

Johnson.—Rain came too late to benefit corn much, but will help pasture.

Leavenworth.—Good, refreshing rains; corn still green; pastures and meadows dry; peaches ripening, one-half size; stock being fed.

Lyon.—Some corn is all right yet, the light showers perhaps will save it.

Marshall.—Corn is holding remarkably

Wilson.—Plowing for wheat begun; some corn being cut for fodder, some not make fodder; late corn in the low land will make about half a crop.

Woodson.—Recent rains helping late corn considerably; farmers planting a large amount of late forage for rough feed.

MIDDLE DIVISION.

Butler, Harvey, Reno, and Kingman report the corn as about gone. In Cloud and Dickinson late corn on bottom lands would still make part of a crop with seasonable rains. Part of the corn is still green in Jewell. The late corn is in a critical condition in Republic and in bad condition in Washington; it has been helped by showers in Cowley, while in Sedgwick there is a prospect of one-third or less of a crop. Pastures generally are dry. Forage crops have been damaged some though generally holding out fairly well. Fruits have suffered, though in Cowley apples are hanging on well. Plowing for wheat has begun in Barton and Cowley.

Barton.—Kafir and sorghum, which have stood the drouth, are badly damaged and

POULTRY BREEDERS' DIRECTORY.

HIGH-SCORING, PRIZE-WINNING, Cornish Indian Games, W. P. Rocks, Black Langshans. Eggs \$1 per 12. Mrs. J. C. Strong, Moran, Kans.

HENS Setting 6 days instead of 21, and how to make \$500 yearly with 12 hens. 45 Medals, etc., for Wonderful Discovery in horse manure heat. Particulars for stamp. Scientific Poultry Breeders' Association, K Masonic Temple, Chicago.

GEM POULTRY FARM—C. W. Peckham, Proprietor, Haven, Kans. Buff Plymouth Rocks, 2 flocks. Eggs from best flock \$2 per 15. A few choice cockerels for sale. Pea Comb W. Plymouth Rocks, 2 flocks. Eggs from best flock \$2 per 15. A few choice cockerels for sale. M. B. Turkeys, 2 grand flocks. Eggs \$2 per 11. Young toms for sale.

200-Egg Incubator for \$12.00

Perfect in construction and action. Hatches every fertile egg. Write for catalogue to-day. GEO. H. STAHL, Quincy, Ill.

EGGS .. For .. Hatching.

From Pure-Bred, High-Scoring, Prize-Winning, WHITE AND PLYMOUTH ROCKS, BARRED...

13 for \$1; 30 for \$2; 50 for \$3; \$5 per 100. Recipe for making and using Liquid Lice Killer, 25 cents. Write for descriptive circular.

T. E. LEFTWICH, Larned, Kansas.

STANDARD POULTRY.

Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Buff Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, Brown Leghorns, and Belgian Hares. All Our Breeding Pens of this season at Bottom Prices, also Spring Chicks. Prices now less than half of winter prices. Fine Exhibition and Breeding Stock of Rare Quality. Write Me Your Wants. Circular Free. A. H. DUFF, Larned, Kansas.

BELGIAN HARES...

Belgian hare fry beats chicken, and a good breeding pair of hares will keep you supplied all the year round. I can supply you in the finest breeding stock at \$3.50 per pair; \$5 per trio, until further notice.

A. H. DUFF, Larned, Kansas.

CASH PRIZES

For Poultry Raisers.

Believing that fresh cut Green Bone is one of the greatest aids to successful and profitable poultry raising, the publishers of this paper will pay a cash Prize of \$10 for the best article, not exceeding 500 words in length, on

The Use and Value of Fresh Cut Green Bone as Poultry Food.

CONDITIONS.

The article must be written by one who has had actual experience in the cutting and feeding of bone. The name of any special bone cutter must not be mentioned in the article. The article must be in our hands on or before August 15.

Announcement of the prize winner will be made in our first issue in September. Articles submitted will become the property of this paper.

\$100 CASH PRIZE. Other agricultural papers are making the above offer. Each paper will award one \$10.00 Cash Prize. The articles winning these \$10 prizes will then be submitted to a committee of competent judges (to be announced later), who will select the best article of all, for which a Grand Prize of \$100 will be paid. Every one of our readers who is familiar with the use of cut green bone stands a chance of winning these prizes. Send in your article at once.

Address GREEN BONE PRIZE, Care KANSAS FARMER.

Time extended for above mentioned articles, to September first.

the crops will be very short; corn is gone and is being out for fodder; haying begun; plowing for wheat has begun, but rain is needed to do good work.

Butler.—Cooler, last days, with local showers doing much good; stock water scarce; pastures dried; corn almost a total failure in eastern part; gardens gone; apples falling badly; Kafir and cane holding on well yet.

Cloud.—Corn, grass and fruits drying up; rain would help corn on bottom lands.

Cowley.—Showers have helped corn in localities; a good general rain would help late corn; pastures holding out well, but needing rain badly; plowing for fall wheat begun; apples hanging on well; water melons light crop and small size.

Dickinson.—Rain would give some corn on bottom land; Kafir and sorghum would make fodder should rain come soon.

Edwards.—Good showers on 26th; corn in rain belt will make one-fourth crop; grass short; stock generally in good condition.

Harvey.—Heat oppressive; cooler with showers last days; will be no appreciable amount of corn in county; fodder crops and pastures will be helped by the rains.

Kingman.—Threshing progressing rapidly; corn about gone; little hope for even a partial crop; fruits drying up on trees and falling badly.

Jewell.—Part of the corn is still green and would make a little grain with rain soon; but most of it is past hope; some cattle driven out of county for pasture; drouth ruining peach crop.

Lincoln.—Pasture and water falling rapidly; nothing being done but threshing; wheat not yielding as well as expected.

Ottawa.—All farm work at a stand still except threshing; pastures dry enough to burn; water scarce in some localities; fruit prospects very poor.

Phillips.—Grass and water vanishing with heat; trees and shrubbery dying; fine rain falling as week closes.

Reno.—Threshing continues; wheat turning out well; oats light; corn past help, will make no grain and the fodder is beginning to dry up; Kafir and cane holding out fairly well, but not growing much.

Republic.—Early corn gone; late corn in a critical condition; Kafir-corn stands it pretty well; hard on spring sown alfalfa.

Rush.—Relief came night of 26-27th; threshing continued all week; nearly all of the wheat being marketed, some yields as high as 15 bushels reported; little plowing done yet, will begin in earnest when the rains come.

Russell.—The drouth was relieved by showers on the 27th; indications point to more rain.

Saline.—Some light local showers Friday night.

Sedgwick.—This week completes the 33th day of continuous hot weather; the prospect is about one-third or less of a corn crop; hay is poor; pastures very dry; stock water nearly gone; apples feeling the drouth, but still hang on.

Smith.—Some farmers are cutting corn, others are feeding it to their stock; wells going dry; threshing about done.

Stafford.—Threshing progressing with yields of 15 to 30 bushels per acre.

Washington.—Late corn in bad condition.

WESTERN DIVISION.

In Ford, Hodgeman, Sheridan, and Decatur the late corn promises a partial crop. In Ford the early corn has been cut for fodder. Grass has revived some in Decatur. Forage crops are giving promise in Kearny, Lane, Norton, and Thomas, but in Ness they have about dried up. The third crop of alfalfa is nearly ready to cut in Ford and though not as heavy as the first will make good hay. Cattle generally are in good condition.

Clark.—Buffalo grass very short; prospects for feed for cattle very poor.

Decatur.—Showers the past week have given some relief; Kafir-corn good; corn in much better condition than seems possible; a half crop of corn still possible; grass reviving some.

Ford.—Late, deep listed corn looks very well; early corn cut for fodder; third crop of alfalfa nearly ready to cut, not as heavy as first, but will make good hay; cattle in good condition; heavy local showers last two days; good rain falling as week closes.

Gove.—Local showers, not enough to do much good; corn about a failure; cattle doing finely.

Hodgeman.—A little cooler and a few light showers, not enough to do much good; late corn and Kafir green yet, and corn fairly well tasseled.

Kearny.—Still dry; local showers in northwest and southeast parts of county; corn gone; would still be good crops of cane Kafir, maize, and Jerusalem corn with rain soon.

Lane.—A few local showers; some feed is being cut, but most of the forage crops are standing the weather well; all stock thriving.

Morton.—Light showers keep grass and forage green in parts of the county, but the largest part is ready to burn.

Ness.—Corn a failure; feed crop dried up; range grass dry enough to burn; prairie fires numerous; fruit cooked on trees; fruit and forest trees dying.

Norton.—A few light local showers during the week; fodder crops still promising; streams dry, but plenty of water in wells.

Rawlins.—Has been growing cooler; heavy rain in northwest part of county; crops beyond help except making new fall pasture; threshing in progress; yields from 1/2 to 2 bushels per acre.

Sheridan.—No general rain, but some good thunder showers; parts of the county will make some good corn, and all the county may if the rains keep coming as the corn has a dark green color; threshing has commenced; some wheat good, some poor.

Thomas.—Heat not so intense, some local thunder showers, and more clouds; second alfalfa crop has been cut and is very good; Kafir and cane being damaged some, but would make fair crops with rain soon.

Trego.—Water still getting lower; threshing progressing rapidly; Russian thistle growing along railroad track and in adjoining fields.

Wallace.—Some few local showers; corn firing; range grass cured; cattle doing fairly well; gardens dry; very little vegetation; wild hay crop light.

For Safe-Keeping.

Mr. Fijit—Say, that's the rottenest tobacco I ever smoked! Mrs. Fijit—Oh, George, you're smoking up my fancy silk! I put it in your tobacco jar for safekeeping.—Ohio State Journal.

MARKET REPORTS.

Kansas City, July 29.—Cattle—Receipts, 4,767; calves, 336. The market was strong 10 to 15 cents higher on beef steers and 25 to 40 cents higher on stock cattle.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include 31, 71, 41, 1, 37, 44, 17, 2.

WESTERN STEERS. 37.....1162 5.15 60.....1198 4.70 44.....933 4.30 62.....1109 4.20 17 stk.....876 2.95 44.....994 4.10 2.....430 2.30 10 stk.....876 2.85

TEXAS AND INDIAN STEERS. (Quarantine division.) 136.....917 3.65 52.....955 3.70 13.....914 3.65 133.....942 3.60 34.....770 3.15 58.....768 3.05 111.....750 3.05 31.....826 3.00

TEXAS AND INDIAN COWS. (Quarantine division.) 8.....798 2.90 20.....746 2.75 22.....682 2.75

WESTERN COWS. 17.....707 2.65 27.....819 2.65 24.....840 2.50 1.....820 2.50 62.....828 2.00

NATIVE HEIFERS. 3.....786 4.25 6.....691 4.00 8.....750 3.25 17 c&h.....878 3.15

NATIVE COWS. 2.....1240 3.00 23.....824 2.60 13.....730 2.70 4.....897 2.40 2.....735 1.75 3.....883 2.35 2.....895 1.50 7.....948 2.25

NATIVE FEEDERS. 1.....1060 3.85 16.....1062 3.80 64.....977 3.60 2.....920 3.40 8.....900 3.40 12.....916 3.25 1.....900 3.15 1.....980 3.00

NATIVE STOCKERS. 4.....787 4.25 12.....550 3.65 58.....845 3.50 19.....816 3.50 13.....852 3.45 5.....870 3.45 37.....801 3.25 4.....577 3.35

Hogs—Receipts, 8,644. The market was generally 10 cents lower. Representative sales: No. Av. Price No. Av. Price No. Av. Price 74. 242 \$5.85 68. 256 \$5.82 48. 256 \$5.80

Chicago Live Stock. Chicago, July 29.—Cattle—Receipts, 17,000. Good to prime steers, \$5.35@5.90; stockers and feeders, \$2.25@4.30; Texas steers, \$3.00@4.50.

Hogs—Receipts, 56,000. Mixed and butchers, \$5.45@5.75; bulk of sales, \$5.60@5.70.

Sheep—Receipts, 19,000. Good to choice wethers, \$3.80@4.25; western sheep, \$3.25@4.00; native lambs, \$3.00@5.40.

St. Louis Live Stock. St. Louis, July 29.—Cattle—Receipts, 5,000. Native steers, \$3.50@5.75; stockers and feeders, \$2.50@4.25; Texas and Indian steers, \$3.10@4.15.

Hogs—Receipts, 3,000. Packers, \$5.40@5.60; butchers, \$5.65@5.85.

Sheep—Receipts, 1,000. Native muttons, \$3.00@3.50; lambs, \$4.00@5.00.

Omaha Live Stock. Omaha, July 29.—Cattle—Receipts, 1,300. Native beef steers, \$4.00@5.75; western steers, \$3.75@4.75; Texas steers, \$3.50@4.50; stockers and feeders, \$2.75@3.60.

Hogs—Receipts, 4,500. Heavy, \$5.50@5.65; bulk of sales, \$5.45@5.50.

Sheep—Receipts, 8,500. Common and stock sheep, \$2.50@3.00; lambs, \$4.00@5.00.

Kansas City Grain. Kansas City, July 29.—Wheat—Sales by sample on track: Hard—No. 2, 63c; No. 3, 62@63c.

Soft—No. 2, 64c; No. 3, 63c. Mixed Corn—No. 2, 57@58c; No. 3, 56c. White Corn—No. 2, 58c; No. 3, 57c.

Mixed Oats—No. 2, 41c; No. 3, 41c. White Oats—No. 2, 41@42c; No. 3, 43c. Rye—No. 2, nominally 64c.

Prairie Hay—\$8.00@14.50; timothy, \$8.00@14.50; clover, \$12.00@13.00; alfalfa, \$12.00@14.00; straw, \$5.50@6.00. Linseed oil cake, car lots, \$30.00 per ton.

Chicago Cash Grain. Chicago, July 29.—Wheat—No. 2 red, 68c; No. 3, 67 1/2c; No. 2 hard winter, 67 1/2c; No. 3, 67c; No. 1 northern spring, 68c; No. 2, 67c; No. 3, 65@67c. Corn—No. 2, 51 1/2@52c; No. 3, 51@51 1/2c. Oats—No. 2, 32 1/2@33 1/4c; No. 3, 32 1/2c.

Futures: Wheat—July, 66 1/2c; September, 67 1/2c; October, 68 1/2c. Corn—July, 51 1/2c; September, 52 1/2c. Oats—July, 32 1/2c; September, 32 1/2c.

St. Louis Cash Grain. St. Louis, July 29.—Wheat—No. 2 red cash, elevator, 65c; track, 66@66 1/2c; No. 2 hard, 66@67 1/2c. Corn—No. 2 cash, 53 1/2c; track, 53 1/2@54 1/2c. Oats—No. 2 cash, 36c; track, 37@38c; No. 2 white, 38@38 1/2c.

Kansas City Produce. Kansas City, July 29.—Eggs—Fresh, 7 1/2c doz. Butter—Creamery, extra fancy separator, 19c; firsts, 16 1/2c; dairy, fancy, 16c; packing stock, 12c; cheese, northern full cream, 10c; Missouri and Kansas full cream, 9c.

Poultry—Hens, live, 5 1/2c; roosters, 12 1/2c each; broilers, 10c lb.; ducks, young, 6c; turkey hens, 6c; young toms, 4c; old toms, 4c; pigeons, \$1.00 doz. Choice

FOR SALE--At Half Their Value. I must sell; am overstocked and short of feed. 15 head of Black, mealy nosed Jacks and Jennets; 7 registered Stallions (all good ages); 25 Horses, consisting of mares (in foal), 1- and 2-year-old Colts, and some Driving Horses. S. A. SPRIGGS, Westphalia, Kansas.

scalded dressed poultry 1c above these prices. Potatoes—New, 85c@1.00 bushel, sacked; car lots, 70@75c. Fruit—Blackberries, \$1.25@1.75 per crate; gooseberries, \$1.75 per crate; cherries, \$3.00 @2.50 per crate. New apples, 75c@1.35 per bushel crate; currants, per crate, \$1.50@1.75; peaches, 35@50c per third bushel crate; pears, \$2.50 per box. Vegetables—Tomatoes, Texas, 50@75c per four-basket crate; navy beans, \$2.25@2.30 per bu. Cabbage, \$3.50@4.00 per cwt. Onions, 85c bu. in job lots; cucumbers, \$1.00@2.00 per bushel crate. Melons—Texas cantaloupes, per bushel crate, \$1.00@1.75; Arizona Khakis, \$3.00 per crate; watermelons, per dozen, \$1.50@4.00.

KEEVER GRAIN CO. 344 BOARD OF TRADE, KANSAS CITY, MO. Will handle your cash grain or option orders, and guarantee satisfaction. Always at home to letters or callers.

We Buy Eggs from Poultrymen and Farmers who properly care for their eggs, and have a case or more to ship each week. We can pay better prices than local dealers. For further particulars, address J. H. PERRY, 1433 BLAKE STREET, DENVER, COLORADO. Established 1886. Reference, Colorado National Bank.

Special Want Column. "Wanted," "For Sale," "For Exchange," and small or special advertisements for short time will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a title may be counted as one word. Cash with the order. It will pay to try it! SPECIAL.—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with order. Stamps taken.

CATTLE. REGISTERED SHORTHORN COWS—Wanted to keep on shares. Splendid pasture and good location in Arkansas valley 5 miles from Kinsley, Kans. Alfalfa hay from fine 80-acre meadow. R. T. Jenkins. FOR SALE—Ten high-grade yearling Red Polled bulls; also a few high-grade Red Polled cows and heifers, bred to a registered bull. Address I. W. Poulton, Medora, Reno County, Kans.

WANTED—I have good shading, fine, natural shelter, plenty of good running water, elegant pasture, and plenty of good feed, and help to care and provide for 10 to 20 head of cattle. I want from 10 to 20 registered Shorthorn cows, or 2-year-old heifers, with male, on shares, for 2 or 3 years. Here is a chance for "Drought Stricken Stockmen." Investigate me and the capabilities. J. G. Mohler, Salina, Kans.

FARMS AND RANGES. FREE A book of statistics, information, and 200 Kids' DUKK 96687 at head of herd. Young bulls and heifers for sale. WINDERS REALTY CO., OTTAWA, KANS.

FOR SALE—400 acres of land—150 in cultivation, 250 under fence, 32 head of cattle, 7 horses, 300 chickens, good house and stables, plenty of water, 2 miles from town, cheap for cash. Mrs. W. Kleist, Oakley, Kans.

FOR SALE—Thirty-two-acre farm only 3 1/2 miles from Topeka, all bottom land, 5 acres fine timber, pasture, living water, all well fenced, small new house. Price very cheap for location. Possession given in 30 days if desired. Present crop goes with farm. John G. Howard, 1107 West 8th Street, Topeka, Kans.

SHEEP. FOR SALE—Registered rams, and ram lambs—good individuals, dense fleeces, also full bloods. J. M. Sionaker, Garnett, Kans.

REGISTERED SHROPSHIRE—For sale. A choice lot of rams, lambs, and ewes, Kansas grown, at very reasonable prices. Olin Temple, Lawrence, Kans.

MISCELLANEOUS. WANTED—1,500 good hedge posts. State price delivered. Thos. Robinson, Minneola, Kans. COONS—A pair prettiest pets in the world, for sale. Write to A. Welsh, Abingdon, Va.

FOR SALE—Pure seed wheat and seed rye. Red Russian wheat (hard bearded), 80 cents per bushel; Fultz wheat (soft smooth), 90 cents per bushel; Red Cross wheat (soft smooth), \$1 per bushel; White seed rye, 85 cents per bushel. Sacked F. O. B. Lawrence. Samples sent on application. Kansas Seed House, F. Barteldes & Co., Lawrence, Kans.

FOR SALE—Feed mills and scales. We have 2 No. 1 Blue Valley mills, one 600-pound platform scale, one family scale, and 15 Clover Leaf house scales, which we wish to close out cheap. Call on P. W. Griggs & Co., 208 West Sixth Street, Topeka, Kans.

FOR SALE CHEAP—Cocker Spaniel Pups. W. H. Richards, V. S., Emporia, Kans. WANTED—Situation on a stock farm or ranch. Capable to take entire charge if required. Best of references. Box 25, Central City, Kans.

HORSES AND MULES. THOROUGHBRED SHETLAND PONIES For sale; your choice of 20 beauties. I. T. Marshall, Ophir Hill Farm, Concordia, Kans. WANTED TO TRADE—One Mammoth Spanish Jack for cattle. Come or write. Address James A. Carpenter, E. F. D. No. 2, Carbondale, Kans. LEAVENWORTH COUNTY JACK FARM.—Seven mammoth Jacks for sale. O. J. Corson, Potter, Kans. PROSPECT FARM—CLYDESDALE STALLIONS, SHORTHORN CATTLE and POLAND CHINA HOGS. Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kansas.

The Stray List. For Week Ending July 25. Greeley County—Robt. Eadie, Clerk. MARE—Taken up by C. M. Orr, in Tribune tp., (P. O. Horace), June 27, 1901, one bright bay mare, branded O C on left shoulder; valued at \$25. Greenwood County. HORSE—Taken up by Wm. Booth, in Fall River tp., one (nearly) white horse, 12 years old, mane roached, shod all around, weight 900 pounds, branded X on right hip. Taken up July 10. Pottawatomie County—A. P. Scritchfield, Clerk. MARES—Taken up by M. Concidine, in Grant tp., (P. O. Havensville), July 6, 1901, two mares, 4 years old; one a light bay, star in forehead, and right hind foot white, branded Y on left shoulder; one a dark bay, branded Y on left shoulder.

Week Ending August 1. Cowley County—Geo. W. Sloan, Clerk. PONY—Taken up by John J. Hutchings, in Spring Creek tp., (P. O. Maple City), one dun mare pony, 5 years old, branded on left shoulder, wire mark on right hip; valued at \$15. COLT—Taken up by same, one roan male colt, 2 years old; valued at \$6. COLT—Taken up by same, one dun male colt, 1 year old; valued at \$1. Shawnee County—J. M. Wright, Clerk. MARE—Taken up by Plezzie Anderson, in Topeka (P. O. 1601 Lane Street, Topeka), July 25, 1901, one brown mare, 4 years old, star in forehead, long tail and mane, apparently unbroken.

Coffey County—W. M. Palen, Clerk. MARE—Taken up by A. U. Garrett, in Ottumwa tp., (P. O. Burlington), July 8, 1901, one flea bitten grey mare, 8 years old, weight about 800 pounds; roach mane, valued at \$15. Franklin County—J. A. Davenport, Clerk. MARE—Taken up by Taylor Hays, (P. O. Pomona), June 23, 1901, one bay mare, 8 years old, black m and tall, branded D on left shoulder; valued at \$20. Gove County—I. N. Carver, Clerk. STEERS—Taken up by S. L. Thompson, whose residence is 4 miles east of Gove City, in Gove tp., July 17, 1901, two 2-year-old steers, one red, and one red roan, red one branded 3A on side, red roan branded N M on side, and crop off left ear, medium sized; total value \$40.

Coffey County—W. M. Palen, Clerk. MARE—Taken up by E. G. Williams, in Hampden tp., May 20, 1901, one brown mare, 7 years old, weight about 900 pounds, branded A on left thigh; valued at \$20. Montgomery County—D. S. James, Clerk. MULE—Taken up by J. W. Cooper, in Lawn Creek tp., (P. O. Coffeyville), one light bay horse mule, 2 years old, branded bar J on left jaw; valued at \$30. MULE—Taken up by same, one brown horse mule, 2 years old, branded bar J on left jaw, lame in left front foot; valued at \$40.

CATTLE. E. S. COWEE, Eskridge, Kans., R. R. 2, Breeder of PURE-BRED HERFORD CATTLE Kids' DUKK 96687 at head of herd. Young bulls and heifers for sale. SYCAMORE SPRINGS STOCK FARM. SHORTHORNS. H. M. Hill, Prop., La Fontaine, Kans. No Shorthorns for sale at present, but will have a few young things in the spring. Personal inspection of our herd invited. CORRESPONDENCE SOLICITED.

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Grange Department.

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Conducted by E. W. Westgate, Master Kansas State Grange, Manhattan, Kans., to whom all correspondence for this department should be addressed. News from Kansas Granges is especially solicited.

NATIONAL GRANGE.

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

KANSAS STATE GRANGE.

Master.....E. W. Westgate, Manhattan.
Lecturer.....A. P. Reardon, McLouth.
Secretary.....Geo. Black, Olathe.

The Summer Meetings.

The series of grange meetings under the direction of the executive committee and worthy master of the State grange, was opened at Overbrook, Wednesday, July 17. Notwithstanding the heat of the day an assembly of 2,000 or more were ready to meet Bro. N. J. Bachelder, lecturer of the National Grange, and Prof. H. M. Cottrell, of the agricultural college. The crowd was a lively one mingling fourth of July patriotism and grange enthusiasm.

Bro. Bachelder spoke for an hour upon the principles, accomplishments and objects of the grange. Mr. Bachelder is a pleasing, earnest and eloquent speaker, who holds the attention of his hearers to the last. He is sowing seed which we hope will bear good fruit in the near future. He was followed by Prof. Cottrell, who gave the farmers some practical suggestions in reference to economy in feeding, and possibilities of raising extra forage for stock the coming winter, recommending the planting of cow-peas, Kaffir-corn, sorghum, rape, and turnips if we have rain by August 1st. He advised farmers to go slow in disposing of their stock and to make a careful study of the feed values of different grains before purchasing for the winter.

At Lyndon, on Thursday, we found an earnest, attentive gathering of 600 or more. The literary part of the program was similar to that at Overbrook.

At Topeka we were taken to Oak Grange, 8 miles south of Topeka. Here a well-filled hall of people gave undivided attention to the speakers.

At Cadmus, where the largest grange in the State is located, very elaborate preparations had been made for the occasion. The grove was beautifully and profusely decorated. In addition to the representatives of the State Grange and the college there were an address of welcome, songs and recitations by home talent, a beautiful presentation of the Fairy Queen by some little girls, and the grange drill by 32 of the young people of the local grange, under the direction of Mrs. Lulu Blair.

Mr. Bachelder said he had seen this drill before the National Grange and in many places in the strong grange States of the East, but for precision and grace had never seen it surpassed, if equaled. The picnic as a whole, he said, was the best he had ever attended.

With a liberal contribution of silver dollars Bro. Blair sent us on our way toward Arkansas City. The attendance at this place fully equalled that at Overbrook.

On account of the intense heat and discouragement of the farming population resulting from drouth the picnic at Lone Elm was omitted, thus giving us a very acceptable day of rest at Paola. E. W. W.

The Apiary.

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

Pointers on Bees.

Some colonies of bees are very gentle and easily handled, are of fine markings, good honey gatherers, and not inclined to swarm. Such colonies will continue to store large quantities of surplus honey of the best quality. We should surely raise all our queens from such colonies as these and stock up every colony with this kind of stock. We can, on the careless plan, breed from stock altogether the reverse of this, and thus run down our bees to a very low quality, getting but little return from them.

The entire make-up of the colony depends upon the queen, and as her stock never changes while she lives in the colony, which is several years, there will be no improvement on later generations, hence may be seen the importance of starting with the right kind of stock. One would scarcely suppose that there was so much difference in bees, even of the same variety, and

only by close study and attention can we discover such a wide difference.

It is very true that bees can not gather honey if none is to be found, but in many cases colonies sitting side by side, and having equal chances and being equal in condition, do not come out at the end of the season with an equal amount of honey. The condition of the colony of course has much to do with returns, and no colony can store much honey if it is not strong in numbers during the honey season. Age of queens has much to do with the strength of colonies, and young queens will generally have much the largest colony. To keep bees well bred up, and in the best condition to make them profitable, requires frequent attention, but it will pay well to give it to them, and not allow them to run business just as they please, although bees may be kept in that way with some profit perhaps.

A few colonies of bees may be kept on nearly every farm; some may also be kept in cities. Some think the city is no place to keep bees, but this is not so, for they seldom prove troublesome there. Some keep them on the roofs of their buildings, and get good results. When kept up thus out of the way, you would never know they were about, for they seldom come down on the immediate thoroughfare except to find a watering place. There can always be found a place convenient to set a few colonies of bees. They can occupy a piece of ground good for nothing else, or the same ground may be occupied by trees to the advantage of both. The orchard is the ideal place for bees, and indeed no orchard should be without them, if for no other purpose than to fertilize the blossoms of the fruit trees in spring. Many thus keep a few colonies, and consider it a pleasure to look after their wants. Generally they are amply repaid for whatever trouble they may be put to with all the honey they can use the year round, and frequently sell considerable quantities.

Bees are usually more irritable and cross, and are harder to handle during the after part of the summer, but at this time they do not need so much attention. About all that is necessary is to see that they are all in good shape, and have good queens. Let them rest until early autumn, when they should again be examined as to condition, queens, etc. We should also see about the quantity of honey and mark all hives that seem to be low in stores, to thus feed a little later on. Feeding for winter stores should not be put off until late in autumn, but should be done in time to give them a month of warm weather before going into winter. September and October are the proper months in which to feed. We think the standard amount of stores, as usually given in the books and journals pertaining to bees, should be changed a trifle, and instead of 25 to 30 pounds to the colony, make it 40 pounds.

It is not so much what it takes to winter a colony of bees, but it is what it takes to spring them that is of the most importance. We can not count on honey flows in spring to keep colonies breeding as they should breed, and, to make a sure thing every time, we must furnish the honey to do it by having it in the hives without stint so the bees can get it. It is never lost in the hive, for when the hive is thus filled early, we get the bees to work sooner in the section boxes, and get it all back with good interest. The only correct way to have plenty of honey in the hives in spring, is to put it there in autumn.

Bees do not object to careful manipulation of themselves and their combs, if it is done in a friendly manner, but they will not stand kicks and jerks at this season of the year, and any one who applies such treatment will not make a success of the work. From the time bees begin gathering honey in spring, and until the close of the honey harvest, they will put up with almost any kind of treatment, but after this you had best learn to treat them differently. We can of course subdue any colony at any time with smoke, but it is not good policy to smoke them very much now, for it has a tendency to make them consume their stores more rapidly than otherwise, and break many of the cappings from their sealed stores.

Kansas Fairs in 1901.

Following is a list of fairs to be held in Kansas in 1901, their dates, locations, and secretaries, as reported to the state board of agriculture and compiled by Secretary F. D. Coburn:
Allen County Agricultural Society—C. H. Wheaton, secretary, Iola; September 10-13.
Brown County Fair Association—G. W. Harrington, secretary, Hiawatha; September 17-20.

- Butler County Fair Association—H. M. Balch, secretary, Eldorado; October 8-11.
- Chautauqua County—Hewins Park and Fair Association—N. G. Marsh, secretary, Cedar Vale; September 25-28.
- Clay County Fair Association—E. E. Hoopes, secretary; Clay Center; October 8-11.
- Coffey County Fair Association—A. L. Hitchens, secretary, Burlington; September 10-13.
- Cowley County—Eastern Cowley Fair Association—J. M. Henderson, secretary, Burden; dates not yet chosen.
- Finney County Agricultural Society—D. A. Mims, secretary, Garden City; August 21-23.
- Franklin County Agricultural Society—J. C. McQuesten, secretary, Ottawa; September 17-20.
- Greeley County Fair Association—J. C. Newman, secretary, Tribune; September 6-7.
- Harvey County Agricultural Society—John C. Nicholson, secretary, Newton; September 24-27.
- Jackson County Agricultural and Fair Association—S. E. McGrew, secretary, Holton; September 24-27.
- Jefferson County Agricultural and Mechanical Association—Edwin Snyder, secretary, Oskaloosa; September 3-6.
- Jewell County Agricultural Fair Association—C. F. Horne, secretary, Mankato; September 17-20.
- Linn County Fair Association—Ed R. Smith, secretary, Mound City; dates not yet chosen.
- Marshall County—Frankfort Fair Association—J. D. Gregg, secretary, Frankfort; September 17-20.
- Miami County Agricultural and Mechanical Association—W. H. Bradbury, secretary, Paola; September 24-27.
- Montgomery County—Coffeyville Fair and Park Association—R. Y. Kennedy, secretary, Coffeyville; August 13-17.
- Morris County Exposition Company—M. F. Amrine, secretary, Council Grove; September 24-27.
- Neosho County Fair Association—H. Lodge, secretary, Erie; August 27-30.
- Neosho County—Chanute Agricultural, Fair, Park and Driving Association—A. E. Timpane, secretary, Chanute; September 3-6.
- Ness County Agricultural Association—H. C. Taylor, secretary, Ness City; October 2-5.
- Norton County Agricultural Association—J. L. Miller, secretary, Norton; September 18-20.
- Osage County Fair Association—C. H. Curtis, secretary, Burlingame; September 3-6.
- Reno County—Central Kansas Agricultural Fair and Live Stock Association—Ed M. Moore, secretary, Hutchinson; September 2-6.
- Rice County Agricultural Association—C. Hawkins, secretary, Sterling; September 11-14.
- Riley County Agricultural Society—R. T. Worboys, secretary, Riley; September 24-26.
- Rooks County Fair Association—J. Q. Adams, secretary, Stockton; September 10-13.
- Saline County Agricultural, Horticultural and Mechanical Association—H. B. Wallace, secretary, Salina; September 17-20.
- Sedgwick County—Wichita State Fair Association—H. G. Toler, secretary, Wichita; October 1-4.
- Stafford County Fair Association—John W. Lill, secretary, St. John; August 23-30.
- Sumner County—Mulvane Agricultural Society—John A. Reed, secretary, Mulvane; September 27-28.
- Wilson County—Fredonia Agricultural Association—J. T. Cooper, secretary, Fredonia; August 20-23.

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