

KANSAS FARMER

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TOPEKA, KANSAS, THURSDAY, AUGUST 8, 1901.

ESTABLISHED IN 1863
\$1.00 A YEAR.

Breeders' Directory

SWINE.

D. TROTT ABILENE, KANS., famous Duroc-Jerseys and Poland-Chinas

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

M. H. ALBERTY, - - Cherokee, Kansas.

Duroc-Jerseys.

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

MAPLE AVENUE HERD J. U. HOWE, WICHITA, KANSAS.
DUROC-JERSEYS. Farm 2 miles west of city on Maple Ave.

V. B. Howey, Box 103, Topeka, Kans.
Breeder and shipper of Poland-China hogs, Jersey cattle, S. L. Wyandotte chickens. Eggs in season.

FAIRVIEW HERD DUROC-JERSEYS
Has 80 pigs of March, April, and May, 1901, farrow for this season's trade at reasonable prices.
J. B. DAVIS, Fairview, Kans.

PARKDALE STOCK AND FRUIT FARMS
THOROUGHbred HEREFORD CATTLE.
CHAS. A. SCHOLZ, Proprietor, - FRANKFORT, KANS.

POLAND-CHINAS. 90 good spring pigs; bred but they are CHOICE. Write for one. Don't delay.
DIETRICH & SPAULDING, Richmond, Kas.

GRANGER HERD.
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DUROC-JERSEY SWINE—REGISTERED.
Write for prices on choice spring pigs; 100 to select from. Third annual sale date, October 11.
NEWTON BROTHERS, Whiting, Kansas.

Riverside Herd of Poland-China Swine.
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.
M. O'BRIEN, Liberty, Kans.

KANSAS HERD OF POLAND-CHINAS has some extra fine spring gilts, some January gilts, and sows 18 months, bred to Sen. I Know, he by Perfect I Know; and some nice fall hogs by Sen. I Know and U. S. Tec. Address F. P. MAGUIRE, Haven, Reno Co., Kans.

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From best prize-winners. One spring boar, also fall and winter pigs for sale.
WARE & POCOCKE, Station B, St. Joseph, Mo.

Mound Valley Herd of POLAND-CHINAS
Has some show gilts bred to I. B. Perfection (25172 S.). Others bred to Black U. S. Best (21767). Also a fine lot of fall pigs for sale. Prices reasonable.
W. P. WIMMER & SON, Mound Valley, Kans.

A FEW POLAND-CHINA PIGS FOR SALE.
Fine individuals. "Chief I Know" and "Look Me Over" strains. R. J. Conneway, Edna, Kans.

D. L. BUTTON, North Topeka, Kans., Breeder of Improved Chester Whites.
Stock For Sale.
Farm is two miles northwest of Reform School.

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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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STANDARD HERD OF Registered Duroc-Jerseys
PETER BLOCHER, Richland, Shawnee Co., Kans.
Herd headed by Big Joe 7363, and others. A few male pigs of March and April farrow. S. C. B. Leghorn eggs.

SWINE.

Ridgeview Farm Herd of Large English Berkshires
Four boars December farrow, and two November farrow, for sale. No gilts old enough to breed. Spring pigs quoted also.
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Verdigrie Valley Herd POLAND-CHINAS.
Large-boned, Prize-winning. We have for sale 80 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.
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High-Class Poland-China Hogs
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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 2441, Black Joe 23608, 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.

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Owing to the scarcity of feed I am compelled to offer my entire herd of Poland-Chinas for sale, which consists of 56 fine spring pigs, 6 mature sows—2 bred for fall farrow, and herd boar, Short-stop Tecumseh. The brood sows were bred by H. L. Adair, Clayton, Ill., Wm. Feniers, Weir, Mo., and R. S. Cook, Wichita, Kans. The sows cost me \$175—will sell for \$9). The boar cost \$50—will sell for \$20. These prices are for quick sales only. A. M. Stillwell, Eureka, Kans.

CATTLE.

ENGLISH RED POLLED CATTLE—Pure-bred young stock for sale. Your orders solicited. Address L. K. Hasetline, Dorchester, Green Co., Mo. Mention this paper when writing.

MEADOW BROOK SHORTHORNS—Ten fine young bulls for sale—all red. Red Laird, out of Laird of Linwood, at head of herd.
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Registered Herefords
Of either sex, at private sale. I also have 140 % to % high-grades at private sale.
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SWINE.

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1,300 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, Shady Bend, Kansas.

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And POLAND CHINA SWINE.
Farm is 2 miles south of Rock Island depot.
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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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HOPE, DICKINSON CO., KANS. BREEDS ONLY
The Best, Pure-Bred SHORTHORN CATTLE.
Herd numbers 135, headed by ROYAL CROWN 125698, a pure Cruickshank, assisted by Sharon Lavender 143002.
FOR SALE JUST NOW 16 BULLS of serviceable age, and 12 bull calves. Farm 1 1/2 miles from town. Can ship on Mo. Pac., R. I., or Santa Fe. Foundation stock selected from three of the great herds of Ohio.

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Leading Scotch and Scotch-topped American families compose the herd, headed by the Cruickshank bull Scotland's Charm 127264, by Imp. Lavender Lad, dam by Imp. Baron Cruickshank. Twenty bulls for sale.
O. F. WOLFE & SON, Proprietors.

CATTLE.

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Gardner, Kans.
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D. P. NORTON'S SHORTHORNS,
Dunlap, Morris Co., Kansas.
Breeder of PURE-BRED SHORT-HORN CATTLE, Herd Bull, Imported British Lion, 133692.
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Silver Creek Herd SHORTHORN CATTLE.
GWENDOLINE'S PRINCE 130918 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 ANDERSON & FINDLAY, Prop's, Lake Forest, Ill.

BLACK DIAMOND STOCK FARM
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.
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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.
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Ram lambs, yearling, and 2-year-olds. Grand quality at drouth prices. Wet or dry we are always headquarters for Shropshires. Write your wants.

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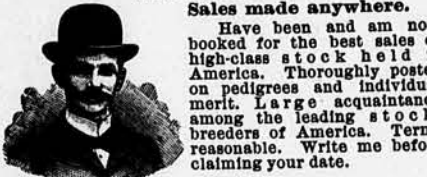


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J. W. & J. C. ROBISON, Towanda, Kansas. Importers and Breeders. Largest Herd in the State. Inspection Invited.

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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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Prospect Farm.



H. W. McAFEE, Topeka, Kansas,

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

CATTLE.

H. N. Holdeman,
Girard, Crawford Co., Kans.
BREEDER OF PERCHERON HORSES
And **HOLSTEIN FRIESIAN CATTLE.**

Representing Josephine, Mechthilde 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.

RIVERSIDE STOCK FARM.

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,
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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.

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HERD BULLS:
BARON URY 2d 124970. LAFITTE 119915.

Inspection Invited

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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

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 CRUICKSHANK 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**

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 23785, one of the best sons of Missouri's Black Chief 19399, and out of a sow from Chief Tecumseh 2d 9115, whose dam was by Kiever's Model, the great \$5,100 sire.

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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 20 months old; also a few good heifers.

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

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Dipping, washing or spraying live stock is essential for the cure of Scab, Mange, Itch, etc., and for killing and removing ticks, fleas, lice, etc. Lincoln Dip is composed of nicotine, sulphur and valuable oils, but contains neither lime nor arsenic. It is effective but not poisonous or injurious. Write for literature upon treatment of stock for skin parasites.

PASTEUR VACCINE CO., 158 E. Huron St., Chicago.
Branch Office: 408 Hall Building, Kansas City, Mo.

WHEN WRITING ADVERTISERS MENTION KANSAS FARMER.



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

Breeders of SELECT

HEREFORD CATTLE.

Young Stock For Sale Inspection or Correspondence Invited

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 124487? His got won 14 prizes at the National Cattle Show held at Kansas City last October. 100 head in herd. Correspondence and inspection invited.



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INDEPENDENCE, MO.,

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Herefords

One of the Oldest and Largest Herds
in America.

ANXIETY 4th Blood and Type Prevail.

BOTH SEXES, IN LARGE OR SMALL LOTS ALWAYS FOR SALE

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.

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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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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VIA SANTA FE,

At Rates Lower Than Ever Before.

On Sale August 1 to 10 Inclusive, September 1 to 10 Inclusive.

Denver, Colorado Springs, and Pueblo and return, . . . \$15.00
Glenwood Springs and return, . . . \$25.00
Salt Lake City and Ogden, and return, . . . \$30.00

July 10 to 31, and August 11 to 31, round trip tickets to same points as named above will be sold at one fare plus \$2 for the round trip.

A Pullman Observation Sleeper runs between Kansas City and Colorado Springs on Santa Fe trains Nos. 5 and 6. The observation end is for free use of all Pullman passengers.

For further particulars, rates and other dates or to other places, or for free copy of "A Colorado Summer," write to, or call on.

T. L. KING,

Agent, the Atchison, Topeka & Santa Fe Railway. TOPEKA, KANSAS.

Agricultural Matters.

Grow Stock Feed This Fall.

MISSOURI AGRICULTURAL EXPERIMENT STATION.

Owing to the unprecedented drouth and excessive heat the supply of stock feed of all classes in all portions of the State will be much below the average, and in most sections will be very scarce and expensive. Already a large amount of the surplus stock has been thrown on the market, so that less feed will be required than in the average year. At the same time, every indication points to a great shortage in farm stock next spring, and to the fact that abnormally high prices will then prevail.

It will be very profitable therefore for the farmer to carry over as much stock as possible, and to take that through the winter in a good thrifty condition. It is scarcely necessary to say that only first class stock can be profitably wintered this time. If the supply of good stock is below that which can be wintered, it will be the best possible investment to sell off the inferior stock and buy well bred animals of good quality. Such an opportunity to buy good stock at low figures does not come often.

GROW FORAGE THIS FALL.

The supply of feed can be largely increased by growing one or more forage crops which can be made to mature between now and frost, provided an average rainfall occurs from now on. Among the crops that may be sown now for this purpose, the following are recommended:

COW-PEAS.

Cow-peas, if sown at once on well prepared land, wheat, or oat stubble that is broken, ought to make one or two tons of hay that excels clover in feeding value. This hay can be gotten off the ground in time to sow the land in wheat without another breaking, the surface being disked just ahead of the drill. Cow-peas improve the land, just as clover does, and make a splendid preparation for wheat. The Whippoorwill or New Era varieties are recommended, sown at the rate of a bushel per acre, either broadcast or preferably with a wheat drill. The hay is cured and handled about the same as clover. Cow-peas stand the heat and drouth well.

SORGHUM.

Sorghum is another drouth and heat resisting crop, very productive, and will mature before frost if sown now on well prepared land at the rate of about a bushel of seed per acre. The Early Amber variety is preferred for this late sowing. The hay may be partially cured in the swath, and then made into large shocks to complete the curing process, and stacked later. Unfortunately the supply of sorghum and cow-pea seed is almost exhausted in our markets, owing to the large recent demand. Unless the farmer has a supply of seed on hand or knows where it can be gotten quickly it will be better to try something else as it is getting late, especially for cow-peas.

KAFFIR-CORN.

Kaffir-corn is closely related to sorghum, and may be grown and handled in essentially the same way, with almost as satisfactory results, although it is not regarded as quite so good a hay plant. The markets still have a fair supply of this seed.

MILLET.

Millet may be used quite successfully, and will stand considerable drouth and much heat. The farmers of Missouri are too familiar with this crop to need any advice concerning the methods of growing and harvesting it.

BROWN DOURAH.

Brown dourah, a plant closely related to sorghum and Kaffir-corn, somewhat extensively used in the dry portions of Kansas, may be used if the seed of the others mentioned can not be gotten. It is not considered to be quite so productive and satisfactory, however.

This about exhausts the range of profitable hay crops for late sowing. Crimson clover does not succeed well in this climate as a rule, and does not resist drouth.

FOR FALL PASTURE.—RAPE.

Rape has been grown successfully for fall pasture in this State, but the experience with this plant for fall use is somewhat limited, and it is not considered so sure a crop as the hay crops just named. It is a cool weather plant, and requires a reasonable amount of moisture; but the spring sown rape has

stood the drouth and heat of the summer quite well on the college farm this year. Rape may be sown in the corn where the stand is not good, or where the growth has been seriously retarded by the drouth, sowing at the rate of about 2 pounds per acre, and cover lightly. If sufficient rain comes to start it well, it will make a large amount of excellent pasture for sheep, hogs, and cattle, and will continue green until the ground freezes. Its greatest growth will occur after the corn is cut.

Rape will do better, however, if sown alone, in which case 3 pounds of seed per acre should be used. Dwarf Essex is the variety to use. The seed will cost from 6 to 10 cents per pound, or from 12 to 20 cents per acre, so that the farmer will not be at much expense even if the season is not favorable enough to make a crop.

TURNIPS.

On land especially suited to this purpose, turnips would be worth sowing, for the farmer who expects to winter any considerable number of sheep. While in ordinary seasons this crop is not considered especially profitable except in a small way, yet in view of the great scarcity of feed, it will be well worth growing this year.

RYE AND WHEAT.

A large area of rye and wheat should be sown as early as possible, for fall, winter, and early spring pasture.

Of course it is understood that if the drouth continues through August, all of the crops recommended for hay will fail, but in view of the great scarcity of feed, it will be well worth the investment and risk to sow every available acre in something that will produce feed if it rains. It is hardly necessary to add that all the straw should be carefully saved for feed, that all the corn fodder should be preserved, and arrangements made to protect the stock against the winter storms, to make the feed go as far as possible.

The experience of 1881, the time of the last disastrous drouth, in which the continued rain of the winter did so much damage to the small amount of feed on hand, should not be forgotten, and every reasonable precaution should be taken to prevent its repetition this winter.

H. J. WATERS,
Columbia, Mo. Director.

Lessons Taught by a Drouth.

EDITOR KANSAS FARMER:—The conditions that prevail south, east, and north of us in the principal corn producing sections are very similar to our own in regard to producing an average yield of that useful, almost necessary, American cereal.

Every year the wide-awake farmer learns something in connection with his work. The school of experience is an apt teacher, but this winter the farmer who lives in the section where the drouth has been most severe will take a different course of study. Heretofore it has been how best to dispose of my grain crop, principally corn. This year it will be how can I best secure what I have so it will feed the most stock through the winter and what feeds had I better buy to make up the deficiency.

It is a hard proposition at best, but it is one we have all got to meet.

Before taking up the conditions as they are let us mention what they might have been had the farmers learned some of the lessons that the weather of the last few weeks has taught them.

Farmer A is in good circumstances, financially. He has his farm free from debt as well as all else he has around him. This spring his cribs were filled or nearly so with 1900 surplus corn. Corn was then selling on the market for a fair price so he let it go. He did not need the money, but he thought by getting it he could make a good payment on the eighty that was for sale across the road.

Now he has the land, but only enough corn to feed until about the first of October. Of course if we could see a year or even three months ahead we would need never to do more work, but there is a safe way of doing things and another way that resembles very much a gambling game.

There are a few risks to be assumed in all transactions, but those that have the element of chance reduced to a minimum should be selected. If Farmer A had needed the money to liquidate some debt it would have been a different case, but as it is it was a plain case of trying to beat the "weather maker" at his own game, since the weather has it in its power to regulate the size of our crops. The banker, merchant or any other man engaged in a certain line of business who has his affairs so arranged that the erratic movements of the markets or supply and demand does not effect the financial

standing of the firm is considered to be a good business man. With the banker money is, his stock in trade. With the farmer grain and in our western States that is principally corn, is primarily his stock in trade. He may consume it on the farm and offer it on the markets of the world in the form of beef and pork or mutton, but it must be conceded that the production of any of the meats such as the markets now demand can not be possible unless a liberal quantity of grain of some kind be used.

For a banker to run short of that which is necessary to carry on his business would mean failure to the institution with which he was connected. For a farmer to run short of grain ought to be looked upon in the same light. After the farmer gets in the habit of keeping his corn one year before disposing of it he will never go back to the old way where the element of chance is increased. After the "rotation" gets in perfect running order, that is after the first crop has been cribbed and not disturbed to any great amount until another crop is assured there will be no inconvenience experienced. The shrinkage by drying out of the corn in the crib will amount to so little in actual practice that it will be more than overcome by the satisfaction of knowing that you are on a solid basis. This is only one of the many lessons that the disastrous drouth is teaching us. HENRY HATCH, Barry, Kans.

The War on Prairie Dogs.

The Kansas Legislature at its last session provided for experiments to determine the most effective and economical means of destroying prairie dogs and pocket gophers in the State. An appropriation was made for the purpose and the work placed in charge of the Board of Regents of the State Agricultural College. The board has employed as field agent Prof. D. E. Lantz, who will work under the direction of the council of the experiment station.

In order intelligently to carry on these experiments it is desirable to know the magnitude of the work. The actual distribution of the two pests named in the act, with the extent of the damages due to each, should be determined. The experience of the farmers of the State in their efforts at repressing these evils is also desirable. With the object of securing such information the present circular is sent out to township trustees and other citizens of the State.

It is believed that but one species of prairie dog, *Cynomys ludovicianus*, is found in the State. Two species of pocket gophers occur. The prairie gopher, *Geomys bursarius*, is found in eastern Kansas. The plains gopher, *Geomys lutescens*, is found in sandy parts of western Kansas. The specific characters which separate these species need not be given, but in general they may be distinguished by the smaller size of the plains species and the smaller size of the hills of soil which it throws up.

Two species of the prairie squirrels (*Spermophilus*) are found in Kansas, and are popularly called gophers. The act of the Legislature does not refer to these; but in order to prevent errors in answering the agents inquiries their distribution is made a part of the inquiry. The work of the *Spermophilus* may be easily distinguished from that of the true gopher from the fact that their burrows are always open. The small striped squirrel, *Spermophilus tridecemlineatus*, does not heap up soil at the opening of its burrow, but carries it away. The larger species, the gray ground squirrel, *Spermophilus franklini*, often allows the soil to accumulate in heaps near its burrow, but the mouth of the latter is never closed as in the case of the pocket gophers.

Township trustees are especially interested in Section 1 of the act, which permits townships to make cooperative efforts to destroy the prairie dog and gopher. The field agent of this experiment station will assist individuals and communities to the extent of his ability in making war upon these pests of the farm.

The following inquiries have been prepared by Professor Lantz, the field agent. It will be well to send answers to these to Professor D. E. Lantz, Manhattan, Kans.

- County,
- Township.
- Name of person reporting.....
- P. O. Address.....
- 1. Are prairie dogs found in your township?
- 2. Are they abundant, common, or rare?
- 3. Approximately, how many acres in the township are occupied by their villages?

- 4. What means have been used for their destruction?
- 5. If successful, give particulars or refer to persons who can give definite information.
- 6. Is the pocket gopher present in your township?
- 7. Are they abundant, common, or rare?
- 8. Approximately, what is the extent in acres of injury done by them?
- 9. What means have been tried for their repression?
- 10. If successful, can you give particulars, or give address of some one who can give us useful information on the subject?
- 11. Is the Striped or Ground Squirrel (*Spermophilus tridecemlineatus*), present in your township?
- 12. Does it injure crops, and to what extent?
- 11. Is the Striped Gopher or Ground Squirrel (*Spermophilus tridecemlineatus*), present in your township?
- 14. Does it injure farm crops? To what extent?

The Stock Interest.

THOROUGHBRED 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, Whiting, Kans.
- October 8-10, 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 23 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, Nebr. (Sotham management.)
- June 24-26, 1902—National Hereford Exchange, Chicago, Ill. (Sotham management.)

Americans at Highland Park Show.

The enterprising American breeders of imported stock evidently do not intend that their herds and flocks shall deteriorate so long as England or Scotland can produce animals of sufficient merit to maintain the present standard.

Mr. David Young, editor of the North British Agriculturist, sends a report of the annual show held in July at Iverness by the Highland Society, the National Agricultural Society of Scotland to the Live Stock Report, which in part is as follows:

In the Shorthorn, Aberdeen-Angus and the West Highland sections, the show, both in point of numbers and quality, is admitted on all hands to be one of the best that was ever seen in Great Britain, "the stud farm of the world." As the Shorthorns are the breed which the American buyers were paying the most attention to we shall deal with that section first. In the aged bull class the Gainford Hall bull inspector, a massive, lengthy, level animal which won the championship at the Royal Dublin Show last spring, had the first prize. At the Royal Show last month inspector could not get any better than third in the prize list as his upward course was effectually barred by the King's two bulls, Royal Duke, the unbeaten champion, and Pride of Collynie, who stood reserve to Royal Duke for the championship at the Royal. But as neither of the Windsor bulls were sent to the Highland this year the Gainford Hall bull was here able to secure first place. Second to him came the very good but not very big bull Golden Star, owned by Mr. Wilson, Pirriessmill, bred by Mr. Marr, Uppermill, and of a cow of the famous Missie strain. A grand class of twenty-five two-year-old bulls was headed by the champion of the breed at the show. This was the roan bull, Choice Goods, bred by Mr. Durno, Jackston, and exhibited by another Aberdeenshire farmer, Mr. Therson, Craigsville. Choice Goods is a grand bull and barring a slight "gaudiness" at the tallhead he is all but faultless in symmetry, while he shows a grand cover of mellow and very even flesh. He had not worn the rosette of supreme victory many hours before he was secured by Mr. W. D. Flatt, of Hamilton, Ontario, Canada, the net price paid for him being £400. As showing the quality of the stock in this class it may be noted that the Ratcheugh bull Baron Abbotsford, which took first prize at the Royal, had here to take third place, the second prize going to Mr. Macfarlane, Tomich, for Margrave, a very good roan which, like the first prize winner, was not shown at the Royal. In a very strong class of yearling bulls the first prize went to Sir John Gilmour, of

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Kellogg Switchboard & Supply Co., 232 S. Green St., Chicago, Ill.

Montrave, for Royal Archer, a compact, richly fleshed bull of faultless symmetry. Royal Archer was bred by exhibitor and was sired by the Collynie-bred bull Brave Archer, which was sold for 1,200 guineas two years ago for exportation and is one of the best breeding bulls in the United States at the present time. The Gainford Hall bull Silver Bell, which was bred at Collynie and won first prize at the Royal, had second place, third going to Captain Graham Stirling of Strowan for Cock Robin, a bull of Uppermill blood.

The cow class was not so strong relatively as the others, but the first prize winner, Strowan Marchioness 5th, was a very good animal. The two-year-old heifer class was a grand one. Here the noble chief of the Lovat Scouts took first and second prizes with two very fine heifers, the first a roan and the other a red. The first winner—Beaufort Pride 3d—was afterward awarded the female championship of the section. Both these winners were promptly secured by Mr. N. P. Clarke, of Minnesota, U. S. A., who has bought something like 100 high class Shorthorn females within the last fortnight and is today negotiating the purchase of another large lot of heifers in Rosshire. In a magnificent class of yearling heifers Mr. Robertson, Ballechin, was clear winner with Lovely Tulip, a real beauty, which also was secured by Mr. N. P. Clarke along with half a dozen other heifers from the same herd. Second prize went to a Douglass heifer of beautiful quality, and she too will cross the Atlantic along with Mr. Clarke's other purchases. In connection with the purchase of the Shorthorn champion by Mr. W. D. Flatt, it may be well to note that during the last week Mr. Flatt has also purchased twenty yearling heifers from the Earl of Rosebery, six from the Royal herd at Windsor, seven from Mr. Duthie, Collynie, nine from Mr. Marr, Uppermill, and quite a number of heifers from other leading herds. So far as we have heard, however, Mr. Flatt's Shorthorn champion bull Choice Goods is the only male that has been purchased for America at the show and apparently the American buyers are this year confining their purchases mainly to females—principally heifers.

The exhibit of Aberdeen-Angus cattle was probably the best made by that breed at any show of recent years. Very few foreign buyers of Angus cattle were to be met at the show. Mr. Robbins, of The Breeder's Gazette, who has been visiting the Aberdeen-Angus herds of Scotland, within the last few days made some very cautious offers, but so far we have not heard of any of these having been accepted. Within the last fortnight, however, a fairly large lot of high-class doddies has been purchased by Colonel Judy for exportation to the States. The Ballindalloch Challenge Cup for the best bull was awarded to Mr. Whyte, for the famous bull Jipsej Baron, a big good bull bred by the exhibitor's father, Mr. William Whyte, Spott, Kerriemuir—the "Thrum" of Barrie's popular novel. Jipsej Baron also won the president's medal as the best representative of the breed. The Ballindalloch Cup for the best cow was awarded to Lord Rosebery for Effie of Dalmeny, a most beautiful cow, which had for her keenest competitor the very handsome Powrie cow, Pride of Powrie 9th, which won the championship of the breed at the "Royal."

In the Galloway section, in which the entries were more select than numerous, the championship of the breed was awarded to Mr. Andrew Montgomery—the king of the Clydesdale clan, as he is called—for a yearling heifer of altogether exceptional style and quality. In the Highland cattle section the championship of the breed was awarded to Mr. Campbell, Sutherlandshire, for the great bull Laotch, which has held the championship of the breed for the last five years, and is undoubtedly the best Highland bull ever seen in any show-yard.

The sheep classes were grandly filled. In Blackfaces Mr. Archibald took the championship with a magnificent ram, and for the third year in succession Mr.

Hume, Barreilwell, took the championship for Border-Leicesters. In Cheviots, Mr. Elliot, Hindhope, was invincible as usual.

The Clydesdales made a magnificent show. They also furnished a striking demonstration of the value of an impressive sire, for quite three-fourths of the prize-winners were sired by the Messrs. Montgomery's great horse Baron's pride, which was champion at the Aberdeen Highland in 1894 and is far and away the most successful breeding horse of the day. The male championship was awarded to Messrs. Montgomery for a sensational Baron's Pride yearling colt for which £2,000 was offered as soon as the judging was over, but was declined. We understand that Mr. N. P. Clarke will take a big string of Baron's Prides home with him, along with the numerous prize-winning heifers he has purchased lately.

The Breeder's Art.

In concluding his "Shorthorn Cattle"—the title of which work does not suggest the happy, free-flowing style of its narration, nor its romantic setting—Alvin H. Sanders pays the following beautiful tribute to "the breeder's art:" "The sculptor lures from the solid marble images of grace, beauty, or strength that provoke the plaudits of the world. His contact with his work is direct. In calling from stone the creatures of his own conception the figures may be shaped at will. A Phidias or a Canova lifts the veil from his superb handiwork and gains a place in the gallery of immortals. Compared with him who has the power to conceive an ideal animal form and call it into life through a profound knowledge of Nature's intricate and hidden laws, the greatest sculptor is a mere mechanic. There is no higher form of art than that which deals with the intelligent manipulation of animal life; the modeling of living, breathing creatures in accordance with the will and purpose of a guiding mind. It rises in its boundless possibilities to heights that are fairly God-like. It sounds the depths of the profoundest mysteries of the physical existence, verging on the borders of the Infinite itself. The world of human endeavor presents no nobler field of action, no realm of thought demanding a higher order of ability. And yet how many of those who assume the responsibility of marrying or making these wondrous-creations of flesh and blood approach the work with any adequate preparation or appreciation of the real breadth and depth of the propositions with which they will have to deal? It is not a task to be lightly undertaken, if one means to deal fairly by the helpless forms confided to his care. If we could but impress this thought indelibly upon the minds of those who engage in this fascinating pursuit there would be more noble creations and fewer wrecks along the paths of the stock breeding of the future than in the past. Failure to grasp the fundamental idea that the breeder's calling entails duties and responsibilities which no man can conscientiously ignore lies at the bottom of failures innumerable."

Grazing Steers on Corn and Cow-Peas.

It is evident that allowing cattle to gather a crop instead of harvesting and feeding it must be a saving of expense. If at the same time the gains made are satisfactory, this method of feeding should commend itself. The Arkansas station recently tested the desirability of grazing steers on a field of corn and cow-peas, supplementing this food with as much cottonseed as the animals required. The 5 steers used in the test were turned on a five-acre field after the corn had been pulled. The yield of corn was 25 bushels to the acre, which is regarded as hardly an average crop. The cow-peas gave more than an average growth of vines, but less than an average crop of peas. None of these had been picked.

The steers required sixty-five days to consume all the food on the 5 acres. They were allowed access to only one-third of the field at a time. The cot-

tonseed was always accessible and was consumed at will. During the first thirty days of the test, while the pea vines were yet green and peas were accessible, the steers ate very little cottonseed. At the beginning of the test the 5 steers weighed 3,858 pounds. The average daily gain was 2 pounds per steer. The average amount of cottonseed consumed per steer during the whole test was 250 pounds. Rating cottonseed at \$6 per ton, and making suitable allowance for the cow-peas planted, the cultivation of the crop, and the labor of feeding the steers, the cost of a pound of gain was calculated to be 1.6 cents.

In estimating the cost of the grazing, the cottonseed and cow-peas are charged to the feeding, but it is reasonable to suppose they will, as manure scattered over the soil, increase the yield of the succeeding crop more than their cost. The advantages of feeding cottonseed to the steers instead of corn are cheapness as a food and greater value as a fertilizer. It was estimated that the steers grazed the three lots of the field about as follows: On the first plot, one-third of the field, all the pea vines, husks, fodder, and about one-fourth of the stalks were eaten; on the second and third plots, each one-third of the field, frost having fallen October 22, the steers ate about two-thirds of the pea vines, all the husks and fodder, but scarcely any of the stalks. The results of the grazing of this field indicates that the corn should be gathered and the animals turned to grazing as early as possible before frost. Judging by the results obtained at the Arkansas station, this method of feeding is profitable and worthy of further trial.—C. F. Langworthy, in United States Bulletin No. 17, in Review of Experiment Station Work.

National Swine Show and Sale Postponed.

At a meeting of the executive committee having in charge the National Swine Show and Sale that event was postponed until next year. This committee is composed of representatives of the several breeds. The meeting was attended by N. H. Gentry, of Sedalia, Mo.; Charles F. Mills, Springfield, Ill.; C. A. Stannard, Emporia, Kans.; and Eugene Rust and Frank D. Winn, of Kansas City. All were of the opinion that it would not be advisable to hold the show and sale this year. The plan of the event was ambitious, and contemplated a national exhibit of the leading breeds of hogs. Such an exhibit has never been held in this country, and naturally the swine breeders wanted to have the first one a great success. A considerable sum of money has been subscribed by the stock yards company and by the business men of Kansas City for the expenses of the show, and much interest was manifested among the breeders the country over. The members of the executive committee say that the show and sale will be held next year and that it will be even larger and better than it was planned to make the one proposed for this year.

Is the "Wide-Open Fair a Financial Success?

The Civic Committee of Boston has sent a series of questions to the secretaries of all the State Boards of Agriculture, asking whether in their opinion the purely legitimate agricultural fair or the "wide-open" fair pays better in the long run financially, socially, and educationally. Opinions in reply have been received from 23 States, including 2 provinces of Canada.

Without exception these officials say that the purely legitimate agricultural fair pays better financially in the long run; that the "wide-open" fair is not a financial success, that it is offensive to the better class of people on whom the fair must rely for continued support, and is demoralizing to the surrounding community.

They are also unanimous for rigorous exclusion of all games of chance; for strictly prohibiting all alcoholic liquors, except California; and they severely condemn vulgar tent-shows and suggestive demonstrations on the outside of tents.

As to whether "circus" features tend to absorb time, strength and interest of patrons to any disadvantage to the exhibitions of farm, home, school, and factory products, the majority believe that they do, and therefore should not be encouraged. One-half of the writers lean to the view that entertainments foreign to the real features of the fair, should be done away with as fast as the people can be educated to appreciate the fair for its own sake.

When writing advertisers mention this paper.

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.

Worms.—I have a bunch of pigs two and one-half months old. Some of them have a bad cough and I think they are wormy. They have the run of the farm and are not fed any corn, but are fed shorts and bran slop. What will stop the cough and kill the worms?
Abilene, Kans. M. B. JAMESON.

Answer.—Give 5 ounces sulphate of iron, 1 pound of hyposulphite of soda, 1/2 pound Gentian root, powdered, mix and divide into 10 powders and give one in feed each day.

Choke.—I have a pedigreed Shorthorn heifer that is breathing so hard I can hear her about 200 feet away. I gave her lard and put her away from her mother, but she does not seem any better. What shall I do for her?
D. B. HOSTETTER.

Hope, Kans.
Answer.—There is probably a small piece of weed or hedge lodged in the throat just above the larynx. Place a block between the teeth on one side to hold the mouth open as wide as it will, then catch the tongue with the left hand and pull out well and with the other hand examine the throat and remove the cause.

Sweened Horse.—Some time last spring I wrote you concerning a sweened horse. You sent reply through the FARMER to apply a liniment composed of turpentine, olive oil and aqua ammonia. I have used the same to date, but as yet can see no change, good or bad, the shoulder remaining the same to all appearances. What more can be done for him?
W. R. B.

Talmo, Kans.
Answer.—Have a seton placed the entire length of the sweeney under the skin. Grease it with equal parts of turpentine and lard each day. Give it rest and it will fill up unless there is lameness in the leg lower down.

A Brave Berkshire Sale.

The breeders' combination Berkshire sale was held as advertised at Kansas City on August 1. The attendance was small, owing to the hot weather, and it was considered a brave and plucky effort on behalf of the Berkshire breeders to attempt to hold a sale immediately following a heartrending period of heat and drouth just passed. However, the sale proceeded to a finish despite the low prices. It was a buyers' day yet the breeders, while not realizing anything fancy, did not sacrifice as much as anticipated. The sows and gilts sold from \$10 to \$48, making an average of about \$24; while the boars sold from \$5 to \$30, an average of \$16.

Mr. Chas. F. Mills, secretary of the American Berkshire Association, had the following to say regarding the sale:

"The quality of the major portion of the consignments was all that could be desired. The breeding was generally up to a high standard. The hogs that were in good condition and with up-to-date quality and breeding were quickly picked up at fairly good prices considering the discouraging conditions resulting from the extended drouth throughout the territory tributary to Kansas City.

"The late rains in said territory will soon improve the conditions of pastures and other crops that are being so generally sown for forage for fall and winter feed. The men who secured the great bargains at the August first sale at Kansas City will receive the congratulations of many who had for the time lost faith in the promise for seed time and harvest.

"The number of boars in the sale was out of all proportion and the large percentage of young things in no condition for a public sale made it difficult to sell the stock to advantage.

"The sale was planned for an auction of stock fitted up for the fall shows, and had not the drouth interfered with the original promoters of the sale the best of the breed would have been presented and the crowd who win at the leading fairs would have been present as buyers. The breeders of the West are far from being discouraged and many are feeding their hogs the abundant supply of wheat to good advantage. There is every reason to expect that the area that suffered from drouth will soon be the best market for sale of pure-bred Berkshires and all other kinds of improved stock.

"The August first sale at Kansas City enabled a number of gentlemen to establish new herds of Berkshires that will soon provide young stock of good breeding and much quality."

Almost all of the entire offering went to Kansas buyers—enterprising breeders who had sold out closely at private sale. The leading purchasers were Manwaring Bros. and E. Martindale, of Lawrence, Kans.; H. T. Avers, Howard, Kans.; E. W. Melville, Eudora, Kans.; C. A. Stannard, Emporia, Kans.; E. C. Chamberlain, Hope, Kans.; C. F. Gilbert, Archer, Mo.; John Tudhope and Geo. Morgan, Linwood, Kans.; and W. W. Majors, Kearney, Mo. The result of the sale will redound to the future credit of the Berkshire swine industry notwithstanding the fact that the consignors did not realize much for this particular effort.

Gossip About Stock.

Notice the change in the advertisement of J. F. True & Son's Rocky Hill Shorthorns at Newman, Kans. They now offer 25 bulls for sale and defy buyers to come and see them and then try to get away from a positive bargain.

A. M. Stillwell, of Eureka, Kans., is advertising to close out his herd of Poland-China swine at such a price that the buyer should easily double his money. Mr. Stillwell recently lost his wife and has concluded to retire from active work for awhile.

Thomas Evans, breeder of registered Hereford cattle, Hartford, Kans., reports copious rains and everything is growing rapidly and corn will make 40 per cent of a crop. The Herefords are doing nicely and everything is favorable for fall pasturage.

John Bollin, Kickapoo, Leavenworth County, Kansas, expects a good trade from this time on from those who desire Poland-China hogs of the best sort and bred just right. Look up his advertisement which appears regularly in the Kansas Farmer, hot or cold, wet or dry. The Kansas Farmer can vouch for Mr. Bollin and his stock in every particular.

The Kansas State Agricultural College has just received from the fancier, C. C. Smith, Lyndon, 50 pure Brown Leghorn chickens. They will be used in feeding experiments to determine the best combinations of Kansas feeds for egg production. Judge C. H. Rhodes, of North Topeka, has been engaged to teach scoring and poultry judging at the college next winter. This feeding experiment is the first poultry work undertaken by the college and the judging school will be the first of its kind in the United States.

"Feeding Cattle."—We are in receipt of an illustrated booklet on feeding cattle, community of interest between farm and ranch. It is a splendid production of Hereford literature compiled by T. F. B. Sotham, of Chillicothe, Mo. It is intended to be a clinching argument in favor of the white face fraternity in general and Mr. Sotham in particular. Several thousand copies have been published for distribution among the cattlemen of America. Mr. Sotham says the object of this little booklet is to follow the steer from calfhood to market, and to interest feeders in better cattle.

The American Swineherd has been gathering data with regard to the pig crop of this year and says the Nebraska crop is three per cent less than last year, Ohio holds its own, Missouri is only 10 per cent short, Kansas is a little ahead of last year on pigs and will also have more hogs to market this summer. Illinois reports the pig crop will average smaller than last year and fat hogs are below the average, too. Michigan, Indiana, Wisconsin, Minnesota, Kentucky and South Dakota send in similar reports. As predicted some weeks ago there is no doubt now that the pig crop is below the average. The fall litters will probably be more numerous than usual, as there is more than the usual amount of breeding for fall pigs.

Catalogues are now out for the first national Hereford show and sale to be held at Hamline, Minn., September 2 to 7, 1901. Seventy-four head of cattle are included in the sale from the following well known herds: K. B. Armour, Kansas City, Mo.; E. H. Brewster, Wilbaur, Mont.; the Cosgrove Company, Le Sueur, Minn.; Gudgell & Simpson, Independence, Mo.; O. Harris, Harris, Mo.; J. E. Logan, Kansas City, Mo.; Geo. E. McEathron, Huron, S. D.; C. N. Moore, Lee's Summit, Mo.; R. G. Ranney, Little York, Ill.; C. A. Stannard, Emporia, Kans.; Steele Bros., Belvoir, Kans.; Stewart & Hutcheon, Greenwood, Mo.; and Walter B. Waddell, Lexington, Mo. Those interested in receiving this catalogue should address C. R. Thomas, secretary, Kansas City, Mo.

Publishers' Paragraphs.

We publish in this issue a three column, six inch advertisement for the Kansas City Karnival Krewe Fair Association—another practical demonstration of the wonderful push and energy for which Kansas City business men are noted all over the country. It seems to us that the Karnival Krewe Fair Association are giving more for their money than ever offered by the enterprising citizens of Kansas City; then, too, their proposition has an element of permanency. Read their advertisement.

The general run of fashion plates are the despair of those women whom nature has decreed for stoutness, or whom time has bestowed with gray hair. Many fashion cuts show an impossible slyph-like form of women everlastingly youthful. The Delin-eator, whose long career of success shows that it meets the needs of women, contains in the September number a special article, carefully illustrated and devoted to the attire of stout and elderly women. This article, with its practical, useful advice about fabrics and quantities, will be appreciated by those who are neither slim nor under twenty-one.

In every community are to be found people of unusual talent in one direction or another, who, through lack of means, have found it impossible to properly develop their special gift. In music, particularly, is this the case. It is a curious fact that many of the great figures in the musical world during the past century secured their education through the medium of free scholarships. Still, the number of these scholarships offered in music are few in comparison to those founded by philanthropic people in other branches of education in our universities and technical schools. The Chicago Musical College, an institution more than a third of a century old, has been the pioneer in this direction. The college commenced in the '60s by offering one free scholarship, increasing the number from year to year as the institution grew, until for the coming season, commencing September 9th, 37 free and 150 partial scholarships have been set aside by the Board of Directors. A free scholarship entitles the holder to instruction free of charge for one school year; a partial scholarship is a liberal reduction from the regular rates. Free scholarships are issued in the Dramatic and Elocution Departments as well as in music. These scholarships are awarded by competitive examination. Applicants are required to present letters of recommendation certifying

ing to their inability to pay for instruction. Those who are in a position to pay something for tuition, but who can not meet the regular rates, should apply for partial scholarship. There is no charge for anything connected with the distribution of these scholarships by the college. Application should be made before August 15, to Dr. F. Ziegfeld, President, Chicago Musical College, College Building, 202 Michigan Blvd., Chicago, Ill.

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 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. Hutchens, secretary, Burlington; September 10-13.
Covey County—Eastern Covey Fair Association—J. M. Henderson, secretary, Burden; dates not yet chosen.
Finney County Agricultural Society—D. A. Mims, secretary, Garden City; August 21-23.
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. B. 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.
Marshall County—Frankfort Fair Association—J. D. Gregg, secretary, Frankfort; September 17-20.
Miami County Agricultural and Mechanical Association—W. H. Bradbury, secretary, Pampa; 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—Cnanute 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. A. 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.
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 28-30.
Sumner County—Molvane Agricultural Society—John A. Reed, secretary, Mulvane; September 27-29.
Wilson County—Fredonia Agricultural Association—J. T. Cooper, secretary, Fredonia; August 20-23.

A Home Remedy That Cures Catarrh.

Mrs. C. Johnson's father and sister were cured of catarrh by this remedy after resorting to every known cure and given up to die of consumption by best physicians. Mrs. Johnson's address is Topeka, Kans., where she desires the name of every sufferer of the awful malady. Thousands write so enclose stamp and she will send you the prescription free. Don't delay. Write at once and be cured. Address, Mrs. C. Johnson, Lock Box 284, Topeka, Kans.

\$13 to Buffalo Pan-American and Return, \$13.

Tickets on sale daily via the Nickel Plate Road, good returning ten days from date of sale. Especially low rates for 15 and 30 day limit Chicago to Buffalo and return. Tickets at lowest rates to all points east. John Y. Calahan, General Agent, 111 Adams St., Chicago. Chicago City Ticket Office 111 Adams St. (No. 18.)

Low Rates to Buffalo Pan-American.

The Nickel Plate Road are selling tickets at exceptionally low rates to Buffalo and return, good for 10, 15, and 30 days. For particulars and Pan-American folder of buildings and grounds, write John Y. Calahan, General Agent, 111 Adams St., Chicago. City Ticket Office 111 Adams St. (No. 19.)

Paradoxical.

New York Judge—You say you live in the city proper.

Witness—Yes, Your Honor; I live in the Tenderloin.—Boston Transcript.

275 100 275
POUNDS
GRANULATED SUGAR

Write for our large catalog before sending your money.
B. A. RAILTON, Wholesale Grocer,
Dept. B. M., Nos. 24 & 26 E. Desplaines St., Chicago.

The Home Circle.

UNCLE HIRAM'S OBSERATIONS.

"I've seen," said Uncle Hiram, "lots o' noble men an' brave Through jes' one bit o' folly brought t' ruin an' the grave— Men rich endowed with honor, men respected an' revered, Whose qualities were envied an' whose virtues were endeared. An' yet they made a failure, much t' ev'ry one's surprise. But, my boy, I've watched the matter, an' in this the secret lies: They were men who in positions of advantage had been placed, With a hundred dollar income and a thousand dollar taste.

An', my boy, I've seen them sinkin' in the treach'rous swamp o' Debt; I've watched the ooze creep higher, an' the waters o' Regret. An' I've sometimes felt like callin', as I stood upon the shore, "The way out, fellers, lies in jes' retrenchment, nothin' more." Sometimes I've even said it, to a good friend, jes' that way, An' while he heard, he couldn't comprehend a word I'd say. He'd keep on sinkin' deeper in the swamp o' daily waste, With his hundred dollar income and his thousand dollar taste.

So I've learned a valued lesson that to you I fain would teach. Don't ever feed on apples that you find beyond your reach; An' if you've money jes' enough to pay for bread it's plain You're doin' wrong by buildin' up a likin' fer champagne! You'll find your Uncle Hiram's right, as on through life you go. That some men live on what they make an' some on what they owe. But the first class, though they're plodders, pass the ones who've forged in haste. With a hundred dollar income and a thousand dollar taste. —Roy Farrell Greene, in American Agriculturist.

The Science of Eating.

DR. E. P. MILLER, 41 WEST 26TH STREET, NEW YORK CITY.

Food or nutriment is an absolute necessity to all organic life whether it be animal or vegetable. To be available for the support of life, the nutritive element should be such as nature has provided for each animal and vegetable structure, and be in solution in the blood or sap so that, when these fluids circulate through the arteries of the animal or in the sap of plants and trees, each tissue can obtain therefrom the material required for its growth and maintenance. Each organ and tissue has its own particular cell germ that propagates by appropriating certain nutritive material that is found in the blood or sap as they circulate in the animal or plant. The entire structure of animals and plants is an aggregation of cells, which have been developed from nutritive material that circulates in them.

WATER AS NUTRIMENT.

There is nothing in the way of nutriment that surpasses in importance, water, the chemical formula of which is H₂O. It has been definitely ascertained that from 68 to 75 per cent of the weight of the human body is water. It is a constituent part of every organ and tissue. Even the enamel of the teeth, the hardest and driest material in the body has 2 parts in 1,000 of water. The teeth have 100 parts in 1,000, the bones 130, tendons 500, cartilage 550, skin 575, liver 618, muscles 725, ligaments 768, blood 780, milk 887, chyle 904, bile 905, urine 933, lymph 960, saliva 983, gastric juice 984, perspiration 986, tears 990, pulmonary vapor 997. It requires about 4.4 pounds of water a day to keep the machinery of man in running order. Much of this water is supplied in the food, a large per cent of which is water.

ASSIMILATION AND DISASSIMILATION.

Assimilation simply means the changing of the nutritive material that is circulating in the blood into the various organs, tissues and fluids of the body. Disassimilation is the process of transforming living matter into waste material preparatory to its being excreted or removed from the body. This process is carried on by the exercise of force, power or energy, for any purpose whatever, by the use of muscles, brain or nerves; we can not think or breathe without destroying the life or vitality of a certain portion of the tissues used. Assimilation restores this loss, from the nutritive material that daily accumulates in the blood. Excretion tears down and removes this dead, effete matter from the system. If this were not done the broken down tissues would clog up the blood vessels and be packed away in various places to cause disease and finally destroy life.

A scientific knowledge of the manner in which these two processes are carried on would virtually solve the problem of life. If we knew exactly what kind of nutriment every tissue of the body required for its growth and

maintenance, and in just what foods each one of those nutriments could be found, and what amount of each was daily required, and how to best cook, serve, eat, and digest that food, and get it made into blood and assimilated, and how to entirely remove from the body all of the old and dead material, so as to keep the blood pure and the body healthful, we should be very near the millennial era.

The preparing, cooking, eating, and digesting of food is an all important matter. We may have the choicest kind of food and if it is badly cooked, improperly eaten and digested, it may produce harm instead of benefit. The digestive organs and their secretions are wonderfully complicated. Professor Atwater, the government chemist, in Farmers' Bulletin No. 23, says:

"We live not upon what we eat, but upon what we digest. In other words the value of food for nutriment depends not only on how much of nutrients it contains, but also upon how much the body digests and uses for its support."

Dr. Henry C. Chapman, in his new work on Physiology, says:

"In order that food should fill its function in the economy it must be assimilated, and before that can be done the food must be first digested and then absorbed. Digestion should therefore be studied first. Under the general term digestion, is included several processes; the prehension of food, its mastication and insalivation, deglutition, the changes effected in the food during its passage through the stomach and the small and large intestines, and defecation."

DIGESTION, NOT FERMENTATION.

There are two kinds of so-called ferments which enter into the process of digestion, one of which is called unorganized ferments or enzymes, and the other organized ferments. The operations of these substances are just as different from each other, as light is from darkness, as good is from evil, as health from disease. One is the natural, healthful, life-giving process which the Creator designed man to employ in the digestion of foods, and the other is the result of bad feeding, a device of man that from first to last is a fermenting, putrefying, health-and-life-destroying process, which has caused more suffering, disease, and death, than war, pestilence, and famine, combined. Dr. Chapman, in his Physiology, correctly describes these two agents as follows:

"The unorganized ferments, enzymes, so far as their composition is understood are nitrogenous substances resembling in some respects albuminous bodies. These bodies are elaborated within the cells of the glands producing them, and have the power even in very small quantities of decomposing or splitting other substances without entering into combination with them or their products. Among such enzymes may be mentioned the ptyalin of the saliva, the pepsin of the gastric juice, the steapsin of the pancreatic juice, etc., the uses of which in the digestion of food will be considered hereafter.

"Organized ferments, as distinguished from the unorganized or enzymes, are organized living beings, the putrefactive and fermentive processes that they give rise to, being phases in the life of such micro-organisms. An enzyme or unorganized ferment differs therefore from an organized one, in that its characteristic effect, such as converting starch into maltose by ptyalin, is effected after separation from the cells that produce it, whereas the fermentation of glucose by the organized ferment or yeast fungus, (saccharomyces cerevisiae), resulting in the formation of carbon dioxide and water, is a stage in the life history of that micro-organism."

The term ferment is not one that should be applied to the enzymes spoken of as "the unorganized ferments that are elaborated within the cells of the glands producing them," for they are not in reality ferments, but simply digestive agents provided to prepare the nutritive constituents of food for absorption and assimilation. They transform nutritive material into life force, while the organized ferments transform nutritive material by fermentation into putrefaction. The enzymes build up tissues, support life and maintain health, while the organized ferments are directly the opposite, for they, by fermentation, destroy nutrition and change nutritive material or life-giving matter into putrefaction, which is dead matter.

The enzyme, ptyalin, is one of the principal digestive agents in saliva which is an alkaline solution that is absolutely essential for the perfect digestion of carbohydrates. The enzyme, pepsin, is the principal agent of the

gastric juice which contains an acid that is absolutely essential to the proper digestion of the nutritive material called protein, such as albumen, gluten, and all nitrogenous foods. The steapsin of the pancreatic juice, the bile secreted by the liver, and the juices of the glands of the duodenum, or second stomach, are alkaline, and these fluids complete the digestion of carbohydrates and the emulsifying of the fats, thus completing the preparation of all the nutritive elements for absorption and assimilation.

Digestion is a vitalizing, while fermentation is a devitalizing process. The first supplies material for new organic structures; the second destroys organic structures and starts the debris on the way to the manure heap. One is a life-giving and health-preserving, the other a disease-producing and life-destroying process.

The organized ferment is an animal germ that lives and propagates by the consumption of sugar, combined with moisture and heat.

Yeast is the principal agent for producing fermentation. There are three forms or conditions in which it propagates, namely, yeast fermentation, acetic fermentation, and putrefactive fermentation. The yeast germ begins its destructive work and is carried into the stomach mainly by being incorporated into bread. This is done for the avowed purpose of making the bread light and more easily digested. In making bread the cook dissolves a yeast cake in warm water and as soon as the flour is stirred into the water the yeast germs begin to devour the sugar in the flour and thus they propagate and multiply, until nearly all the sugar is consumed. These germs consume nearly one-fifth of the carbohydrates in the flour, by developing new germs, and by this process they multiply by millions and in so doing generate alcohol and carbon dioxide, two deadly poisons. It is the carbon dioxide gas that makes the bread light. When the sugar in the flour is thus all used, unless the dough is moulded into loaves and baked, acetic or vinegar fermentation is set up, and this rapidly generates into putrefactive fermentation which ends in the total destruction of all the protein as well as carbohydrates contained in the flour.

It is generally supposed that baking the bread kills the yeast germs, and that the gas and alcohol are thus evaporated. This may be true so far as the outside of the bread is concerned, but not for the inside, and the yeast germs contained therein are eaten and carried into the stomach, alimentary canal, and blood.

Starch and sugar are the main nutritive constituents in the carbohydrates, and in the process of digestion they are converted first into maltose and galactose and later into glucose or fruit sugar before they are, or can be, assimilated. The most of the sugar consumed by the people of this country is cane sugar, of which we use annually an average of about 68 pounds per capita. Cane sugar does not easily ferment, but it is never assimilated except it is changed into glucose or fruit sugar which is readily fermented. When yeast germs are present, with heat and moisture, fermentation starts and such fermentation is a prolific cause of dyspepsia or indigestion. Carbon dioxide (carbonic acid gas) as it is commonly called, and alcohol, are both generated in the alimentary canal by yeast fermentation. In this way the blood soon becomes loaded with dead and living yeast germs with carbon dioxide and alcohol and other impurities, and these impurities accumulate in the tissues, and thus the germs of all forms of acute and chronic disease are generated. The bowels become constipated and the effete and putrefying matters generated by fermentation, and other effete and waste matter, are not carried out of the body by defecation, are thrown upon the kidneys, and diabetes and Bright's disease are developed; or they may be carried to the skin and eczema and other skin eruptions appear; or they may be forced out in boils and carbuncles, or appear in cancer or other tumors; or they may be sent to the mucous surfaces and nasal catarrh, asthma, bronchitis, tuberculosis or pneumonia may be developed. Thus all forms of chronic and acute diseases may be engendered. By taking cold and checking the action of the skin, these impurities may clog the capillary vessels of some of the organs or tissues of the body and an acute and local inflammation or general fever be engendered.

Dr. J. H. Salisbury, one of the first and ablest chemists and microscopists in this country, in his work "Alimentation and Disease," says:

"Nearly all diseases that flesh is heir to aside from those produced by parasites, poisons, and

Insomnia

Nerve-racked, weary and heavy-eyed, the head that seeks repose finds only ceaseless tossing and feverish unrest. Strange fancies—vague forebodings—fill the mind with harrowing thoughts until morning brings its rasping headache, irritable temper, and loss of appetite. Rest the nerves—build them up—and gentle, restful, refreshing sleep will be yours.

"My greatest trouble was sleeplessness. I was nervous and restless, and would toss and roll for hours. Had no ambition and had to abandon business. One bottle of Dr. Miles' Nervine put me on my feet again."
SIMON A. GIBSON, Georgetown, Ills.

Dr. Miles' Nervine

gives that sweet sleep so grateful to body and mind.

Sold by druggists on guarantee.
Dr. Miles Medical Co., Elkhart, Ind.

injuries in general, are the terrible outcome of defective and unhealthy feeding."

In speaking of consumption he says:

"During the first and second stage of consumption there is not necessarily any cough or expectoration, yet both of these are present in many cases from catarrh and bronchial irritation. The catarrh may have become established from continually taking cold as persons living almost exclusively upon fermentable food are liable to do, on account of the alcoholic, vinegar, and carbonic acid products constantly passing off through the air passages, which keeps the pores partially paralyzed, open and enervated.

"The digestive organs in consumption may be aptly compared to an old vinegar barrel and like it they require frequent and thorough washing out, before any fermentable food can be taken in without fermenting.

"No one need hope to handle consumptives successfully by change of climate or by medicinal remedies. It is a disease arising from long-continued unhealthy alimentation and can only be cured by the removal of its cause. This cause is fermenting food and the products of this fermentation (carbonic acid gas, alcohol, yeast and vinegar) are the more important factors in developing the peculiar pathological symptoms, conditions and states in this complaint which is generally and erroneously believed to be incurable."

In speaking of chronic diarrhea, Dr. Salisbury says:

"The active fermentation and development of yeast plants and the resultant gaseous products in the alimentary canal act as an irritant poison and cathartic of a peculiar character."

Professor Atwater quotes from Sir Henry Thompson, a noted English physician and authority on this subject, as follows:

"I have come to the conclusion that more than half the diseases which embitter the middle and latter part of life are due to avoidable errors in diet, * * * and that more mischief in the form of actual disease, of impaired vigor, and of shortened life, accrues to civilized man, * * * in England and throughout Central Europe, from erroneous habits of eating, than from the habitual use of alcoholic drink, considerable as I know that evil to be."

Dr. John Butler, an eminent New York physician, says:

"A very little yeast introduced into the stomach already weak will suffice to start fermentation of food, and yeasty fermentation once started tends to perpetuate itself indefinitely. As a result of this fermentation, carbonic acid gas is set free, which not only paralyzes the healthy activities of the secreting glands of the stomach and intestinal canal, but in consequence of its irritant action on the mucous membrane, a catarrhal condition arises, which besides keeping the parts in a state of sub-acute inflammation, allows the stomach, duodenum and whole intestinal tract to be continually so filled with mucus that mechanically their functions are impeded so that every meal put into a stomach in this yeasty, slimy condition only further increases the difficulty. More and more yeast is formed which is absorbed into the blood; healthy nutrition becomes impossible and that part of the body naturally the weakest or most overworked is the first to suffer; it may be the heart, lungs, brain, kidneys or spinal chord."

HOW DISEASE GERMS ARE ORGANIZED.

As we have already stated, each tissue has its own special cell germ that takes out of the nutriment in the food that which is required for its growth and renewal; so also the yeast germs being destructive to nutritive material may develop a special disease germ for each tissue in the body, and still these

It isn't the Cook's Fault, It isn't your Grocer's Fault,

that the bulk coffee you just purchased turns out to be different from the "same kind" bought before. Coffee purchased in bulk is sure to vary.

The sealed package in which LION COFFEE is sold insures uniform flavor and strength. It also keeps the coffee fresh and insures absolute purity.

germs may all belong to the same yeast family, although under the microscope they might present a somewhat different appearance.

A great many people in this world think that disease, pain and death, are sent upon the human family through some mysterious dispensation of Providence, but when they fully understand the science of life they will discover that they bring these calamities upon themselves by direct violation of the laws of their own bodies. St. Paul said, "Know ye not that ye are the temple of God, and that the spirit of God dwelleth in you?" "If any man defleth the temple of God, him shall God destroy for the temple of God is holy which temple we are."

In the first chapter of Malachi, the last book of the Old Testament, we find the following:

"A son honoureth his father, and a servant his master: if then I be a father, where is my honour? and if I be a master, where is my fear? Saith the Lord of Hosts unto you, O priests, that despise my name. And ye say wherein have we despised thy name?"

"Ye offer polluted bread upon mine altar; and ye say, wherein have we polluted thee? In that ye say, The table of the Lord is contemptible."

The table of the Lord referred to here was undoubtedly the one established at the feast of the Passover, which was to be commemorated as a feast of unleavened bread, which the priests said was "contemptible;" and they had probably substituted leavened or yeast bread in place of it, and this was what the Lord denounced as "polluted bread."

It was at a feast of this kind, that Christ, the day he was betrayed, said to his apostles "With desire I have desired to eat this Passover with you before I suffer: for I say unto you, I will not any more eat thereof, until it be fulfilled in the kingdom of God."

"And he took bread and gave thanks, and broke it, and gave unto them, saying, 'This is my body which is given for you: this do in remembrance of me.'"

Unleavened bread possesses all of the vital properties of the nutritive constituents of foods required by the tissues of the body, and, for all except little children, it is the very best balanced in nutritive material of any one food that man can eat. It has protein for muscles, brain and nerves; fat and carbohydrates for animal heat and force and energy; and mineral matter for the bones and other tissues, and hence is the real staff of life. But yeast bread is contaminated with the germs of corruption and putrefaction before it enters the mouth, and these germs multiply and increase in the stomach and alimentary canal, devouring and polluting the nutrition required by the tissues, dropping their dead carcasses all along their track, depositing disease germs wherever they go, and death sooner or later claims the victim. This is a question of life or death, which, owing to the ignorance of the people, nearly always ends all too soon in the grave.

"Hit Me; I'm Big Enough."

He wasn't very big, but he was a sturdy little chap with a face that bore the marks of much thinking and premature responsibility. I learned afterward that he was supporting a crippled mother and an invalid sister who had been left helpless in the world by the death of her father. He might have run away from home and evaded the responsibility, but he didn't think of it. He just sold papers.

At the loop on Fifteenth street a crowd was gathered, waiting for the evening cars. A ragged young girl was selling flowers at the Fifteenth street end of the waiting station, when a man, rushing to catch his car, knocked her against the side of the building. Without stopping, probably not having noticed what he had done, he continued his rush, when the boy stepped in front of him, defiantly.

"Say, what do you want to knock a girl down for? Hit me; I'm big enough."

The man paused in surprise, and then glanced around. He saw the flower girl picking up her wares, and understood. Without a moment's hesitation he went back to her, gave her enough money to make her eyes sparkle with joy and said:

"I'm sorry, my dear, that I hurt you. I didn't see." Then, turning to the boy, he continued: "You said you were big enough young man, but you're a great deal bigger than you think. Men like you will have a lot to do with keeping this old world in a condition of self-respect."

Then he caught his car and the boy and the girl stood there wondering what he meant.—Denver Times.

The Young Folks.

UNCLE BIJAH'S TRIUMPH.

"Things'll come out all right some day," Uncle Bijah used to say; "No use howlin' before you're hit, No use frettin' about The price of the crop that ain't thrashed yet."

Nor even begun to sprout; No use pokin' in every hole, A-spyin' for trouble there— Cold days comin', but lots o' coal Down in the mines somewhere. Things'll come out all right some day If you'll jes' let 'em come that way.

"Things'll come out all right some day," Uncle Bijah used to say; "Taint every cloud that brings a flood Ner every breeze a blight; Better wait an' risk some loss o' blood Than fall down dead o' fright; No use frettin' cause things are not The same as they used to be; Or settin' an' dreadin' to think o' what Is comin' fer you an' me— Things'll come out all right some day If you'll jes' let 'em come that way."

"Things'll come out all right some day," Uncle Bijah used to say; He gained no wealth, he won no fame, And small was the world he knew; He managed to set no streams aflow; But he laughed when the sky was blue. He coveted naught that his neighbor had, Nor grieved at unseen ills, But whistled away and kept a glad Song echoin' o'er the hills— And whispered: "Things are all right" That he smiled as he went away. —Chicago Record-Herald.

THE MAN OF THE WEEK.

John S. Pillsbury. (Born July 29, 1828.)

In these days of much boasting of college and university endowments, President Adams may well be pardoned for quoting with evident pride the saying of Governor Peck that "the University of Wisconsin is endowed with two millions of people." Could endowment be safer or better? The people of that great State support their university with generous appropriations of money; and they do what is better by sending to it the brightest and best of their sons and daughters.

It happens to be a fact that every State college and university is endowed by all the people of the State where it is located. And this is not all. All the people of the United States are the "endowment" of these institutions of learning. A part of the public school system, the State colleges and universities belong to the people and exist to serve them. Every man and woman employed by them is in the service of the people—not in the service of science, or art, or literature.

It has often been noticed that endowments vary in usefulness. The gifts of millionaires sometimes depreciate in value. John Hopkins University has seen its millions become unproductive, and Stanford has had its season of poverty, notwithstanding the great gifts it received. The value of an endowment depends on something besides its amount. The skill and wisdom of those who manage it is a vital part of its worth. And this is as true of the institutions that are endowed with people as of those endowed with dollars. Some States support their colleges better than others. The explanation may be that the people of one State are not interested in higher education; it may be that those who manage the college are not interested in the people—are not wise and skillful in using its "endowment."

All the State colleges are endowed with all the people; but some of them are endowed with particular men—men of peculiar gifts of leadership, or influence, or fortune, or business capacity, coupled with willingness to work for a cause or an institution. The University of Minnesota has been especially fortunate. Its endowment of lands was increased in effectiveness by the energy and business capacity of one of its early regents—John S. Pillsbury—who saved it some thirty thousand acres of its congressional grant.

Who was this John S. Pillsbury before he gave the struggling university of his adopted State the benefit of his valuable services? A prosperous hardware dealer of St. Anthony Falls, and nothing more—unless we go back to the little town of Sutton, New Hampshire, where he was born and educated, where he learned the painter's trade, and, tiring of that, worked in a store till he was attacked by the "western fever," which induced him to emigrate to Minnesota in 1855. Eight years later came his appointment as regent of the university and his election to the State senate. The hardware merchant must have been a good legislator, for he was kept in the senate thirteen years, all the while devoting his best energies to building up the university. Already he was a valuable part of its endowment,

and was infecting the people of the State with his interest and enthusiasm.

It came about that Mr. Pillsbury's services in the senate was cut short in 1875 by his election as governor. He could no longer vote for appropriation bills, and his favorite institution was asking for \$250,000 for buildings. What was worse, it was the time of the great grasshopper scourge, and the State was poor—so poor that the legislature could not be induced to appropriate more than \$100,000. But the hardware merchant had prospered; he had been one of the promoters of the famous Pillsbury Mills, and was rich as wealth was then counted in the State of Minnesota. So he decided that the University must have what it had asked for, and gave it \$150,000 himself. It is probable that this gift was the best thing that ever happened to the University of Minnesota. It taught the people of the State that at least one of the supporters of that institution had a genuine interest in its progress, it gave them a new appreciation of the importance of the head of their school system, and it increased their value as an endowment.

Mr. Pillsbury served two terms as governor, during which time he was of great service to the State. The farmers of Minnesota owe him a debt of gratitude for his efforts to relieve those who suffered from the grasshopper plague; and every citizen of the State is under obligation to him for having induced the people to pay a debt which they had practically repudiated. It is probable that the debt should never have been contracted and that it did not represent value received. But a great State must not teach financial dishonesty; its people must not excuse themselves from paying millions for what was worth only thousands, even if they were led to make their promise by the devious ways of railway promoters.

Mr. Pillsbury, as he well deserved, was formally and officially honored by his State. By special legislative act, he was made regent for life of the great university for which he had done so much. D. W. WORKING.

Good Men Are Scarce.

"Mr. Schwab, could you recommend me a good business man for a manufacturing plant who would be willing to devote his time to the concern and put forth his best efforts in exchange for a salary of \$25,000 per year?" This was the startling question addressed this morning at the breakfast table in the Waldorf-Astoria to Charles M. Schwab, of Pittsburg, president of the steel combine, and himself credited with receiving a salary amounting all the way from \$50,000 to \$1,000,000 per year. The man who asked the question was Colonel Pope of the Pope Manufacturing Company. A year ago the question would have been laughed at as a great joke. Very earnestly and in all seriousness the young Pennsylvanian replied: "I am very sorry, Colonel Pope, but I can not. In fact, I am look-



Family cares and duties do not weigh down the well woman, and the children are never in her way. But when the womanly health fails, and there is a constant struggle with weakness and pain, household duties are a burden almost past bearing, and children are a ceaseless annoyance and worry.

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ing for about eight such men myself, to whom I would be willing to pay similar salaries." The waiter who was breaking the eggs was the only member of the party who displayed any excitement over this remarkable heart-to-heart talk.—Pittsburg Dispatch.

"My heart wasn't in the service," she faltered, with quivering lip. When I looked around and saw that my hat wasn't in it, I— Here she burst into tears.—Detroit Journal.

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The Missouri State Board of Agriculture reports the condition of corn in that State August 1 at 21 as compared with 69 one month ago and 96 one year ago.

In the course of a business letter to the advertising manager of the KANSAS FARMER, Mr. H. M. Kirkpatrick of Wolcott, Leavenworth county, Kansas, says: "Alfalfa is all I will have this year. God bless the drouth resisting, weed destroying, pasture supplying, ever growing, ever green, four times repeating, forever harvesting, digestible nutritive alfalfa."

Those, if any such there be, who have lost heart because the corn and hay crops are short should send for the "premium List of the First Annual Fair of the Rice County Agricultural Association," to be held at Sterling, Kansas, September 11, 12, 13, and 14, 1901. The people of central Kansas will find plenty to exhibit at this fair, and will promote their interests and their enjoyment by coming together. Hon. D. J. Fair is president, and Mr. C. Hawkins is secretary. The fair will be a success.

The twenty-seventh biennial session of the American Pomological Society will be held in Buffalo, N. Y., September 12 and 13, 1901. The occurrence in that city of the first meeting of American fruit-growers in national convention, namely, the North American Pomological Convention, which met and organized in Buffalo, September 1, 1848, gives this session a peculiar significance to the older members of this time-honored organization, while the fact that the pomological exhibits of the Pan-American Exposition will be at their best at this time should interest all younger horticulturists. The very general interest in this session is manifested by the fact that more than thirty State and provincial horticultural organizations have already appointed official delegations to attend it, while individual members of the society in all sections of the country have expressed their intention to be present. The program for the meeting has been arranged with a view to preserving sufficient time for the discussion of several interesting topics of great practical importance to fruit-growers. It is at the same time rich in subjects of interest to pomological specialists and amateurs.

WILL STORE THE RAINFALL.

Mr. F. C. Kingsley, a Shorthorn breeder, of Dover, Kans., reports that he has had nine years experience with alfalfa. He got his first seed from Germany and has had much better success with this and seed produced from it than with that from the West. His nine-year-old meadow is still doing business and prospering at the old stand. Mr. Kingsley finds alfalfa his most profitable crop every year, and beyond comparison with other crops this year. After land has been in alfalfa a few years the soil becomes so porous that it takes in all of even the heaviest rains, and stores the moisture below the surface where

the sun and wind can not get it, but the alfalfa roots appropriate it even from many feet below. When it was suggested that the Kansas rivers this season carried out of the State enough water to have secured a good yield on every acre of corn planted, Mr. Kingsley reflected that if the land had been in alfalfa most of that water would have been reserved close to the alfalfa roots and used as needed. He will this season seed the remainder of his cultivated land to alfalfa.

THIRTEEN THOUSAND NEW HOMES.

About 13,000 new farms are now in course of selection on the Indian lands recently acquired by the United States and awarded by lot in the great drawing which took place last week. Many of those who secured lands are practical farmers. Doubtless some entered the lists intending to sell out whatever they should draw. Some who never farmed will get their first experience during the next year. That the majority will be successful as tillers of western farms and as keepers of flocks and herds is a safe prediction. It will be found that nearly every one of these farmers on the new lands is a reader and a student to a greater or less extent. The man who is best informed in the sciences of western farming will, other things being equal, succeed best.

Nowhere has farming profited more from the application of science than in the newer West. In Kansas and Oklahoma, in Nebraska and the Dakotas, the peculiar conditions of climate and soil have been studied with especial reference to the methods and the crops best adapted to them. It has been and is the especial province of the agricultural papers of this new west to keep their readers informed as to every development of beneficial information. Some years ago it was a question in the mind of the editor of the KANSAS FARMER as to how much scientific matter his readers would approve. It is a deserved compliment to the intelligence of these readers to say that years of experience have shown that science applicable to farming may be presented without limit if only expressed in plain United States English. The realization of this fact has led to making the KANSAS FARMER the most scientific of all the farm journals. The readers have demanded it and the paper thrives upon it.

This number of the KANSAS FARMER is sent to a large number of the fortunate owners of farms in the new country, in the belief that the order of their intelligence will compare with that of the old readers of the paper and that they will find it helpful in making the best possible use of the opportunities acquired with their new farms. Those who do not now know will soon realize that many of the methods which bring success a few hundred miles further east are not adapted to this western country. The KANSAS FARMER has since 1863 been helping western settlers to use their opportunities wisely. It extends a hearty western helping hand to the fortunate possessors of foundations for homes and farms in the new lands.

THE STRIKE AND THE FARMER.

For several weeks a strike of some of the employes of the United States Steel Corporation has been in progress. Various attempts have been made to adjust the differences and put both the mills and the men at work again. Last Saturday the head officers of the striker's organization went to New York to confer with the head officers of the corporation. The conferees failed to agree. It is announced on behalf of the employes that the strike will be made general by calling out all of the workers for the corporation. A further intimation is given that other labor organizations will be induced to call out their men. On the other side the spokesmen for the steel corporation are reported to have stated the readiness of this concern, which controls the manufacture of steel in the United States, to spend any amount of time and money to win this fight.

The attempt will doubtless now be made to introduce other labors in the mills to take the place of the strikers. This, of course, will meet opposition from the strikers. In similar cases in the past violence and disorder have developed. It is too much to hope that they will be prevented at this time. Loss and suffering are certain.

The entire country will suffer inconvenience and will lose by the disturbance in the steel industry. The disturbance will be especially marked in the vicinities of the various works, and in the various interests directly dependent upon steel. Producers of food

stuffs will sympathize with the victims of this contest of endurance, but their prosperity will be least affected. People must still eat. The demand for food-stuffs is well up to the supply. The shortage of the corn crop of the United States is already affecting the price of wheat. Meats are unusually high and indications are that they will be yet higher. The bread and meat produced in the United States this year will probably represent more dollars than ever before. So, too, the bread and meat produced in Kansas will probably represent a larger sum than ever before. This money will not be distributed just as heretofore, but it will be distributed to the producers of Kansas and will be little affected by the strike disturbances. The people of Kansas may be thankful that their pursuits are chiefly agricultural, and as nearly as possible beyond the circle of labor disturbances.

Should the struggle in the steel industry be greatly prolonged and extended to other manufactories the attention of the business and financial world may on that account be directed to the serenity, and at least comparative prosperity of the food producers in an unusual degree. Certain it is that if they would get our money they must do business with us, for we are paying them very little usury in these last days.

CULTIVATED AFTER THE RAIN.

Every experimenter in soil physics has observed the efficiency of the "dust mulch" in protecting soil moisture from evaporation. Farmers have often noticed that well cultivated corn has stood drouth remarkably, but in a few days after a summer shower has rapidly declined. A common expression has been that the corn was "cooked." Putting together the observations of the soil physicists and the farmers it has been contended that the summer shower may be made a blessing instead of often a curse by producing the soil mulch soon after the summer shower. This accords with the experience of those who irrigate their lands. They find it necessary to stir the soil soon after every irrigation.

After corn has tassled it is sometimes impossible to go through it with the cultivator without breaking many stalks that have been blown over by the wind which accompanied the rain. The case is different this season and in most of the corn belt the corn stands straight.

Quick to apply every precept of science to his farming, and having proven the dust mulch to be beneficial, Col. Guilford Dudley, of Topeka, last week hastened into his corn fields with one horse cultivators and loosened the surface soil. His corn is in check rows and was cultivated both ways. Earlier in the season, Colonel Dudley found a small harrow—made of 2-inch oak planks with wire nail spikes for teeth—a most useful and inexpensive implement. But immediately after the late rains it was found to clog and some of the one-horse cultivators found in the implement stores were used.

Enough moisture fell in the vicinity of Topeka to assure the growth and maturity of the corn if only it can be protected from them by sun and wind. Mr. Dudley's experience will be watched with interest. It is in line with the teachings of science, and will doubtless bring good results.

BE CAREFUL IN PASTURING SORGHUM.

The precautions needed in beginning to pasture sorghum or Kaffir-corn receive fresh emphasis from the experience of a Douglas County farmer, which is stated to Professor Cottrell, of the agricultural college, as follows:

"After feeding and watering, they [the cattle] also ate straw, and were on pasture where they were getting a limited amount of green weeds. I made sure their stomachs were not empty. I took my watch and stayed with them myself. From the time we turned in till every one was on the outside was fifteen minutes. My helper says he doesn't think they were eating over ten minutes. Several of them were sick, right away, two of them were dead in a little over an hour. Another one was very bad, but pulled through and is gradually coming to her milk. Another, due to calve in October, lost calf and is in a bad condition. I hope I am not going to have any more losses."

It is probable that all trouble would have been avoided had Professor Cottrell's directions been implicitly followed. The animals should not merely have water and something to eat immediately before they are turned into the sorghum field, but must have all they will eat of some feed that they like so that they will eat but little of

the sorghum at first. A few weeds in a dried-up pasture and some straw does not meet the requirements. No other bulky dry feed is eaten with such relish as alfalfa hay. The safest plan is doubtless to secure enough nice alfalfa hay to give them all they will eat for a few times just before turning into the cane field. The few pounds required for each animal is cheap insurance even if it should cost a cent a pound.

The editor of the KANSAS FARMER hopes that persons who meet with losses from pasturing cane or Kaffir-corn will report the circumstances as carefully as they were reported by our Douglas County friend. It is hoped that we shall soon know just how to use cane and Kaffir-corn pastures with absolute safety.

KANSAS AND HER WHEATS.

Secretary F. D. Coburn has contributed to the Northwestern Miller the following important and timely information:

It is difficult for any one who has not been in touch with or directly observant from year to year of the progress and expansion of wheat-growing in Kansas, from its small beginnings forty years ago, to comprehend how it is that the State has gradually come to occupy the foremost rank as a producer of hard winter wheat, or how in a quarter of a century what were known as soft wheats have in nine-tenths of the fields been displaced by the red, flinty sorts introduced from Russia, yet in every-day parlance grouped under the general head of "Turkey" wheat.

Forty years ago the Kansas area sown to wheat of all kinds, winter and spring, hard, medium, and soft, white, and otherwise, was less than 10,000 acres. For ten years ending with 1900 the average has been 4,278,178 acres, and the yield per year, counting the good with the bad, has been more than 46,272,000 bushels, while in the year 1901 there will be harvested approximately 5,000,000 acres of winter wheat alone, yielding generously of grain grading for quality as high on the whole as any preceding crop grown. The largest area previously sown to winter wheat was 4,909,972 acres, from which the crop of 1893 was harvested, and the State's largest wheat product was 77,339,091 bushels in the year 1900. (The United States Agricultural report says the yield was 82,488,655 bushels.)

Notwithstanding these wonderful aggregate outputs, the wheat crop in Kansas is subject to vicissitudes, as it is elsewhere—though possibly to a less degree—as is readily suggested by the variation of the average per acre yield from less than four bushels in 1895 to more than 22¼ bushels in 1882. In thirty of the thirty-nine years for which definite figures are available, the average yield for all the acres sown has been above 10 bushels per acre, and for fifteen years has been 15 bushels and above.

Kansas is virtually the only portion of America producing the famous hard red wheat in considerable quantities, in which, as in many other things, the State is unique. The seed of this wheat was introduced about twenty-five years ago, being brought hither by Mennonite immigrants coming from the country in southern Russia near the Black Sea, who, apparently, understood much better than Americans its hardy productiveness and real value. For years following its introduction it was disparaged by American millers and grain-buyers, who claimed that its flinty character made it so difficult to grind as to materially lessen its market value. The farmers, however, persevered in sowing it and the production steadily increased, although they were compelled to accept in the markets from 10 to 15 cents per bushel below what buyers and millers were willing to pay for the softer and much better known varieties which yielded considerably fewer bushels per acre. They persistently argued that it was more profitable to raise a wheat that would reliably yield them, one year with another, from 18 to 40 bushels per acre, even though selling for but 70 cents per bushel, than to raise a crop selling for 80 or 85 cents per bushel and yielding perhaps only 12 or 15 bushels. This, in the course of a few years, compelled millers to devise ways and means for more successfully and economically converting this hard wheat into flour, and there were brought into use processes for softening the grain by steaming and moistening before grinding; these are now in general use and are considered indispensable wherever wheats of this class are floured.

This has required a general remodeling of such mills as were already built, and the construction of the later mills on plans in some respects entirely different from the old, and now, out of all

this, results the Kansas hard wheat flours, which have become famous in the world's most exacting markets as superior to nearly all others wherever made in America, and conceded equal to the flours made in Hungary from wheats grown in that country and in Bohemia. This, either for use alone or for blending with and giving quality to other pretentious makes represented as being peculiarly choice because of being made from extra fancy grades of spring wheat grown elsewhere.

The best of this wheat is perhaps most largely grown in the central third of the State from east to west and in altitudes ranging from 1,300 feet in Marion County to 2,100 feet in Edwards, an average close to or slightly below 1,600 feet. The 4 largest wheat producing counties, Sumner, Barton, Rush, and McPherson, have an altitude for each respectively averaging about 1,250, 1,900, 2,075, and 1,450 feet. These wheats do not retain their peculiar characteristics so well when grown in the extreme eastern and southeastern counties, showing a tendency to assume more the qualities of soft wheat, and this is true, but to a much less extent elsewhere, wherever they are grown in Kansas. This fact has for some time suggested the desirability of procuring fresh seed from time to time from their original home in Russia, and for a year past a concerted movement of the Kansas grain and milling interests has been carried on for importing direct a ship's cargo of seed in time for distribution among Kansas farmers for the present season's sowing. This imported seed, intended to be as perfect as money would buy, is due to arrive at an early date, but will not be on general sale, as it is being imported only for those who gave their orders in advance for the quantities needed by themselves.

It would be an error, however, to convey the impression that no soft winter wheats are grown in the State, and in the central and eastern portions such varieties as Fulcaster, Fultz, Early May, and others similar are not uncommon. The soft, white, large-berried varieties brought from Michigan do not do well, and the same may be said of the white wheats from California, Oregon, and other Western territory.

Farmers are rapidly learning that profit comes from using the best seed obtainable, and that sowing the same wheat continuously on the same ground is not satisfactory. A change of seed, such as from one county to another, or even from one neighborhood to another, and from northern localities to those more southern, is excellent, and preferably the latter rather than from south to north.

Probably the average quantity of seed used per acre by the Kansas wheat-sower is 5 pecks, and this varies according to quality, location, method and time of seeding and the whim of the sower, from a minimum of 3 to a maximum of 6 pecks. Probably nine-tenths of this is planted with drills, the old style of sowing broadcast being discarded. Not all of the wheat land is by any means plowed every year, it being very common, especially in the western half of the State, to drill directly among the stubble of the recently harvested grain; it is claimed that this gives a firmer seed-bed, with much less liability of the surface soil being moved about by the high winds and leaving the roots naked to the weather. Much of the ground, however, that is not plowed is scarified with disk harrows before seeding, and a very satisfactory condition obtained thereby. Rotation is something that the Kansas farmer has as yet given little thought, but his methods will change with the years.

It is the opinion of the most experienced and extensive Kansas millers that growers will be wise to continue the sowing of the hard wheats as their staple, except it might be to supply the limited demand for soft wheat flours, amounting to 5 or 10 per cent, for pastry and like purposes, and this could be properly grown in the eastern counties which are least adapted to the more staple varieties.

The following table shows the acres, product and value of Kansas winter and spring wheat for the last ten years:

Years.	Acres.	Product.	Value.
1891.....	3,733,910	58,550,653	\$42,596,759.09
1892.....	4,129,829	74,538,906	40,691,762.03
1893.....	5,110,873	24,827,523	11,032,932.04
1894.....	4,840,892	28,205,700	11,297,797.13
1895.....	4,171,971	16,001,060	7,463,118.47
1896.....	3,357,727	27,754,888	13,257,193.77
1897.....	3,444,364	51,026,604	34,385,304.69
1898.....	4,624,731	60,790,661	32,937,042.28
1899.....	4,988,952	43,687,013	22,406,410.00
1900.....	4,378,533	77,339,091	41,974,145.00

That Minnesota is a great wheat State all the world concedes, and according to the Year Book of the United States Department of Agriculture, Minnesota had in 1900 a considerably larger acreage in wheat than Kansas, but the Year Book gives on the same page

the Kansas yield as greatest by more than 60 per cent, and its value greater by 40 per cent.

While there has been much suspense and speculation in regard to this year's crop, one thing is certain, that Kansas has a magnificent acreage, the first essential to making possible a subsequent large aggregate of product. As it becomes more widely and better known, Kansas wheat is increased and constantly increasing demand, and her bread-stuff output successfully competes with the best from wheresoever, the Sunflower State each year reasserting more emphatically than ever her claim to priority and prominence as a producer of the best, and as such hers is popularly recognized. None, apparently, appreciate this more than the Kansas farmer, and this year's operations seem to be on a scale never heretofore surpassed or equaled by any other State or country, or even by Kansas herself.

As an indication of the industry displayed by the enterprising husbandmen along this line it is of interest to know that 80 Kansas counties already reporting have a larger field in winter wheat this year by 125,000 acres than the State's entire 1900 wheat area, the year when the State produced more wheat than ever before in her history—76,600,000 bushels (Government estimate 82,488,655 bushels) from 4,269,000 acres, an average of about 18 or possibly more than 19 bushels per acre. There are 25 of the 105 counties yet to hear from, including such premier wheat-growing sections a Clay, Dickinson, Montgomery, Reno, and Sedgwick counties, which are always well up in both acreage and yield. These and kindred facts and figures are revealed by the county clerks' abstracts of assessors' returns of the agricultural statistics for 1901, now being compiled by the Kansas State Board of Agriculture, and which are official. The increased acreage this year is greater even than the most sanguine anticipated, as suggested by the figures of the 80 counties thus far reporting, which make a remarkable showing; no less than 14 of them record an advance over last year ranging from 47,801 acres in Pratt County to 89 in Allen. Six counties report a loss, and one, Grant, had no acreage either year. Six counties gain over 30,000 acres each; 10 increase more than 20,000 each, and 18 have added over 10,000 each, while the entire 80 show a total increase of 840,000 acres, or 23 per cent, making their this year's total acreage of winter wheat 4,485,000, or 4½ acres to each inhabitant.

Of these 80 counties the great wheat-growing county of Sumner, as has been the case for each of the past dozen years, again leads all others, with 309,641 acres, the largest area ever sown to wheat in any Kansas county in any year, and in all probability none reporting later will surpass her; Barton is second with 254,211 acres; McPherson third with 187,823 acres, closely followed by Rush, Rice, and Ellis in the order named. Thirteen other counties have between 100,000 and 166,000 acres each.

One of the notable features of this year's gain is the proportional uniformity of the increases in nearly every instance, and if the advances were represented by percentages of increase in each the contrast would be much more striking, as, for example, Barber gained in acreage 208 per cent, Republic 178, Wallace over 156, Decatur 97, and so in a lesser degree. In the face of such an apparently general movement to sow an enlarged area to wheat last fall, regardless of location, it is not surprising in many instances to discover that the principal corn territory has been somewhat invaded, and it is a remarkable fact that in 15 of the foremost corn counties, all but 3 of which are located in the northern part of the State, show a decrease in their corn area of 240,000 acres, while the increase in wheat amounts to 256,000 acres.

Many of the 80 counties reckoned with are not adapted to the best production of wheat, as is strongly indicated by the fact that Sumner alone has a greater acreage than the combined area in 38 of those considered. Counties having small acreages of winter wheat should not, however, for a moment be considered of inferior agricultural value, as the husbandman perchance is farsighted enough to recognize that his soil is much better adapted to the still more profitable production of corn, alfalfa, and sorghum, the three great crops that combined largely make Kansas the ideal stock-raising and fattening region that she is.

While wheat may be grown in every county, about 65 per cent, or 50,373,000 bushels, of the tremendous output of last year was grown in 20 counties, namely, in order of their rank in production, Sumner, leading with 5,760,000

bushels; Barton, Rice, McPherson, Russell, Saline, Ellis, Sedgwick, Stafford, Ellsworth, Rush, Reno, Pawnee, Harper, Marion, Mitchell, Lincoln, Dickinson, Ottawa and Harvey, none yielding less than 1½ million bushels. In sixteen of these 20 counties the wheat area is increased 287,278 acres over that of last year, their gains ranging from 36,819 acres in Harper to 237 in Barton, while Marion stands out alone in the decrease column, and Sedgwick, Reno, and Dickinson are yet to hear from. Their total 1900 acreage, including Marion, was 2,302,500 acres, or considerably more than 50 per cent of the State's entire wheat area; thus it will be seen that in the chief wheat-growing region of Kansas the increase in acreage has been phenomenal. It is generally claimed by the knowing ones that this year's yield is heavier than has been anticipated, and with the immense area, the largest ever yet sown, Kansas will certainly retain her enviable position at the head in the rank of State producing in greatest opulence the wheat for making the high-grade breadstuffs for which the people of the world are continually clamoring.

Spring wheat is not a prominent item in Kansas agriculture and its growth is given little or no attention outside a few northern or northwestern counties bordering Nebraska. The area sown to this crop in the last decade has averaged but about 165,000 acres annually, and the annual yield has been about 1,200,000 bushels. Winter wheat farmers have an antipathy to the growing of spring wheat in their territory, as they claim it affords a breeding and nursery ground for chinch bugs, which later spread and do much injury to other crops.

Kansas has extensive milling industries and it is believed that fully 40 per cent of her wheat is made into flour within her own borders, and probably another 35 to 40 per cent of this grain is marketed at her double commercial gateway Kansas City, Kansas, and Kansas City, Mo.

No better harvest season was ever known than that now closing, and the grain is going into the stack and the separator in a condition never surpassed.

Secretary Wilson's Bad Break.

COMMENTS BY SECRETARY COBURN.

I have been amazed to see in the daily newspapers under a Washington dateline a statement that Secretary Wilson of the United States Department of Agriculture is starting on a visit to observe conditions in the "corn belt," which he is careful to define as "Iowa, Illinois and Missouri." Also "he refutes the contention that Kansas and Nebraska are included for conditions there can never be counted on. The crops of those States are too uncertain."

Mr. Wilson is a man of high character, great intelligence, and with every faculty for information about agricultural conditions, and I can not credit him with such a grotesque perversion of truth, lack of knowledge, of willingness to ignore the agricultural possibilities and performances of two States that his own reports show as rightfully standing among the foremost. No honest man qualified to teach a district school would risk his reputation for intelligence by giving utterance to any such balderdash.

The reports of Mr. Wilson's department for the past five years show the foremost corn producing States of the world (in aggregate yield) to be Iowa, Illinois, Nebraska, Kansas and Missouri, in the order named, and that for ten years past, save one, these same States have led in producing the King of cereals.

They reveal that in the past five years young "semi-arid" Kansas once ranked third, crowding the old Iowa for second place, surpassing both Missouri and Nebraska. Kansas in the same period ranked fourth once, and fifth in this galaxy of corn stars three times, while excluded Nebraska has a record as good or better, having distanced Illinois in 1896, and Iowa in 1897, leaving "reliable" Missouri to occupy fourth place three years and fifth place two years in the five. Nebraska excelled Missouri in 1892, 1896, 1897, 1898, 1899 and 1900. Kansas raised more corn than Missouri in the years 1896 and 1899, and in 1896 harvested a crop three times greater than that of Iowa in 1894. In fact Kansas in 1896 grew almost as much corn as "reliable" Iowa and Illinois combined in 1894, and in the past five years, according to Mr. Wilson's reports, the aggregate corn produced in Kansas has exceeded that of Missouri by nearly 100,000,000 bushels.

The corn crop of Kansas in one of the past ten years was greater than that of Iowa in four different years of the same period; greater than that of Illinois in seven of the years; greater

than Nebraska's in nine of the years, while Missouri's nearest approach in the decade fell nearly 10,000,000 bushels short of being its equal.

If the lands of the central part of Kansas "belong to a semi-arid classification" it is lamentable that there are not larger areas in the United States that can properly come under the same classification, for the particular portion of the Sunflower State as described constitutes what is probably by odds the most profitably productive wheat-field in the world, the flours from which are unsurpassed by the product from wheresoever, all of which is generally well-known.

This part of the State is the portion that has made Kansas famous to the ends of the earth by its wonderful output of winter wheats, outdoing all would-be competitors, and placing the State in a class by itself. In short, this region, "arid," semi-arid," or otherwise, is without a peer in wheat-production.

Referring to Kansas as "semi-arid," "uncertain" and territory where "conditions can never be counted on," it is proper to invite attention to the showing made by Mr. Wilson's reports as to the value of bred-growing crops (corn and wheat), produced in the five States he mentions in the past five years, thus:

	Value.
Illinois.....	\$361,530,613
Iowa.....	320,789,771
Missouri.....	275,961,383
Nebraska.....	301,419,922
Kansas, "semi-arid" and "uncertain....."	378,133,347

Agriculturally, therefore, Kansas, it would seem, is better equipped to successfully claim recognition as a foremost commonwealth than any other of the States alleged to be so favorably mentioned by our eminent secretary at Washington, producing largely both wheat and corn; the forepart of the season being favorable, a record breaking wheat crop is garnered, while if the later months are propitious a prodigious corn crop is gathered—one or the other, if not both; in "Iowa, Illinois and Missouri" as compared with the situation in Kansas, it is apparently either corn or confusion.

Brother Wilson is evidently misquoted or has escaped from his statistician. I opine the former.

Grain 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. August 5.

All markets are considerably higher and we believe that the low quotations on this crop of wheat are over; the tendency was decidedly bullish to-day, and the higher values were second all round. The receipts of wheat in Kansas City were 504 cars to-day compared with 990 cars this day a year ago. The fact that receipts are only about one-half of last year's receipts at this time, may be assigned to one of two reasons, viz: either to the scarcity of cars, or to the fact of farmers holding onto their wheat. If the latter, the wisdom of such a course can not be questioned, for with no grain in Kansas except wheat, this cereal will surely command a fair price, especially since the quality is as nearly perfect as possible, and we can at this time see nothing in the situation to warrant much lower prices.

Exports of wheat from all American ports to-day, were very large—1,338,000 bushels, while the total visible supply increased only 1,105,000 bushels for the week and is now 30,469,000 bushels. All of these figures indicate a healthy undertone, and it would not surprise us, to see wheat sell sharply higher in the near future.

Corn is still controlled by the weather while speculators are awaiting the government crop report due August 10, prices seem destined for a higher level. The visible supply in this country is now down to 12,565,000 bushels, not a very large amount with primary receipts running at the minimum.

Markets closed as follows: Chicago.—No. 2 Kansas hard wheat, 68½c; No. 2 corn 56½c; No. 2 oats 34½c.

Kansas City.—No. 2 65½c to 66c; No. 2 hard wheat 64½c to 65½c; No. 2 corn 59½c to 60c; No. 2 oats 41c.

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Horticulture.

How Store Potatoes.

EDITOR KANSAS FARMER:—Will you please inform me how to best keep potatoes when I have to dig them this early. I can not leave them in the ground, as the good rains we have had will make them grow again.

Axtell, Kans. FRANK LANN.

There is considerable doubt as to whether it will not be more profitable to sell the early potatoes at present high prices and replace them later with potatoes grown further north or in the mountains.

But, the question of storing potatoes was well considered in a communication in the KANSAS FARMER of August 28, 1895, by Hon. Edwin Taylor, of Edwardsville, in answer to an inquiry from Mr. B. H. Pugh, of Oakland, Kans. To place the subject fully before the reader the letters of both Mr. Pugh and Mr. Taylor are here reproduced.

EDITOR KANSAS FARMER:—I have a large potato crop, which I wish to keep through the winter—perhaps 7,000 to 10,000 bushels. It seems easy to store a few hundred bushels safely, but to successfully store the above amount with a reasonable surety against loss is a question that gives me considerable anxiety.

What kind of a cellar, cave, or storehouse would be most economical and yet entirely safe? How deep is it advisable to store potatoes, and what is the lowest temperature possible that will not injure them?

Some potato-raisers around here use caves, with brush and earth for a roof. Would not straw or hay be just as good?

Is it safe to put potatoes in a cave where they will come in contact with the earth?

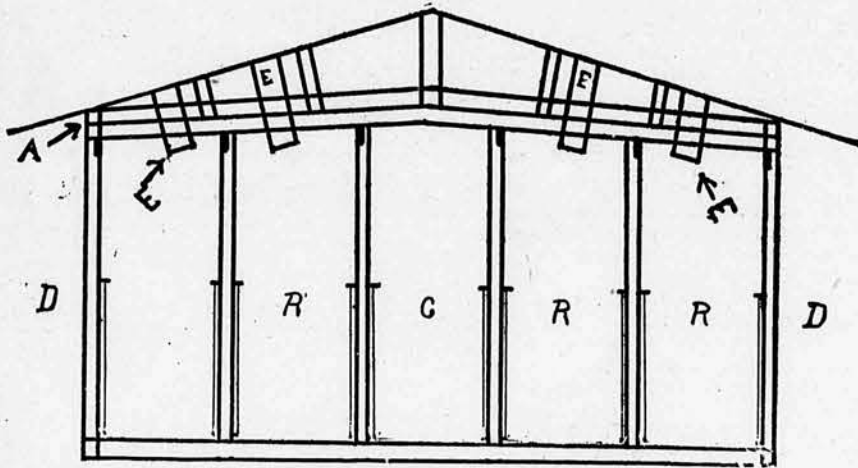
The size of a potato cellar to con-

but the dirt walls are needed. The roof will be of earth over poles and boards, corn-stalks, straw, or other covering. The best location will be a slope or bank facing south. By leaving an alley through the center of a dugout, with plenty of large ventilator shafts through the roof, a brisk circulation will be set up whenever the door in the end is opened—particularly where the door opens on the level, as it will if the building is dug in the side of a bank. The trouble with a cellar under a building is to give it air enough and to keep it cool enough.

"The dugout should be built with a bin on either side of a central alley. The bottoms of the bins should be raised 6 inches from the ground. Both the bottom and the sides are best made of fence boards, with inch spaces between. The sides of the bin should be clear of contact with the walls, whether stone or dirt. Spouts should be placed at intervals through the roof near the outside of the bins, through which to pour down the potatoes into the cellar.

"Such a building, carefully managed as to ventilation, opened up on frosty nights and kept closed during the warm days of fall and early winter, will take Early Ohio potatoes through to spring without a sprout. Early Rose, Beauty of Hebron and such varieties may require turning over once. The only antidote for sprouting, aside from the manner of storage, that I know of, is the scoop shovel. Potatoes may be kept in cold storage until August without a sprout.

Potatoes may be stored 6 feet deep, if the bins are narrow, without hurt, for I have tried it; also I have stored them 4 feet deep in a bin 20 feet square without injury. I should have no hesitation in putting potatoes 10 feet deep in a bin 4 feet wide. One must always leave a little margin to go on; and, while potatoes will not freeze, if dry, at 32 degrees, I should not want them kept



CROSS-SECTION OF POTATO HOUSE.

A., dirt roof; B., board roof—twenty-foot boards; R., bins, slatted bottom and sides, six feet wide; C., central alley, three feet wide; E., E., E., E., chutes to drop potatoes through, afterwards used as ventilators; D., D., dirt sides of cellar.

tain such an amount would, of course, depend on the depth the potatoes were stored. Would it not be better to make two cellars, if cellars are used?

Any information on this subject will be of great service to me.

Oakland, Kans. B. H. PUGH.

EDITOR KANSAS FARMER:—Replying to the above letter, I should say that the difference between storing a few hundred bushels of potatoes and a few thousand is merely one of preparation. The cost per bushel of storing many is less than the per bushel cost of storing a few. The bigger the plant, provided it is used to its full capacity, the cheaper proportionately it will do its work. This is "a moral which runs at large" and is true of cellars, ships, mills, mines—everything. Why make two cellars? It is cheaper to build a house of 8 rooms than 2 houses of 4 rooms each—all the rooms being the same size. It is easier and cheaper to enclose a given number of cubic feet in one cellar than in two; easier in two than in four. Furthermore, it requires no more care to keep a big cellar at the right temperature than a little one.

I can not better describe the cellar which I prefer for potatoes than is done in the report of the State Board of Agriculture, for the quarter ending March 31; page 168:

"If buried, potatoes must be covered lightly at first, and the covering added from time to time, but only enough to protect the tubers from frost. This is the most unsatisfactory and expensive way of storing potatoes. The next worst way is a cellar under a building. The most satisfactory and cheapest way that I know of is to store in a dugout. In most of our Kansas soils no walls

continuously lower than 34 degrees. Straw, hay, corn-stalks, lumber, or something over the dirt roof of a cellar in this climate is advisable. It pays to keep a potato cellar dry, and a dirt roof is liable to leak.

It is decidedly not safe to put potatoes in contact with the earth.

In figuring on the capacity he will want, your correspondent can safely count on 1½ cubic feet to the bushel—that is, 15,000 cubic feet will be ample for 10,000 bushels of potatoes.

If you will excuse the drawing, I will make an "alleged" cross-section of a cellar which will hold about 100 bushels to the foot in length.

"Full directions" for storing sweet potatoes is quite "another story," as Mr. Kipling would say. I haven't time for it now.

Edwardsville, Kans.

Making Flower Beds.

EDITOR KANSAS FARMER:—I would like to suggest a nice way to prepare a flower bed. I have one situated east of my house, as I consider that the best place for one, because flowers need only the morning sun and the afternoon shade. In the fall fill in your bed with good common soil, then a generous amount of well rotted stable manure. Go to the woods and get a load of leaf mould, or better still, if you can find a decayed log or stump of a tree about the color of brick dust, get some of this and spread it all over your flower bed, then take a rake and thoroughly mix all the soil together. Let it stand until spring, then when the time comes for bedding out your house plants, such as geraniums, begonias, foliage, and many other plants too numerous to mention, take a large knife and cut out a place in which

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to set the plants and pour water in on their roots. Put sand around them and draw the dirt back over it, pressing it down firmly around. The sand holds the moisture at the roots and the dirt on top keeps it from drying out. Do not wet the top dirt, as that will cause the dirt to bake. Never dig up the bed before planting flowers, but let it be solid all around them, unless you wish to plant seeds. Then dig up, of course, and rake very fine. After your plants begin to grow take a hoe and go all over the bed and gently stir the dirt up good to keep down any grass or weeds that might be starting. This is the nicest way I have ever tried. Last summer my flowers were very beautiful, and we cultivated them in this manner. Always start rose geraniums in sand. As a rule they are very difficult to root, but in sand they are just as easy as any other geranium. Do not keep too wet and they need only the morning sun. Nasturtiums grow very large in a bed prepared like this.

MRS. H. L. WILLIAMS.
Louisburg, Kans.

What Ails the Maple.

EDITOR KANSAS FARMER:—I enclose a leaf from a maple tree, hoping you can tell me from this what is the matter with this tree. Every leaf is spotted like this. We set a maple tree out three or four years ago in a spot where we are anxious to have a nice shade tree, and it is tall and shapely, but is thin and has always looked sickly. It grows tall and new, fresh leaves are coming out on the ends of the branches so it can not be dying, although it has that appearance.

Are there different kinds of maple trees? Some one told me that some trees have so many more seed pods than others, which is not a recommendation.

Do you advise "topping" the tree? I have heard arguments for and against doing this.

An answer to this through the FARMER would greatly oblige me and may be of benefit to other subscribers who want to put out shade trees this fall.

The scrawny appearance of this tree is not due to the drouth, as it looked this way last year.

Lawrence, Kans. F.
ANSWER BY PROF. ALBERT DICKENS.

I have been unable to find any evidence of fungus or the work of insects upon the leaf inclosed. I think it is most probably leaf burn caused by a scanty supply of water during periods when evaporation is very rapid. Transplanted trees sometimes have this trouble and it is probably caused by the tree having a poor root system. Unless the soil is carefully packed closely around the roots of transplanted trees they are liable to be insufficiently nourished and frequently die.

There are variations in the maples, but the same tree may bear a large crop of seeds some seasons and light crops in others. Some trees may have staminate blossoms only and bear no seed.

Advice as to topping should be given with reference to individual trees and with reference to the situation and surroundings. When transplanting, if the roots have been greatly shortened, it would probably be well to remove part of the top. When a tree is so large as to obstruct a view, or endanger buildings in case of its being blown down, it is usually easier and less injurious to the appearance of a place to grow a new tree and remove

the old one entirely. If the top is growing too open, shortening in the branches will give the desired result if it is done in time.

Kansas Experiment Station.

Value of the Apple Crop.

According to the Independent the American apple crop for 1900 aggregated 215,000,000 barrels, being worth at an average price of \$2 per barrel, the enormous aggregate of \$430,000,000.

Compare these figures with the following:

	Value.
Corn crop of 1899.....	\$629,210,110
Hay crop of 1899.....	411,926,187
Wheat crop of 1899.....	319,545,259
Cotton crop of 1899.....	305,467,041
Oats crop of 1899.....	198,167,976

In the case of most of these farm products the yield and its value from year to year is pretty accurately approximated. But the estimate of The Independent for obvious reasons may be millions of barrels out. No man or bureau knows what part of the apple crop is marketed and what utilized on the premises. Millions of barrels go into the production of cider, vinegar, jellies, and preserves. Other millions go into the production of the best pie that mothers ever made—to say nothing of "apple sass."

Then think of the countless barrels that are needed to stock up the universal apple stand. One industrious "Apple Mary" disposed of 50 barrels in a city block yearly in her daily pilgrimages. Millions of bushels are stolen every year from the trees that stretch their heavily laden branches temptingly out over the highways of the land.

No statistics can do justice to the yield, monetary value, or dietetic worth of the American apple. As the strawberry is the best berry so the apple, in spite of the part it played in Adam's fall, is the best fruit known to man. It is the king of American fruits.

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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.

Profits Realized from Milking Cows and Feeding the Calves on Skim-Milk.

The 24,736 pounds of skim-milk consumed by the calves referred to last week, represent 29,101 pounds of whole milk, which had an average test of 3.93, making a butter fat yield of 1,145 pounds. The average price received for butter fat at the Manhattan creamery during this period was 15½ cents per pound. This makes a total value of \$177.51. Deduct from this the cost of raising the calves, \$79.80, and we have left \$97.71, or \$9.77 per calf, to pay for the expense of milking and hauling 29,101 pounds of milk to the creamery.

The above figures do not represent all the profit that comes from raising the calves on skim-milk. Cows that are milked will produce larger yield than when suckling the calf. For instance, the college herd averaged 5,554 pounds of milk during the year. Multiply this by 10 (one cow for each calf), and we have 55,540 pounds of milk as the annual product from 10 cows. As previously stated, the amount of skim-milk used by these calves represents 29,101 pounds of whole milk. Subtract this from the average product of the 10 cows and we have 26,439 pounds to be credited to the cows as a result of raising the calves on skim-milk. According to the average test of the herd this milk would contain 1,039 pounds butter fat, which at 15½ cents per pound amount to \$161.04. This 26,439 pounds of milk would make 23,795 pounds of skim-milk, which at 15 cents per hundred would be worth \$35.69, or a total of \$196.73 as additional income for milking the cows. Add to this \$177.51, the income from butter fat secured from the milk furnishing the skim-milk for the calves, and we have a grand total of \$374.24. If we deduct from this the cost of raising the calves, \$79.80, we have left \$294.44, or \$29.44 per calf to pay for the expense of milking and hauling 55,540 pounds of milk to the creamery.

According to the statement received from a number of successful Kansas dairymen it requires thirteen minutes a day to milk a cow. If we take an average lactation period of three hundred days we have a total of sixty-five hours to be charged to each cow. At 12½ cents per hour this would cost \$8.12. It will cost on an average 12½ cents per hundred to haul milk. This would amount to \$6.94 per cow, making a total cost of milking and hauling \$15.06. Subtract this from \$294.44, and we have left \$14.38 profit per head, a pretty good interest for the amount of money that would be invested in a common cow, aside from furnishing remunerative employment to the men and boys on the farm. Of course, the cost of any extra feed that would be given to a dairy cow in addition to what would be fed to one suckling a calf, would have to come out of this profit.

The above figures represent only averages that have been obtained by the Kansas State Agricultural College. As previously stated no enterprising dairyman is going to be satisfied with averages. Since 25 per cent of the college herd were unprofitable it is no more than right to assume that every up-to-date dairyman will eliminate from

his herd this class of animals as soon as their unprofitableness is known. Making the above comparison on the basis on the profitable cows we would have an increase profit of 651 pounds of milk, which would make 25.6 pounds of butter fat, amounting to \$3.97, which would be an increase of 27 per cent over the average cow. D. H. O.

What the Agricultural College is Planning to Grow for Fall and Winter Feeding.

The protracted drouth of June and July has caused considerable anxiety as to what stock will have to eat from now until next spring. While there is undoubtedly a limited supply of feed there is no reason for selling stock at a cent a pound, as has been done in a number of instances. Undoubtedly cattle of all kinds will be high next year and every effort should be put forward to retain all the good stock that we have. They can be given at least a maintenance ration and as much more as is possible. In order to help out the shortage of feed the agricultural college is planning to grow as much forage for hay and fodder as possible. The rains of the past week have put the soil in condition to sow some of these.

Five acres of land sown last spring to new varieties of grass which were killed by the dry weather, will be listed and part sown to corn, part to Kafir-corn and part to sorghum. As soon as the soil is in condition after the first of September oats will be drilled between the rows of corn, Kafir-corn, and sorghum. If the latter makes sufficient growth they will be cut down for fodder, if not they will be left to be pastured with the oats. In the same field are 7 acres of cow-peas, which have grown well in spite of the dry weather. These will be cultivated and oats drilled between the rows the same as with the corn, Kafir-corn, and sorghum. Our bull yards and alleyways cover about 4 acres; these will also be seeded to oats. Another field of 4 acres will be sown to sorghum.

We have a field of 14 acres, part of which has produced a crop of soy-bean hay, and another part an excellent crop of oats and Canada field peas, which will be seeded to rape. The plan is to pasture the scrub cows on this, supplemented possibly with some dry feed. Pasturing cows on rape will be an experiment. It will be tested with the scrub cows before trying our blooded stock. The feed lots will also be plowed and seeded to rape.

Late millet has not been a success at the agricultural college, but a small area of Siberian millet will be put in to see what it will do. Surrounding an alfalfa field is a space of about 3 acres. This will be seeded to turnips. A soy-bean patch of 16 acres will be seeded to wheat, except 1 acre. The latter situated in the center of the field will be seeded to turnips to test their value for pasture. It is claimed by some that the tops make excellent grazing.

In the above manner the agricultural college is trying to utilize what little land it has, to raise as much forage for winter as possible, and at the same time do our utmost to shorten the feeding period by getting late fall and early spring pastures. D. H. O.

A Cheap and Yet Expensive Station Operator.

O. W. LOHN.

Some of the superintendents of the large skimming-station systems can tell interesting stories about what heavy receipts of milk some of their station men handled when the station was first started, and what great prospects they had for a successful career at such points, but alas, and behold! after having run awhile the receipts began to drop. One by one the patrons dropped off and only some of those old fellows called "stayers" kept on selling milk to the "creamery."

As a rule the stations having fared thus (and there are many of them), but they have enough of the "stayers" so that it is possible to keep the things going and pay operating expenses.

Why does it happen thus? Have the rest of the farmers that sent milk quit milking cows? And if not, why don't they patronize the skimming-station?

We find by inquiring of the merchants of those little towns that they are shipping each week hundreds and sometimes thousands of pounds of butter and tell us that they never handled so much of the "stuff" before.

This shows that those farmers who patronized the station on the start are still milking their cows, and have gone back to the old ways of making butter on the farm, taking it to the store and accepting store prices, and taking

in exchange for the same, sugar, tea, coffee, tobacco, and other necessities of life, including calico for the good wife, who does not think it pays to sell milk to the "creamery."

There are several reasons why the farmers get tired of patronizing the skimming-stations. Sometimes we find a man at the station called the "operator." After having been acquainted with this gentleman for some time we are forced to conclude that he was never cut out for the business and the position he fills. He is in the business simply because he can not find anything else to do that suits him.

He takes very little interest in his patrons and prefers that they stay away from the station as much as possible. He never goes out to visit them and knows so little about the dairy business that he could not tell a beef animal from a dairy cow.

He has learned barely enough so that he can weigh the milk, run the machinery and do the testing. I will say that I would prefer for him not to test my milk were I to patronize his creamery.

The one aim of this class of operators is to get the milk through the separator as soon as possible and to clean up so that they can have the rest of the day to loaf around town. If the farmer or milk hauler happens for some reason or other to be a little late with the milk some morning, this kind of an operator will invariably growl and fuss around as though he were running the universe and wanted everyone to know it.

This kind of an operator reads no dairy literature and is therefore ignorant of everything pertaining to his business. If some of the haulers or patrons who draw off the milk first from the skim-milk tank happen to take too much or more than his share of skim-milk, he makes it good for the ones coming last by pumping a barrel of water into the tank; he does not seem to realize that the farmers, as a rule, have an abundance of water at home and there is no need to have him haul water from the creamery.

It, of course, would be unreasonable to suppose that a man of this kind would try to pasteurize the skim-milk; so the farmer takes it home fully convinced that the "blame stuff" is not worth much anyhow, in which he is right after it has been through our skimming-station operator's tank. This is the kind of men that preside at some of our skimming-stations and they are the ones that help to keep the price of butter fat down and make it disgusting for the farmers to attempt to patronize the creamery. It stands to reason that it would be useless to attempt to raise a good calf on the kind of skim-milk that is returned from such a station. Such an operator will not be careful to examine the cans as they come in and the result is that the cans of tainted milk are turned right in with the sweet, thus contaminating the whole mess of milk. Is it any wonder that the farmer stops sending milk to such a station? Anyone with good common sense would do the same. The large companies frequently make the mistake of hiring just such men as the ones I have described, simply because they get them cheap.

Blooded Jerseys for the Agricultural College.

The Kansas Agricultural College has purchased some of the finest Jerseys in the United States. They were selected by Secretary F. D. Coburn, and consist of 1 yearling bull, a two-year-old cow with heifer calf, and 1 three-year-old cow. They come from H. C. Taylor, proprietor of the Brown Bessie herd, Oxfordville, Wis. These animals are the descendants of Brown Bessie, Merry Maiden, and Ida Marigold—cows that triumphed over all competitors in the production of butter and cheese at the World's Fair. Some of their ancestors have official records of over 25 pounds of butter in seven days. These animals will form the foundation of the college herd of Jerseys, they will be used as models for stock judging and will serve as the foundation for some valuable experimental work in economical production of milk and butter fat. They will arrive at the college about August 10.

What a Little Brains Will Do.

In a farmer's institute recently the editor noted two farmers with pencils and note books taking down the gist of the speakers' addresses and copying the several rations for milk cows as displayed on the walls by charts. At every opportunity for discussion these men were ready with questions bearing upon the subject in hand. These men were the life of the meeting, and



no one derived so much benefit from the institute as did these farmers. Upon inquiry we found they were the leading dairymen of the neighborhood of a creamery location in the short grass country. One man was selling from 8 cows two times more milk than his neighbor was selling from 16. That is to say that one of the farmer's cows was worth 4 of his neighbor's, and the cows were the same kind of stock. Good feeding and good care was the difference. One farmer was going about the work with the determination to learn all he could about the business and make it pay while his neighbor will let the dairy run itself and pay if it will.—The Dairy Age.

Where are the Silo Men?

EDITOR KANSAS FARMER:—What has become of the ads we used to see of ready made silos? I have had some experience with ensilage and know it is all right, but I have no silo and no time to make one now. I think it would be wise to conserve all the feed we can. And the silo, in such a year as this is just the thing to do it. There is room in the KANSAS FARMER for the men who make these silos to at least give their address.

Another thing—I have read in some report, I think by the Government, that many stockmen were using what was called the stack silo; cording it up as out in the field without running it through any machinery. Can anybody tell from actual experience how this will do?

I have packed it in a cellar without cutting and had it keep reasonably well though there was some that spoiled around the edges. I don't believe that my cellar excluded the air any more than a stack would and I know that the whole stalk will keep.

I have never yet seen a silo that does not have some waste around the edges, though I know some claim to do this.

While Kafir-corn is the best of feed, and it keeps well in silo, yet it is not good silage. At least I found it vastly inferior to corn.

Let us hear through the FARMER from the silo men of Kansas on these subjects. J. L. WARNER.

Longford, Kans.

More Serious.

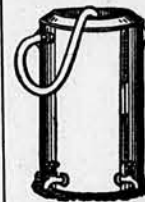
"I see that the anarchistic Italians have been thinking of blowing up their Consul at New York."

"Great maccaroni! What were they going to blow him up with?"

"Dynamite."

"Whew! I thought it might be a bel-lows."—Cleveland Plain Dealer.

To make cows pay, use Sharples Cream Separators. Book "Business Dairying" and Catalogue 237 free. West Chester, Pa.



THE SMITH'S CREAM SEPARATOR.

The only separator on the market that does not MIX the milk and water, and sold under a positive guarantee. More Cream, Better Butter, Milk fine, and no labor at all. Get a SMITH'S. Agents wanted. Mention Kansas Farmer.

Smith's Cream Separator Co., 118 West Locust-St., Des Moines, Ia.



Cream Separator

FREE

In order to introduce in every neighborhood the best and cheapest Cream Separator ever manufactured we make you this liberal offer, asking you to show it to owners of cows living in your vicinity. Send today your name and the name of the nearest freight office. Write at once to ECONOMY MFG. CO., 174 W. 7th, Kansas City, Mo.



Notice to Dairymen

If you are thinking of buying a Cream Separator, write us or catalogue and information. We manufacture the best machine on the market.

DAVIS CREAM SEPARATOR CO. 88-90-92 W. Jackson St., CHICAGO, ILL.

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DO YOU WANT

More Cream and Less Work?

Then Buy an

Improved

U. S.

Separator

That is the kind that

GETS ALL

THE CREAM

It also saves much time and labor and makes dairying more pleasant and profitable.

Illustrated catalogues are to be had for the asking.

225

VT-FARM MACHINE CO., BELLOWS FALLS, VT

The Poultry Yard.

My Experience With Turkeys.

EDITOR KANSAS FARMER:—I was "raised" in and near a large city in one of the eastern States, and of course, it was a great change for me when I married and came to a sheep ranch in sunny Kansas. I found raising chickens and feeding pet lambs a novel experience, but I had pretty good success for a green hand, and when I saw the flocks of stately turkeys on some of the farms we passed on our twenty-mile ride to the nearest town, I was fired with ambition to raise turkeys too. My better half, who had once before lived on a farm told me they were very difficult to raise, but visions of a plerthoric pocket-book in the fall, and Thanksgiving and Christmas dinners galore danced before my mental vision, and raise turkeys I would.

Before it was time to begin in the spring I devoured every turkey article in all the papers I could find and had about made up my mind, from what I could gather, that as soon as the young turkeys was hatched it had better have a pepper corn thrust down its throat, then it should be wrapped in cotton and put in a glass case, for, according to the authorities, porcelain of the finest quality was not more fragile.

However, I persevered, sent for a setting of eggs, and intrusted them to the care of one of my most faithful biddies. They hatched well. I kept the old hen shut in a coop, and the little turks wandered disconsolately about it, yeeeping in a way that went to my heart. I fed them and fed them and fed them, everything I had seen recommended, but in spite of that, nearly every morning I would find one or more lying on their backs, until they had all gone where the good turkeys go.

Then a neighbor told me that I had kept them too closely confined, I should have fed them green food. Next year I got a trio, and when the first clutch was laid and the turkey wanted to sit I put the eggs into a barrel laid on its side and she very obligingly sat down on them. The other turkey did not lay, at least I thought she did not, but one day she disappeared entirely and I wondered if she was sitting somewhere until the hired man reported some turkey feathers scattered about a nest full of egg shells in a bit of timber near the creek. So I had only the one turkey and her brood left.

The one thing I had impressed on my mind at this time was that by all means little turkeys must not get wet. It happened to be a rainy spring and I anxiously watched the sky and at the first symptoms of a sprinkle I put on my bonnet and went to drive in Madam Turkey and her family. Breakfast dishes were left unwashed, dinner was often late, and the head of the household declared that if I raised them all it would not pay for the trouble. But I was determined those little turkeys should not get wet and get wet they didn't. I do not remember just what became of them. But the next spring I had a chick of my own to care for, so the turkey raising remained in abeyance until a few years ago, in a new home in southern Kansas, I made up my mind to try it again. I had found one sensible article about turkey raising written by a woman who gave the following rules: "Feed young turkeys no raw food for two weeks. Be sure not to overfeed them, and do not expect them to do well if kept closely confined." But she also reiterated the old advice of keeping them in until the dew was off the grass, and never allowing them to get wet. She lived in Iowa and I made up my mind that the last part of the advice was not needed here, as we seldom have dew enough to hurt anything.

I now set all the first clutches under good hen mothers, but let the turkey hens raise the next broods themselves. I feed the young turkeys with the hens, light bread or corn bread soaked in sweet milk, curd, or hard boiled eggs, three times a day. In a very little while they eat grain with the other chickens. About every two weeks they should be greased on the top of the head and under the wings to kill the big gray lice, until they begin to "shoot the red," when they get hardy enough to withstand them.

In the last three years we have not lost one half dozen from disease. As for the ones with the turkey mothers I do not feed them at all. Some turkeys will go off with them and not come back until they are nearly half grown. Some will bring them to be fed when they hear me calling the chickens. Last year one of my turkeys sat in August, I put a setting of hen eggs under her and she went off with ten little chickens and

one turkey, and came back in the fall; she had taught the chicks to roost beside her in a tree.

If I would give what I think the most important rules in raising young turkeys they would be these two: Give them plenty of liberty, and do not over feed them. This would be an ideal country for raising turkeys, but—there is always a but—for what a down-easter would call "varmint." No matter how many turkeys we have hatched out, on matter what good luck we have raising them, we are never sure of our crop until they are marketed. Mr. and Mrs. Coyote and their brood, Mr. and Mrs. Bobcat and family, Mr. and Mrs. Polecat and their children, all lie in wait for our luckless turkeys. This spring we started in with a gobbler and 7 hens. We have only 2 hens left. We hatched out more than a hundred; we have 70 now (Aug. 1) though we think one brood was stolen.

Mrs. E. K. HOWELL.

Coats, Kansas.

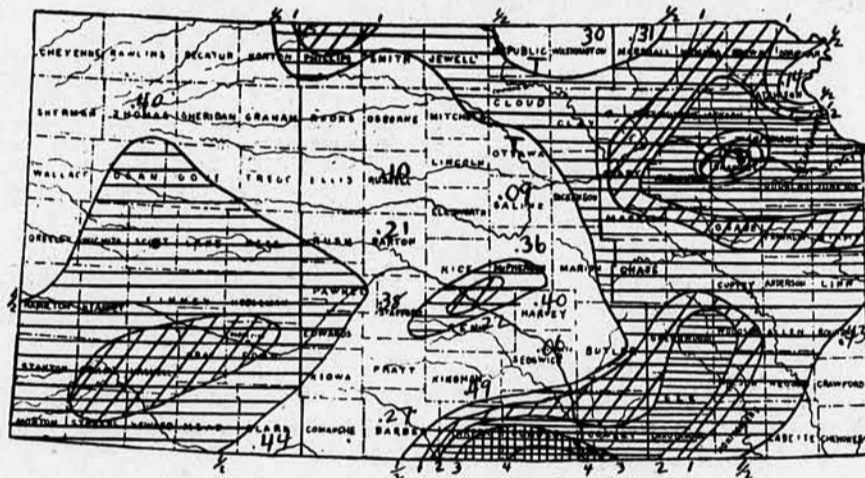
WEEKLY WEATHER CROP BULLETIN.

Weekly weather crop bulletin of the Kansas Weather Service, for the week ending August 8, 1901, prepared by T. B. Jennings, Station Director.

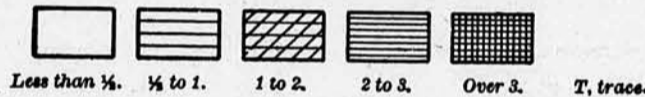
GENERAL CONDITIONS.

The week has been nearer normal than since the middle of June, and though the temperature has continued above normal it has been cooler than for several preceding weeks. Fine rains have fallen over nearly the whole of the eastern division and a large portion of the western, with

RAINFALL FOR WEEK ENDING AUGUST 3, 1901.



SCALE IN INCHES.



fair to good rains in many counties of the middle division.

RESULTS. EASTERN DIVISION.

The rains and cooler weather have improved conditions greatly. Late corn has improved, with good promise of from one-fourth to one-half of a crop; in Crawford the corn fodder is green, though the pastures are dry enough to burn. Pastures have improved except in the extreme southeastern counties, and are sustaining the stock. Hay grass is improving. The condition of apples has improved in Morris and Shawnee.

Grapes and peaches are improving in Shawnee, but fruits are suffering in Crawford. Rye is being sown for fall and winter pasture. Forage crops are being sown for fall and winter feed as rapidly as the seed can be obtained. Plowing for fall wheat has begun. The third crop of alfalfa is being cut in Shawnee and is better than the second; the fourth crop is growing finely in Morris.

Allen County.—Farmers busy sowing millet, and Kaffir and cutting up corn; many trees dead.

Anderson.—The rains helped late corn and pastures, and put ground in good condition for work; some catch crops and gardens planted, but suitable seed very scarce; considerable rye was sown for fall pasture; week closes with some indications of rain.

Atchison.—Good to heavy showers, except in the northeast portion, and cooler, greatly improving conditions; prospect for some corn now considerably improved; seeds of all kinds suitable for late crops now being planted; some plowing for wheat.

Bourbon.—Too hot; the light rains did but little good; garden and field seeds will sprout and perish.

Coffey.—Rains very unevenly distributed; some wheat to trash yet; some plowing done.

Crawford.—Very hot and dry; corn fodder green yet, where chinch-bugs are not sapping it; pastures dry enough to burn; wheat ground dry and hard; gray land plows tolerably well, black land hard to plow; fruit suffering again for rain and cooler weather.

Greenwood.—Weather and crops much improved since the rain of the 29th; a quarter crop of corn and an average crop of fodder reasonably assured.

Jackson.—The rains first of week helped the corn remain green, and saved the fodder, but all corn too far gone to make grain; pastures somewhat improved, but needing more rain badly; raining as week closes.

Jefferson.—Good growing week; prospect good for at least one-fourth crop of corn; much seed being sown for winter feed.

Johnson.—Pastures improving since the rains; will be some late corn; farmers sowing rye, millet, and turnips for feed.

Leavenworth.—Prairie pastures revived; corn will make one-fourth of crop; a few trees still have some apples.

Lyon.—Apples and corn are holding their own since the rains early this week; the rains were very unevenly distributed.

Marshall.—Much of the county benefited by showers, the northern part receiving the least; corn is still growing, and with timely rains will make a fair crop; prairie grass has improved and there will be a better crop of hay than was expected; plenty of fodder and roughness in the county for home use; ground too dry to plow.

Montgomery.—Showers in most of the county this week improving pastures, Kaffir-corn, forage crops, and fruits; stock water low in many places; good dews since the rains.

Morris.—Crops of all kinds show decided improvement; corn promises one-third to one-half crop; plowing for fall wheat progressing finely; fourth crop of alfalfa making fine growth; cane and Kaffir growing finely; apples show good prospect for a crop; pastures green and stock doing finely.

Osage.—Everything greatly benefited by rains this week; plenty of water in pastures and grass growing rapidly; corn promises half a crop.

Harper.—Fine rains have helped pastures, forage crops, and late corn, and given plenty of stock water; thrashing continues, large yield of wheat; fall plowing begun.

Harvey.—Another dry, hot week; the last two or three days have left their mark on the corn and other growing crops; plowing for wheat is being pushed where it is possible to plow, much ground is very hard.

Jewell.—Showers this week poorly distributed; corn cutting for fodder begun; pastures not much improved.

Kingman.—Thrashing and plowing in progress; pastures revived somewhat; little prospect for corn.

Lincoln.—Hot and dry; a good rain in southwest part of county; thrashing continues, little else being done.

McPherson.—Thrashing progressing finely; corn an entire failure; hay very scarce; too dry for plowing; pastures dry; stock must be fed; cane, Kaffir-corn, and millet dried up.

Ottawa.—Corn cutting begun in some places; wheat thrashing continues with good yields; oats fair on some farms; pastures dry; hay scarce.

Phillips.—Very hot and dry; the 1.13 inches of rain vanished like a fog; grass and water still scarce; very little work being done except thrashing.

Reno.—Good rain northeast part, light elsewhere; thrashing continues, still showing good yields and quality of wheat; no plowing done yet, too dry; corn generally keeping green and will make fodder, but no grain; fair supply of apples and peaches in market.

Republic.—The late corn is past hope; rain now would help pastures and spring sown alfalfa; the second crop of alfalfa is cut and fairly well filled with seed.

Russell.—The light rains served to cool the atmosphere for a few days, but were too light to benefit crops; no plowing done yet.

Saline.—Hot week; winter apples are still hanging on well, and may make a fair crop with favorable weather; a little corn in protected fields.

Sedgwick.—Too dry to plow; on some bot-

POULTRY BREEDERS' DIRECTORY.

HIGH-SCORING, PRIZE-WINNING, Cornish Indian Games, W. P. Rocks, Black Langshans. Eggs \$1 per 18. Mrs. J. C. Strong, Moran, Kans.

GEM POULTRY FARM—C. W. Peckham, Proprietor, Haven, Kans. Buff Plymouth Rocks, 2 flocks. Eggs from best flock \$2 per 15. A few choice Burdick 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.

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 \$8.50 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.

Grange Department.

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

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. Beardon, McLouth.
Secretary.....Geo. Black, Olathe.

Kansas Field Meetings.

Comparatively few people realize the magnitude of Kansas. It is 400 miles long by 200 miles wide, an area larger than New England and New York combined, divided into 105 counties and containing one and one half millions of people and is a veritable empire of itself. Its wheat crop the present year exceeds one hundred million bushels and will sell for over \$50,000,000, being a larger crop than was ever before grown in Kansas.

The grange in Kansas is in a vigorous condition. The field meetings, or picnics as they are called in the West, have become fixed affairs and are attended by great numbers of people. The series in Kansas this year commenced July 17 and closed July 29, the meetings at Overbrook on the 17th, at Cadmus on the 20th, and at Olathe on the 27th, having been held upon these dates for twenty-eight years and are commemorative of the organization of granges at these places. The arrangements for the series of meetings were made by Worthy Master E. W. Westgate of the Kansas State Grange by direction of the executive committee, which were so well organized and thoroughly advertised as to make them exceptionally successful, the attendance reaching 5,000 at some meetings. At the Overbrook meeting Past Master Rhoades was present and delivered an address. At the Topeka meeting Past Master and Mrs. Sims were present and contributed much to the success of the occasion. The meeting was held at Oak Grange which is near Major Sim's productive farm and where he retains active membership. This grange has one of the best equipped halls in the State. The meeting at Cadmus, which was one of the largest, contained a novel and very enjoyable feature. Upon a level spot near the center of the grove from which the people were excluded by wire, the children had a charming exercise in the forenoon and in the afternoon 32 young members of Cadmus grange gave a very entertaining drill. They were clad in appropriate attire carrying the emblems of the grange and for thirty minutes gave an exhibition of drill tactics which we have never seen excelled in any grange hall in the land. The 4,000 people in attendance gathered upon the hill adjoining, or leaned against the wire in charmed appreciation of the skillful maneuvers executed under such romantic surroundings. We never attended a more successful field meeting than that held at Cadmus. The meeting at Olathe was held at the place where one of the most successful grange cooperative stores in the country is located and which is doing a thriving business. The cooperative business features of the order are probably as prominent and successful in Kansas as in any other State and are successful because good business ability is applied to their management. The meeting at Lyndon was a model meeting as well as several others we have not mentioned. The regular speakers arranged to address these gatherings were State Master E. W. Westgate, Prof. H. M. Cottrell, of the Kansas State Agricultural College, and the national lecturer. They were held during the hottest weather ever experienced in Kansas and in the midst of a severe drouth. One hundred and fourteen degrees in the shade was too much for

the national lecturer, he being prostrated by the intense heat before the series was through and obliged to withdraw, leaving the field to Brother Westgate and Professor Cottrell, who upheld the grange banner in an able manner.

Worthy Master Westgate, who has recently been called to direct the grange in Kansas, is a native of New Hampshire, a graduate of Dartmouth College, now owning and operating an extensive farm at Manhattan, Kans. He is prominent in educational affairs, in close touch with the Kansas State Agricultural College and thoroughly familiar with the condition and needs of the Kansas farmers. We predict that under his leadership the grange in Kansas will take a long step forward for he has every qualification for the work. Our visit to Kansas verified our previous good opinion of the grange in that State and gave us material for future use in the interest of the grange in general. The Kansas grange field meetings of 1901 were eminently successful and a credit to the loyal membership in that grand State.

N. J. BACHELDER,
Lecturer National Grange.

Secretary Wilson and Free Seed.

The order of Patrons of Husbandry labored for years to make the bureau of agriculture one of the executive departments of the government. Our success in this matter carries with it a sense of responsibility for the work of the department. It has always been the desire of the farmers that the head of this department should be a practical farmer, and the realization of our desires affords us great satisfaction. The present secretary of agriculture is a progressive western farmer from one of the foremost agricultural States and is doing everything in his power to promote the interests of agriculture in every section of our country. It is the earnest desire of all connected with the department of agriculture to make it useful to the farmers, and practical suggestions from practical farmers will always be welcomed. The department will perfect the system of crop and weather reporting and will search the world over for valuable seeds and plants to be distributed to the farmers. Secretary Wilson has been unjustly censured on account of the quality of seeds sent out from Washington this year. It should be borne in mind that this seed distribution is done by direction of Congress, and the secretary has no discretion in the matter. He regards it as a humbug, and if he had the control that his department should have the system would be improved or abolished. The Secretary of Agriculture should have authority to make experimental tests of seeds and plants, and recommend such as are found valuable to the farmers of the country. To expend \$150,000 or any other sum in a miscellaneous distribution of seeds, under congressional direction, is a humbug and a useless waste of money.—Grange Department Utica Press.

"Old Kentucky" in Line.

For several years the grange in Kentucky has been at a low ebb and did not have enough subordinate granges to organize a State Grange. About one year ago Bro. F. P. Wolcott was given the commission of National Organizer and through his earnest efforts and splendid work he has built them up until they have organized a State Grange and will take their place back in the National Grange. For the first time in the history of the Kentucky State Grange the Sixth Degree was conferred in full form, Wednesday night, July 17, Worthy National Master Jones occupying the master's chair. The Boone County Pomona Grange conferred the fifth degree. Teams selected from the different subordinate granges of Boone County demonstrated in full form the conferring of the first, second, third, and fourth degrees. We congratulate the patrons of Kentucky on their advanced position and wish them continued success in the future.

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.

Important News!

Send us Your Name



and P. O. address on a card and we will give you some information about Wagons that will benefit you greatly. DON'T BUY ONE until you hear from us. We want name and P. O. address of every Farmer and Teamster in the state. Address THE TIFFIN WAGON CO., Tiffin, O., or 1203 Union Ave., Kansas City, Mo.

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The first and only chewing tobacco to be guaranteed.

No Premiums.
If your dealer has not Wetmore's Best, send us 50 cents for a pound plug.

Remember the Umbrella Brand.

M. C. WETMORE TOBACCO CO.
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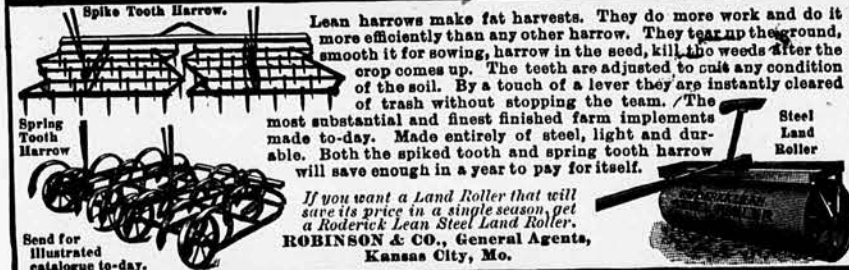
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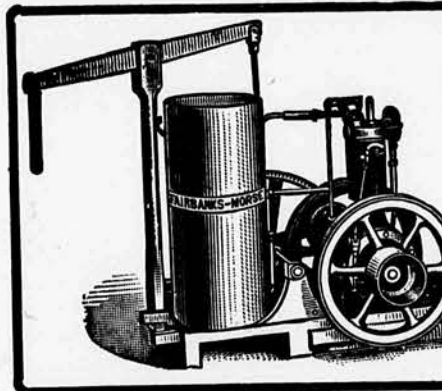


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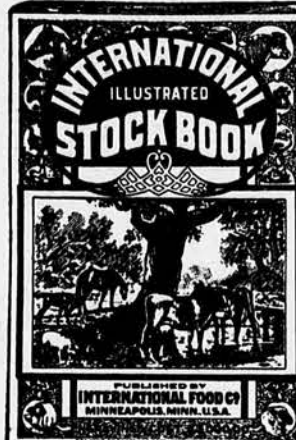
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