

KANSAS FARMER

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TOPEKA, KANSAS, THURSDAY, APRIL 18, 1901.

ESTABLISHED IN 1863.
\$1.00 A YEAR.

BREEDERS' DIRECTORY.

SWINE.

D. TROTT ABILENE, KANS., famous Duroc-Jerseys and Poland-Chinas
DUROCS. Registered stock all ages. M. H. ALBERTY, CHEROKEE, KANS.

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

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

CEDAR SUMMIT POLAND-CHINA SWINE FARM. Only choicest individuals reserved for breeding purposes. J. M. GILBERT, Busby, Elk County, Kansas.

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

PARKDALE STOCK AND FRUIT FARMS THOROUGHbred Hereford Cattle.
CHAS. A. SCHOLZ, Proprietor, FRANKFORT, KANS

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, Kansas.

DUROC-JERSEY SWINE---REGISTERED. Some choice July, August and September males at reasonable prices, to make room for spring farrows. NEWTON BROS., Whiting, Kans.

POLAND-CHINA HOGS Herd headed by I Know Perfect 48263 O., sired by Chief I Know 37167 O. A few gilts for sale, also two 2-year-old sows that will be bred for August or September farrow and one 3-year-old sow by King Breckenridge.
W. E. NICHOLS, Sedgwick, Kans.

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

MOUND VALLEY HERD OF POLAND-CHINAS Has shone 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.

Maple Grove Herd of Registered POLAND-CHINAS **HIRAM SMITH,** Colwich, Sedgwick Co., Kans.

Headed by the grand boars, Black Chief 42357, Ideal U. S. 48259, and assisted by Perfect I Am Vol. XXIII, grandson of Perfect I Know 19172, grandam the great sow, Anderson's Model 43611, mated to a lot of choice selected sows of the most noted prize-winning families. A fine lot of fall pigs ready to ship. Inspection or correspondence invited.

...Prospect Park Herd of...
Thoroughbred Poland-China Hogs.

Perfect We Know, a son of Chief I Know, the sweepstakes boar at the Omaha Exposition, at head of herd.
J. H. TAYLOR, Telephone address Pearl, Kans. RHINEHART, KANSAS.

SUNNYSIDE HERD OF PEDIGREED POLAND-CHINA HOGS.

We now have for sale 10 Good Young Boars 8 months old, and 8 Bred Gilts—fine, well developed sows, and a choice lot of September, October, and November, 1900, pigs for sale cheap. Write me for prices on what you want.
M. L. SOMERS, Altoona, Kans.

R. S. COOK, Wichita, Kansas, Breeder of POLAND-CHINA SWINE.

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 28441, Black Joe 28608, World Beater and King Hadley. FOR SALE—An extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

SWINE.

J. D. MARSHALL, Walton, Kansas. For Sale: Thirty-five fine gilts, sired by "Miles Look Me Over" (18879) prize-winner in 5 fairs in 1900; also a few fine boars. Call on me or write your wants.

FAIRVIEW HERD DUROC-JERSEYS Contains breeders of the leading strains. We have some fine Summer and Fall pigs to sell at moderate prices. J. B. DAVIS, Fairview, Ks.

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 boars by Sen. I Know, and U. S. T. Address F. P. Maguire, Haven, Reno Co., Kans.

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

Verdigris 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 shows. Prices reasonable. Nothing but good ones shipped on orders.
WAIT & EAST, Altoona, Kansas.

T. A. HUBBARD, Rome, Kans., Breeder of POLAND-CHINAS and LARGE ENGLISH BERKSHIRES. Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

Poland-Chinas Extra Good Fall Boars and Sows. FANCY STRAINS.

Dietrich & Spaulding, Richmond, Ks

RIDGEVIEW FARM HERD OF Large English Berkshires Sold out of everything but fall pigs. Place your orders for them now. Silver Laced and White Wyandotte eggs for sale, \$1.50 per 15.
MANWABING BROS., Lawrence, Kans.

Pure Bred Poland-Chinas I have 25 choice October pigs that I will sell for \$10 and \$12.50 for the next 30 days, sired by Corwin I Know 18448, and Hadley U. S. 20186; dams equally as well bred, all good colors. I am also booking orders for choice spring pigs, sired by Logan Chief 2d 24427, and Proud Tecumseh 24655. My hogs have good heads, small, fancy ears. Come and see them or write.
JNO. BOLLIN, Kickapoo, Leavenworth Co., Kans. Express Office, Leavenworth.

CATTLE.

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

MEADOW BROOK SHORTHORNS—Some fine young stock, 20th Earl of Valley Grove at head of herd, for sale; breeding of the best, in color unexcelled. Address F. C. KINGSLEY, Dover, Shawnee County, Kans.

D. P. Norton's Shorthorns Dunlap, Morris County, Kansas.

Breeder of **SHORTHORN CATTLE.** Herd bull, Imported British Lion 133692. Young Stock For Sale.

—125—
RAVENSWOOD SHORTHORNS
—125—

C. E. LEONARD, - - BELLAIR, MO. Males and Females for Sale. Inspection especially invited. Lavender Viscount 124755, the champion bull of the National Show at Kansas City heads the herd. R. R. and Telephone Station, Bunceton, Mo. ED. PATTERSON, Mgr.

CATTLE.

Polled Durham Cattle. Edgewood Polled Durhams. The largest and best bred herd west of the Mississippi River. Scotch blood a specialty. Bulls for sale. Address A. E. BURLEIGH, Knox City, Mo.

ROSEDALE HERD OF HOLSTEINS. C. F. STONE, Proprietor, PEABODY, KANSAS. Home of Empress Josephine 3d, champion cow of the world. Gerben's Mechtchilde Prince at head of herd. Young bulls and heifers for sale.

ALFALFA MEADOW STOCK RANCH. 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, Kans.

MAPLE LEAF HERD OF THOROUGHbred SHORTHORN CATTLE, AND POLAND-CHINA SWINE. **JAMES A. WATKINS,** Farm is 2 miles south of Whiting, Kans. of Rock Island depot.

SHORTHORN BULLS FOR SALE. A few choice bred young bulls—spring yearlings for sale at very reasonable prices; also 2 Shropshire, and 1 cross bred Shropshire-Cotswold buck. Address **JAMES C. STONE,** Leavenworth Kans.

RED POLLED CATTLE. Largest Herd in America. **S. A. CONVERSE,** Proprietor, Importer, and Breeder. **CRESCO, HOWARD COUNTY, IOWA.**

Breed the Horns Off by Using a **RED POLLED BULL.** **CHAS. FOSTER & SON,** FOSTER, Butler Co., Kas Breeders of Red Polled Cattle. Herd headed by Powerful 4582. Pure-bred and grades for sale. Also prize-winning Light Brahmas.

MT. PLEASANT HERD OF SHORTHORNS. Herd headed by Acomb Duke 18th 142177. Herd composed of Young Marys, Galateas, and Sanspareils. Young bulls for sale.
R. D. No. 3. A. M. ASHCRAFT, Atchison, Kans Inquire at Ashcraft & Sage Livery Barn, Main Street.

ALLENDALE HERD OF ABERDEEN-ANGUS CATTLE. The Oldest and Largest in the United States. Splendid recently imported bulls at head of herd. Registered animals on hand for sale at reasonable prices at all times. Inspect herd at Allendale, near Iola and La Harpe, Allen Co., Kans., and address Thos. J. Anderson, Manager, there, or **ANDERSON & FINDLAY,** Prop's., Lake Forest, Ill.

RECORDED HEREFORD BULLS FOR SALE. The get of Marmion 66646 and Anxiety Wilton A-46611, 10 to 24 months old. These bulls are large, and good individuals, and of the best of breeding. Inspection invited.
FRED COWMAN, Lost Springs, Kans. Breeder (not dealer) of Hereford Cattle.

CLOVER CLIFF FARM Registered Galloway Cattle. Also German Coach, Saddle, and Trotting-bred Horses. World's Fair prize Oldenburg Coach stallion, Habbo, and the saddle stallion Rosewood, a 16-hand, 1,100-pound son of Montrose, in service. Visitors always welcome. Address **BLACKSHERE BROTHERS,** Elmdale, Chase Co, Kans

IDLEWILD SHORTHORNS. The blood of Roan Gauntlet and Champion of England can be had direct through our herd bull, Godoy 115675. His dam, Imp. Golden Thistle (Vol. 26) is by Roan Gauntlet; his grandam, Golden Lady by Champion of England. Godoy is still active and a sure getter. A few years later you can not get this blood direct. Godoy transmits the old scale and substance produced only by Cruickshank. Thirty-five Cruickshank females in herd; also Booths and Double Marys. Can offer Godoy calves from these tribes.
W. P. HARNED, Vermont, Cooper Co., Mo.

CATTLE.

ROCKY HILL SHORTHORNS We have for sale 7 Scotch-topped bulls, about 1 year old. Quality and prices right.
J. F. TRUE & SON, Newman, Kansas. (Newman is on U. P. R. R., 12 miles east of Topeka.)

Polled Durhams! THIS little ad. will direct you to the largest as well as the best Scotch bred Polled Durham herd of cattle in the United States. 150 fine Duroc-Jersey pigs
F. F. FALLOR, Newton, Iowa.

Norwood Shorthorns. V. R. ELLIS, Gardner, Kas Sir Charming 4th at head of herd. Cruickshank top crosses on best American families. Young stock for sale.

TWO CRUICKSHANK-TOPPED SHORTHORN BULLS FOR SALE. Both reds; 8 and 9 months old. Also summer and fall farrow POLAND CHINA PIGS—both sexes. Prompt response to enquirers.
O. E. MORSE & SONS, Mound City, Kans.

H. N. HOLDEMAN, Girard, Crawford Co., Kan., —BREEDER OF—

PERCHERON HORSES, and HOLSTEIN FRIESIAN CATTLE representing Josephine, Mechtchilde, 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.

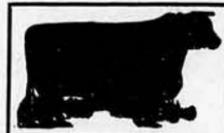
Sycamore Springs Stock Farm SHORTHORNS. H. M. HILL, Prop'r., La Fontaine, Kans. No Shorthorns for sale at present but will have a few young things in the spring. Personal inspection of our herd invited. Correspondence solicited.

SILVER CREEK HERD SHORTHORN CATTLE. GWENDOLINE'S PRINCE 120913 in service, a son of the \$1,100 cow, Gwendoline 5th. Best Scotch, Bates, and American families represented. Also breed high-class Duroc-Jersey swine. Can ship on Santa Fe, Frisco, and Missouri Pacific R. R.
J. F. STODDER, Burden, Cowley Co., Kans.

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, **J. R. Higgins,** Reswick, Keokuk County, Iowa.

Sunflower Herd: Scotch, and Scotch-topped **SHORTHORN CATTLE POLAND-CHINA SWINE.** Herd bull, Sir Knight 124403. Herd boars, Black U. S. 2d 22582 S., and Sunflower Black Chief 23603. Representative stock for sale. Address **ANDREW PRINGLE,** Harveyville, Waubesa Co., Kans.

PURE BATES SHORTHORNS.



M. W. ANDERSON, Independence, Mo Wild Eyes, Craggs, Peach Blossoms, Duchess Craggs, Harts, Barringtons and Bracelets. 168th Duke of Wildwood 134671 at head of herd. Can sell young females, bred or open.

CATTLE.

REGISTERED HEREFORDS
THOS. EVANS, Breeder,
 HARTFORD, LYON COUNTY, - - - KANSAS.
 SPECIAL OFFERINGS: FOR SALE—Four year-
 ling bulls, one imported 4-year-old bull, a few young
 cows and heifers.

H. M. Satzler,
 Burlingame, Kansas,
 BREEDER OF.....
HEREFORD CATTLE,
BERKSHIRE SWINE,
COTSWOLD SHEEP.
 STOCK FOR SALE.

H. R. LITTLE,
 HOPE, DICKINSON CO., KANS.,
 Breeds Only the Best
 Pure-bred
SHORTHORN CATTLE.
 The herd numbers 185, headed by
 ROYAL CROWN 126098, a pure Cruick-
 shank, assisted by Sharon Lavender
 14903. For Sale just now 18 Bulls
 of serviceable age, and 13 Bull
 Calves. Farm 1 1/2 miles from town.
 Can ship on Mo. Pacific, R. I., or San-
 ta Fe. Foundation stock selected
 from 8 of the great herds of Ohio.



GLENDALE SHORTHORNS, Ottawa, Kans
 Leading Scotch, and Scotch-topped American fami-
 lies compose the herd, headed by the Cruickshank
 bull, Scotland's Charm 127284, by Imp. Lavender Lad,
 dam by Imp. Baron Cruickshank. Twenty bulls for
 sale.
 C. F. WOLFE & SON, PROPRIETORS.

HORSES AND MULES.

**PERCHERON HORSES, AND
 ABERDEEN-ANGUS CATTLE**
GARRETT HUBST, Breeder, Zyba, Sumner Co.,
 Kans. For sale 1 young stallion, and 1 mare; also 8
 cows, and 1 bull. All registered.

PERCHERON HORSES.
J. W. & J. C. Robison, Towanda, Kansas.
 Importers and Breeders. Stallions for sale.
 Send for Catalogue.

LIVE STOCK AUCTIONEERS.

JAS. W. SPARKS LIVE STOCK AUCTIONEER
 Marshall, Mo.
 Have been, and am now, booked for the best
 sales of high-class stock held in America.
 Write me before claiming dates.

R. E. EDMONSON (late of Lexington, Ky.) and
 Tattersalls (of Chicago, limited), now located
 at 208 Shields Building, Kansas City, Mo., of-
 fers his services as Live Stock Auctioneer. All
 the Herd and Stud books. Wire before fixing
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CAREY M. JONES,
Live Stock Auctioneer
 Davenport, Iowa.—Have an extended acquaint-
 ance among stock breeders. Terms reasonable.
 Write before claiming date. Office, Hotel Downs.

LIVE STOCK AUCTIONEER
Col. J. M. Marshberger
 LAWRENCE, KANS.
 Special attention given to
 selling all kinds of pedi-
 gree stock, also large
 sales of graded stock.
 Terms reasonable. Corre-
 spondence solicited. Men-
 tion KANSAS FARMER.



FREE TO WEAK MEN.

Any man sending their name and address to
 W. E. Harter, 321 Ash St., Nevada, Mo., will
 receive absolutely free, full knowledge of how
 he cured himself of Lost Manhood, Nervous De-
 bility and its associate diseases, after he had
 tried all sorts of medicines in a vain effort to
 be cured.

Do You Scratch! ECZEMA,
ALL SKIN DISEASES CURED. I discovered a
 method that permanently cured me of eczema.
 I do what no physician can do. Send 6 cents
 for trial treatment.
 W. A. BULLARD, 329 Theodore St., Detroit, Mich.



THE LINCOLN IMPORTING HORSE COMPANY

LINCOLN, NEBRASKA.
 We have fully decided to offer special inducements for the next twenty or
 thirty days on our Percheron and Shire Stallions. Some of the largest and
 grandest individuals that ever crossed the ocean.
 Our Percherons are coal blacks. Our Shires are bays and chestnuts. All
 of them in the best of condition, healthy in every respect and sound as gold
 dollars. Parties coming to examine our stock and finding we have made any
 untrue statements, remember, we pay all expenses. Come and see the horses
 to make their selections. Prices are made right. Come and see the horses.
 It will do you good. Mention Kansas Farmer when you write.
 Opposite State Farm and Experimental Station.
 Take University Place or Havelock Street Cars.
 Inquire for Sullivan's Barns. Telephone 575.

NEW IMPORTATION

Our new importation of FRENCH PERCHERON STALLIONS was landed
 at our barn, at Shenandoah, Iowa, September 14. Buyers will find at our
 establishment the head of first-class Percheron stallions from which to
 make their selections. Prices are made right. Come and see the horses.
 It will do you good. Mention Kansas Farmer when you write.
M. L. AYRES, Shenandoah, Iowa.

Draft Stallions. PERCHERONS, SHIRES, AND CLYDES.

Finest collection of imported Black Percherons west of the
 Mississippi River. All horses personally selected by a member
 of the firm with the aid of our own private interpreter, and a first
 choice from the oldest and leading breeders of France. All fresh,
 young stock. If you want a good stallion we can suit you. Barns
 are in town. For further information, address
KEISER BROS., Keota, Iowa.
 (On O. R. L. & P. Railway, 14 miles west of Washington.)

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 Bros., Winfield, Kans

ENGLISH SHIRE, and PERCHERON STALLIONS.

WATSON, WOODS BROS. & KELLY CO., Importers of..... DRAFT STALLIONS.
 Lincoln, Neb. Three Importations made in 1900.
 All our horses are personally selected by Mr. Watson, who buys only of the best
 breeders in Europe. Mr. Watson was the World's Fair Judge of Draft Stallions. Our
 December importation is the 25th shipment made direct from Europe by him.
 OUR STABLES are located corner Ninth and E Streets. Our office on the ground
 floor of the Burr Block TWELFTH AND O STREETS. We invite inspection. No
 trouble to SHOW HORSES. Visitors welcome.



PEARL SHORTHORNS.
HERD BULLS:
BARON URY 2d 124970. LAFITTE 119915
 Inspection Invited.
 C. W. TAYLOR, - - Pearl, Kansas.

SCOTT & MARCH, BREEDERS OF PURE BRED..... HEREFORDS, BELTON, CASS COUNTY, MO.

BULLS in service, HESIOD 29th 68304; Imp. RODERICK 20155; MONITOR
 52775, EXPANSION 93628, FRISCOE 93674, FULTON ADAMS 11th 68781. HESIOD 29TH 68340.
 Twenty-five miles south of Kansas City on Frisco, Fort Scott & Memphis and K. O., P. & G. Railroads

GEO. W. NULL, Odessa, Mo., LIVE STOCK AUCTIONEER.
 Have sold for, and am booking sales for leading stockmen everywhere. Write me before claim-
 ing dates. I also have Poland-China swine, Bronze turkeys, B. P. Rock, and Light Brahma
 chickens. 150 birds, and a lot of pigs ready to ship. Write for Free Catalogue.

AMERICA'S LEADING HORSE IMPORTERS.

We imported more prize-winners at Universal
 Exposition, Paris, and the Government Show at
 Amiens and Moutiers than all other combined.
 Our Percherons won every first prize except one at
 the Universal Exposition at Paris.
 We imported more horses from France than any
 other three firms in America.
 We are the only firm buying in France without the
 aid of an interpreter, hence we get the best horses
 for the least money.
 More Coach stallions, more ton black Percheron
 stallions than can be found in the stables of all
 other importers.
 If you want the best, call on or write
McLAUGHLIN BROS.,
 Sixth and Wesley Aves., Columbus, Ohio.

Norman Horses

SAMPSON No. 6866 is at
 the head of the stud. Present
 weight, 2,350 pounds, and for
 bone and quality he has no
 equal in this country. . . .
 We guarantee satisfaction
 and can undersell all com-
 petitors, as the purchaser
 pays but the actual produc-
 ing price.

ALSO SHROPSHIRE SHEEP and POLAND-CHINA HOGS.
PINE RIDGE STOCK FARM. L. M. HARTLEY, Proprietor.
 SALEM, IOWA.

PURE PERCHERONS

The Richest Bred Herd in America,
 —AND THE—
 Oldest Breeding Establishment in the West
 A limited number of choice young
 stallions for sale (including the herd
 stallion, Favorite 22937).
 Correspondence Solicited. Inspection Invited.
HENRY AVERY & SON, WAKEFIELD, KANS.



COMBINATION SALE OF 126 ABERDEEN-ANGUS CATTLE

AT THE
FINE STOCK PAVILION, STOCK YARDS, KANSAS CITY, MO., MONDAY AND TUESDAY, APRIL 29-30

HALEY BROS., of Harris, Mo., in order to close a partnership, disperse their entire herd of 50 head, including the noted stock and show bull, Nabob of Lakeside A Novice, son of the celebrated Gay Blackbird; the show cow, Abbess of Estill 4th; Golden Flora, an International Exposition winner; Jennet's Favorite, a state fair winner; Lakeside Ardestie, a sister to Gay Lad, and 15 sons and daughters of the famous Blackbird Hero. This consignment affords an opportunity to secure a state fair show herd and grandly bred Coquettes, Ericas, Prides, Drummin Lucys, Easter Tulloch, Duchesses, and other good sorts.



W. S. KARNAGHAN, of Clarinda, Ia., contributes brothers and sisters in blood to the great prize-winner, Golden Flora, and her dam, and the best bred and most individually superior lot of Drummin Lucys offered since the Estill dispersion.

A. P. GROUT, of Winchester, Ill., sells herd headers from the illustrious Jilt, Blackbird, Pride, Erica, Queen Mother, and Heather Bloom Strains. They are "corkers."

S. MELVIN, of Greenfield, Ill., consigns the get of McHenry Blackbird 6th, and McHenry Pride 5th.

W. J. TURPIN, of Carrollton, Mo., sells chiefly from his noted Nosegay family.

JOHN HARVEY, of Bloomfield, Ia., sells the get of his stock bull, Gay Lad 2d, a brother to Gay Lad.

TYSON & CO., of Redwood Falls, Minn., consign two grandly bred Pride bulls.

J. M. DUFF, of Chestnut, Ill., sells Ericas, Prides, Westertown Roses, and daughters of the splendid stock bull, Zaire 7th, and Leoneer.

There is not a cull in the entire offering and the average individual excellence is believed to be higher than that of any Angus auction held this season.

COL. F. M. WOODS,
COL. J. W. SPARKS,
COL. CAREY M. JONES,

Auctioneers.

For Catalogue,
address.....

W. C. MCGAVOCK, Mgr., Mt. Pulaski, Ill.

TEBO LAWN HERD 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 ORUICKSHANK 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.

H. M. WILLIAMS,
Manager.

G. M. CASEY, OWNER,
SHAWNEE MOUND, HENRY COUNTY, MO.



Sunny Slope Herefords.

290 HEAD FOR SALE

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

C. A. STANNARD, Emporia, Kansas

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 bred 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.

GALLOWAYS

Largest Herd of Registered Galloways in Kansas.

Young bulls, cows, and heifers for sale.

H. W. THRALL, Eureka, Kans.

GALLOWAYS.

LARGEST HERD OF REGISTERED GALLOWAYS IN THE WORLD.

Bulls and females, all ages for sale—no grades. Carload lots a speciality.
M. R. PLATT, Kansas City, Missouri.
Office at Platt's Barn, 1613 Genesee Street.

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, Kansas.



...GUDGELL & SIMPSON...

INDEPENDENCE, MO.,

.....BREEDERS AND IMPORTERS OR.....

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.

T. K. TOMSON & SONS,

* * Proprietors of * *

ELDERLAWN HERD OF SHORTHORNS

DOVER, SHAWNEE COUNTY, KANSAS.

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



STEELE BROS., Belvoir, DOUGLAS COUNTY Kans

Breeders of SELECT

HEREFORD CATTLE

Young Stock For Sale. Inspection or Correspondence Invited.

Agricultural Matters.

Agriculture in Mexico.

EDITOR KANSAS FARMER:—I have been here in a Mexican hacienda a little over three weeks, but am not thoroughly naturalized as yet.

The Chihuahua & Pacific Railroad runs 125 miles west out of Chihuahua, and at the western terminus there is quite a large area of land farmed. This land is mostly along the rivers, and a great deal is under irrigation. The land is good—very much of it—and will grow anything that Kansas will. Up to two years ago when the railroad was built it was a hundred miles to market, hence there was no need of the people's doing any more than to make a living—and it is a characteristic of the race to make this as easily as they can. The common people—peons—depend on the large land-owners, for the country is owned by comparatively few people. These peons use wooden wagons—they take an augur and an ax and go into the timber and make their wagons. The plows are all wooden, with the exception of a few 8-inch chilled steel plows which have been brought in lately. But it is surprising how well they will loosen up the ground with one of these plows and a yoke of oxen yoked by the horns. The yokes are tied behind the horns.

They are now just beginning to plant. The elevation of about 7,000 feet holds the season back. The land for corn is marked off both ways, and it takes four men to plant one hill. The first scrapes the surface to loosen the soil, the second punches a hole 8 to 12 inches deep with a steel bar, a third drops in 4 grains of seed, and the fourth pokes the hole full of dirt. The wheat is planted by furrowing the land, the furrows being about 12 inches apart; the wheat is dropped in by hand and covered with a hoe. It is cut by hand with the little crooked sickle.

The crops grown are corn, wheat, and beans, with a few vegetables. But I am well pleased with the country and the people. They are anxious to do better, and now since there is a market for their produce they will come to the front very rapidly. I don't mean by rapidly a year or so, but in five years there will be a wonderful change. The American population has increased wonderfully in the past few years and still continues to increase.

Our plan for starting the agricultural work is to furnish seed and to let the people handle the crops according to our advice. A car-load of seed was ordered from Fielding & Co., at Manhattan, and they instructed us to get it from as far west as possible. Also we have bought a grain drill and lister and harrow, and have induced the people to buy a few implements. We will have planted in this way over 300 acres, and will dispose of the balance of the seed to those who already know what Kaffir and cane are, of which the larger part of our seed consists. We also will try a couple of varieties of corn, Jerusalem corn, broom corn, soy-beans, cabbage, tomatoes, squash, pumpkin, and watermelon.

The seasons here are a little uncertain I am told. The rains usually begin the first of June and from then on until the last of October there is plenty of rain, and the ground gets

A Month's Test Free.

If you have Rheumatism, write Dr. Shoop, Racine, Wis., Box 37, for six bottles of his Rheumatic Cure, express paid. Send no money. Pay \$5.00 if cured.

thoroughly wet. Then it is dry—very little snow falls—until June again. And occasionally, they say, the rainy season fails to appear at all. Part of our crops will be under irrigation and I have no fears as to the success of this part, but I hope for a good year. I will mention the stock at another time, also the mines, but I might say that I saw a pack-train come into Minica to-day with \$200,000 in bullion. J. G. HANEY.
Minica, Chihua St., Mexico.

Corn Planting.

EDITOR KANSAS FARMER:—Our experience last season indicates that we usually seed too heavily. We have generally used the 6-hole plates in our planter, which gave an average of four plants in the hill when checkrowed. But we prefer and use the drill system.

Last season we substituted a 4-hole plate that placed the kernels about 18 inches apart in the row. We confess to many misgivings in the early part of the season, as to the outcome. It really looked as though the stand was but half what it ought to have been, but our seed was good, every kernel grew, there were no especial assaults by vermin or birds, we cultivated with average carefulness and kept the weeds in subjection. Every plant had room for growth and development. The land was ordinary upland most of which had received one application of manure sometime within five years, and in those years was always in corn, cane, or Kaffir. Chinch bugs damaged the crop to a slight extent, but the worst injury was from the drouth prevalent in the latter part of the season.

Yet with these drawbacks our crop averaged 40 bushels per acre, running from 35 bushels upon the poorest land to 60 bushels upon the best portions of the field.

The corn was sound, solid, and well matured, ears without number attaining a pound and over in weight.

A white variety of corn was planted, capable of growth and development according to its environment. We prefer the white varieties for we believe they out yield, and we know they out sell the yellow kinds.

We believe that very generally a mistake is made in seeding too heavily. We don't give the plant proper room for development. One sound, solid ear is worth a hatful of nubbins. Judging from last year's experience, if Kansas would save a third in the quantity of corn used for seed, it would necessitate the building of that many more cribs for the harvest.

It is likely that, owing to early April rains, the lister will be largely used this season. Upon uplands, double listing when possible seems to be the proper way. M. MATHEWSON.
Topeka, Kans.

Soy-Beans.

EDITOR KANSAS FARMER:—I notice Mr. J. C. Norton's article on soy-beans. I raised 4 acres of what I suppose are the late soy-beans. They were planted about June 1 and did not bloom until my neighbors had cut their early yellow soy-beans. They were overflown by backwater from a railroad grade and the leaves turned yellow and the lower ones dropped off. This was when the plants were about a foot high. They seemed to be at a standstill until the ground dried sufficiently to permit cultivation, after which they grew "like weeds," reaching a height of 2½ to 3 feet. I planted with drill plates on corn planter set to run fast and the beans were dropped not more than 1 inch apart, in rows 3 feet 8

inches apart. While the stalks were of the hard woody nature described by Mr. Norton, they seldom were ½ inch in diameter and I mowed them two rows at a time with a 5-foot Milwaukee mower, without difficulty or injury to the machine, and raked them as for hay. This was a "whole job," as they were so heavy it was difficult to handle the rake. I threshed 45 bushels by machine measure. They may not be the "mammoth" beans, but I think they are, and believe if planted at same time as corn, will mature more beans and double the amount of hay that the little beans will. I will plant some of both kinds this year. Moran, Kans. J. C. STRONG.

Alfalfa.

EDITOR KANSAS FARMER:—Too much can hardly be said in favor of alfalfa. It is like Kansas, a bundle of surprises. It is good for horses, cattle, hogs, hens, and the latest thing said of it is, that a stock company has been formed at Wichita, Kans., to manufacture a patent medicine from it.

In France the plant is known as lucerne, and it has been cultivated in Turkey and parts of Asia for hundreds if not thousands of years. Also in Mexico it has been in cultivation for two hundred years at least. In California, Utah, and in many of the valleys of the West it has been in cultivation for many years. But its introduction into Kansas is practically of recent date.

It is extremely tender while young, but becomes a vigorous plant at maturity. It needs, therefore, the utmost care in the preparation of the soil for its seed bed, but after a stand is secured and it has attained sufficient age for the plants to fully cover the ground, my experience has been that it cares for itself, by outgrowing the weeds that so often work destruction to other crops.

Fifteen pounds of good seed in a well prepared seed bed is abundant for an acre of ground, if evenly distributed. The ground should be well packed, with a pulverized, clean surface. If it could be sown and the ground harrowed just before a shower of rain, I think it would be all right sown broadcast, but under all ordinary circumstances, I think the press drill the best instrument with which to sow it.

It makes excellent pasture for horses, hogs, and bees, but it is unsafe for cattle, especially in the spring of the year, on account of the liability to bloat. Usually the first crop will be ready to cut for hay from the middle of May to first of June. Thereafter from four to six weeks will mature a crop, the time depending upon favorable or unfavorable weather conditions. Ordinarily nothing should be expected from the first year's seeding, but I have seen two crops of hay taken the first year, where the seed was sown with barley and irrigated immediately after the barley was cut. And again I have seen it stand for weeks without starting up the second crop, for want of moisture. Great as alfalfa is, it can not overcome everything.

The time for cutting is an important point, and should be carefully studied. Hogs require it cut earlier than for other kinds of stock. But the first crop, which is ranker, stronger growth than that which matures in the heat of summer, should seldom or never be cut and saved for hogs, on account of its rank growth. If the first crop is needed for hogs, it should be cut certainly as soon as the first bloom appears. For cattle, it should be cut



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Best steel wires heavily galvanized. Strong, economical, efficient, durable. Local agents everywhere. If no agent in your town write to the makers. American Steel & Wire Co., Chicago or New York.

when in full bloom. If one has much of it to cut, unless he has help sufficient to make rapid progress with the work, he should commence when his judgment would say that one-fourth was in bloom.

Still, he can not always be guided by the flowers, for alfalfa, like everything else, has its enemies. In the West they sometimes have what they call the web worm, that interferes very materially with its blooming. One or two days makes a great difference with it. Seed-pods will form on the first that blooms before all the bloom appears, and the stalk grows hard and woody very rapidly after the seed-pod forms. Horses relish the fully matured hay better than cattle do. I think it well to feed cattle and horses together, as the horses will take what the cattle refuse.

Curing alfalfa is another important point. Vastly more is injured by too much sun than by too little curing. Of course, alfalfa, like any other hay, is better if it can be gotten into the barn or stack without getting wet after it is cut. A heavy dew even falling upon hay that is partially cured is injurious. It is a mistake to suppose that it must be dried until it will crackle and break in handling; on the contrary, when it is well wilted it may be safely placed in the barn or stack. When the weather is hot, and the ground dry, what is cut in the forenoon may be put in the barn or stack in the afternoon. If the weather is lowery, with much rain, and surface of ground is damp, then it is more difficult to cure it. When put up at just the right stage the leaves all adhere, it holds together better in handling, and retains its color far better.

In stacking alfalfa, the utmost care must be taken to keep the middle of the stack fuller, harder, and higher than the outsides, or it will take water and be damaged. I bought one stack of hay that was put up for the beauty and symmetry of the stack, but there were not 500 pounds in the whole stack that were not injured by the rains. I bought another stack equally as well formed, and after first few forkfuls were removed from the top, the hay came out nice, sweet and green—so much so that quite a quantity of ragweed that had been cut and raked in with the alfalfa, at a few steps distance was readily taken for alfalfa itself.

Cattle may be pastured in the fall of the year on alfalfa without much danger of bloat.

In regard to use of home-grown seed

TO CURE A COLD IN ONE DAY
Take Laxative Bromo Quinine Tablets. All druggists refund the money if it fails to cure. E. W. Grove's signature is on every box. 25 cents.

GRAND COMBINATION PUBLIC SALE!

110-REGISTERED SHORTHORN CATTLE-110

Kansas City Stock Yards Sale Pavilion, Monday and Tuesday, April 22 and 23, 1901.

When 110 HEAD, 50 of which will be BULLS, and 60 COWS AND HEIFERS, consisting of both SCOTCH and BATES breeding, a MIXTURE of this blood and a strong infusion of BOOTH blood. Each consignor—June K. King, Gentry Bros., John Morris & Son, W. P. Harned, N. H. Gentry, Arthur Wallace, Fred Cowley, C. E. Leonard, W. R. Nelson and Col. W. A. Harris are all established and reputable breeders which is a sufficient guarantee that the offering will be the equal of any known to the breed. It will be the last opportunity, at least so far announced to take place at Kansas City this spring, to secure one or more high class Shorthorns. The farmer and ranchman will find in the bull offering his one chance to get bulls at his own price. For catalogues address,

Cols. F. M. Woods, Jas. W. Sparks, R. L. Harriman, Auctioneers.

JUNE K. KING, Marshall, Mo.

in preference to that coming from an irrigated district, I think Prof. Haney unduly cautious. We usually take seed from the second crop and never irrigate the crop from which we expect seed. In fact, it is not always safe to irrigate the first crop when we desire seed from the second. We do not want a heavy growth of hay for a good seed crop.

In the region of Garden City, thousands of tons are sold each year by measure, and a cube of 7½ feet, or 422 cubic feet, is given for a ton, while one of our best alfalfa authorities insists that a 7-foot cube, or 343 cubic feet, would easily make a ton here. As there are about 1,800 feet difference in the altitude, it probably takes more bulk of hay or anything else to weigh a ton there than here.

Great is alfalfa, and great is Kansas. And Kansas will be still greater when a greater acreage of alfalfa is grown within her borders.
Winfield, Kans. X. X. X.

Better Plowing Needed.

Prof. F. A. Waugh, whom Kansas furnished fully equipped for a professorship in the University of Vermont, retains his position close to the practical side of science. In a recent paper he makes the following observations on the very practical subject of plowing:

One of the common mistakes in farming is inadequate cultivation of the soil. The cultivation of the soil is the beginning of all agriculture, and it seems strange that this fundamental process should be so little understood and so poorly practiced by farmers who have been in the business all their lives. Even such a simple thing as plowing appears to be is sadly neglected. The plowing which is done by many farmers is slovenly and bad in the last degree.

A first-class job of plowing is the exception in any country. This shortcoming rests partly on lack of knowledge respecting plows, their adjustments and the methods of using them, partly on inappreciation of the importance of proper plowing, and partly on general shiftlessness. There is a notion that the proper purchase and application of fertilizers is the important item in agriculture. This is not true. The fertilizer problem is as nothing compared with the problem of cultivation. Proper cultivation will increase results much more certainly, quickly and greatly than fertilization, and will, moreover, in a large degree, reduce the necessity for the application of manures.

Poor plows are responsible for some of the poor plowing. There is a great difference in the make and adaptability of plows. Occasionally one sees a cast-iron contrivance which is not much better than the old-fashioned crooked stick. A good plow requires a clean, straight share, which is perfectly level from point to heel. It requires also a moldboard of the proper curve and pitch. The curve of the moldboard is a matter of complicated mathematics, equally as difficult as the curve in a telescope lens, and much more important. The farmer does not care what the mathematical formula is, but he does care whether the moldboard turns the soil or merely pushes it out of the way. It may be noted, however, that soils vary so much in texture that a moldboard which will handle one very comfortably will do work in another. The adaptation of a moldboard to the soil which is to be plowed depends, therefore, largely on experience. It is a matter which the farmer should carefully observe for himself. He ought to see just what type of moldboard is suited to his particular soil, and if he has two or three distinctly different soils on his farm he may find it worth while to adopt plows of two or three different patterns, adapted respectively to the several sorts of land.

In my own experience, a plow turning a comparatively wide furrow does better work than a narrow plow. This is especially true if the plowing is to be deep, as it ought to be. I find a disinclination among many farmers toward the use of wide plows. They require more team, and are heavier to handle. I think the tendency to use light and narrow plows should be discouraged. In fields which are large and level enough, no machine will do such good work as the better types of sulky plows. As a general thing they are a trifle heavier of draft than walking plows doing the same work, but that is partly because they are held rigidly to the furrow and so their work better. The walking plow dodges and

slights the hard places and gains some of its ease of draft in that way.

Plowing is poorly done in many cases because a good tool is badly adjusted. There are a good many men who do not know how to run a plow. I have seen hired men who had to be told which end to hitch the team to. Such fellows know nothing about the clevis adjustments, how to apply a set of eveners advantageously, how to set a rolling or standing colter, or any of the other dozen things which go to make up the proper handling of a good plow. All these things have to be learned by experience, but it must be experience mixed with intelligence. Most people fail because they have the idea that a plow is such a simple thing that it requires no study. A plow is really just as complicated as a Waterbury watch or an automobile.

Plowing is not done deep enough as a rule. This is the easiest way to be lazy. I find that many men think that they are plowing 6 inches deep when their furrows, carefully measured, will not average 4 inches. There are many men who regard 4 inches as deep plowing. A good soil, for good crops, ought to be loosened up to the depth of 6 inches at the very least, and many soils may be plowed 8 inches deep with profit. The more careful farmers of the country have come to see that by increasing the depth of plowing very gradually, from year to year, they are able to loosen up new strata and to unlock new reservoirs of plant-food. They extend their farms downward. A man can double the size of his farm in this way without buying another acre.

Along with deep plowing, many soils will repay the expense of a sub-soiling. So far as I have observed in New England, sub-soiling is almost unknown, although there are numerous farms on which it unquestionably would be of great advantage. Soils which are not improved by sub-soiling are in the minority on the whole, and yet you will not find one acre in a thousand through this part of the country which has ever had a sub-soil plow in it, and probably not one farmer in ten would know a sub-soil plow from a gymnasium buck if he met it at a circus.

Many soils are deepened and immensely improved by under-drainage. This art is also neglected, and almost unknown in this part of the country, although there are many fields which cry aloud for this kind of help.

How to Prevent Bloat From Alfalfa.

EDITOR KANSAS FARMER:—A great deal of our alfalfa crop goes to waste every year because of a fear to pasture it. A great many animals have been lost from bloat caused from pasturing alfalfa. I have 100 acres that I pasture every spring and fall, and have never lost an animal from bloat; and am so sure that I know how to prevent bloat that I turn my entire herd of registered Herefords on without fear. Every year my neighbors lose animals from alfalfa bloat, and it is from a careful observation of these cases and my own experience that I base my conclusion. I believe the cause of bloat is extreme hunger on the part of the animal, which at sight of food produces an abundant secretion of the digestive fluids of the stomach. This hunger also causes the animal to eat very rapidly. The result is that a large amount of alfalfa is quickly brought into contact with the already secreted digestive fluid, and effervescence sets in, with the result that unless the gas finds a means of escape death follows. If the muscles of the throat are lax, the alfalfa and gas will come boiling out at the mouth, and the animal is soon past all danger. But in most cases the throat, like old Cerberus, while allowing unlimited passage in, denies exit; and in this case a wooden bit four or five inches in diameter tied in the mouth of the cow, or better, a piece of new rubber hose about 3 feet long forced down the throat, will allow the escape of the gas sometimes and give relief. And last the trocar or knife.

But far better than any of these (which all fail sometimes) is prevention, which consists simply of driving the stock into the wheat fields or other green pasture and keeping them there for three or four hours until they are filled up, then turning them onto the alfalfa, and then never taking them off until you are through pasturing it; or if compelled to take them off repeat the process every time you turn them back. Do not even shut them up in the lot at night, or if you must, see that the gate is open every morning before the most industrious cow is at it waiting to be turned out, for if a cow looks through the fence at the delicious

SOUTH DAKOTA ADDS ANOTHER STONE TO THE UNITED STATES TRIUMPHAL ARCH

A separator contest was held at Oneota Hall, Aberdeen, S. D., March 18, 1901, to determine the comparative merits of the United States, Sharples and DeLaval Separators. Mr. A. W. Burnham, a prominent and well-known citizen, was appointed by the farmers and separator men present to act as "Dairy Expert" and take charge of the contest and give official results of the same. As will be seen by the report given below,

The Improved United States Separator

Again Proved its Superiority over all others and Was Awarded First Place

Make of Separator	Selling Price	Rated Capacity	Capacity During Test
United States No. 6,	\$100.00	350-400	408
Alpha Baby No. 2,	125.00	450	448
Sharples Tubular No. 6	175.00	650	628

THE U. S. AHEAD.

A. W. BURNHAM, Dairy Expert.
J. M. HURST, D. G. VAUGHAN,
J. H. GAULY, C. N. GAMBLE, F. H. LEACH,
GEO. W. MANTOR, C. A. MCARTHUR,

The United States run over its highest advertised capacity and skimmed the cleanest while the others run under their advertised capacity.

Notice how much larger capacity the U. S. gives for the money, in addition to its cleaner skimming, than the others. To have equalled the United States it would have been necessary for

The DeLaval to have skimmed at the rate of 610 lbs. instead of 448 lbs.
The Sharples " " " " " " " " 714 " " " 650 "

All of which goes to prove the correctness of our claim that when utility and price are considered the

IMPROVED U. S. CREAM SEPARATOR IS THE MOST PROFITABLE TO BUY

WRITE FOR CIRCULARS
VERMONT FARM MACHINE CO., Bellows Falls, Vt.

breakfast before her she is in a dangerous condition to partake of it.

I have never had a case of bloat while observing these rules. In conclusion let me mention one violation of these rules. Last fall I was pasturing my alfalfa, when we had a very heavy rain, and the ground was rendered very muddy, and I took the cattle off and fed cured hay. When it was dry enough to turn onto the alfalfa, but not on the wheat, I decided to try turning directly on the alfalfa, and the experiment came very near costing me dearly. In less than two hours I had a number of cows bloated. Three were very bad. One of them soon began belching up her over supply and got all right. The worst one I gagged, then run a piece of hose down her throat, but it was not new, and the muscles of the throat caused it to collapse, and it did not let off much gas. When she was so far gone that she could not stand without staggering, I used the knife (not having a trocar), and saved her. Had I turned the cows on the alfalfa that day without an attendant and left them there all day, I have no doubt the experiment would have cost me at least \$1,000.

I think, too, that it is much better to have wheat or other green pasture in the same field with the alfalfa, so that the stock may run back and forth from one to the other.

As to pasturing alfalfa when it is wet, dewy, or frosty, it has never caused me any trouble, and I always do it.
O. B. WHITAKER,
Proprietor Alfalfa Meadow Stock Farm,
Shady Bend, Kans.

The summer term of nine weeks at the State Normal opens June 6, 1901. Superintendents, principals, and teachers of all grades find this session invaluable for academic as well as professional work. No fee to Kansas students except a matriculation fee of \$5. For circulars address, A. R. Taylor, President, Emporia, Kans.

Kansas Crops Officially.

Secretary Coburn of the Kansas State Board of Agriculture, has issued his first crop bulletin of the year, devoted to information about the growing wheat, and says:

The abundant rain and snow-fall for several weeks past have, with the favorable circumstances preceding, made the winter wheat prospect in Kansas one of the most generally promising the state has ever known at the time of year, while the soil conditions could scarcely be more favorable to vigorous development. The evenness of stand and unusual root-hold, from strong growth in the fall, and mild winter, have on the whole probably never been surpassed on so large an area.

With the exception of slight damage

by Hessian fly in a few localities, the extent of which can not yet be definitely ascertained, the reports indicate strongly the absence of any considerable injury, and a state of affairs that should satisfy the most exacting.

The areas sown for the crop of 1900 was 4,268,704 acres. The board's correspondents last December estimated the area sown for the present year's crop as 7 per cent greater. The present average condition reported for all this is 99.8, or better than the high average of one year ago.

Twenty-nine counties, having 75 per cent of the wheat acreage, show an average condition of 100. Fifty-seven counties, with 95 per cent of the standing growth, practically the wheat field of Kansas, show the average condition of 99.9. The total wheat area in the remaining 48 counties aggregates less than the acreage in Barton County alone.

The gist of the situation in each county is as follows:

Allen.—Slight damage by fly, but none of the sowing will be plowed up; prospects very favorable. Condition 94.

Anderson.—Some damage by fly. None to plow up. Except in very wet places the ground is in good condition; prospects good. Condition 96.

Atchison.—Prospects very good. Condition 100.

Barber.—No damage; as favorable as in many years. Condition 100.

Barton.—No damaged fields; ground moist; "prospects never better."

Bourbon.—None damaged, and none to plow up. Condition 98.

Brown.—Possibly very slight damage by fly; none plowed up; prospects never brighter. Condition 102.

Butler.—Good stand; no drawbacks discernible. Soil in the best of fix. Condition 100.

Chase.—Growth not as large as in some seasons, but vigorous. Stand good, and no damage. Condition 105.

Chautauqua.—Possibly a little damaged by fly, but none plowed up.

Cherokee.—Slight damage by fly, but none plowed up; unusually good prospects. Condition 92.

Cheyenne.—No damage; prospects all favorable, and ground wet.

Clark.—No damage; ground moist. Condition 100.

Clay.—No damage; soil could not be in better fix. Condition 100.

Cloud.—Very little damage by fly; none plowed up. Condition 100.

Coffey.—No damaged fields; soil in excellent tith; could not be better. Condition 100.

Comanche.—No damaged fields; soil conditions were never better.

Cowley.—Slight damage by fly; possibly a small per cent will be plowed up; soil very favorable. Condition 100.

(Continued on page 389.)

The Stock Interest.

THOROUGHbred STOCK SALES.

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

October 8-10, 1901—American Berkshire Association Sale at Kansas City.
December 10, 11, and 12, 1901—Armour-Funkhouser, Herefords, Kansas City.
December 13, 1901—H. C. Duncan, Shorthorns, Kansas City.

Live Stock Judging.

PROF. W. J. KENNEDY, ILLINOIS LIVE STOCK ASSOCIATION.

Agricultural education in its various phases opens up many new and fertile fields for development. In twentieth century farming some men are going to specially prepare themselves along their chosen lines of work in order to successfully master the serious problems that confront the agriculturist, thus other men must, of necessity, do likewise, else be classed among the unsuccessful. In fact, the idea that successful farming does not require a trained mind and the highest degree of intelligence, judgment and reason, never had any foundation. More than one hundred

and feeder have the same discriminating judgment? In other words, why is not the work of breeding, feeding, and selecting of domestic animals more an exact science? Simply because of lack of training; to put it in other words and more plainly, men fail to breed good animals primarily because they do not know what constitutes a good animal, because they have wrong conceptions and wrong ideas of standards of excellence. A celebrated artist when asked to name the first essential to success in his profession replied, "To see right." The same is true in stock judging, for no person can succeed without first seeing right. A man can no more attain the highest excellence and skill in live stock husbandry without a clear mental conception of his object than can an artist produce a great masterpiece without the right conception of what constitutes the highest art.

ITS PLACE IN AGRICULTURAL EDUCATION.

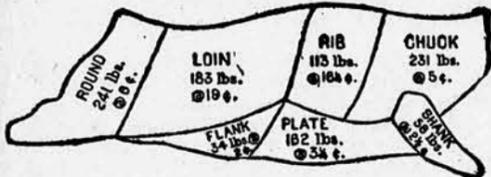
Knowing the above to be true and recognizing the fact that the vast majority

other excellencies, no matter how great, will compensate for lack of these essentials. After the student has made a careful study of the carcass from the butcher's standpoint, we proceed to the live stock judging room, where an animal is brought before the class and a careful study of its nomenclature is made, as represented by chart No. 3.

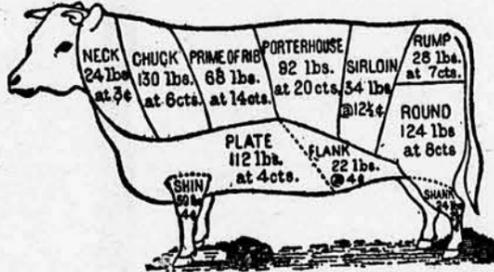
It is all important that each and every student should have an accurate knowledge of the name and location of each and every part of the animal. In order to accomplish this a certain amount of time must be spent in pointing out these parts, and having the students in turn do likewise. When the student becomes perfectly familiar with the nomenclature of animals, the score card is then brought into use and he scores animals by use of the score card as represented on chart No. 4. In the column under points deficient, he marks down the number of points he cuts the animal for deficiencies under the various parts mentioned on the score card. By adding these and subtracting them



STEEL WHEELS
for your **FARM WAGONS**
Any size wanted, any width of tire. Hubs to fit any axle. No blacksmith's bills to pay. No tires to reset. Fit your old wagon with low steel wheels with wide tires at low price. Our catalogue tells you how to do it. Address **EMPIRE MFG. CO., Quincy, Ill.**



WHOLESALE METHOD OF CUTTING BEEF. NO. 1.



RETAIL METHOD OF CUTTING BEEF. NO. 2.

years ago Robert Bakewell said that it was easier to find 12 men fit for cabinet positions than one good judge of live stock. During the last hundred years rapid strides of advancement have been made along many lines, but I venture to say that if Bakewell were living at the present day he might not be forced to modify his former saying to any great extent. It has been truly said that the ability to judge live stock accurately and well is at least of a rarer kind, if not of a higher order, than that which interprets the laws of a nation. The men who are employed to pass judgment on the live stock that goes to the great markets of this and other countries, men who are simply required to know one thing and know it thoroughly, command higher salaries than men who preside at the bar of justice in the highest courts of the land. This may seem like a striking statement, but nevertheless its truth is fully attested by the records of the salaries paid for these positions. The men who are employed to do this work at the great market centers are thoroughly

of young men that have entered the College of Agriculture of the University of Illinois during the past two years have on registration day openly stated that their chief object in coming to the university was to study stock judging, so that they could go back to their farms with a feeling that they were better fitted to follow that great line of work in which Illinois leads, namely, the successful breeding and feeding of live stock, surely you will all have to agree with me in saying that live stock judging is an all-important factor in agricultural education.

HOW IT IS TAUGHT AT THE UNIVERSITY OF ILLINOIS.

At the University of Illinois six distinct courses in stock judging are offered, namely: Beef, cattle, swine, sheep, dairy cattle, light horses and heavy horses. It will not be necessary for me to go into detail as to the methods in each course, for the same general method is followed in all courses; thus, an idea of one course will suffice, and I will present for your consideration our

method from 100 he gets the score of the animal.

While the score card is a valuable educator, it is not adapted to show-yard use, as it is only a means to an end. It fixes a high standard of excellence in the mind of the student, thus it is very useful in its place. We use it only for a few lessons, then we adopt the blank form as seen on chart No. 5.

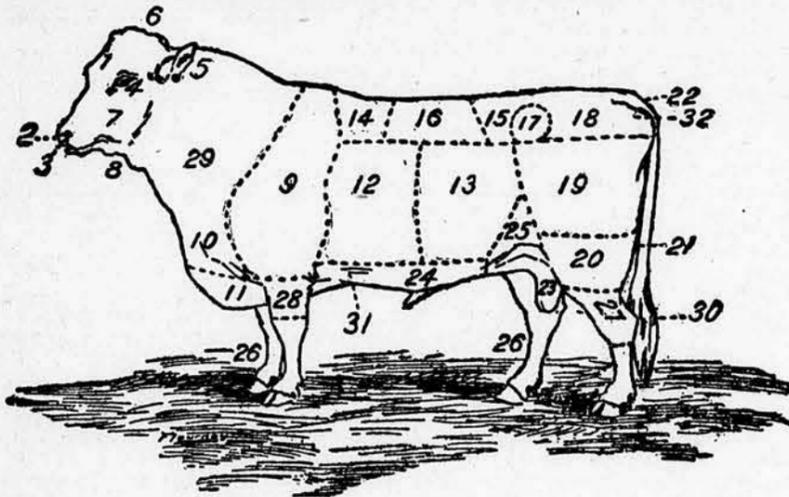
UNIVERSITY OF ILLINOIS.
College of Agriculture.
Department of Animal Husbandry.
Student's Score Card. No. 4.
BEEF CATTLE.

Points	Possible score.	Students score.	Cor-rected.
General appearance:			
Weight estimated.....lbs; according to age.....	6		
Form, straight top line and under line; deep, broad, low, set stylish.....	8		
Quality, firm handling; hair fine; pliable skin; dense bone; evenly fleshed.....	8		
Temperament quiet.....	5		
Head and Neck:			
Muzzle, mouth large; lips thin; nostrils large.....	1		
Eyes, large, clear, placid.....	1		
Face, short, quite expressive.....	1		
Forehead, broad, full.....	1		
Ears, medium size, fine texture.....	1		
Neck, thick, short; throat clean.....	2		
Forequarters:			
Shoulder vein full.....	3		
Shoulder, covered with flesh compact on top, snug.....	4		
Brisket, advanced, breast wide.....	2		
Dewlap, skin not too loose and drooping.....	1		
Legs, straight, short; arm full; shank fine, smooth.....	3		
Body:			
Chest, full, deep, wide; girth large; crops full.....	8		
Ribs, long, arched, thickly fleshed.....	7		
Back, broad, straight.....	8		
Loin, thick, broad.....	6		
Flank, full even with underline.....	4		
Hindquarters:			
Hips, smoothly covered; distance apart in proportion with other parts.....	4		
Rump, long, wide, even tail, head smooth, not patchy.....	4		
Pin bones, not prominent, far apart.....	2		
Thighs, full.....	2		
Twist, deep, plump.....	3		
Purse, full, indicating fleshiness.....	2		
Legs, straight, short, shank fine, smooth.....	3		
Total.....	100		
Animal.....			
Student.....			
Judging.....			
Date.....			

UNIVERSITY OF ILLINOIS.
College of Agriculture.
Department of Animal Husbandry.
Student's Report Judging Competitive Beef Cattle.

CHART NO. 5.

Name of Student.....	No. of Judging.....	Class.....	Date.....
Points.....	Animal.....	No. No. No.	
Weight.....			
Form.....			
Quality.....			
Temperament.....			
Muzzle.....			
Eyes.....			
Face.....			
Forehead.....			
Ears.....			
Neck.....			
Shoulder vein.....			
Shoulder.....			
Brisket.....			
Dewlap.....			
Legs.....			
Chest.....			
Ribs.....			
Back.....			
Loin.....			
Flank.....			
Hips.....			
Rump.....			
Pin bones.....			
Thighs.....			
Twist.....			
Purse.....			
Legs.....			



- 1—Forehead and face.
- 2—Muzzle.
- 3—Nostrils.
- 4—Eyes.
- 5—Ears.
- 6—Poll.
- 7—Jaws.
- 8—Throat.
- 9—Shoulders.
- 10—Chest.
- 11—Brisket.
- 12—Fore ribs.
- 13—Back ribs.
- 14—Crops.
- 15—Loin.
- 16—Back.
- 17—Hooks.
- 18—Rumps.
- 19—Hindquarters.
- 20—Thighs.
- 21—Twist.
- 22—Base of tail.
- 23—Cod purse.
- 24—Underline.
- 25—Flanks.
- 26—Legs and bones.
- 27—Hoofs.
- 28—Forearms.
- 29—Neck vein.
- 30—Bush of tail.
- 31—Heart girth.
- 32—Pin bones.

trained experts; they must be able almost at a glance to determine just how much and what kind of a product an animal will cut on the block, and the work will permit of no inaccuracy. Their judgment and the training of their mental faculties involves thousands and almost millions of dollars in a single day. Why should not a breeder

method of teaching the judging of beef cattle:

The ultimate end of all beef animals is the block, thus it is of vital importance for the student of beef cattle to know exactly what constitutes a good carcass on the block. Thus the first lesson in judging of beef cattle is a careful study of the wholesale and retail methods of cutting beef by the use of charts Nos. 1 and 2.

By the use of these charts the student can plainly see that a wide and thickly fleshed back and loin are all important parts in the beef animal. He learns that all the high-priced cuts are found on the back, loin, and hindquarters; thus, when studying animals later he knows why we insist on having them good in these parts, and that no



The Wolverine HOG RINGER
is the only really successful ringer made. Easily and quickly used positively stops all rooting; rings never come out. Ask your hardware dealer for them. Circulars free.
HEESEN BROS. & CO.,
Toconuch, Mich.

Chief reasons for placing No..... first.
Chief reasons for placing No..... second.
Chief reasons for placing No..... third.

This form permits the use of four animals and requires the student to write a criticism of each part of each animal. At the bottom of the form he has to place the animals first, second and third, and give a limited number of reasons for making his awards. Thus, it introduces for the first time, comparison in judging. This form has, in our use, given good satisfaction, as it gradually places the student on a basis where he stands alone, as he must carry in his mind a clear-cut idea of each and every part of the animal. The continued use of the score card has a tendency to make the student too dependent. He always has a description of the parts of the animal on the card, thus he does not feel the necessity of having a clear mental conception of the various parts, which are so indispensable to the judge in the show-ring or feed-yard.

UNIVERSITY OF ILLINOIS.
College of Agriculture.
Department of Animal Husbandry.
Statement of Student in Competitive Judging.
CHART NO. 6.

Name of Student.....	Date.....
Judging.....	Class.....
Section.....	Animal awarded first position.....
Reasons for decision.....	Animal awarded second position.....
Reasons for decision.....	Animal awarded third position.....
Reasons for decision.....	Animal awarded fourth position.....
Reasons for decision.....	

Chart No. 6 represents our final blank form. This form permits of the use of any number of animals of which only four are to be placed. We use this form in the following manner: The animals are brought into the classroom and numbered 1, 2, 3, 4, etc., etc., until all the animals are numbered, then each student is given a blank form on which he places his name, date, and class of animals he is judging. They then examine each animal carefully and decide which is entitled to first place, which to second, third, and fourth places respectively. After the student has satisfied himself how the animals should be placed he fills out the blank form, placing the animals in order of merit as he considers them, and gives his reasons for doing so. He then hands his paper to the instructor in charge. When all the papers are handed in the students are seated and each animal in turn is criticised by individual students who are called on to do so by the instructor, who confirms or disagrees with the student's judgment, as it may be necessary for him to do. After all the animals have been criticised in this way, the instructor announces how the animals should be placed and gives reasons for doing so in each instance. He also answers any questions that the students may ask regarding the placing of the various animals.

So far we have been discussing beef cattle from the beef type only, but after the student has a clear conception of what constitutes a good beef animal, he then studies the different breeds; their chief characteristics, points of difference, etc., etc., so that he may be able to point out the breed characteristics of each and every breed.

I have given you an idea of how we teach the judging of beef cattle. It is not necessary for me to explain our methods of teaching the judging of the other classes, for our method is the same in outline for all classes of live stock.

Rules for Hereford Shows and Sales.

Secretary Thomas of the American Hereford Cattle Breeders' Association has issued a circular regarding the shows and sales to be held by the association this year. The first of these sales will be held at the Minnesota state fair at Hamline, at which time 100 head will be offered. The last week in September 100 head will be sold at the Kentucky state fair at Louisville, at which fair \$4,000 will be offered in prizes for Herefords, thus insuring an attendance of Hereford admirers and breeders. At the national Hereford show at Kansas City to be

held this year from October 16 to 25, 150 head will be sold, and the last sale will be on the occasion of the live stock exposition at Chicago the first week in December, 100 head being sold at this time. The circular says:

"The sales of the past year have demonstrated the fact that these sales can not be an opportunity to dispose of inferior stock, and it was also demonstrated that a superior animal would not be sold at a sacrifice for want of bidders. These sales are, without doubt, the best possible opportunities that can be offered to sell Herefords at public auction and at the fee of \$25 per animal which will be charged this year to cover the expense of cataloging, advertising, etc., is no more than adequate for the service rendered. Of this fee \$10 per animal must accompany the request for entry in these sales, and such request will not be considered unless said fee is enclosed. The remaining \$15 per animal will be collected at the time of sale.

"At the Hamline and Louisville sales each breeder will be allowed to contribute 5 head, at least 3 of which must be females. At Kansas City and Chicago the limit allowed each breeder will be 3 head, at least 2 of which must be females. At any of the sales mentioned the females consigned can not be less than 12 months nor over 6 years old, exception being made only in case of a female of exceptional merit. The bulls contributed can not be less than 12 months nor over 30 months old, with the same exception as with females. No dehorned animal of any age will be eligible to entry in any of these sales.

"Every animal of either sex consigned to these sales must be guaranteed a breeder, under reasonable subsequent treatment, by the consignor. If any animal sold falls in this respect, and complaint thereof is made to the secretary, a committee appointed for the purpose will investigate such complaint, and should satisfactory proof of barrenness be found the seller will be obligated to return the purchase price of such animal and pay the freight charges incurred by its return.

"A competent committee will be appointed to inspect all cattle listed for each of these sales before same are made at the homes of such cattle, and will be at the expense of the association, and in case an animal is rejected by this committee the first fee of \$10 will be returned to the consignor. In case, however, the consignor's cattle are situated at a point at too great a distance to allow the inspection to be economically made, such inspection will not be made until the cattle have reached the sale barns, and in case the consignor should then have an animal rejected the first fee of \$10 will not be returned.

"Contributors desiring to have cuts of any of their cattle printed in either of the four catalogues to be issued previous to these sales will be allowed to do so at a cost of \$15 each. The cut must be 3 by 5 inches in size, and furnished by such contributor. A cut will be printed in each of the four catalogues at a cost of \$40.

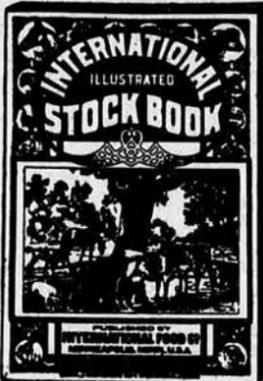
"In case the members of a firm are also individual members of this association they will be allowed to contribute cattle as individuals, but in such case can not also contribute cattle under the firm name. And should a firm contribute cattle to these sales the individual members thereof will be denied that privilege.

"In conducting these sales under its auspices the Hereford association assumes no responsibility whatever either to seller or buyer, and acts merely as intermediary between the same.

"The withdrawal from the sale of any animal catalogues will not release the member from full payment of the fee of \$25. A member will be permitted to withdraw from sale any animal that is out of condition to properly sell and substitute another. The printing of a substitute pedigree will be an additional charge to the fee before mentioned.

"Upon receipt of this circular, members of this association desiring to participate in any or all of these sales should immediately notify the secretary of the number of cattle they wish to sell and at which sale or sales. The fee of \$10 per head must accompany such statement. These requests will be filed in the order received and as soon as the required number for each sale is received entries for such sale will be closed. Names of the animals need not be furnished at present, as a request will be made later for such information. Applications should be addressed to C. R. Thomas, superintendent, Independence, Mo."

A \$3000.00 STOCK BOOK FREE



We will mail you a copy Free, POSTAGE PREPAID,

If you write us and answer 4 questions: 1st—Did you ever use "International Stock Food" for Horses, Cattle, Sheep or Hogs? 2nd—Is it for sale in your town in 25-lb. pails? 3rd—How many head of stock do you own? 4th—Name this paper.

This book contains 183 Large Colored Engravings of Horses, Cattle, Sheep, Hogs, Poultry, etc., with a description of the different breeds.

This engraving shows the beautiful design of outside cover which is printed in 6 brilliant colors. The size of this book is 9 1/4 by 6 1/4 inches, and the engravings cost us over \$3000.00.

WE WILL GIVE YOU \$14. WORTH OF "INTERNATIONAL STOCK FOOD" IF BOOK IS NOT AS STATED.

"International Stock Food" is a perfectly safe vegetable stimulating tonic and blood purifier. It fattens Cattle, Hogs, Sheep or Horses in 30 days less time and saves grain, because it greatly aids digestion and assimilation so that each animal obtains more nutrition from all grain eaten. It is extra good for stallions, brood mares, bulls, cows, rams and ewes, as it permanently strengthens and invigorates the entire system. 600,000 stockmen endorse it. Many use 2000 lbs. per year. It makes Colts, Calves, Lambs and Pigs grow very rapidly even in the winter, and only costs 3¢ per lb. for One Cent. Guaranteed to make Hogs weigh 300 lbs. at 6 months, and to save your Hogs from Hog Cholera, because it is a peculiar stimulating tonic, blood purifier and general system strengthener.

"International Stock Food" won highest award and medal at Paris 1900. Your money will be refunded if it ever fails. Beware of inferior substitutes. OUR 20,000 DEALERS GIVE THIS BOOK FREE WITH "INTERNATIONAL STOCK FOOD" IN 25 LB. PAILS.

Largest Stock Food Factory in the World. International Food Co., Minneapolis, Minn., U. S. A. We occupy 15 floors, also 100x25 feet each, and our new addition, 6 floors 60x15 each.

Our Stallions Huttonwood 2:17 by Nutwood (600) and International Stock Food by Harford (574) eat "I. S. F." every day. We own the Big Horse that is 19 hands and weighs 2600 at 4 years. We own the Big Cow that is 6 feet tall, 10 feet long and weighed 2970 at 5 years. Our Big Short-Horn Steer weighed 3100 at 3 years. We have fed "International Stock Food" for years to our stallions, brood mares, colts, driving horses, work horses, cattle and hogs. "International Stock Food" is harmless even if taken into the human system. We refer to this paper.

BUCKETS OF WORMS

Then Every Hog of a Car Load Gained 3 Lbs. Per Day For 60 Days.

INTERNATIONAL FOOD CO., Minneapolis, Minn.

OSCEOLA, MISSOURI.

DEAR SIRS:—I have just fed "International Stock Food" to a car load of shoats and they made an average gain of 3 lbs. every day. "International Stock Food" beats all kinds that I have ever tried and I have fed several kinds. Hogs all around me were dying with Hog Cholera and I never lost a hog. After they commenced eating "International Stock Food" you could fill a bucket with worms that had passed from them. I think that my car load has made a wonderful gain by using your Food. Yours truly, J. W. SHERRILL.

The Discussion on Tuberculosis.—Part III.—The Place for the Tuberculin Test.

PROF. THOS. SHAW, UNIVERSITY OF MINNESOTA.

It was shown in a previous paper that tuberculosis in live stock, and more especially in cattle, is a sore evil on many of the farmers of this country. It has also been shown that the tuberculin test is the only sure means of detecting the presence of the insidious destroyer of our cattle, unless in the later stages of the disease. It has been made clear that the test is in the main reliable when properly made, and that it does not bring injury to live stock upon the farm when properly applied. The question then comes up: First, is any use to be made of this test by the farmer for the protection of his herds? Second, if so, to what extent should he use it? And third, should any use be made of it by the government in mitigating the evil as it exists in the land and to prevent further invasion by admitting infected animals into the country that come from abroad? Is any use to be made of this test by the farmer and stockman? Look the matter squarely in the face, farmers, look at it calmly and dispassionately, editors of the agricultural press. Yes or no. It is a square issue. It is either a good thing or a bad thing. It is advisable either to use it or not to use it. It is wise either to have our herds tested or not tested. We are either the better or the worse, the richer or the poorer for its discovery. Which is it? Who will take it upon himself to say that we should not make any use of tuberculin? Is there any man in all the United States who can afford to put himself on record as saying that no use should be made of the tuberculin test by stockmen? If there is, let him now enter this short cut to immortality. I take it for granted, then, that it will be admitted that the tuberculin test can be made to render great benefit to the live stock interests of this country. If any one believes to the contrary, we can argue that question later, if necessary.

If it is granted, therefore, that some use should be made of the test by stockmen, to what extent shall they use it? Should they simply test a few animals whose ill-doing leads to a suspicion of its presence? What would that avail? Other animals might have the disease at least in its incipient stages, and thus the evil will be perpetuated. The benefit from the partial test will soon be obliterated. If used at all in the herd, it follows by logical sequence that all the animals in the herd should be tested. What shall be done with those found tuberculous? They may be worth hundreds of dollars; shall they be slaughtered and thus sacrificed? Assuredly no, unless the disease is manifestly affecting their well-doing adversely, which of course it may do and frequently does. This will be pretty certain to do in time. But they should

be separated from the herd and the progeny bred from them reared on the milk of other dams. If they are grades and not possessed of other than meat value they should be disposed of in that way which will be attended with the least loss to the breeder, but they should not be sold as breeders. If, therefore, it is necessary to test all the herd if any of the animals are tested, and if the disease though obliterated may come again, through predisposing inheritance and other causes, here again, it follows by logical sequence that the testing should be continued at intervals. How frequently I can not answer, but experience will doubtless in the future throw some light on this question. The stockman can, therefore, protect himself, in degree at least, from the ravages of this disease. If he can, is it not his duty to do so? Viewed from the standpoint of self-interest, is it not his duty to do so? Suppose he is a breeder of pure breeds, and that his animals are valuable. Will not the preservation of our animals through the use of the tuberculin test pay the cost of testing the herd for many years? If, therefore, it is in the interests of the breeder to thus protect his own herd, does it not follow once again, by logical sequence, that he puts himself in an anomalous position if he rails against the protection which his government tries to extend to him? The only consistent attitude, therefore, for those who quarrel with the government test on imported cattle is to say that they do not believe in the test at all, and that in their own herds they will not have anything to do with it.

The third question now comes up, viz.: Should any use be made of the test by the government with a view to mitigate the evil and to prevent further invasion by prohibiting the importations of untested animals into the country? In the first paper this question was virtually answered, but not in quite the same way as it is now answered. Here, again, the issue is a square one. It does not admit of two answers. Either the government should take steps to lessen the harm which is being done through the presence of tuberculosis, or it should not. Who will take it upon himself to say that the government should not touch the question? Who dares thus to hunger for an immortality bearing upon it the stigma of logical inconsistency? For if tuberculosis is a physical evil, who will question the duty of a government to try to lessen the same? The exact way or ways in which the government should exercise the authority vested in it will not be discussed here, further than to know that the principle of interference is a correct principle. Who will say that governmental authority should not be exercised over herds of cows which supply milk to the people of towns and cities because of the danger to the public health from

(Continued on page 387.)

Save Your Pigs!

Runts are Unprofitable; Dead Hogs a Total Loss.

DR. JOS. HAAS' HOG REMEDY

Is Guaranteed to prevent and arrest disease, stop cough, expel worms. Increase appetite and growth.

Send \$1.25 for trial package, postage paid. Cans \$12.50 and \$8.50; packages \$2.50. State number, age, condition, food of hogs. Special advice free. 25 years experience. "Hogology" pamphlet and testimonials free. JOS. HAAS, V. S., Indianapolis, Ind.

SICK DON'T PAY. Cure Mange Kill Lice, Fever Germs and Worms, and prevent cholera at FIVE CENTS PER HOG PER YEAR.

Full particulars and book on "CARE OF HOGS" free. Address

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PROTECTED PIGS PAY

The verdict of thousands of stockmen who use Vesey's Star Anti-Cholera. It not only protects—it cures cholera hogs. It makes them grow and fatten; it causes early maturity. Sold under an absolute guaranty. Pay no money until satisfied with results. Call on or address

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The worst possible spavin can be cured in 45 minutes. Curbs, splints and ringbones just as quick. Not painful and never has failed. Detailed information about this new method sent free to horse owners. Write today. Ask for pamphlet No. 12.

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RIDGWAY'S

New Scientific Discoveries

IMMUNIZE PIGS BEFORE BIRTH through the mother's blood. IMMUNIZE PIGS AFTER BIRTH through the mother's milk. IMMUNIZE OLDER HOGS by a different process. CURES SICK HOGS by flushing and cleansing the bowels and entire system. HAS BEEN TESTED on over 20,000 hogs the past year. HAVE AT MY OWN EXPENSE shipped into various states and exposed in cholera hundreds of my own pigs for weeks and months without harm and will continue to ship and expose on same terms. HAVE SOLD TO OVER 2,500 of the best farmers and breeders in the United States. DISCOVERED five years ago, was tested four years before offering to sell it. LETTERS PATENT pending on all the above processes. ALL INFRINGERS and their customers will be held responsible for damages. BEWARE! of Logansport or other infringing companies. AGENTS WANTED, WRITE the originator and rightful owner, ROBERT RIDGWAY, Amboy, Indiana.

ZENOLEUM Kills Lice, Ticks, Mites, Fleas, Etc., on all kinds of animals and poultry. Given internally it drives out worms. Cures all cuts, wounds, sores, etc. Non-poisonous. Endorsed by leading veterinarians. "Veterinary Advisor" free. Zenner Disinfectant Co., 61 Bates St., Detroit, Mich.

The Tuberculin Test.

EDITOR KANSAS FARMER:—Prof. Thomas Shaw's recent article in the FARMER on "The Value of the Tuberculin Test," directly antagonizes the position the breeders' associations have taken on that question. The Professor intimates that the members of these associations have blindly followed the lead of a few importers who are personally interested in evading the tuberculin test. The Professor is entirely wrong in his assumptions. The men who endorsed the resolutions referred to, are intelligent and practical breeders, and quite as much interested in keeping their herds uncontaminated, as any veterinarian or learned professor can possibly be. The charges they made in the Kansas City resolutions are abundantly sustained in their experience. The test has proved injurious in a number of well-authenticated cases, and in many more instances has proved unreliable. The Professor himself admits that it is unreliable to the extent of from five to fifteen per cent of cases tested. I can cite him an instance where it proved unreliable in ten tests out of twenty-five. I have personal knowledge of a recent importation from Great Britain consisting of twenty-five cattle, all of which were tested on the other side by authorized representatives of the British government. The tests were made in the presence of the importer, from fresh tuberculin under unbroken seals, and of undoubted efficacy. Under this test some cattle reacted and were rejected by the importer. The twenty-five mentioned stood the test well, and brought excellent certificates from the English officials. In less than ninety days they were again tested at the U. S. quarantine station at Carfield, and ten out of the twenty-five reacted. In this case either the English or the American test was unreliable, or healthy cattle may develop tuberculosis in ninety days. If this is possible, what protection does the test afford? There are other well-authenticated instances of recent occurrence, where valuable cattle have been slaughtered, and on microscopic examination have failed to show the presence of tuberculosis. It is such experiences as these that "tend to shake the confidence of people in the reliability of the test." In the light of such experiences breeders were justified in protesting against the indiscriminate quarantine regulations that were established by many of our state sanitary boards. These regulations were "operating as serious barriers to the exchange of breeding animals between different sections of the United States, and were proving hurtful to the cattle-breeding industry."

It required the united protests of cattle-breeders to prevent such costly and ridiculous experiments as were undertaken and abandoned by Massachusetts, and such absurd interstate regulations, as that requiring all breeding cattle to be tested when brought from one state to another. Of what value were such regulations when it is claimed by the veterinarians, upon whose advice they were established, that tuberculosis exists in some form in every township and school district in the United States? It is like consumption in the human family, no community in the world is entirely free from it, and probably never has been. If the report of the Bureau of Animal Industry may be credited, our cattle are generally healthier now than they were ten years ago. This fact has been developed by the most rigid ante-mortem and post-mortem inspection that our Bureau of Animal Industry could devise for our public markets.

As to the value of the tuberculin test, any one who will read the report of the last international veterinary congress will be convinced, that while the test promises much for the protection of the cattle interests, it is yet in the experimental stage. It has not yet reached that exact and scientific position, that it will justify the quarantine measures advocated by some veterinarians and learned professors.

The deliberations of this international veterinary congress brought out many interesting facts. Among others may be mentioned: That it is seldom hereditary. That cattle may have this disease for years, and yet to all appearance be perfectly healthy. That an animal may pass the test well at one year old, and be tuberculous at two. That it may react at two years old and pass the test well at three. It was freely admitted by the congress that the tuberculin test "is relatively unreliable for diagnostic purposes," though its great value for that purpose was universally admitted. It suggested practical and sensible methods for breeders to use in keeping the disease out of their herds. All their deliberations show that their

views of tuberculosis have been greatly modified in the past five years, and their recommendations were nothing like as radical as they have been heretofore.

The regulations recently promulgated by the United States and Canadian governments for testing imported cattle, are much more reasonable than formerly and will receive the endorsement of all American breeders and importers.

Professor Shaw, like a great many other well-meaning people, has mingled with microbes and bacilli till he has begun to "see things." He sees "a tuberculous sky, that hovers over the greatest live stock industry in the United States, and threatens it with more or less of disaster." If our level-headed breeders were influenced by such dismal forebodings, as the Professor and some of his veterinary friends are afflicted with, they would retire from the business while the sign was right.

What we particularly need just now is some Professor Koch to isolate the bacillus of common sense, and a regulation by the Bureau of Animal Industry requiring every learned professor and veterinary enthusiast to pass the test without reacting before he is turned loose upon a helpless and unsuspecting public.

J. S. HANNA.
Howard, Kans.

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, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the inquirer's post-office, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kansas.

Strangles.—I have two 5-year-old mares that acted droopy three weeks ago. The lost their appetite. One of them would lie down most of the time the first ten days with no sign of pain. When she would eat, the feed would pass through the nostrils, also the water when drinking. About ten days after the first symptoms, her jaws swelled from throat to lips. She is eating some better now, prefers corn on the cob. I have been feeding bran and corn chop. When swelling showed I used a poultice of bran and flaxseed-meal until the pus gathered, then I opened them in three places. I am now washing them with warm water carbolyzed. They show signs of healing. I keep a cover of cloths on them to protect from the cold, but more or less feed passes through the nostrils, and some swelling between the jaw bones yet. Her hide seems close but is shedding hair nicely. The other mare did not lie down so much and feed did not pass through her nostrils. She run at the nose until a week ago then she swelled between jaws nearly to the gullet. I used poultice the same as other and opened on gathering. Am still using poultice. She can hardly put her head to the ground, I think on account of the swelling, and her urine has been highly colored, dung somewhat stiff about the size of a small walnut. Have fed her ground flax to loosen bowels. I used a liniment of equal parts turpentine and sweet-oil, ammonia on the throat for two weeks and gave powders of equal parts powdered licorice root, potash, and gentian root, a heaping teaspoonful twice a day. I used some of Spohn's Distemper Cure during those two weeks, and steamed them some with hot water, a little turpentine in the water. My mares did not cough to speak of at any time. Please let me know through the FARMER what the disease is and what to do for it besides what I have already done and how long it will be before they will recover. Would you advise light work at times?

Humboldt, Kans. J. J. WILLENBURG.

Answer.—Your treatment was very good and if you will give the following powders in their feed now they will do for light work: Sulphate of iron (dried), 3 ounces; hyposulphite of soda, 6 ounces; fenugreek seed, powdered, 7 ounces. Mix and divide into 20 powders and give one to each twice a day in feed.

First: More Information Wanted. **Second: Periodic Ophthalmia.**—I am losing some chickens. Some drop dead off the roost; others die on the nest; while some sit on the roosts with their heads hanging down. It seems their heads are too heavy for their necks.

They have their eyes closed, and die in a day or two. Three years ago I lost about 300 chickens in the same way. If there is any cure for this disease I would like to know it. My chickens have farm range and are not over fat. They are in good laying condition and are laying well. Some of them lay an egg and then drop dead. Second. I also have a horse that went blind in both eyes at the same time on the 22d of this [last] month. His right eye matters freely, but his left eye does not matter at all. His eyes seem a little dim, but he is blind as he can be.

JOHN P. ESSLINGER.

Clay Center, Kans.

Answer.—We can not diagnose the disease of your chickens from the symptoms given. Hold a post-mortem on a few and give us the lesions. Are you feeding oats? Second: Give one pound of Epsom salts as a drench. Bathe the eyes with hot water twice a day and drop in ten drops of the following twice a day: Thropane sulph., 4 grains; rose water, one ounce; mixed. Tie a piece of oil cloth on the halter and let it hang down over the eyes.

Eczema.—I have an 8-year-old mare which I purchased a few months ago. She seems itchy and likes to rub. There is something similar to dandruff in her hair, being worst on neck just below mane. Can you give me any idea from above, what ails her, if anything, and what simple remedy I could apply if any is necessary, more than a good curry-comb and brush?

2. I also have a yearling heifer calf in ordinary good flesh, eats fairly well, but its ears droop. The right ear more than the left.

Answer.—Wash her twice a week with warm water 50 parts to one of Zenoleum, made by the Zenner Disinfectant Co., 27 and 28 Bates street, Detroit, Mich.

2. Indigestion. Give her 60 drops of Tinct. of Nux Vomica twice a day, in a little water. Grass will probably help her out then.

Horse-Breeder's Questions.—In the FARMER of March 21 you gave John Edwards some information in regard to impregnators made by Sharp & Smith of Chicago. I was wanting to learn something in regard to their use and success so I wrote them but as yet no answer. Could you give their street and number. (2) I would like some information in regard to the feed and care of a draft stallion. (3) Would a small bunch of alfalfa once a day be good for a draft stallion in service season? (4) I have a 3-year-old Percheron, full blood. How much exercise should he have each day? (5) Where could I get the best work on the feed and care of the draft stallion?

Answer.—(1) The best impregnators now are made by Charles Truax, Green & Co., 42 to 46 Wabash Ave., Chicago, Ill. (2) Feed according to the amount of exercise and work you give him. About 3 to 4 quarts of oats twice a day and 2 quarts of corn chop and one of bran once a day with plenty of good hay is about the average feed for a draft stallion. (3) It would not be best to feed alfalfa while breeding. (4) About 5 to 6 miles walking exercise is sufficient. (5) "Breeding and Management of Draft Horses," by Richard S. Reynolds, sold by William R. Jenkin's, 850 Sixth Ave., New York.

Scours.—We have prevailing in this county and vicinity a fatal sort of dysentery or scours in calves. It comes on in a calf 2 or 3 days old. Some die in twenty-four hours. Others get over the violent symptoms but do not thrive; get poor and have no life. It starts with a pale, ashy colored discharge which in a few hours becomes very thin and of a buttermilk color, and is thrown out two or three feet when evacuation of bowels occurs. It would seem that it is contagious, as when it starts in a herd it attacks a big per cent of the lot. Would this be a case where the State veterinarian would be supposed to have charge at the expense of the State? If so, will you kindly call his attention to the matter?

L. B. BREESE.

Answer.—This is caused by an acid condition of the blood of the mother and calf and milk caused by the feed at this season of the year. Take the calf away from the mother before it gets any of her milk and feed the calf from the milk of a cow that has been fresh some time and whose milk has been tested with litmus paper and found to be free from acid, boil some of the milk and dilute it with hot water and add from a half to a teacup of lime water to it. Also give a raw egg 3 or 4 times a day beat up with a teaspoonful of pepsin. Change the feed of your cows and as soon as they are on grass a short

time you will not have any more of this disease, especially of this fatal form. Dr. Tait Butler, of the experiment station, Manhattan, Kans., is State veterinarian and will investigate the disease if you call on him through the State sanitary board at Topeka, Kans.

Indigestion.—I have a red steer calf coming 1 year old which is afflicted with bloat, more at times than others, and more upon the left side than on the right.

EDWARD MCNEEVE.

Holy Cross, Kans.

Answer.—Give one of the following powders twice a day in half a teacup of water: Nux Vomica, powdered, one ounce; bicarbonate of soda, three ounces; hyposulphite of soda, two ounces; mix and divide into 20 powders.

"Paraphgia."—I have some sick hogs. The following describes the disease as near as I can do it. They get weak in the hind legs, first one and then the other, and until they lose use of all four feet. They begin to walk on the point of the hoof. Then knuckle over and walk on the joints. They eat heartily, but soon get helpless and die. They live several weeks.

B. W. LADD.

Altoona, Kans.

Answer.—Give a teaspoonful of turpentine to each once a day in the milk for a week; also a tablespoonful of the following twice a day to each grown hog the same way: Fowler's solution, 8 ounces; elixir of calisaya-bark, iron and strychnine, 6 ounces; water sufficient to make one pint.

Bloody Murrain.—Will you be kind enough to give me the symptoms of Bloody Murrain, and is it a contagious disease; also what is the remedy?

Cottonwood Falls, Kans. C. M. B.

Answer.—The disease begins with a high fever. The temperature may reach 106° to 107° F. The pulse beats from 80 to 100 per minute. Feeding and rumination are suspended, chills and muscular tremor may appear. The ears and base of the horns are cold. They are dull and stupid and manifest great weakness. To these symptoms others are added in the course of the disease, such as uneasiness, kicking, g.unting, labored breathing, bloody discharges, may be from the nostrils, mouth, rectum, and vagina. The urine usually contains blood (red water), death ensues in from one to two days. There is no treatment and the only known preventive is to vaccinate against it.

Injury.—I have a fine 6-year-old horse doing nicely until about a month ago, when he began to gaunt up; about three weeks ago he swelled hard back of fore legs, across brisket and at same time top of shoulders seemed to shrink somewhat. Appetite kept good; changed feed to bran mash and chop and good hay; applied white liniment and rubbed vigorously both shoulders and brisket. At same time right eye had white streak across sight.

F. F. WOOD.

Wamego, Kans.

Answer.—Your treatment was all that was necessary at the time and you will not need anything more unless an abscess forms. If it points anywhere open up freely and wash out with a good syringe. Then inject the cavity with peroxide of hydrogen once a day.

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are the most comfortable, commodious means of travel for large parties, intending settlers, homeseekers, and hunting parties.

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For full information call on or address, F. A. Lewis, City Ticket Agent, 525 Kansas Avenue, J. C. Fulton, Depot Agent.

Adroit.

"All the while the cashier was burning the candle at both ends!"
"And keeping it dark! Well, I declare!"—Detroit Journal.

...MEN...

Book for men only, explaining health and happiness sent free in plain envelope. Address
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Stock Gossip.

Mrs. C. E. Anderson, Salina, Kans., reports recent sales of Shorthorn bulls as follows: Daisy Duke, sired by Grand Duke 121982, to Chas. Whitney, Bavaria, Kans., and Storm Knight (Vol 49) to J. B. Morrison, Colby, Kans.

Spring shipments of live stock to Territory grazing grounds and Kansas feed lots and grain markets have begun. General Live Stock Agent J. L. Pennington of the Santa Fe says it will amount to 50,000 head of cattle and over 150,000 head of sheep.

The Whitewater Falls Stock Farm Percheron horses owned by J. W. & J. C. Robison, of Towanda, Butler County, Kans., now numbers 50 head. The horses have come through the winter in fine form and several mares are now foaling a grand lot of colts.

Our advertiser, J. C. Strong, Moran, Kans., breeder of Cornish Indian Games, reports a recent sale to a new breeder of fine stock, Mr. Hostetter, Hope, Kans., who expresses much satisfaction with the purchase and says that this variety of poultry is unequalled for health and beauty.

A big Hereford sale is booked for Denver, Col., on Monday and Tuesday, May 6 and 7, when C. A. Stannard, Emporia, Kans.; Gudzell & Simpson, Independence, Mo.; Scott & March, Belton, Mo.; Lowell, Barroll & DeWitt, Denver, Col., and the Western Breeders' Association, Denver, Col., will unite in making an offering.

A special to the Capital from Kinsley, Kans., on April 15, says that a great many cattle are now being shipped into this country for summer feeding. The prices of stock are better than for six months past. Many settlers are coming into the country. Lands are increasing in value and farms for rent are scarce.

The largest ranch and cattle deal made in Texas for some months is reported from Fort Worth, on April 13. W. E. H. Featherstone of Henrietta purchased of the Loving Cattle Company its property in Jack and Young counties, comprising 23,000 acres of land and about 4,000 head of cattle. The consideration was \$200,000. The largest stockholders in the company reside at St. Joseph, Mo.

The American Hereford Breeders' Association have moved their general offices from Independence, Mo., to 225 West Twelfth Street, Kansas City, Mo. This new location is on the Twelfth Street car line that runs to the stock yards and is just north of and in the same block with the great Convention Hall. Mr. C. R. Thomas, the secretary, will be glad to greet friends at his new quarters.

The sale of Shorthorns held at Webster City, Iowa, by F. A. Edwards, on April 9, made an average on 34 cows of \$305.58, and on 14 bulls \$240.71, making a general average of \$286.67. The highest priced animal was Scarlet, roan cow, which brought \$1,110, and went to C. C. B'gler of Hartwick, Iowa. The next highest price was for bull Strathearn Oakland 2d, purchased by E. W. Touett, Osceola, Iowa, for \$710.

Just what relationship exists between hog cholera and politics may be a little hard to determine; anyhow Mr. Cownie, the well known authority on hogs, in a recent issue of the Swine Breeders' Journal, in the course of a talk on the "Hog from Birth to Sale" said: "I kept hogs for thirty-eight years, and I never had hog cholera on my farm. They had it all around me of late years. I am almost ashamed to say it: I got into politics, and if a man can raise hogs and run politics in Kansas it is more than they can do in Iowa. I got into politics and got the hog cholera."

"Talk about Shorthorn averages last century, what do you think of an average of \$547 to start this century," said Col. F. M. Woods, after the auction by N. A. Lind, at Rolfe, Iowa, on April 10. Prof. Curtis of the Iowa agricultural college made a fine speech and told the breeders to break away from their fads and breed the cattle that produced the best beef with the least food. "It will be a great thing for the Shorthorn people," said he, "when they leave off the color fad and the straight Scotch fad and the straight Bates fad." The first 10 head that were sold made an average of \$1,000, while the 49 head averaged \$547.55. This is the highest Shorthorn average for the number of head paid in this country in a good many years.

A report from Rapid City says that the sheep industry is rapidly on the increase in the Black Hills ranges. It is stated that Eugene Holcomb, one of the largest cattle owners in this part of the range, will this season move his cattle into Montana and that he will stock his Black Hills range with about 6,000 head of sheep of the very best breeds. It is a fact that the cattle industry is gradually but surely being driven out of some portions of the Black Hills ranges, and sheep are taking up the abandoned ground. Cattle will not feed after sheep. Notwithstanding the fact that the price for wool is lower than was anticipated last fall and that mutton is not selling where it did last year at this time, there seems to be as much interest in the sheep business in the Hills this spring as ever.

All of our readers who have wool to dispose of no doubt desire to get the most money possible for it. Summers, Brown & Co., Chicago, Ill., whose advertisement appears in this issue, solicit shipments of wool and guarantee full market price, full weight, and prompt returns for all shipments, and as they distribute direct to the manufacturer they are in a position to secure top prices and to make quick sales without any unnecessary expense to the shipper. They will not run up a storage charge and other bills of expense so often charged by wool houses in general, and which comes out of the pocket of the shipper. This house is an old established one and responsible. They will do what they agree to do. We advise corresponding with them if you have wool to dispose of, also farm products of any kind, as they receive and sell everything which comes from the farm.

Mr. A. F. McCarty, owner of the Neosho Valley Herefords, Humboldt, Kans., writes

T. F. B. Sotham, the breeder of his herd, bull as follows: "Right Sort 9402 was 2 years old yesterday and weighed just 1,550 pounds. He is not loaded with fat either. Only one cow has ever been returned to him. He is filling all the predictions you made for him and my fondest expectations. He has the Corrector head, back, and horn, and curly coat of cherry red. He is smooth as an egg, too. I have only 2 calves from him yet, but they are beauties and worthy of their sire. They are like him—Hereford breeches and all. One is out of an Earl of Shadeland cow, the other out of a daughter of Dave Cornish's Boatman. I am coupling him with daughters of Garfield, Fortune, Earl of Shadeland, Rosland, Chesterfield, etc., and expect something much better than the common run. I believe it is correct to say that Right Sort is the highest priced yearling son of Corrector in four years, or since Grant Hornaday bought Sir Comwell in 1897. He is a wonderful handler, and of a kind disposition."

Many successful hog-raisers are now prohibiting their hogs from wallowing in mud holes and going to a running stream, especially during the extremely hot weather. This is for the reason that they become overheated, plunge into the water, cool too rapidly, resulting in rheumatism. Often your hogs are stiff, off their feed and otherwise indisposed. More than any other cause this is due to allowing them access to wallowing holes and running water. The B-B Mfg. Co. make the broad claim that fully 200,000 Stock Fountains are in use in the hog-raising States, and that they sell 95 per cent of all in use. So far as we know this has never been challenged. In advertising this article and urging its adoption we feel that we are rendering our readers the best possible service. We know the Improved Dewey is a good one, and we can recommend the manufacturers to our readers. Also knowing the great saving in time and money, and increase in weight, if a good hog waterer is used, we advise that our readers purchase the Improved Dewey and see that this name is stamped on the article. This hog waterer is just as serviceable for sheep, calves, and all small stock, also poultry. Call on your dealer or write for prices (which have been reduced) and circulars to the B-B Mfg. Co., Davenport, Iowa.

Geo. Channon, proprietor of the Lockridge Stock Farm, reports a big sale of Shorthorn cattle to Col. J. N. Harshberger of Lawrence, Kans., who bought the entire herd of females at Mr. Channon's Lost Springs ranch, which included 40 cows which the past season brought 41 calves and raised them, sired by Glendower 2d 148555. The cows were sired by Champion 111240, General Gordon 107972, and Grand Duke 121982. They are extra well bred and good individuals and fine colors. They will do Mr. Harshberger lots of good as they have done for Mr. Channon. They have 10 fine calves already as a beginning of the increase. Another lot of 37, 1 and 2-year-old heifers, from the same ranch was sold to Thomas E. Schwartz of Bucyrus, Kans. Of these purchases Mr. Channon says: "These heifers are a fine bunch; colors red, sired by Glendower 2d 148555 and out of Carolina's Harriet, White Rose, Josephine, Adelaide, and other families of cows. The reason the dams of this herd were not kept recorded was depression of prices at that time. It was all I could do to keep my home herd recorded, and I think Mr. Schwartz will show up a fine herd later, as he has got an extra lot of females to start with, a herd that I have been building up for twenty-five years. I wish both success in their herds." Mr. Channon now has the Lockridge or home herd of Shorthorns left, which relieves him of the care of the other herd, now dispersed. Mr. Channon has added to his breeding herd recently 12 females, 4 heifers from the Billbrook herd, owned by H. O. Tudor, Holton, Kans., and 8 select cows from the dispersion sale of J. M. Garver's herd at Abilene, Kans.

The John Morris & Son draft of 20 head, 10 bulls and 10 females in the Kansas City sale, April 22 and 23, are as good as can be picked in their herd of nearly 100 head. Mr. Morris, Sr. has been identified over thirty years with good Shorthorns, and he being an Englishman to the "manor born" is as it were, a stockman by inheritance, knows good ones both in the sale ring and the feed lot and always buys the best herd bulls obtainable. The 10 bulls in the sale were sired by Red cup 121750, a son of Imp. Cup Bearer 92226, bred by Duthie. His dam was Imp. Fox Glove, bred by Cruickshank. These sale bulls will average about 18 months old, are big, strong, growthy fellows, and are mostly out of the dams by Chief Steward 95703. This breeding makes them about three-fourths blood of Scotch sires. Four of the 10 females are Cup Bearer heifers and are just good enough to make every Shorthorn breeder wish that he owned them and was fixed to raise more like them. Two of the older cows will have calves at foot while the others are safe in calf. The writer takes it on himself to state that this Morris offering is beyond doubt the best one that they have offered at public sale in recent years. The other consignors, Arthur Wallace, Fred Cowley, C. E. Leonard, W. R. Nelson, and W. A. Harris, who contribute to the sale, add to the interest. The Wallace draft of 6 head is of the same breeding as were those sold at Kansas City early last year that up to that time made the best average for Shorthorns sold at Kansas City in recent years. Fred Cowley's 3 head and 1 each by the three aforementioned, makes the consignment one worthy the attention of all cattle breeders.

The Gentry Bros., of Sedalia, Mo., will offer at the Kansas City sale on April 22 and 23, 25 head, 2 bulls, 12 cows, 2 2-year-old heifers, and 9 yearlings. The Gentry Bros.' family has been identified with Shorthorn cattle for more than a quarter of a century. It was these enterprising young men that recruited in 1896 and 1897 some of the best Bates cattle obtainable in the country, paying leading prices for them at that time. Their herd now aggregates over 100 head, and is presided over by the herd bulls, Grand Duke of Hazelhurst 125104, and Waterloo Duke of Cedarvale 133065. The first one here mentioned was bred by Elbert & Fall, of Iowa, sired by Airdrie Duke of Hazelhurst and out of Waterloo Duchess 5th, and cost in 1897 the sum of \$705, ranking him the highest priced yearling up to that time in half a score of years. Six of the females in their sale draft are by him, and 10 of the females are safe in expectancy to this

bull. It may be stated here that the females in the sale are pure Scotch, pure Bates, Scotch-topped, and Bates-topped. The other bull, Waterloo Duke of Cedarvale 133065, is a son of N. H. Gentry's chief herd bull, Victorious 121469, spoken of in the notes concerning his cattle. His dam, Waterloo Duchess 5th, a pure Bates, makes this herd bull a Scotch-Bates, and individually he is as good as he is richly bred. The 2 bulls that will be offered are the long yearling Champion of Cedarvale that won eighth place in a ring of about a score of competitors last fall at Kansas City, and Felt 105387, in his yearling form, sired by Scottish King 128054 and out of Countess 51st of Fairview, she by Richmond of Fairview, tracing to Imp. Iantha. Taking the breeding and the individuality of the Gentry Bros.' draft, it will prove an attraction to all desirous of good Short-horns.

Thos. P. Babst, proprietor of the Valley Grove Shorthorns, near Dover, Kans., made some notable purchases at the B. O. Cowan sale, of which purchases John McDiarmid highly commends in the following significant manner: "I find to my great pleasure that you purchased a Mysle and 2 Daisies at B. O. Cowan's sale. These young things, Mr. Babst, are out of my 2 favorite cows that I bought for Tom Mastin. The dam of your Mysle (Mysle 50) was own sister to Baron Ury, that stood at the head of Mastin's herd. In your purchase of this Mysle you possibly have as much Roan Gaunt blood and stand near him as any cow on either side of the Atlantic. Through Imp. Earl of Aberdeen she also comes very near to Champion of England, and but for Velvetene Prince, she might possibly be too intensely Sittyton. The dam of your 2 Daisy heifers was purchased by me from old William Miller, at the dispersion of the Storm Lake sale, with the express purpose of introducing an out-cross on Cruickshank cattle. She and Mysle 50 were the cows from which bulls would be chosen. From this you can understand that I consider you have made the most valuable cow purchases of your lifetime. I hope that no females from either families will be sold for years to come. Let me suggest that you give a Daisy each to your two oldest boys, and a half interest in the Mysle to Mrs. Babst, your share in her will always be looked after. I also suggest that all be bred (when the time comes) to Lord Mayor. These cattle have pedigrees as rich from bottom to top as anything in the herd book, and the Daisies have a combination of Duchess, Field Marshall, and Champion of England blood in them that can not be had but through themselves. A direct and co-lateral dip of Duke of Connaught and then 1st Duke of Airdrie can not be found mingled with such Sittyton blood, excepting in those 2 heifers. The pleasure it gives to know you have them both is far beyond what I am attempting to tell you. You have my hearty congratulations on your ten-strike."

We desire to call special attention to the great combination sale of Aberdeen-Angus cattle to be held at the Kansas City Stock Yards Sale Pavilion on April 29 and 30, under the management of W. C. McGavock of Mt. Pulaski, Ill., to whom all requests for catalogues should be sent. This offering of 126 high-class cattle is probably one of the very best offerings from a breeder's standpoint, ever made at Kansas City. It includes consignments from the herds of Haley Bros., Harris, Mo.; W. S. Karnaghan, Clarinda, Iowa; A. P. Grout, Winchester, Ill.; W. J. Turpin, Carrollton, Mo.; S. Melvin, Greenfield, Ill.; Tyson & Co., Redwood Falls, Minn.; John Harvey, Bloomfield, Iowa, and J. M. Duff, Chestnut, Iowa. The catalogue announcement states that it is a rare occurrence, where so many high-class animals are included in this sale, are submitted to public appraisal, relying so strictly on their merits for valuations. While the offering contains many show animals, few of them have been exhibited. Their breeders and owners, while they are men of reputations second to none for honesty, fair dealing and the production of good cattle, have not been exhibitors to any great extent. We offer cattle that will win the prizes and produce the winners, and not over-fed "has beens" that we expect to sell for high prices on the strength of undue advertising or past victories they can not repeat. Neither are we compelled to make excuses for present condition or explanations as to future development. At Kansas City, April 29 and 30, we sell the "lizzers," no the "has beens" or the "going to be's," and upon this basis are the stockmen of America asked to attend this sale. The Haley Bros. dispersion with its show animals, filling each class in the classifications of our great shows and the entire herd throughout in grandest breeding bloom, should alone command national attention and attendance. But there are 75 other superior specimens included. Mr. A. P. Grout has reserved for this occasion 15 bulls that for breeding and individuality their equals have not yet, we believe, entered an American auction ring. Mr. W. S. Karnaghan, who has demonstrated that he is an adept in the art of breeding and handling the thick-fleshed, highly-finished "doddle," contributes 21 head that do honor to their breeder and owner, their breed and their pedigrees. Mr. W. J. Turpin offers 9 head, 4 of which are of his noted Nosegay tribe. Mr. John Harvey will send into the ring a half dozen handsome sons and daughters of Gay Lad 2d, a brother to the Champions, Gay Lad and Lucia Estill. Mr. S. Melvin sells the get of the highly bred bulls Blackbird, McHenry 6th, and Pride McHenry 5th. Messrs. Tyson & Co. sell 2 Prize bulls sired by Golden Abbott and Pride of Denison, and Mr. J. M. Duff sells as thick and sweet a lot of young females as the public is ever privileged to bid upon. Collectively they will present as grand an array of superior individual excellence as has been assembled on this continent for a public auction, and we invite all lovers of the ideal beef-breeding form to be present.

Publisher's Paragraphs.

Notice the offer of P. L. Cole, Lock Box 381, Marietta, Ohio, who sells grindstones direct from the maker to the user.

The Poultry and Belgian Hare Standard, of Kansas City, is recognized as an authority on fancy poultry and hares. Its contents are practical and instructive, particularly to the amateur breeder. It is a handsomely printed and illustrated paper, which keeps its readers up to date in the two industries it represents. It is club-

bed with the Kansas Farmer, both papers one year for \$1.25. Address Kansas Farmer Co., Topeka, Kans.

For vehicles and harness of every description that are right as to quality and price, the well-established firm of Hubbell & Waterhouse Co., 104 Locust St., St. Louis, Mo., certainly offer very attractive bargains. A Kansas Farmer representative recently visited their establishment and was pleasantly surprised to see such an extensive line, which as a "buyer de-parture" they are selling to a "buyer direct" a complete line of reliable goods that will please both as to quality or price. Any intending purchaser will thank us for advising him to send for their free illustrated catalogue.

N. W. Ayer & Son's American Newspaper Annual, containing a carefully prepared list of newspapers and periodicals published in the United States, Territories, and Dominion of Canada, with valuable information regarding their circulation, issue, date of establishment, political or other distinctive features, names of editors and publishers, and street addresses in cities of 50,000 inhabitants and upward, together with the population of the counties and places in which the papers are published according to the United States census of 1900. Also a list of newspapers and periodicals published in Hawaii, Porto Rico, Cuba, and the West Indian Islands, compiled from the latest obtainable information. A description of every place in the United States and Canada in which a newspaper is published, including railroad, telegraph, express, and banking facilities, and 65 colored railroad maps of the United States and its possessions, Canada, and the West Indian Islands, also the vote of states and counties at the Presidential election of 1900, will be sent anywhere, post paid, for \$5 by N. W. Ayer & Son, Newspaper Advertising Agents, Philadelphia.

The Century Manufacturing Company of East St. Louis, Ill., are large manufacturers of buggies and surreys. They sell direct from their factory to homes at factory prices. They are consequently in a position to save the customer from \$20 to \$40 on the purchase of a buggy and from \$40 to \$80 on the purchase of a surrey. The



Century buggies are among the best manufactured. They sell for cash or on easy monthly payment plan, and they shall be pleased to extend credit to honest people living in all parts of the country. They are offering a regular \$75 buggy for only \$35, and the buggy is fully guaranteed for three years. The Century brand of buggies are warranted for three years. We would suggest that our readers write to the Century Manufacturing Company of East St. Louis, Ill., for their free Buggy Catalogue, and in so doing please mention the fact that you saw their advertisement in the Kansas Farmer. We call our readers' attention to their regular advertisement which appears elsewhere in this issue.

The man who owns and operates a threshing outfit is not the only one who should study and look into the merits of threshing machines. If there is any one man above another who should be interested in the capabilities and the quality of work a threshing machine will do, that man is the farmer. If a machine is only limited in capacity and is pushed beyond its limit the grain will be "hogged" or poorly threshed and cleaned and the farmer is the loser. If the machine is flimsily constructed, or if the engine is of too light capacity, breaks and delays will occur, and with a big gang of threshers on his hands the farmer is again the loser. Certainly, then, when you have a job of threshing to do the safe plan is to select or employ a machine of such well-known make and ability as to avoid all these vexatious delays and losses. As a type of this best class of threshers we illustrate herewith the new Rumely thresher, which is manufactured by the M. Rumely Co., of La Porte, Ind. These threshers have a



most enviable reputation for threshing and cleaning ability, large capacity, durability, and earning ability. They are equipped and provided with every improvement and time and labor saving device known to thresher art—i. e., self feeders, band cutters, grain weighers, grain baggers, high elevators, elevators with cross conveyors, etc. The Rumely engines which are made for burning with wood and coal or both, straw, etc., are phenomenal for their strength and durability and further for the fact that they always develop greater than their accredited power. They are remarkably easy and quick steamers and are economical of fuel. Their traction power is simply enormous and they take the entire outfit anywhere over any kind of road. The separators can be equipped with Uncle Tom Wind Stacker or the Sattley Attached Stacker or the Independent Swinging Stacker, as desired by the buyer. All machines of every kind and all attachments are made of the very best material and in the most workman-like manner. If interested in threshing machinery in any way it will pay you to see a Rumely catalogue. Write the M. Rumely Co., La Porte, Ind., to-day and they will take pleasure in mailing you one free if you mention this paper.

The Home Circle.

A KANSAS JOINT-KEEPER'S DILEMMA.

Say, Billy, git ten two-by-four
'Nd twenty six-by-eight,
'Nd order from the hardware store
Ten sheets of boiler plate.
'Nd 'phone the carpenter to come
Most mighty quick—don't wait,
For there's a story on the streets
She's comin' on the freight.

Oh, many years I've carried on
My business in this town,
I've helped elect its officers
From Mayor Dram clear down;
I've let policemen for a wink
Get jags here every day.
Say, Billy, git a move on, fer
She's headed right this way.

I don't mind tem'prance meetin's
When they simply resolute,
For after all their efforts bring
But mighty little fruit;
But when crowbars 'nd hatchets
'Nd hand-axes fill the air—
Say, Billy, git that boiler iron
Across the window there!

It beats the nation—no I think
The Nation's beatin' me,
When I can pay a license here
And still not sell it free,
Fer I must keep my customer
Outside 'nd make 'em wait,
Because the story's got around
She's comin' on the freight.

There, Billy, now we've got her—
Six-by-eights across the door,
'Nd solid half-inch boiler iron
Where plate glass showed before;
But, Bill, before that freight arrives,
Ye'd better take a nick
'Nd pry that cellar window loose,
So we can git out quick.
Cadmus, Kans. —Ed Blair.

The Home Circle is this week enriched by the first of a series of papers entitled "The Man of the Week," by W. D. Working, of Denver, Col. This series will be continued throughout the year and will prove one of the most interesting and valuable features of the KANSAS FARMER. Mr. Working graduated from the Kansas State Agricultural College about thirteen years ago. He has had much experience of men and things in these years. He is a keen observer, a great reader, and has withal a happy faculty of writing with the accuracy of the historian and the sustained interest of the romancer. Young and old will be charmed with his introductions to great men in which will be faithfully presented their relations to agriculture.

THE MAN OF THE WEEK.

Thomas Jefferson.

(Born April 13, 1743; died July 4, 1826.)

The historians, the publicists, and the politicians have much to say of Thomas Jefferson and his influence on our political thought and the structure of our government. And well they may; for he was one of the greatest of the great men of the formative period of our political institutions. They never tire of speaking of him as the wisest and most far-seeing political organizer of his time and one of the most influential of American statesmen. Every loyal American is proud of him as the author of the Declaration of Independence; and few there are among us who are not also proud of him as the president who had the courage and sagacity to interpret the constitution in harmony with the will of the people, whose will is the only human law higher than the constitution.

The greatest act of Jefferson's public career was his purchase of Louisiana—an act for which the letter of the constitution furnished neither warrant nor excuse. But Jefferson knew his people. In the best sense, he was an interpreter of democracy; he had a sure insight and knew the hearts of his countrymen. He knew that the people would justify his act. He did what every executive is bound at times to do or be a failure; he must do the deed and get his authority afterwards.

Of the multitudes who have written of Jefferson and his ideas and public services, not one has given him proper credit for certain of his most important achievements. The following summary of his public life—taken from the Century Cyclopedia of Names—is typical:

"He was a member of the Virginia House of Burgesses 1769-75 and 1776-78, and of the Continental Congress 1775-6, and drafted the Declaration of Independence 1776. He was governor of Virginia 1779-81; member of Congress 1783-84; United States minister to France 1785-89; secretary of state 1790-93; founder of the Democratic-Republican party; vice-president 1797-1801; and president (elected as candidate of the Democratic-Republican party) two terms, 1801-09. Among the chief events of his administrations were the war with Tripoli, the Louis-

iana Purchase, the reduction of the national debt, the exploration of the West, and the embargo."

This is a record of which the greatest of men might well be proud. Yet those who believe that the social and industrial history of a country is no less important than its political annals may be excused for feeling that the foregoing outline of Jefferson's life is defective and one-sided. The United States of Jefferson's time was an agricultural country, and to this day agriculture is its chief industry. Thomas Jefferson was a farmer and a student. Could it be that such a man would have no influence in developing the one great industry of his country? Can it be that he had no earnest thought for any but political problems? No. He was a student of agriculture and agricultural problems. Says Goldwin Smith, who is no admirer of Jeffersonian political doctrines: "His agriculture was scientific and experimental." It was also intensely practical; his farming was profitable.

All of Jefferson's biographers seem to be unconscious of the fact which Jefferson himself never lost sight of, that agriculture is the very foundation of our national greatness. Morse quotes part of Jefferson's list of the things he had "been the instrument of doing," mentioning the "putting an end to entails, the prohibition of the importation of slaves, also the drafting of Declaration of Independence;" and then adds these contemptuous remarks:

"And in the same not very long list, cheek by jowl with these momentous achievements, follows the importation of olive plants from Marseilles into South Carolina and Georgia, and of heavy upland rice from Africa into the same states, in the hope that it might supersede the culture of the wet rice so pestilential in summer."

In the following paragraph Morse is fairer, although, with Washington as another type of the Virginia planter, there seems to be little excuse for the word "stagnating" as used in the concluding sentence:

"For his own personal part, Jefferson was always an enthusiast in agriculture. He was never too busy to find time to note the dates of the planting and ripening of his vegetables and fruits. He left behind him a table enumerating thirty-seven esculents, and showing the earliest dates of the appearance of each one of them in the Washington market in each of eight successive years. He had ever a quick observation and a keen intelligence ready for every fragment of new knowledge or hint of a useful invention in the way of field work. All through his busy official life, abroad and at home, he appears ceaselessly to have had one eye on the soil and one ear open to its cultivators; he is always comparing varying methods and results, sending new seeds hither and thither, making suggestions, trying experiments, till, in the presence of his enterprise and activity, one begins to think that the stagnating character so commonly attributed to the Virginian planters must be fabulous."

It is not surprising that President Jefferson's first inaugural address recommended the "encouragement of agriculture, and of commerce as its handmaid;" for he had often expressed the opinion that farmers are the most useful citizens. In a private letter to John Jay, written in Paris, August 23, 1785, he said: "Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous; and they are tied to their country and wedded to its liberty and interests by the most lasting bonds." Numerous sayings of a similar character might be quoted from his writings, but the plan of this article forbids the use of more than the two following:

"Corruption of morals in the mass of cultivators is a phenomenon of which no age or nation has furnished an example."

"Those who labor in the earth are the chosen people of God, if ever He had a chosen people, whose breasts He has made the peculiar deposit of substantial and genuine virtue."

The typical agricultural implement is the plow. There is good reason for believing that it is the most important machine ever invented. "There is no doubt," says J. R. Dodge, "that ex-President Thomas Jefferson was the first to lay down the principles by which moldboards could be made by anyone with the certainty of having them all alike. This was done upon mathematical principles, as set forth in a communication to the French Institute, by which the plow should act as two wedges; one acting vertically and the other laterally, and so blended in a curve surface

that the furrows should rise and turn over smoothly and continuously." Professor Shelton of the Kansas Agricultural College, used to tell his students that, "Thomas Jefferson was the first to demonstrate the mathematical proportions of the plow."

Democrats and Republicans claim Jefferson as their political prophet, each accepting such part of his doctrines as suits the occasion. With equally good reason and infinitely less disposition, farmers may claim him as the most illustrious farmer except Washington, and as the farmer and friend of farmers who has never been outdone in service to agriculture and in loyalty to farmers and their calling.

Jefferson's summary of the most important acts of his life contains a sentence which might well be the inspiration of every agricultural college and experiment station in the country: "The greatest service which can be rendered any country is, to add a useful plant to its culture; especially a bread grain; next in value to bread is oil." Denver, Col. D. W. WORKING.

Written for Kansas Farmer.

Entertaining Company.

The writer had the good fortune to be invited out to dinner recently at the home of a woman who is noted, in her circle of friends, for making every one in her home enjoy himself. It is a very little home but the two people who own it have made it so homelike that it seems large enough for all who come.

The housekeeper knew we were coming and had made all the preparations before we came. Then she let us take things as they were and made no excuses for anything. The dinner was sufficiently elaborate and tempting to make us break our resolutions not to eat more than we were accustomed to do at home, yet it was nearly all prepared before our coming, leaving the housekeeper free to entertain the guests until nearly time to serve the meal. The roast was nicely done and simply needed reheating. The soup was practically ready to serve, the potatoes and cabbage were ready to place on the stove, the baked beans had to be put back in the oven for a few moments, and a dessert had been prepared which could be served cold. We could not help remembering former places where we visited and dined where it was necessary for our hostess, if she did not "keep a girl," to absent herself from the company as soon as their wraps had been laid aside and the weather had been discussed.

After the dinner was over and we had chatted half an hour our offer to help with the dishes was not declined and the two lady visitors were given big aprons and allowed to feel that they were helping while all three chatted about housekeeping matters, of interest to all. In twenty minutes order had been restored in the kitchen and a walk was suggested. The suggestion was immediately acted upon, for the woods are very tempting at this season, with ferns and violets and uncountable other interesting things. We strolled for nearly an hour, saw a hundred pretty spots along the lake shore and came back laden with pretty things to take home, where, unfortunately, there are no woods. After a half hour we came home, sorry we were not invited for a week, and vowing never to lose a chance to visit this new friend.

The charm of the entertainment lay in the informality and in the way the work had been arranged so that we did not feel we had been the cause of a lot of work and worry. Although it was our first visit to the home we felt at once that we were as welcome as old friends and that our coming had been looked forward to with pleasure. Most women would say that their hostess had tact, but we are sure that more women could make their guests feel at home than do, if only a little more pains was taken to do so. It is very well to be formal at times, and it is also very well to make considerable preparation for a dinner to which guests are invited, but do all that can be done, whatever the circumstances, to give the guest ease of mind and thorough enjoyment.

MARY WAUGH SMITH.

One of the Penalties for Being Rich.

A London dispatch says: King Edward's personal safety is probably under less solicitous care—and that of the czar of Russia scarcely more so—than is the life of Mr. J. Pierpont Morgan, who is now crossing from New York to attend to the listing of the United States Steel Trust securities on the continental exchange. A private



A strong serial story
of business life, by

Merwin-Webster

Authors of The Short Line War

How Bannon built the two million bushel elevator against time and trouble in sixty days; broke the great wheat corner, and won the girl. One of the many serial stories that regularly appear in

THE SATURDAY EVENING POST

OF PHILADELPHIA

A finely illustrated and printed weekly magazine, full of interesting articles by the most prominent men. The Post was first published by Benjamin Franklin in 1728, has continued uninterrupted for 173 years, and now has a circulation of over 300,000 copies weekly.

The Saturday Evening Post sent to any address for Three Months (13 weeks) on receipt of Only 25c. This also includes without extra charge a copy of each of the two books: "The Making of a Merchant" and "The Young Man and the World." These books contain a series of famous articles for young men which appeared in the Post, written by such well-known men as ex-President Cleveland; Senator Beveridge; former Senator John J. Ingalls; Harlow N. Higinbotham, of Marshall Field & Co., Chicago; Robert C. Ogden, of Wanamaker's, and others.

AGENTS make more money quicker with the Post than most anything else. Write for Special Offer to Agents and see how easy it is to make spare hours profitable.

The Curtis Publishing Co., Philadelphia, Pa.

detective has arrived on the Oceanic to make arrangements for shadowing the financier wherever he goes, and it is understood that on the eastward voyage there is no moment when Mr. Morgan or his state-room door and port windows are not under the eyes of armed guards.

Glass of Water at Bedtime.

The human body is constantly undergoing tissue changes. Water has the power of increasing these changes, which multiply the waste products, but at the same time they are removed by its agency, giving rise to increased appetite, which in turn provides fresh nutriment. If you do not accustom yourself to drink water regularly you are liable to have the waste products form faster than they are removed. Any obstruction to the free working of natural laws at once produces disease. Great weakness and languor on rising in the morning are generally due to a larger secretion of these waste products, and the remedy is to drink a tumblerful of water—either hot or cold—just before retiring. This materially aids the process during the night, and leaves the tissues fresh and strong, ready for the active work of the next day.—Toronto News.

Purify the blood and put the system in order for summer work by using at this time a short course of Prickly Ash Bitters; it is the greatest blood purifier on earth.

Saving Herself.

He—Why so quiet, dear? I haven't heard you open your mouth once to-day.
She—Oh, I'm saving myself for the whist party to-night.—Yonkers Statesman.

A CURE FOR TOBACCO HABIT.

Mrs. R. Brayton, 1306 15th St., Des Moines, Iowa, has discovered a harmless remedy for the tobacco habit. Her husband was cured in ten days, all desire for its use gone. Thousands are being cured. Mrs. Brayton will send prescription absolutely free to any one enclosing stamped envelope.

FARMERS

Can make money the year around by selling Estey Organs at such times as they are not busy with their regular work. For full particulars write to THE ESTEY COMPANY, 916 Olive St., St. Louis, Mo.

Mothers! Mothers!! Mothers!!!

Mrs. WINSLOW'S SOOTHING SYRUP has been used for over FIFTY YEARS by MILLIONS OF MOTHERS for their CHILDREN while TEETHING, with PERFECT SUCCESS. IT SOOTHES the CHILD, SOFTENS the GUMS, ALLAYS all PAIN, CURES WIND COLIC, and is the best remedy for DIARRHOEA. Sold by DRUGGISTS in every part of the world. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.

The Young Folks.

A LIFE ON THE OCEAN WAVE.

A life on the ocean wave,
A home on the rolling deep;
Where the scattered waters rave,
And the winds their revels keep!
Lik an eagle caged I pine
On this dull, unchanging shore:
Oh, give me the flashing brine,
The spray and the tempest's roar!

Once more on the deck I stand,
Of my own swift-gliding craft:
Set sail! farewell to land!
The gale follows fair abaft.
We shoot through the sparkling foam,
Like an ocean bird set free—
Like the ocean bird, our home
We'll find far out on the sea.

The land is no longer in view,
The clouds have begun to frown;
But with a stout vessel and crew,
We'll say, Let the storm come down!
And the song of our hearts shall be,
While the winds and the waters rave,
A home on the rolling sea!
A life on the ocean wave!

—Epes Sargent.

A Famous Phrase.

In the current issue of the American Monthly Review of Reviews more light is thrown on the probable origin of the phrase used by Lincoln in his address after the battle of Gettysburg—"Government of the people, by the people and for the people." The Review says:

The note published in this Review last month from Mr. George F. Parker (formerly our Consul at Birmingham, England, and still resident there), apropos of a possible origin of Lincoln's famous Gettysburg phrase, "Government of the people, by the people and for the people," had the merit of bringing out several suggestions which would serve to show that this particular form of words was by no means peculiar to any one writer or speaker. One of our letters comes from Mr. J. H. Miner, of Richland Center, Wis., who says that in his opinion it is more likely that President Lincoln's phrase was taken from "Story on the Constitution," a book with which, of course, Lincoln was very familiar, than from the more unusual source cited by our contributor of last month. Judge Story, in discussing the Bill of Rights, says Mr. Miner, in Section 304 of his great work, makes the following statement: "That in a Government like ours, founded by the people, managed by the people, and especially in one of limited authority, there was no necessity of any Bill of Rights." Something of the same idea as Lincoln's, certainly, is to be found in this quotation from Judge Story, but the phraseology is not closely similar.

A more striking resemblance is one that another correspondent, Mr. Sylvan Hess, of St. Paul, points out, when he takes the ground that Lincoln had derived the phrase from one of Daniel Webster's speeches. Our correspondent cites Webster's second speech on Foote's resolution (Vol. III, p. 321, of the "Works of Daniel Webster"). This is the great speech that closes with Webster's famous sentiment, "Liberty and Union, now and forever, one and inseparable." In the course of this speech Mr. Webster had said, answering his own question as to "the origin of this Government and its true character:" "It is, sir, the people's Constitution, the people's Government, made for the people, made by the people and answerable to the people."

Mr. Hess, it would seem to us, has made an apt and valuable suggestion. A more probable one, however, is that which is pointed out by another correspondent, Mr. Chadwick. He follows Lincoln's partner and biographer, Mr. Herndon, in attributing the phrase to the great preacher and orator, Theodore Parker. Mr. Chadwick does not stop with citing Herndon's interesting testimony, but also remarks from his own knowledge that Theodore Parker had on various occasions used similar language.

In his letter Mr. Chadwick says: "William H. Herndon, Lincoln's law partner, knew Theodore Parker well, and had much correspondence with him, and after the Lincoln-Douglas debate he came on to Boston and saw Parker and other anti-slavery men, with an eye to Lincoln's political prospects. Going back to Springfield, he took with him some of Parker's newer sermons and addresses. 'One of these,' he says in his 'Abraham Lincoln' (Vol. II, p. 65), 'was a lecture on "The Effect of Slavery on the American People," which was delivered in the Music Hall, Boston, and which I gave to Lincoln, who read and returned it. He liked especially the following expression, which he marked with a pencil, and which he in substance afterwards used in his Gettysburg address: "Democracy is direct self-government, over all the people, by all the people, for all the people." The address referred to (Parker's last great

anti-slavery address) was delivered July 4, 1858. In a speech by Parker in 1850 we find it imbedded in a passage which might have been the inspiration of Seward's famous 'irrepressible conflict' or Lincoln's 'house divided against itself,' a view to which Parker continually recurred. In two other speeches it stands 'government of all the people, by all the people, for all the people.' Its earliest appearance that I have discovered in his writings is in a letter to Rev. Samuel J. May, in 1846, where it is simply 'government of all, by all, for all.'

"In 'Recollections of Abraham Lincoln,' by Ward H. Lamon, edited by his daughter, Dorothy Lamon, we are referred, in a chapter on the Gettysburg speech, to 'the preface of the old Wycliffe Bible, published A. D. 1324' (!) The date is of course absurd, it being the date of Wycliffe's birth. He died in 1384, and that is the year roughly assigned for the completion of the Wycliffe-Hereford Bible. I have no means of verifying the quotation, which is, 'This Bible is for the government of the people, by the people and for the people.' Now, the chance that Lincoln ever saw this Wycliffe Bible or any reproduction of it is infinitesimally small. The chance that Parker may have seen it is much greater, for he was rich in Bibles, having about one hundred different editions in his library, some of them very rare. Where Lincoln got the Gettysburg phrase does not admit of doubt. His partner, Herndon, makes that plain enough. But may not Parker have got it from the Wycliffe phrase? It is not impossible, but it is most improbable, seeing that we find the phrase growing in his writing from a form quite unlike that of the Wycliffe Bible to a final one not in perfect agreement with that. I conclude that the resemblance to the Wycliffe phrase was a pure coincidence; that Parker evolved the phrase, as used by him, from his own consciousness, and that Lincoln borrowed it from him and set the jewel in the imperishable gold of his Gettysburg address."

The Review adds: Such phrases have a way of growing until they become more or less common property; and in the days of Webster, Theodore Parker, and the great orators of the long debate that preceded the Civil War, such enunciations touching popular government were not at all infrequent in impassioned speeches that never were printed at all.

Painted the Lily a Little.

The Topeka Capital printed a five line item recently to the effect that a Topeka woman, visiting a friend who lives on a Riley County farm, was entertained at a farm dinner at which of the fifteen women present, eleven had traveled in Europe, Asia, or Africa, and one had lived four years in Japan. The New York Mail and Express adorns the tale as follows:

Since Mrs. Nation hid her gleaming hatchet in the woodshed and Jerry Simpson betook himself to the lowlands of Missouri for rest and contemplation we have heard all too little of suffering Kansas. The melancholy Populist, bowed by the weight of his own prosperity, is silent. The grasshopper has not hopped, the potato bug has not arrived, and the gay and festive cyclone has given the sunflower state the go-by. In short, Kansas is despondent and gloomy, prosperous and in despair. The only recreation in which her people indulge is the calamity social, at which those present compare their bank books and weep for the sorrows of the commonwealth.

One of these interesting gatherings took place a few days ago at the home of a farmer in Riley County. The wife of this horny-handed son of agriculture had invited several other women to dinner, and fifteen came, all of them the wives of neighboring farmers. After a frugal repast of nine courses, not including the cut-glass finger-bowls, the ladies left the table, which previously had fairly groaned under the weight of good things, and adjourned to the front drawing-room so as to be near the grand piano and the nickel-mounted, hard coal base-burner stove. Then followed a general conversation on current topics, and when the subject of travel came up it turned out that eleven of these sixteen farmers' wives had made extensive tours of Europe. Three had journeyed as far as India, several had taken in Egypt, including the trip up the Nile, two had visited Rome and the Holy Land, and one had spent four years as a sightseer in Japan. Of the four who had never traveled abroad, two had crossed the continent and one had been as far south as the Everglades of Florida, but the other had

HALF THE QUARRELS

In married life are caused by bad digestion. It makes a person cross and inclined to fault finding.

Prickly Ash Bitters

makes home happy by keeping the digestion, liver and bowels in perfect order, strengthens the stomach, purifies the blood, promotes sound sleep and cheerful spirits.

PRICE, \$1.00 PER BOTTLE.

AT DRUG STORES.

never been farther away from the farm than New York and Boston.

This simple recital is an instance of how they suffer out in Kansas. The ladies at this particular dinner party in Riley County appear to have enjoyed themselves as well as they could under the circumstances, and at times the conversation became almost cheerful. Not for long, however, for ever and anon the deep, hoarse anguished wail of the calamity howler would issue from the second floor library where the head of the house was mourning over the refusal of the banks to pay more than 5 per cent interest on his deposit.

Sky Ferries.

The sky ferry may not have been invented by the Yough River miners, but they have recognized it as a good thing and half a dozen of these novel transportation machines ply the river to the astonishment of passengers on passing trains, who stare out of the windows of the cars at the sight of a man flying across the stream, suspended in a small cage, which travels on a wire cable stretched from one shore to the other.

The sky ferry at Coulterville was one of the first to be built across the Yough, and it dates back to about 1890, when Enoch Johns, John Taylor, James Harkins, James Conroy, Murray Dice, Emmet Price, Hugh McDermott, and Herman Eorler formed a stock company and built a machine. The mechanism of the affair is simple, and consists of a cage suspended from two traveling wheels, which run along a 1-inch steel cable stretched from bank to bank, and tightened by means of a simple windlass built of timbers. The cage will carry four passengers, and the propelling power of the ferry is furnished by a winch, which is turned by the passenger and winds up a tight line, carrying the cage across the stream.

To raise the ferry a safe distance above the river a platform is built, and on this another set of machinery is placed, so that if the ferry is on the opposite side of the river and a passenger wishes to cross, he can wind the machine over to him and then make the trip across the stream.

The ferry at Coulterville is a stock company concern, to which any miner may become a partner by paying \$2 for a key. There are several hundred keys out now and the ferry gives general satisfaction. Since the Coulterville ferry was built other ferries have been built at Osceola, Robbins, and Shaner, while at Scott Haven there is a steam ferry, which does a big business and runs day and night. The sensation of swinging out over the river in one of these ferries is rather startling, as the machine starts out from the bank with a swoop that carries it half way across, or to the lowest part of the slack of the cable. Then the traveler has to wind up the windlass to reach the other shore. No accident has ever happened on any of these ferries, but at Coulterville they tell a story of a miner who, after an argument with his wife, in which he was "getting the worst of it," escaped to the ferry, threw off the windlass line and allowed the machine to coast to the middle, where he was safe.

According to the story, and it loses nothing in the telling, the woman bombarded him with stones for an hour, but a woman was never noted for her accuracy in throwing stones, and the man laughed at her invitation to come ashore and take his licking like a man. Then a new factor in the case turned up as a group of hungry miners reached the shore and those on shore

were unable to reach him. By this time the woman had become tired of her exercise, and the man solved the problem of his own escape by falling out of the cage into the river, to be dragged out.—Pittsburg Dispatch.

The Superior American Girl.

Young men of Balham who may be about to marry were given advice last night by Mr. Max O'Reil. Mr. O'Reil has discovered only two countries where men are in leading strings—his own and the United States. Of the women of both lands he discoursed with enthusiasm. The French wife, he said, is her husband's friend, confidante and business partner. To this circumstance is due, in his judgment, the fact that France is to-day the richest country in the world—richest, that is, in evenly distributed wealth, 72 per cent of the population outside Paris owning their own homes. He went on to affirm that French women are supreme in the politics of matrimony. She knows it is a question of remaining not beautiful but interesting; hence her little bustling ways and her varied manner of doing her hair. In this country marriage was looked upon as the end of love-making, but in France, after marrying your wife, you had to win her—a process very pleasant. If so many kisses were not indulged in before marriage in this country there would be more afterward. In France not more than one man in every 500 belonged to a club. As for women's clubs—ugh! Having seen the way the poor American millionaires lived (they being too tired on Sundays to tell their children stories), the advice he felt compelled to give everybody was: "Live well, and live as long as you can. You will never have another chance." Beads of perspiration on the Yankee's brow crystallized into diamonds on the necks of his women folk.

American girls Mr. Max O'Reil praised without stint. The animation of their features, the brilliancy of their conversation, their freedom from affectation, the picturesqueness of their language—oh, they were glorious and unique. The American girl of 17 or 18 was allowed almost every liberty, and she took the others. Europe was surprised that she had a latchkey and stayed out late with young men. Dear old Europe—dear old museum! The most vulgar American man could, in the matter of how to behave to women, teach a lesson to the men of the Old World—even to Frenchmen. His compatriots, in that matter, were living too much on the reputation of their ancestors. A Frenchman, when he made way for a lady, looked at her; an American, in similar circumstances, lowered his eyes. The former sighted the miss; the latter missed the sight. In conclusion Mr. Max O'Reil enthusiastically remarked that if he could be born anew, selecting his sex and country, he would say, "Please make me an American woman."

\$100 Reward, \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is Catarrh. Hall's Catarrh Cure is the only positive cure known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer One Hundred Dollars for any case that it fails to cure. Send for list of testimonials.

Address, F. J. CHENEY & CO., Toledo, O.
Sold by Druggists, 75c.
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KANSAS FARMER.

Established in 1863.

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

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J. B. McAfee.....Vice-President
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R. B. Cowgill.....Editor
H. A. Heath.....Advertising Manager



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All advertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper, free during the publication of the advertisement. Address all orders—

KANSAS FARMER CO.,
116 W. Sixth Ave., Topeka, Kans.

NOTICE EXTRAORDINARY. BLOCKS OF TWO.

The regular subscription price for the KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year and no single subscription will be entered for less than this price, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with one dollar to pay for both. In like manner two new subscribers will be entered, both for one year for one dollar. Address, Kansas Farmer Company, Topeka, Kans.

There is now a law on the Kansas statute book providing for the destruction of prairie dogs and gophers. Many readers of the KANSAS FARMER will be interested in the outcome.

A meeting of farmers and merchants has been called for May 16, at Salina, for the purpose of perfecting a farmers' federation or grain-growers' association to handle grain and live stock on the cooperative plan.

S. C. Hanna, of Howard, Kans., of the firm of Hanna & Co., breeder of Short-horn cattle, has an able article in this issue in opposition to the articles on the same subject by Professor Shaw, of the Minnesota Experiment Station.

Reports from Oklahoma state that rain has been falling copiously over the territory, putting the wheat in fine shape and insuring another successful crop this year. The acreage of wheat is fully 20 per cent greater this year than last, and its condition is even better than last year at this time.

A Wichita despatch says that D. W. Blaine, of Pratt, a director of the Southwestern Kansas and Oklahoma Implement Dealers' Association came to that city to consult Secretary Dillon with reference to going before the Western Passenger Association to ask for a special rate for at least 10,000 harvest hands to take care of the small grain in the wheat belt in June. They will ask a rate of 1 cent per mile from the Mississippi River. The estimate of 10,000 hands is made from a canvass of farmers by school districts. The crop in the wheat belt will be 25 per cent heavier than that of last year.

The governor of New York, in discussing proposals for the enlargement of the Erie Canal costing from \$25,143,211 to \$110,893,313, or costing in tax \$4.43 to \$19.55 on each \$1,000 of estimated valuation of property for taxation in that State makes some interesting showings as to cost of transportation of grains. Thus, it is stated that the cost per ton per mile from Buffalo

to New York has been 2.5 mills (¼ cent) per ton per mile by rail. The present cost by canal is 1.75 mills per ton per mile. With the smaller expenditure mentioned for improving the canal the cost would be reduced to 1.16 mill per ton per mile, and with the larger expenditure the cost would be reduced to 8.8 mills per ton per mile.

RESULTS IN BREEDING CORN.

That corn and other grains may be greatly improved by careful breeding has been confidently believed by all who have given thought to the subject. The experiments which have been made have confirmed this belief. The most comprehensive work yet undertaken along this line was by the Illinois experiment station. This resulted in marked improvement in the composition of the corn, making it richer in protein, the most valuable constituent of the grain.

That the practical farmer may also contribute to the improvement of corn by judiciously breeding it was, a few years ago, brought to public attention by Col. Guilford Dudley, of Topeka, who not only spoke and wrote about it but experimented extensively along the suggested lines of improvement. Among those who became interested were some of the leading farmers of Shawnee County, such as Small Bros., Hon. Bradford Miller, Hon. J. B. Sims, and Hon. Scott Kelsey.

The chemist of the Kansas Experiment Station has just reported upon the analyses of some of the products of the work of these men. A sample of yellow corn first bred by Mr. Kelsey and again crossed with another yellow by Colonel Dudley produced remarkably large ears, of nearly uniform diameter throughout, and rounded at the point so as to present only corn to view at that end. Mr. Sims estimated that a field of this corn on his farm last season produced 100 bushels per acre.

The report of analyses shows that of the dry matter in this corn, 13.69 per cent is protein, or, since dent corn averages 89.4 per cent dry matter, 12.24 per cent of the corn was protein. This is almost 2 per cent more protein than is found in average dent corn. Digestion experiments have shown that an average of 76 per cent of the protein of dent corn is digestible, so that this corn, which is known as Kelsey's Cross Fertilized, contains 1½ per cent more digestible protein than the average dent corn. Since digestible protein is estimated to be worth 3.37 cents per pound, this corn is worth 5 cents per 100 pounds, or 2.8 cents per bushel, more than average dent corn.

Since no analyses were had of the parents of this corn it is scarcely safe to assume that this increased value is due to the breeding. It is not likely, however, that anything was lost in regard to composition through the breeding, which made noticeable improvements in the vigor of the plant and the size and form of the ear.

It is to be hoped that selection and breeding of seed corn will receive increased attention from farmers and especially from the experiment stations. These latter are provided at public expense for the express purpose of doing such work. Wide open as is their field for useful work in many lines of experimentation, the money value of possible results from plant-breeding is greater than from all other experiments now in sight.

TO BREEDERS OF PURE-BRED STOCK.

About May 1st, the KANSAS FARMER will publish and distribute 10,000 copies of a 1901 annual special bulletin on "Feeding Stuffs," and a classified Kansas Breeders' Directory of the Kansas Improved Stock Breeders' Association; also the stock wanted and for sale by its members.

The specially prepared article on "Feeding Stuffs," their constituent elements and values, will be needed by every breeder and stock-feeder. The name of every member, his address, and class of stock bred appears in the directory without cost—an exclusive advantage enjoyed by the membership of the Kansas Improved Stock Breeders' Association, an organization in which every stockman and owner of pure-bred stock should be identified with, especially in view of the trifling cost of membership and annual dues—one dollar.

Breeders not now members can still have the advantage of the 1901 annual and numerous other benefits by sending \$1 to H. A. Heath, secretary, Topeka, Kans., on or before April 25, 1901. Be sure to give name, address, breeds, number of pure-bred animals owned, also number of head for sale or wanted. All new subscribers to the KANSAS FARMER, who request it, will receive a

free copy of the annual, or stockmen's hand book of ready reference, which alone is worth the cost of a year's subscription and a membership in the Kansas Improved Stock Breeders' Association.

KANSAS CITY A HORSE MARKET.

No city in the United States has made more reputation during the past two years as a satisfactory horse market than Kansas City. It is now recognized as one of the greatest horse and mule markets on the continent. Last week there was held in addition to the regular horse and mule trade, a four days' special sale of high-class coach cobs, matched teams, saddlers, and speed horses. And notwithstanding the adverse weather, the sale was a decided success, and compared to last year's sale, this one was far ahead, both in the number of representative buyers and the general outcome of prices realized. Buyers have been in attendance from all sections of this country, east, west, north, and south, and also from across the water. The leading dealers of the country have been present, or had representatives on the grounds, and the list of exporters includes the names of the heaviest buyers of first-class animals. Another element that assisted in making many of the high sales of the best drivers, coachers, and stylish city animals, was the presence of a goodly number of wealthy Kansas Cityans, who bid stiffly on the better animals, and for the most part secured their prizes. The owners of the horses consigned for the sale and also the holders of the auction were to a man more than pleased with the results.

The horsemen having animals in the sale were: A. W. Jaggard, Bonner Springs, Kans.; Wm. McVaugh, Kincaid, Kans.; Dr. O. A. Johnson, Kansas City, Mo.; A. Swiezewski, Kansas City, Mo.; J. F. Allison, Kansas City, Mo.; E. C. Reynolds, Little Compton, Mo.; W. C. Starke, Dover, Mo.; Frank Leits, Audubon, Iowa; Chas. B. Eatis, Orrick, Mo.; W. A. Drysdale, Odessa, Mo.; W. S. Fisher, Oswego, Kans.; F. W. Nichol, Independence, Mo.; C. B. Burgess, Kearney, Mo.; Geo. W. Campbell, Kansas City, Mo.; M. Simpson, Iola, Kans.; Hendrick & Rand, Kansas City, Mo.; Sam McBrayer, Hamilton, Mo.; W. W. Miller, Lyons, Kans.; C. G. Case, Kansas City, Mo.; Frank Austin, Winfield, Kans.; J. C. Wright, Smithfield, Mo.; Wolcott, Beers & Co., Kansas City, Mo.; H. H. Gilbert, Thomas Rickel, J. H. Tapp, J. J. Burgess, F. S. Burgess, Dearborn, Mo.; Hunter & Green, Nick Hunter, Will Hunter, Kansas City, Mo.; O. P. Updegraff, Topeka, Kans.; Dr. G. T. Smith, Lexington, Mo.; J. M. Johns. n. W. D. Davidson, Erwin, Grant & Co., Kansas City, Mo.; F. W. Cook, Hutchinson, Kans.; J. H. Jarvis, Holton, Kans.; McBrayer Bros., Fred A. Forsha, Kansas City, Mo.; E. A. Smith, Lawrence, Kans.; J. M. Piper & Co., Fort Scott, Kans.; James Stephens, Kansas City, Mo.; Alex. McIlvain, Warrensburg, Mo.; T. S. Kennedy, Kansas City, Kans.; Louis Vogel, Kansas City, Mo.; S. L. Van Sandt, R. C. Rawlins, G. T. Bridges, C. Harkness, M. G. Strickland, Chanute, Kans.; J. F. Potter, Oswego, Kans.

While the general run of prices was between \$200 and \$300, many single animals and pairs were sold at prices ranging between \$500 and \$1,000. A pair of Wilkes mares, sired by Domineer, good roadsters, belonging to Frank Potter, sold to Brown & Kirken-dall, Denver, Col., for \$700. Charity and Snap, a pair of 16-hand bay geldings, went to Judge Waldo, of Kansas City, for \$655. A seal brown gelding owned by W. E. Robertson, sold to Rogers & Johnson, of New York, for \$775. He was a beautiful, all-around coacher. Seifert & Oppenheimer, of Memphis, gave \$700 for a bay of good action and speed, belonging to McBrayer Bros. A. D. Cottingham also purchased a black mare of the same firm for \$550. Robert McClintock, of Kansas City, gave \$600 for one of their fine ones. T. H. Gilroy bought J. H. Jarvis' Bob Robertson, a bay gelding, for \$500. One of the top notchers of the sale was the sorrel gelding, Jack, owned by Erwin, Grant & Co.; E. A. Ashbrook, of Kansas City, gave \$850 for the trotter, which has a record of 2.30 and better.

The great success of the sale has encouraged the holders and they have decided to hold another special along toward the last of next month, selling at that time about 300 horses, instead of nearly 500, as was sold at the one just closed. Though the number of offerings will be smaller, the quality, it is said, will be fully as good and enough first-class drivers, coachers, cobs, saddlers, and matched teams will be entered to attract the attention of fully as many buyers as were here the past week.

FIGHT THE GRASSHOPPERS.

In a timely bulletin just issued by the Nebraska experiment station, Professor Brumer discusses in a practical way the grasshopper, which insect threatens to do serious damage to crops on some portions of the plains region. After alluding to the contagious diseases and the natural enemies of the grasshopper, it is proved that for the present at least the farmer must himself do a portion of the fighting. Disking the alfalfa fields is recommended both on account of its efficiency in destroying grasshopper eggs and also because this kind of cultivation greatly benefits the alfalfa, giving increased yields sufficient to fully compensate for the labor of disking. It may be remarked that disking is beneficial to prairie grass; especially is this true of the blue-stem varieties. The bulletin states that the proper time to disk alfalfa ground is in early spring before the alfalfa begins growing and after the frost has left the ground. This is doubtless true, but in case the state of the weather or other cause has prevented disking at the proper time, it is better to disk any badly infested field at any time before the grasshoppers hatch. The damage done to the alfalfa by the disking is more apparent than real, and is far less considerable, even after a good deal of growth has been made, than the loss occasioned by the voracious appetites of a few millions of 'hoppers.

The disking, says the bulletin, can be done at two inches or more in depth with the disks set nearly straight so as not to tear up the ground too severely.

The disking distributes the egg-pods in the ground and many of them are broken up so as to expose the egg to the drying influences of the sun and wind and to the rapacity of birds and other enemies.

It is well understood that the grasshoppers which are known as "natives" do most of their damage in the fields near where they are hatched. The farmer and his near neighbors can, therefore, protect themselves by disking the hatching grounds in their fields, highways, and waste places.

If considerable numbers appear after the disking, Professor Brumer recommends the kerosene plan, or hopper-dozer, which has been often described. At Garden City, Kans., farmers have constructed a machine with rollers between which the grasshoppers are crushed. This machine is liked better than the kerosene plan, being cheaper to operate. The KANSAS FARMER has tried to obtain a picture or a diagram of this machine so as to have it engraved and printed. If some subscriber who has a machine will send a photograph or a sketch he will confer a favor on a good many people.

AN OBJECT LESSON IN BREEDING.

An example of the breeders' art which may well interest breeders of both animals and plants, is reported from France. The experiments had for their object the changing of the nature of the salmon so that instead of laying its eggs in salt water as it universally does in a state of nature, it will become a strictly fresh-water fish.

To this end M. Jousset de Bellesme began experiments in 1890. In November he procured 1,000 fertile salmon eggs and placed them in the Trocadero aquarium in Paris. A month later 627 young salmon came from these eggs. With infinite pains they were reared, and in June, 1891, the largest of them measured about 3½ inches. Then gradually the weaklings died, and at the end of 1891 only 500 were living.

During the early months of 1892 their number decreased rapidly, and in September of that year there were only 50 that had attained a size of about 15¼ inches each. These did not grow any more, and during the next two years they all died.

Though not one of these salmon ever showed the slightest desire to lay eggs in fresh water, M. de Bellesme did not regard the experiment as conclusive, and in 1895 he procured another 1,000 eggs from Bale and began work again. This time all went well until the salmon had attained a size of about 15¼ inches, and then they died so rapidly that in 1896 only 6 remained alive. Of these 6, however, 2 laid 2,000 eggs, of which 1,000 were fertile. In due time a sturdy brood of young salmon was born. In 1899 two other females laid eggs, from which a goodly progeny also sprang. The salmon born in 1898 are to-day about 12 inches in size, and healthy.

M. de Bellesme intends to continue these experiments in the hope of obtaining in 1903 a third generation of salmon, his object being to make this

third generation the starting point for the regular breeding of salmon in fresh water. That the salmon raised in the aquarium are not as large as those born at sea he admits, but he thinks that their size will increase as soon as they become habituated to laying their eggs in fresh water and forget that their ancestors always laid theirs in salt water.

UNCLE SAM IS HELPING.

A young man from Kansas, a graduate of our agricultural college, Mr. David G. Fairchild, is devoting his energies and rare abilities to securing in foreign lands such plants as are likely to prove valuable for cultivation in this country. For several years the Department of Agriculture has kept him busy investigating every plant which promises to be worth experimenting with. Reports from Washington show that he already has explored many parts of the world securing seeds and cuttings of thousands of strange economic exotic plants. From time to time during the past two years and a half the Government has received from him varieties of fruits, vegetables, grains and grasses, which are not, but which may be, grown in the United States. It is believed by the authorities that the explorations by Professor Fairchild will result in the introduction in this country of many plants of rare value.

As a rule, only a few seeds or cuttings of each species have been obtained, and these are being propagated by the Department in its grounds and green houses in the city of Washington. In a few instances foreign samples have been sent to experiment stations or agricultural colleges, where it is thought the conditions are particularly good. Owing to the limited quantity in which it was possible to obtain these they are not available for general distribution, but if found to be valuable will be propagated and distributed through the cooperation of the experiment stations and specialists.

A FORAGE TREE.

From the Island of Lissa, in the Adriatic, Mr. Fairchild has sent cuttings of St. John's-bread, which is a leguminous tree, suited for rather dry, calcareous soils in the southern states, Porto Rico and Hawaii. It is a fodder tree, yielding immense quantities of pods, which are shipped and sold for cattle feed, and which are also used by brewers and distillers. The tree commences to bear when it is fifteen years old and yields from 450 to 650 pounds of pod per tree. On the Island of Lissa the bearing tree yields pods to the value of from \$5.50 to \$8.50 per annum.

PERENNIAL CABBAGE.

From Dalmatia has come a perennial cabbage, that forms the principal food of hundreds of families in Dalmatia. It grows to a height of five feet and bears tender leaves throughout the winter. These are picked singly or the whole head is cut and the stems sprout again. It stands in the fields for three or four years. It may be a good forage plant for the south as well as a desirable vegetable.

Mr. Fairchild has sent over cuttings of many varieties of hops, which are grown in Europe, but are not grown in this country.

Considerable attention is being given to barleys, and some early maturing and heavy yielding varieties have been secured. Some of these are highly recommended for purposes prohibited in Kansas but they are doubtless also good for stock feed, and Kansas is always ready to acquire a new grain for feeding purposes.

An acquisition in the vegetable line is the Adler bean from Saxenfeldt, Styria, a fine garden bean of exceptional quality. Professor Irith of the Missouri botanical gardens, who has just monographed the garden beans cultivated in the United States, says that this is an entirely new importation.

NEW FRUITS.

Mr. Fairchild has sent to this country the following fruits, with which experiments are now being conducted by the Department of Agriculture. Boglish grape from the Island of Lesina, in the Adriatic; cuttings of a vine which has yielded bunches of grapes 35 inches long and weighing 14 pounds. This one vine grew nine of these large bunches in one season. It is a dark grape, sweet, with rather thick skin, and suitable for limestone soils. Marschino grape, from the Island of Lesina, in the Adriatic, this is an unusually sweet grape, with rather small, transparent, light brown berries; a high-grade dessert wine, which sells on the island for as high as 8 cents per bottle, when the common wines sell for ten cents per quart, is produced from this variety. Kurjelaska grape, from

Lesina Island; cuttings of a grape from which the "Apollo" wine is made. It is a white wine grape, growing on stony calcareous soils, and native to the land. Banjoska grape from the Island of San Clemente, in the Adriatic. This is a very heavy bearer. A strong wine manufactured from this grape is exported in considerable quantities in Hungary. Trojka grape from the Island of Lesina, in the Adriatic, is a table grape with very large, finely flavored berries one inch in diameter. It is a very fine "keeper" and a heavy bearer. It originated in Lesina.

San Pietro fig from the Island of Lesina, is said to be the most delicately flavored fig marketed in Trieste, excepting only the Smyrna fig. It does not require fertilizing with the Capri-fig insect. It is very early and exceptionally large, often as large as a man's fist, and weighing a half a pound. It is sold in the fresh state. Zamazujich fig from the same island is a drying fig shipped in large quantities to Trieste. It is considered superior to either the Italian or Greek fig. It has a very tender skin and a fine flavor.

GIANT LEMONS.

Cattaro giant lemon, comes from Dalmatia. These lemons weigh from four to five pounds. The skin is quite thick, flavor excellent and flesh juicy. The flesh is of light greenish color. Giant of Cattaro olive—an olive the pickled fruits of which are two inches long and one inch in diameter. The tree is a vigorous grower. Sultanina seedless raisin grape, from Corfu, Greece, is a seedless, light golden colored grape which brings higher prices in the Greek market than the Corinth raisin. Giant-of-Corfu lemon, from Corfu, Greece, comes next. Its fruit weighs about five pounds and one fruit yields two full glasses of juice. Musk quince, from Zante—the fruit is oval, shaped more like the cantaloupe than the quince and has an oily, smooth skin. It is very fragrant and is highly prized on account of its odor. The flesh is hard and sweet and is seldom eaten. The fruit sometimes weigh over two pounds. Queen orange, from Zante—a delicious, almost seedless orange. Mr. Fairchild considers the flavor exquisite. It has a very dark orange color and is of a good size. Seedless lemon from Zante, is a very juicy, thick-skinned lemon, averaging two to three seeds in each fruit. Apple quince, from Zante, is commonly eaten by the peasants as one would eat an apple. Slavonian is another variety of quince from Austria. It is large and very fine fruit. It is said by Mr. Taylor of the division of pomology, to be unlike any other variety cultivated in the United States. Corfu apple, from Greece, is a large, fine-flavored apple, which can be grown in warm climates, probably even in Porto Rico and Hawaii. Colla giant lemon, from the same place in Greece, is an enormously productive tree, bearing lemon from one to three pounds in weight. Salmon-fleshed lemon is a lemon with a salmon-tinted flesh. The tree itself is highly ornamental, the leaves being variegated white and green. The fruits are thick-skinned and almost seedless. It is a blood lemon similar to the blood orange. Then there comes a lemon from Patras, Greece, with 90 per cent of its fruit seedless. It is a good sour lemon of fair size. Dolan prune from Saaz, is a fruit superior to many of its kind. It is large, with a thin, flat stone, which loosens easily from the flesh. It is very sweet and is said to be equal in quality to the famous Bosnian prunes.

AND SOME OTHERS.

Experiments are being made with cranberries from Finland and raspberries from the same country. The raspberries have orange-colored fruit, which is dried and kept in that way from season to season.

Austrian radicchio, a variety of chicory from Gorz, is being grown. This is raised in Austria as a winter salad plant. Its cultivation is a specialty in the village of Gorz, and large quantities are shipped from there to all parts of Austria.

A curious vegetable of which the department has obtained seeds is Beyersdorf horseradish. It is a very mild-flavored horseradish, grown in Bavaria and shipped to all parts of Europe. Beyersdorf, a village of about 3,000 inhabitants, is supported entirely by the cultivation of this crop. Two million roots were sold during the past season at prices ranging from \$1.50 to \$4 per hundred.

One of the rare nuts obtained by Mr. Fairchild is the Zante walnut. This is very thin shelled, of irregular shape, but very large, measuring six inches in circumference. These nuts are so thin that one can be crushed in the hand like

a paper box. The meat is very sweet flavored and delicate.

A strange fruit secured is the seedless Japanese loquat from Zante. It is the size of an egg, bright yellow, juicy and somewhat fragrant.

Numerous samples of oats from Finland and Sweden, and sweet vetch, also from the North of Europe, have been planted in American soil for trial.

An importation that will probably prove of value is that of the famous filbert from Istria, on the Adriatic Sea. Quite a number of small trees have been received and distributed among nut-growers in the regions suited to their culture. The region from which these trees were obtained produces and exports large quantities of some of the finest filberts in the world.

SOWING ALFALFA.

An Illinois subscriber inquires about getting a stand of alfalfa in eastern Kansas. This has been so often discussed in the KANSAS FARMER that old subscribers may feel like skipping further allusions to the subject. But when it is remembered that a good many thousands of new subscribers have been enrolled during the last three months, and that these have not read what the FARMER has printed about alfalfa, and when it is further remembered that every one who knows anything about alfalfa wants to know more, it becomes evident that another brief article on the subject will not be in vain.

If the novice in alfalfa-growing were to inquire of the veteran as to the best time in the spring to sow alfalfa, that veteran, if an Irishman, would say, sow in the fall. Spring sowing would be all right were it not for the weeds, but in eastern Kansas and in all other countries where the weeds do grow so easily, the young alfalfa, which is a spindling and not very robust plant, is likely to be choked with weeds if sown in the spring. Therefore, if you have ground ready for alfalfa, put the seed away where it will be safe, and sow oats, or peas and oats, or millet on the land. Immediately after harvesting this crop, prepare the land for alfalfa by making a good seed bed. The more nearly perfect this seed bed can be made the better. If the soil be frequently harrowed until about the middle of August, weeds which intended to grow during the late summer will probably be completely discouraged. Whenever the farmer feels assured of this discouraged condition of the weeds he should sow the alfalfa seed. This is best accomplished with a press drill having a suitable seeding arrangement to sow 20 pounds of clover seed to the acre. If no drill is available, broadcast seeding and covering with the harrow will usually be found satisfactory.

In some favorable seasons in southeastern Kansas, reports state that a light fall cutting of alfalfa has been taken from early August sowing. Generally it is better to allow the entire fall growth to remain on the land to protect the crowns and the soil from the effects of the winter and early spring winds.

A DISCUSSION ON "SPECULATION-ING."

A quaint writer for the "American Elevator and Grain Trade" contributes some chunks of wisdom in the following:

I haf a friendt who is a speculation-ist. He is a speculationist from der desirings unt from der heredititess. His fater was a speculationist before him, unt he tages py der science of speculation-ing mit much naturalness. About all dot his fater left him was dot fever of speculation-ing, unt when der oldt man diedt, de called der poy py his betside in unt set: "My poy, I leaf you not much monies, but some fine advices. I belief dot der May corn vill go to 50 cents in a couple of veeks. Puy, mine son, puy; and if you magke some vinnings, puy me a monument outt, unt magke some inscriptions on it as this:

"Here lies der speculationist,
In one long luffy trance.
He may be high, he may be low,
He hat to take der chance."

Dot was how mine friendt come py his desirings to be a speculationist.

From der observations dot I haf madt, I don't haf some believings dot mine friendt makes much monies py his speculation-ings. He deals in der corn py a pucketsharper, unt I haf yet to know der time ven he has not been on der wrong side outt of der market. Id is always der next time alretty dot he shall magke a vinning, is effer der cry of der pucketsharper. Not very long ago I haf seen a letter from der broker to mine friendt, unt as I haf a gute remembering I vill written it outt

below. Der letter was as der following:

"—March 1, 1901.

"Our tear friendt:—Ve haf receivedet your favor of der twenty wunst of der letzen month, mit der order unt der check; unt ve haf a very grate sorrowing to explanation to you dot der market has been against you again alretty. Howeffe, do not haf some discouragements. You may do petter next time. Ve hope dot you vill try der market again soon, as ve are needing der money. Der wife of mine partner is sick unt he has some big toctor's bills to pay yet, unt I am building me a new house outt. Ve can information you dot in our opinion-ing, at der present prices, it don't magke any difference vat you puy, so long as you puy. Ve hope to hear from you soon, unt haf an order for a large amountt of stocks. Just send der money unt puy or sell, ve vill do der rest. I haf ordered a \$50,000 Rosa Bonheur painting for my new house, so der gwicker ve haf your orderings to do some puying for you der petter ve likes it. Remember der motto, 'Der foolish man mit his monies is soon yot parted.' Ve haf some great appreciations of your business. Ve like you, unt are proudt to say dot ve estimation you as one of our best friendts. Magke der next orter as big as possible unt magke some accompanysings of it mit der check outt. Ve like to keep busy cashing checks unt seeing our pank accountt grow. Good-pye, tear friendt. Feelingly yours,
"PUCKETSHARPER.

"PS.—If you haf knowledgeation of some fine farms for sale in der neighborhood vere you are at, please notification us. Ve vill haf to burn our monies or else puy something to get rid of it. P."

TO DISTRIBUTE YOUNG TREES.

A new plan, having for its object the distribution of young trees throughout the country, will be put into practical operation by Secretary Wilson, of the agricultural department, next year. Preparations for this work are now in progress by the department, and many of the seedlings will be propagated in the grounds of the office at Washington. An investigation has been made to discover the varieties which will thrive best in the various localities, and the distribution will be made in a manner somewhat similar to that employed in the seed distribution authorized by Congress. Especial attention will be given to trees of the nut-bearing, shade, and lawn varieties, and oaks, ashes, and lindens also will constitute a prominent portion of the distribution. The secretary believes the idea will prove popular, and, in view of the rapidly diminishing forest reserves, will be a decided benefit to the

Practical Suggestions for Farm Buildings.

The U. S. Department of Agriculture has in press and will soon issue Farmers' Bulletin No. 126, entitled "Practical Suggestions for Farm Buildings." It was prepared by Mr. George G. Hill, of Falls Church, Va., and contains plans and specifications for inexpensive farm buildings, both dwellings and barns, and a number of suggestions relating thereto, which it is believed will be helpful to a large number of persons.

The bulletin was prepared with the hope that it would be of service to all persons who have to build farm homes, but particularly to those who have neither the time nor the funds to build such structures as they may desire, and must therefore begin in a very modest way.

The questions of comfort, convenience, economy, location of buildings, and title of property are all considered.

Plans are given for a \$600 farm house, with \$500 addition, a \$1,000 house, and a \$275 and \$450 barn, together with bills of materials showing the cost of each and every article which enters into the construction of the buildings. Suggestions are offered which cover every detail of construction from the digging of the foundation to the putting on of the roof and the interior and exterior finish of the buildings.

The bulletin will contain 28 illustrations. It is for free distribution, and may be obtained on application to senators, representatives, and delegates in congress, or to the secretary of agriculture.

Lady (in poulturer's shop)—You can put aside a half a dozen of your plump-est partridges.

Poulturer—Yes, ma'am. Shall I send them at once?

Lady—No, my husband is out shoot- ing partridges to-day and he will call for them this evening.—Tid-Bits.

Horticulture.

Moths and Moth-Catchers.

PROF. J. M. STEDMAN, ENTOMOLOGIST MISSOURI EXPERIMENT STATION.

As I am receiving hundreds of letters in regard to trap-lanterns it might be well to state for the benefit of all that I have personally made three different tests of trap-lanterns in orchards, gardens, and fields, in three different states, and have run some of the lanterns from early spring until late summer. A record of each day's catch was kept, so that there could be no mistake. These experiments were made with several different styles of trap-lanterns. These experiments were made, as all experiment station experiments are conducted, with the purpose of determining the facts, and were not influenced by theories or prejudice. Hence any statements made by those interested in the sale of trap-lanterns, to the effect that we entomologists base our statements as regards the catching or failing to catch certain insects in trap-lanterns, on certain theories, is entirely wrong and diametrically opposite the truth and facts in the case. We are after the truth and nothing else. We have no traps to sell, or spraying mixtures or pumps either, and it makes not a cent's difference to us whether trap-lanterns work or not; we neither lose nor gain in either case. Personally I would like it if every injurious insect could be easily caught in a trap-lantern. But what are the facts?

To make a long story short, I find that the following injurious insects, that are claimed to be caught by certain trap-lantern agitators, are either not caught at all or are caught in such rare cases as to be only accidents: Codling-moth, potato beetles, plum-curculio, gouger, flat and round-headed apple-tree borers, peach-tree borer, tobacco-worm moth, tomato-worm moth, squash bug.

The following injurious insects are caught by trap-lanterns: Corn-worm moth or boll-worm moth, cut-worm moths, June or May bugs (beetles), tent caterpillar moth, pickle-worm moth, army-worm moth.

TRAPS CATCH OUR FRIENDS.

On the other hand a great many species of Ichneumon flies, which are most beneficial insects, were caught in immense numbers, and outnumbered all other species in my traps. These insects sting and lay eggs in or upon the bodies of injurious and other insects, and their larvae prey upon their tissues and destroy them. It is in this way that many injurious insects are kept within bounds; and these Ichneumon and other parasitic insects do vastly more good than all trap-lanterns and sprays combined. These Ichneumon fly parasites are what a certain trap-lantern agitator calls in his circulars "stinging fly, or wasp-like insect that stings the fruit." (This is as perfect a short description as could be given.) Now these parasitic creatures never sting fruit or plants at all.

Any person can see from the above facts that a trap-lantern is of no value in an orchard, but on the other hand is a great injury, because of the immense number of parasites it kills.

TRAPS CATCH CORN-WORM MOTHS.

A trap-lantern is of great value in its place, and one of these places in Missouri is in the corn-field at the time the corn tassels out. Let it be distinctly understood that I endorsed a certain moth-catcher for the corn-worm, or boll-worm moth only, and that the way in which my name appears in many of the circulars and newspaper articles advertising that trap, where a list of the insects it will catch is given (some possible, but most of them impossible and absurd), and just below this absurd list the words: "Endorsed by Prof. Stedman of the Missouri Agricultural College," thus making it appear that I endorse the entire list, is all false and unjust, and misleading.

No doubt a great many orchardists are misled in the use of trap-lanterns in the orchard because of the fact that hundreds of small moths are caught, which belong to all species of insects of no economic value one way or the other, and which closely resemble the codling-moth, and hence the deception.

All trap-lanterns use light as the attraction, and to devise and use a means to increase the light does not help to attract an insect that is not attracted by light. I had five trap-lanterns in an orchard that was badly infested with codling-moths, and kept them going for one hundred consecutive nights, beginning when the trees bloomed out, and as a result of all this I caught only two

codling-moths. Is not this a low number of accidents even? Would not 100 have been low? All species of night-flying insects are not caught in traps by any means, the vast majority of them being repelled by light.

THE REAL ENEMIES OF HARMFUL INSECTS ARE OTHER INSECTS.

As a matter of fact comparatively few injurious insects are eaten by birds at all. It is the predaceous and parasitic insects that hold the other insects in check, and they do vastly more good than all birds, traps, sprays or other natural and artificial means combined.

WHAT OTHER INVESTIGATORS SAY.

Suppose we do not rely entirely upon my own experiments, but see what results other experiment station entomologists have arrived at who have experimented along this line.

Prof. Singerland, of the Cornell (New York) Experiment Station, has done more work on the codling-moth than any other living person and naturally his results should attract first attention. He has published his results in Bulletin No. 142, entitled, "The Codling-Moth," and on page 35 of this bulletin he says: "Unlike many other moths the codling-moth is not attracted to lights. This has been demonstrated several times by careful experiments with trap-lanterns in orchards."

Prof. Conrad, who was horticulturist of the Nebraska Experiment Station, has also done a great deal of work on the codling-moth, and has published his results in Bulletin No. 51, entitled: "Observations on the Codling-Moth," and on page 32 of this bulletin, he says: "The question has frequently arisen whether building fires or burning torches in the orchard during the summer nights might not attract the moth to the light and destroy it. It has been thoroughly tested by other experimenters in years past with apparently the same result in every case. Practically no codling-moths have been thus caught. If now and then one has been, it appears to have been by accident rather than otherwise, and the number would in no way warrant the destruction of beneficial insects which accompany the attempt."

To those trap-lantern agitators and a few orchardists, who claim codling-moths are attracted to light and caught in trap-lanterns, I would ask: Is it not a little strange that they who are not entomologists catch these codling-moths while entomologists all fail? It seems to me the secret of the whole trouble lies in the mistaken identity of the codling-moth, since there are a great number of similar-looking but harmless moths that are caught by these traps.

If these statements of facts injure the sale of any trap-lanterns for orchard purposes, it is not the fault of our experiment station entomologists, but the misfortune of the agitators in trying to sell the wrong thing in the wrong place.

Chemical Destruction of Weeds.

A number of agricultural experiment stations have investigated the possibility of weed destruction by means of chemicals, and the subject forms the basis of an interesting bulletin by the department of agriculture. It is said that as long ago as 1895 it was found at the Vermont station that the orange hawkweed, a serious pest in pastures and meadows, could be destroyed without injury to the grass by sowing salt over the land at the rate of 3,000 pounds per acre. Many experiments have since been conducted at the same station with other chemicals for the eradication of weeds in walks, drives, courts, etc. Among the chemicals tested were salt, copper sulphate, kerosene, liver of sulphur, carbolic acid, arsenic and salsoda, arsenate of soda, and two chemical weed-killers, the active principle of which apparently was arsenic. The weeds which it was sought to destroy were plantains, dandelion, chicory, ragweed, knotweed, and various grasses. All the chemicals were applied in solution except the salt. As in the case of the hawkweed experiments, salt was found efficient in destroying all the weeds when applied dry and in large quantities.

DISTILLED CARBOLIC ACID.

When salt is used for this purpose adjacent lawns should be protected against washing, or they may be injured. Crude carbolic acid, 1 pint in 4 pints of water, applied at the rate of 8 gallons per square rod, was very efficient. The various arsenical preparations proved valuable as weed-destroyers, and choice between them was largely a matter of expense.

"All things considered," writes the author of the bulletin, "the arsenate of soda and the carbolic acid solutions proved the most valuable chemicals for

weed destruction under the conditions of these experiments."

EXPERIMENTS AMONG GROWING GRAIN.

A series of experiments in weed destruction in fields of growing grain has been carried on at the North Dakota and other stations, as well as at many places abroad. Several years ago in France it was accidentally found that a solution of blue vitriol destroyed charlock, or wild mustard plants. Acting upon this, experiments have been conducted in France, Germany and England where charlock is one of the worst weeds in grain fields, meadows and pastures. The method employed is to spray the crop with solutions of blue vitriol while the weeds are young and not too well protected. While the results obtained are in some respects conflicting the best results have been secured when a 2 per cent solution is sprayed over the field at the rate of from 40 to 60 gallons per acre. The spraying should be done on a clear, still day, and before the weeds begin to come into flower. If a rain should fall within twenty-four hours or the weeds are too old, a second spraying will be necessary. This treatment has been repeatedly tested without permanent injury to wheat, oats, barley, and rye, while such weeds as charlock, shepherd's purse, penny cress, etc., were almost completely destroyed. No injury followed such treatment upon young clover growing in the grain.

BLUE VITRIOL.

At the North Dakota Experiment Station a 10 per cent solution of blue vitriol was sprayed over an exceptionally weedy plot of wheat, the principal weeds being charlock, wild barley, wild rose, penny cress, shepherd's purse, wild buckwheat, lamb's quarter, and great ragweed. The spraying was made June 1 when the wheat was 3 to 5 inches high, and on August 8 all the weeds except the wild rose and the older plants of penny cress were dead. Some of the leaf tips of the wheat had been slightly burned, but the yield of grain, it is said, was considerably larger than from an equal unsprayed area. On June 20 part of an oat field containing many weeds was sprayed with a solution of 1 pound of copper sulphate to 4 gallons of water. The oats at the time were about 6 inches high, the weeds being about the same height.

An examination of the plants was made on August 1, and the treated area was free of all weeds except pigeon grass and wild rose. The oat plants were stinky and well stooled, while on the untreated area the plants were weak and failed to stool. The crop on the sprayed portion was believed to be at least one-third more than upon the unsprayed area. The solution was employed at the rate of 40 gallons per acre.

Making a Tree Plantation.

EDITOR KANSAS FARMER:—I read the article on Catalpas in your paper with much interest. There was one important question not touched upon: Which is the best way to start a Catalpa plantation, to plant the seed where the trees are to grow, or to transplant from nursery? If it is best to transplant, at what age? I would like to start a small grove to grow my own post timber. Can you give the desired information in an early issue of your paper? Burlingame, Kans. A SUBSCRIBER.

The most practical and generally adopted plan in making catalpa plantations is to plant the seed in nursery rows and cultivate one season, and then take up and reset—either in the fall or spring—in the permanent plantation grounds.

Of course, trees can be grown by planting the seed just where they are to remain; but the plan has several objectionable features: the principal one is the uncertainty of the seed in germinating under the various conditions of soil and climate. Should the season be favorable, and the seed and soil in perfect condition, it might be possible—although not probable—to get a tree from every seed planted; but under more unfavorable conditions nine seeds in ten may not grow. Should the ground be rough and cloddy, and the seed planted too deep or too shallow, or should the season be very wet or exceedingly dry, there might be, as there often is, a complete failure. Therefore forest making direct from seed planting, to say the least, is uncertain, and much more expensive than to set out one year old seedlings where they are to remain. The only way to ensure a forest direct from the seed is to plant liberally, and should the season prove favorable for the germination of the seed, there would necessarily be required much labor in judiciously thinning. Should all

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Will be worth \$100 to you to read what Salzer's catalog says about rape.
Billion Dollar Grass will positively make you rich; 12 tons of hay and lots of pasture per acre, also Bromus, Peasat, Spelts (400 bu. corn, 250 bu. oats per a.), etc., etc.
For this Notice and 10c. we mail big catalog and 10 Farm Seed Novelties, fully worth \$10 to get a start.
For 14c. 7 splendid vegetable and 3 brilliant flower seed packages and catalog.
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Know Lump Jaw
Be able to detect Lump Jaw when you see it; the safety of your herd may depend upon it. Know also how to thoroughly cure it, and how to cure a score more of the most stubborn ailments of cattle and horses. Send for our FREE ILLUSTRATED PAMPHLET on Lump Jaw and its cure, together with instructions for promptly removing spavins, and all other enlargements by use of
Fleming's Lump Jaw Cure.
Lewiston, Ill., Sept. 10, 1900.
Fleming Bros.,
Gentlemen:—For the enclosed \$2, please send us another bottle of Lump Jaw Cure. With the three bottles we purchased last spring, we cured 9 steers. Some of them were very bad—in the advanced stage. Gave them two applications. They soon got well. They were sold last week on the Chicago market, passed inspection O. K., and we stand ready to endorse the remedy, and wish you success.
Yours truly,
BROWN BROS.
Price \$2 per bottle, or three bottles for \$5. Money back if it fails. At druggists, or sent prepaid to any address. FREE—Our Illustrated pamphlet to readers of this paper.
FLEMING BROS., Union Stock Yards, Chicago.
Reference—Drovers' National Bank.

the young trees be allowed to grow until fall, they could then only be removed by the tedious spade, for by running the tree cutter under them the center or top root would be cut, thus destroying all we could possibly expect to gain by planting the seed in the plantation grounds—namely, the preservation of the center root, which assists the tree in making a more vigorous growth the next season. Therefore, taking into consideration uncertainty and expense, we would advise setting young trees where they are expected to remain.

As to the age of the trees to plant, there exists but little difference in opinion, seedlings of one summer's growth being the only available tree to plant if procured from nurserymen. If it were possible to procure two year old trees they would cost two or three times as much, and if they are to be shipped by freight, much more. And the expense of setting out would be at least twice as much as yearlings. So in case of large plantations the extra expense would preclude many from making a tree farm.
D. C. BURSON.

Indigestion is the direct cause of disease that kills thousands of persons annually. Stop the trouble at the start with a little Prickly Ash Bitters; it strengthens the stomach and aids digestion.

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. Reardon, McLouth.
Secretary.....Geo. Black, Olathe.

The National Grange.

Office of the Secretary,

Washington, D. C., March 24, 1901.

The following items which I have lately placed in the records of this office I am sure will be interesting to every reader.

On March 7, 1901, Sister Hattie L. Vail, deputy master, Palestine, Oregon, organized Vail grange, No. 294, in the town of Warren, Columbia County, with forty-one charter members.

On March 19, 1901, Sister R. H. Libbey, deputy master, Newport, Maine, organized Pleasant Lake grange, No. 370, in the town of Stetson, with one hundred and seven charter members. Sister Libbey was informed that a grange could not be organized in that town or county. That settled it, and she went into that field with the above results.

On March 18, 1901, Sister Sarah G. Baird, worthy master of the State Grange of Minnesota, organized Prairie grange No. 584, in the town of Crookston with twenty-seven charter members.

On the same day Sister Baird organized Gentilly grange No. 585, in the town of Gentilly with thirty-nine charter members.

The above carry a lesson to every brother and sister in the order, and the three sisters will pardon me for giving their names and post-office addresses.

New granges organized from Oct. 1, 1900, to date, 120; granges reorganized, 31.—Faithfully yours, John Trimble.

Decently and in Order.

One of the most efficient and earnest grange workers in Michigan writes us protesting against the lax usages prevalent in some granges, such as members leaving the room whenever they choose without going before the overseer, etc.

We join heartily in this protest. The rules of procedure in the grange may seem to some foolishness, but they are foolish only when disobeyed. Why does the legislature have rules? If it had none it would be but a mob. So grange rules are absolutely necessary in order to maintain the organization.

Grange rules are made to be observed; and no grange is doing its true work when it becomes careless in this particular.

Moreover, to fail of observing grange rules is to commit suicide. It is as sure as fate that the grange which is lax about grange procedure will soon grow lax about the program, about the business interests of the grange, and finally you have a dormant grange.

It is the duty of the officers in a subordinate grange to post themselves on the proper methods of doing business, from the time when the master calls to order until the chaplain pronounces the benediction, and to correct, without hesitation, any member not observing the rules. The overseer should never permit a patron to enter or leave the room while the grange is in session, except by the proper method.

This is the first duty of the officers—that is what they are for, and no grange can long prosper when its officers sleep at their posts.—Michigan Farmer.

How They Did It.

How to increase membership, and how to keep up interest may be said to be the most important of all local grange questions. They are often vital questions, life or death depending upon their proper solution.

The grange editor of the Michigan Farmer lately asked a number of the largest and most successful granges in that state these questions: 1st. How their granges secured the present large membership. 2d. How they keep the membership interested and at work.

Some of the replies contain so many good points and hints that we pass them along for the general good.

Montcalm grange No. 318—Our

grange secured a large membership by the consolidation of two subordinate granges. In regard to keeping them interested: 1. Care in the selection of officers. 2. Always call to order (if quorum present) and go through with regular order of business. 3. Seeking to carry out the principles embodied in our declaration of purposes. 4. Meeting in the afternoon instead of evening.

Tipton grange, No. 165: We obtained most of our members in a contest, getting nearly fifty names at that time and initiating 39 of them at one time. We also gained members by our patrons' fire insurance. We aim to have a contest once a year, the side that gets up the best entertainment winning and the other side furnishing the supper. The contest seems to awaken more interest than anything that we have tried, both old and young working with a will. We try to discuss all the leading questions; have recitations, dialogues, songs and music. One of the principal things to bring out the members is the refreshments, which we have once a month; we always have a crowd that night.

Stony Creek, No. 51: Our grange secured its large membership by holding open, all-day meetings, with good program and dinner, thereby showing the pleasures to be derived from being a granger. Then each individual member got up and "hustled" for applicants. We keep them interested in the grange work, in the first place, by doing our work strictly in accordance with the ritual; second, by having good programs at each meeting during Lecturer's hour, and third, by taking advantage of trade contracts. I think if smaller granges would work along this line they would have very little trouble in increasing their membership and keeping them interested in grange work.

The Work of Congress.

The grange brings together the work done and not done by the last congress specially as it related to agriculture and the measures advocated by our order.

Looking over its work of two years, as compared with other sessions, it can be said that favorable progress has been made. Because farmers are better organized, understand their needs better, and their relation to other industries, and know how to intelligently "act together" as taught in the grange, there is a better feeling towards the farm and the farmer and more respect given to his just demands by our national legislators.

Dealing with details it can be said first that the last congress passed the legislation which made larger appropriations for "our department" of agriculture than ever before, and through it helped along good roads, pure foods, control of diseases of live stock, protection of birds and forests, extension of foreign markets for our surplus products, the printing of farmers' bulletins and the hunting up and the distribution of new and valuable seeds and plants.

For several years the National Grange has specially advocated or disapproved twelve measures, and through its legislative committee has kept its "position" on them prominently before the members of the house and senate, and their various committees. The record of the last congress on these measures is as follows:

First. Extension of rural free mail delivery. In the first session the appropriation for this popular service was increased from \$350,000 per annum to \$1,750,000. In the last session it was again increased to \$3,500,000 for the fiscal year commencing July 1, 1901. This alone is surely worth all our grange efforts in the last congress.

Second. Anti-trust laws. No real progress can be reported. The Sherman anti-trust law was not enforced, but little was said about anti-trust legislation, and what bills were introduced on the subject never came out of the committees.

Third. Establishment of postal savings banks. The bill upon this subject which was introduced, and had the support of the grange and grange press, died in the hands of the committee when the late congress died. Must be commenced all over again. Still public sentiment has grown in its favor.

Fourth. Pure food law. This measure advocated by the grange for many years was during the last congress reported upon favorably by the committee of the last house of representatives, but did not come to a vote.

Fifth. Completion of the Nicaragua

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Canal by the United States. This bill had much attention in both branches of congress, specially in the senate, and it seemed very likely to pass at one time but did not get to a vote before adjournment.

Sixth. The Callum bill, giving additional powers to the Inter-State Commerce Commission. This bill was reported by the senate committee by an adverse report, the committee standing five in favor and six against. The senate could have voted on it had it seen fit so to do.

Seventh. Election of U. S. senators by direct vote of the people. This measure was covered by a bill providing for amendment to the constitution which passed the house of representatives with but eighteen votes against it. The senate did not take any action upon it, although a number of senators are favorable to it.

Eighth. Regulating the importation and use of shoddy. This bill did not get out of the hands of the committee.

Ninth. The ship-subsidy bill. Notwithstanding powerful lobbies, and other "influences," and one of the hardest fought battles running through both sessions of congress, this bill did not become a law, and thus one of its best victories was won by the grange, which at two sessions of the National Grange occurring during the life of this congress, had unanimously protested against it.

Tenth. The Grout bill. This also was the cause of one of the longest continued contests in both sessions. The contest was waged fiercely in committees, but the farmers won, and it was favorably reported in both house and senate, and did pass the house by a splendid majority, and had more than enough votes promised in the senate to pass it, but it did not reach a vote in the hurried hours near the close. But great progress was made, and if the grange stands to its guns, as well as in the past on this question, it seems quite sure in the next congress.

Eleventh. Against the bill to irrigate arid lands at government expense. In this the grange was successful in its opposition, notwithstanding large lobbies sustained by those financially interested. It will be tried again, but the grange will stand fast.

Twelfth. The anti-option law or against dealing in "futures." For this the grange has been contending a number of years. The bill did not get out of the hands of the house committee.

So looking over the net results we find more sunshine than shadow, and that real progress in the interests of agriculture has been made. The record is good.

Commenting on this legislative work

before congress, the legislative committee of the National Grange in its report made at the last session of that body said: "In addition to the benefit from the measures promoted by this committee there has been an effective and far-reaching result accomplished in calling public attention to the order and giving it standing among the active and important factors that enter into the direction of national affairs. The action of this committee has demonstrated that it is possible for the farmers of this country to have direct communication and influence in congress and in the affairs of the various departments of the government, in some degree at least, commensurate with the magnitude of the industry which they represent. This fact has attracted members to our ranks and won respect for our organization."

Very Smart Or Very Honest.

"I don't know exactly how to place him." "Why?" "Well, he has held office for ten or fifteen years and never has been investigated." "What of it?" "Why, he's either mighty smart or mighty honest, and for the life of me I can't decide which."—Chicago Post.



Jerusalem Artichoke.

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WEEKLY WEATHER CROP BULLETIN.

Weekly Weather Crop Bulletin of the Kansas Weather service, for the week ending April 18, 1901, prepared by T. B. Jennings, Section Director.

GENERAL CONDITIONS.

The season is very backward. The week has been cool, cloudy, and wet; the rainfall has been unusually large over the entire state and all streams are full. The rainfall was greatest in the central counties and in Marshall, Pottawatomie, and Jackson, and least in the central eastern counties. The ground continues full of water, preventing all field work.

RESULTS.

EASTERN DIVISION.

Wheat has continued in fine condition through the week, though in some fields in Crawford County an insect is injuring it. In the southern counties the oats are up or coming up and present fair stands, in many of the central the sowing has been so delayed by wet weather that many fields intended for oats will probably be devoted to some other crop; but little oats have been sown yet in the northern counties. Corn planting was stopped by wet weather in the south, and delayed in the central and northern counties; practically no plowing was done. Peach trees are blossoming in the central counties and shedding their bloom in the southern with indications of a good crop. Grass is starting slowly in the central and southern counties; the tame grasses, as usual, are showing better than the wild.

Anderson County.—Ground continues too wet to work; oats sowing will be largely abandoned owing to lateness of season. Allen.—Farm work at a stand still; peaches bloomed out; apple trees leafing; pasture greening. Bourbon.—Farming operations stopped; not over 15 hours of sunshine the entire week; one-fourth of the oats crop yet to be sown; no corn planted. Brown.—No seeding yet and no plowing done for oats or corn, ground too wet;

already planted is in bad condition; wheat, oats, and alfalfa are growing very well; peach and cherry trees are in bloom. Wyandotte.—A cloudy, wet week; wheat in fine condition; only a few potatoes planted and a little oats sown.

MIDDLE DIVISION.

Wheat has improved during the week and is in fine condition, except that in Harvey and McPherson much of the low land wheat is under water. Oats are coming up in the southern counties, while in the central the sowing is about completed; in the north much sowing was accomplished the first day of the week, but it was not finished. Corn planting was stopped by the rains in the southern counties. Apricots and peaches are in bloom in most of the central counties, and are ready to bloom in Smith. Cherry and apple trees are leafing in Kingman, and cherries are budding in McPherson. Some alfalfa was sown in Republic and Smith; in the south the alfalfa fields are green; in Saline the ground in the alfalfa is covered with drowned worms. Grass is starting slowly in all parts. The continued wet weather is rotting the potatoes in McPherson.

Barber.—Cool, wet, disagreeable week; wheat, rye, and alfalfa in fine condition; oats coming up well; cattle came through the winter in good condition, still on feed; calf drop large; farm work retarded by wet weather.

Barton.—Too wet for farm work; some corn was planted before the rains; apricot trees just beginning to blossom; pastures are turning green.

Cloud.—All farm work suspended during week, ground too heavy to work; cattle suffering.

Cowley.—A cool, wet week greatly benefiting wheat, but stopped corn planting; grass backward; ground soaked, creeks and ponds full, conditions very favorable; oats coming up well.

Edwards.—The rain was needed; grain looking very well; trees starting to leaf and bud; apricots in bloom; grass coming on well.

Harper.—The heavy rains delayed farm work; wheat in fine condition; oats com-

STATE TREASURER OF KANSAS RECOMMENDS DR. MILES' NERVINE.



HON. FRANK E. GRIMES, Treasurer of State of Kansas.

Your health, your pleasure, your capacity for work, in fact your life, depends on your stock of nerve force or vitality. Work, worry, lack of fresh air, lack of exercise, trouble, or disease, may have run down your stock of nerve force and you are weak, you lack energy, you can't sleep well, you don't feel rested and refreshed when you awake in the morning; if you have any of these troubles or symptoms, do as Treasurer Grimes recommends, take Dr. Miles' Nervine. It is made for just such a case as yours. It has been successfully used for years by thousands of people and has cured untold numbers. Try it. It can't hurt you. It will help you.

Hon. Frank E. Grimes, state treasurer of Kansas, says: "The care and responsibilities of a business man are many, and I have found Dr. Miles' Nervine a most effective tonic to quiet and nourish the nerves. It has been used in my family regularly for years."

Hon. Walter N. Allen, of Meriden, president of the Farmer's Federation of the Mississippi Valley has this to say: "Forsound nerves and perfect sleep I know nothing better to recommend than that justly famous Dr. Miles' Nervine preparation."

Brig. Gen. J. W. F. Hughes, Topeka, chief officer of the Kansas National Guards and one of the busiest men in the state is quoted: "It affords me pleasure to strongly endorse Dr. Miles' Nervine and Pain Pills' preparations to all needing such reliable medicines. You cannot make my endorsement too strong."

Ex-Senator Wm. A. Peffer adds his endorsement as follows: "From reliable sources among my friends I am inclined to a very favorable opinion of the virtues of Dr. Miles' Household Remedies."

Hon. G. C. Clemens, Topeka, the noted constitutional lawyer, says: "Personal experience and observation have convinced me that Dr. Miles' Nervine and Pain Pills are excellent for the purposes for which the proprietors recommend them."

Hon. Jerry Simpson says: "In the arduous work incidental to public life I have found the use of Dr. Miles' Nervine very beneficial."

Capt. O. H. Coulter, Topeka, department commander of the Grand Army of the Republic, says: "I am pleased to testify to the excellent merits of Dr. Miles' Nervine and Pain Pills."

Col. F. J. Close, Hays, Kans., president of the Rand Mining and Milling Co., of Topeka, says: "In view of my experience with Dr. Miles' Nervine too high an estimate cannot be placed upon its value. It has proven of very great benefit to my wife, in restoring her overtaxed nervous system to a normal condition, and I trust others may profit from our experience."

WESTERN DIVISION.

Wheat has greatly improved in the southern counties, and is seasonally further forward in Ness and Decatur than for several years. Oats and barley are coming up in Wallace, while in Hodgeman much barley has yet to be sown. Some corn has been planted in Hodgeman; it is expected a large acreage will be planted. Grass is starting slowly in all parts except in Morton where it is far enough along (with the young weeds) to support the stock; alfalfa is starting slowly; in Wallace a large acreage is being sown. Peaches and apricots are blossoming in Morton. Fruit prospects are generally good. The weather has been hard on stock.

Decatur.—Wet weather retarding farm work, but crop prospects fine; wheat has not been as forward as at present for twelve years.

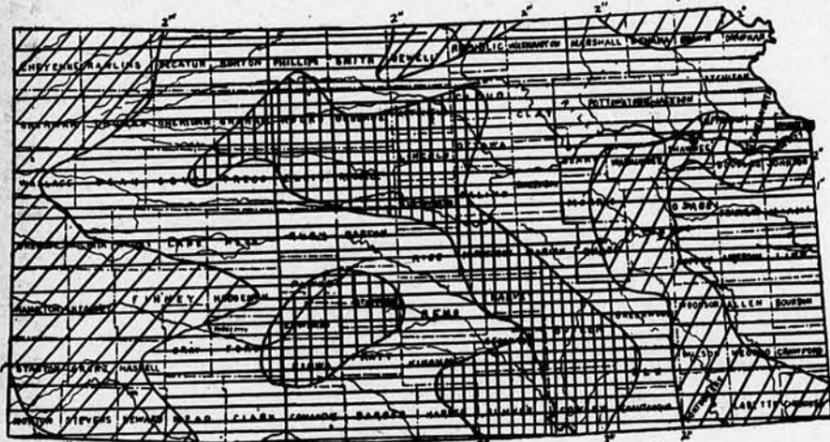
Ford.—Wheat is much improved and looks fine; pastures just turning green; fruit prospects very good; no farm work, ground too wet.

Gove.—Cold, rainy week, very hard on cattle; wheat and grass showing up some; late spring.

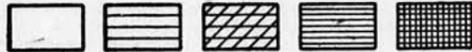
Grant.—Cool, rainy week, hard on stock; grass starting slowly; no planting done yet and but little plowing.

Hodgeman.—Wet week; ground thoroughly soaked; some corn planted; much barley yet to be sown; small grain looks fine; cattle looking fairly well; fruit on high ground all right.

Kearny.—Cool, backward season; all vegetation slow in starting; alfalfa just



SCALE IN INCHES.



Less than 1/4. 1/4 to 1. 1 to 2. 2 to 3. Over 3. T, trace.

ACTUAL RAINFALL FOR WEEK ENDING APRIL 13, 1901.

wheat in good condition, prospects very good; promise good for all kinds of fruit. Chautauqua.—Wheat is doing well with good stand; oats are in fine condition and growing; at least one-half of the corn is planted, the rest is waiting for drier weather; grass is making a good start; fruit has fine prospect.

Columbus.—A cold, disagreeable week, with but little sunshine; farm work stopped; wheat and tame grasses doing well; oats a fair stand and doing well; too cold and too little sunshine for fruit.

Coffey.—Too wet for farming; peach bloom is opening; fruit prospects good; corn planting delayed.

Crawford.—Wet week; oats not all sown, some coming up; majority of wheat looks very well, in some fields however the wheat is being killed by some kind of an insect; peaches are in bloom and promise good yield; but little plowing for corn has been done.

Elk.—Ground very wet, no work done in field since Tuesday, and will not for some days; grass starting.

Greenwood.—Farm work entirely suspended for the past two weeks over the larger part of county on account of snow and rain; ground saturated, feed scarce; peaches blooming; alfalfa nicely started; stock being turned out, though grass is very short yet; practically no plowing done.

Jackson.—Very wet; impossible to do field work; pastures starting; wheat looks very well, though some yellow spots are found; fruit trees promise heavy bloom.

Johnson.—Too cold and wet for farm work though some plowing was done on high ground the first of the week.

Lyon.—Ground too wet to work; grass and wheat in good condition; peaches in bloom.

Marshall.—Too wet for farm work; some oats have been sown; all fruit buds seem to be alive; peach buds are showing red; tame grass is growing rapidly.

Montgomery.—Too wet for plowing or planting the past week, with white frost on 7th; peach trees in full bloom on 8th, a full crop indicated; plums blooming.

Nemaha.—Too wet for farm work; spring vegetation slow; wheat and tame grasses in good condition, everything else at a stand still.

Osage.—Ground too wet to do anything; some peach and plum trees in bloom.

Pottawatomie.—Rainy week; farming much delayed; wheat doing finely; oats coming up well, not all sown yet; gardens are late; grass starting slowly; hay very scarce and worth \$10 per ton.

Wilson.—A cold, damp week, with very little planting done; grass growing and spots on prairie beginning to show green; wheat in fine condition; peach trees shedding bloom; trees are leafing, but very slowly; oats are up; season at least two weeks late.

Woodson.—Too wet for farm work; corn

ing up; some corn planted, but too cold to germinate seed; pastures greening up.

Harvey.—The rains this week will prevent plowing or planting for some days; some fields of wheat are partially and some wholly under water, but the water settles away rapidly.

Jewell.—Farm work delayed by too wet weather; rye and wheat doing well.

Kingman.—Wheat in very good condition; oats backward; corn planting interrupted by rains; stock doing well; grass growing rapidly; fruits backward; peaches blooming; cherries and apples beginning to leaf out.

Lincoln.—Continuous rain night and day for four days this week have given 2.25 inches of rain.

McPherson.—Four days continuous rain, low lands flooded, creeks out of banks; oats and potatoes rotting; getting into fields out of the question for some days; wheat on high ground looks fine; apricot and peach trees beginning to bloom; cherries budding; grass started.

Ottawa.—Farm work stopped; wheat in good condition; grass slow about starting; apricots in bloom; some potatoes planted; weather bad on stock.

Phillips.—A fine growing week; everything doing finely; no outdoor work since the rain.

Pratt.—All farm work suspended on account of the wet weather; ground is thoroughly soaked; corn planting delayed; early sown oats are up; wheat, oats, and barley in good condition.

Reno.—Ground too wet to work; wheat looking well; oats all in; corn listing stopped by the rains; apricots in full bloom; peaches and plums coming into bloom.

Republic.—Wet week; oats and wheat are doing well; some alfalfa sown; fruit all right; very late backward spring.

Rice.—Farm work stopped by rain; wheat doing finely; alfalfa fields green, pastures not green yet; apricots and some early peaches blooming; trees beginning to show leaves; much oats up; low places full of water.

Saline.—A cool week with excessive rainfall, all low land under water and farm work delayed; wheat making very rank growth; the ground in alfalfa fields is covered with drowned worms, probably would have taken first crop; some oats to sow yet; a few potatoes planted.

Sedgwick.—Arkansas River highest since last June; season is backward; wheat is looking very well, too cold for much growth; peaches are coming into blossom.

Smith.—Wet week; work stopped; wheat covers the ground and is doing well; some oats sown; will be little corn planted; some alfalfa sown and potatoes planted; grass starting; peaches and apricots ready to bloom; stock looks well.

Washington.—Everybody sowing oats on the 8th, the only day field work could be done; wheat is fine; grass is starting.

showing green; prospects are good for all kinds of fruit; cloudy, damp weather prevailing.

Morton.—Grass and weeds keep cattle out and off the feed; wheat in north part of county looks fine; peach trees very full of bloom, apricots only half, but alive yet.

Ness.—Wheat is in better condition than for ten years at this date; farm work very much retarded by continuous rains.

Sheridan.—A week of unusual cloudiness and continuous rains, fine for wheat but delaying farm work; grass and alfalfa starting to grow; a large acreage of corn will be put in; ground in fine condition.

Thomas.—Ground thoroughly soaked and prospects good for small grains.

Trego.—Cold, wet week; wheat looks well; work on spring crops delayed.

Wallace.—Ground in fine condition for all crops; oats and barley coming up well; wheat doing finely; a large acreage of alfalfa being sown.

Wichita.—Slow, easy, continuous rain day and night for three days; too wet for outside work; cattle well shedded and no loss to speak of.

The Poultry Yard

Trees in the Poultry Yard.

It was permissible in the beginning of things that poultry yards should be bare open enclosures without ornamentation, for how were we to know that the poultry industry was to grow and increase until it became one of the great things of trade?

Now, it seems to us, it would be well to give some attention to ornamentation. A poultry house, no matter how well it may be built, is not picturesque and a naked fence is not ornamental. This might be changed and the bare, unpicturesque poultry yard made a thing of beauty and a delight to the eye.

We of the poultry fraternity have an eye for beauty or we would not be putting time, skill and money into our efforts to improve poultry and work up to the high mark that we have set for the fowl that is perfect in shape and color. We can create a new order of things by a very cheap process and one that will in the end return to us a profit. We can do all this by planting fruit-trees in our poultry yards.

If there is one good argument against doing this it has escaped our attention. The trees are the natural protectors of birds of all kinds, furnishing them the best shade that can be imagined, for no shed will furnish a shade as cool as that to be found under a thick mat of leaves on a thrifty tree. A poultry yard is the best place to plant trees because the soil becomes more fertile the longer it is used for a run for poultry and trees planted in such a soil grow with amazing rapidity and vigor.

Plum, cherry, and crab-apple trees are especially suitable for poultryyards and when planted in such a place produce abundant crops because the fowls fertilize the soil and are always on hand to snap up the insects that are so hard to control in fruit-growing.

A few poultry breeders have tried this plan and are enthusiastic supporters of it. They find their fowls do better and that the crops of fruit obtained from the trees are a substantial addition to their incomes. The cost of the trees is small, the expense of setting them out is but a trifling item and the necessary training may be done in so little time that it is never missed. The cultivation of the trees will take no time whatever, as the necessary attention to the poultry yard will give the trees all the cultivation they need.—American Poultry Journal.

Cow-Peas for Hens.

During the past week a subscriber called on us, and in the course of conversation said: "I had a wonderful egg yield from my hens last winter, and I want you to tell the farmers how I secured it. I had an acre or two of cow-peas sowed near the buildings. In consequence of scarceness of labor, I was unable to get all the peas gathered—in fact a large part of them remained. I decided to let the vines and peas die down on the land, and lie there all winter. The hens soon found the peas and they literally lived on the patch until spring, and gave us eggs in quantity all the time."

This report as to the value of cow-peas as a winter feed is confirmed by a report from a gentleman in Maryland who followed the same plan. His hens harvested the peas from a plot of land last winter, with the result that he had eggs when none of his neighbors had any. We have before advised the feeding of cow-peas to hens, as their richness in protein indicates that they should make eggs. If you have no cow-peas, and even if you have the peas, we would advise the feeding along with them of wheat, oats, buckwheat and corn mixed for one feed per day, with a hot mash in the morning during the cold weather. The cow-peas may largely take the place of cut bone if you have

them. Cut bone and meat scraps should, however, be fed twice a week. With such feeding, good warm dry houses and young, thrifty flock, eggs should be plentiful all through the winter—that is, assuming that you are keeping a good laying variety, such as Leghorns, Plymouth Rocks, or Wyandottes.—Southern Planter.

The composition of soy-beans is such that they should be even better than cow-peas for laying hens.

Practical Suggestions.

N. J. SHEPHERD, ELDON, MO.

With young chickens especially one of the best foods that can be provided is oat-meal wet up with skim-milk. But as with all foods of this kind, only a small quantity should be mixed up at one time so as to avoid running the risk of its souring.

The rapidity with which fowls multiply renders the improvement of a flock of common hens almost an expenseless affair.

If desired, a greater portion of the eggs can be hatched. As in a majority of cases a fair proportion will be pullets, it is easy to see how rapidly a change can be effected.

One of the cheapest and best disinfectants to use in and around the poultry quarters at this time is whitewash. The addition of a small quantity of carbolic acid will increase its effectiveness. It can be used liberally and the application can be repeated several times during the season with benefit.

If the young chickens, ducks, and turkeys are to be kept growing as they should, a place should be provided where they can be fed to themselves and then care should be taken to see that they are fed regularly five times a day. Do not overfeed, as sour or decaying food often causes disease.

One way by which chickens often learn to eat egg shells is by carelessness in throwing out egg shells broken in halves only, with a portion of the albumin lingering in the cavities. In this way they get their first taste and then soon learn to break the shells and eat the eggs in the nest.

Much loss is often occasioned at this season by crowding the young fowls into too close quarters. While it is essential that they be well sheltered at night and on rainy days the quarters should be arranged so as to provide good ventilation and there should be sufficient room to allow the fowls to move about readily. Hot, foul air is a disease-breeding condition.

In mating if you have a cock with too much white mate him to a hen darker than the color wanted, or vice versa. In breeding for color always select birds a shade darker than the color you want to breed, as fowls are inclined to breed lighter, and you can never get depth of color unless you breed from birds very deep in color themselves.

When Raising Turkeys.

The National Poultry Journal suggests:

Never let the young turkeys get wet. The slightest dampness is fatal.

Feed nothing the first twenty-four hours after they are hatched.

Before putting them in the coop, see that it is perfectly clean and free from lice, and dust them three times a week with insect powder.

Be sure the hen is free from lice. Dust her, too.

Look out for mites and the large lice on the heads, necks, and vents. Grease heads, necks, and vents with lard, but avoid kerosene.

Nine-tenths of the young turkeys die from lice. Remember that.

Filth will soon make short work of them. Feed on clean surface. Give water in a manner so that they can only wet their beaks.

The first week feed a mixture of one egg (beaten) and sifted ground oats, mixed, with salt to taste, and cooked as bread; then crumble for them, with milk or curds, so that they can drink all they want. Feed every two hours early and late.

Give a little raw meat every day; also fine chopped onions or other tender green food.

After the first week, keep wheat and ground bone in boxes before them all the time, but feed three times a day, on a mixture of corn-meal, wheat middlings, ground oats, all cooked, and to which chopped green food is added.

Mashed potatoes, cooked turnips, cold rice and such, will always be in order.

Too many hard-boiled eggs will cause bowel disease.

Remove coop to fresh ground often in order to avoid filth.

Ground bone, fine gravel, ground

POULTRY BREEDERS' DIRECTORY.

BLACK • LANGSHANS.

Eggs from 3 yards of very fine fowls. A few choice cockerels. Circular with prices free.

J. O. WITAM, - - Cherrystone, Kansas.

LIGHT BRAHMAS—Forty cockerels \$1 each; 10 cockerels, very choice, \$2 each; 80 hens and pullets \$1 each. Eggs in season.

Address F. W. DIXON, Holton, Kansas.

EGGS FOR HATCHING—White Holland turkeys, Barred Plymouth Rocks, Rose Comb White Leghorns, Single Comb Brown Leghorns, Black Langshans, Golden Seabright Bantams, Imperial Pekin ducks. Write me for prices. J. C. Curran, Curran, Kans.

POULTRY—Don't order, but write. I have pure bred, from laying strains. It pays to have hens that lay and that is what I can boast of. Write C. L. Hollingsworth, Coffeyville, Kans.

BLACK MINORCAS—Biggest layers of biggest eggs. Pairs, trios, and breeding pens for sale cheap; 50 cockerels from \$1.25 up; eggs for hatching \$1.50 per 15. Also American Dominiques, Houdans, White Crested Black Polish, White Crested White Polish, and Buff Laced Polish; eggs same price. Fair hatch guaranteed. James C. Jones, Leavenworth, Kans.

PEKIN DUCK EGGS—(Rankin strain) \$1.25 per 13. Also a few drakes for sale. E. W. Adams, Berryton, Kans.

40 BRONZE TURKEYS—sired by a 40-pound tom. Two separate pens. Write for prices. Eggs for sale. Address Mrs. Fred Cowley, Columbus, 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 Hurdick 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.

B. P. ROCKS, SCOTCH COLLIE DOGS, AND Belgian Hares—Six grand matings, of B. P. Rocks as good as the best. Twelve years' experience with this breed. Eggs from selected pens, \$2 per 15; \$3.50 per 30. Special prices on incubator lots. Satisfaction guaranteed. W. B. Williams, Box 142, Stella, Neb.

shells and a dust bath must be provided.

Finely cut fresh bones, from the butcher's, with the adhering meat, are excellent.

They must be carefully attended to until well feathered.

Give them liberty on dry, warm days.

A high roost, in an open shed which faces the south, is better than a closed house for grown turkeys.

A single union of a male and female fertilizes all the eggs the hen will lay for the season; hence, one gobbler will suffice for twenty or more hens.

Two-year-old gobblers with pullets or a yearling gobbler with two-year-old hens is good mating. Gobblers and hens of the same age may be mated, but it is better to have a difference in the age.

Until they are six or eight weeks old they are liable to take cold and roup. After that age as a rule they are easy to raise.

A three-foot wire fence is recommended with two or three rows of barbed wire above it to enclose turkeys. In addition to this the feathers of the wing are cut. Some turkey breeders lace a shingle on the back of the turkey by means of strings or cloth passing under each wing to prevent its flying.

As a rule they are hatched and raised with hens. There is no reason why they should not be hatched in incubators and raised in brooders except that they require different treatment to ordinary chickens and should be accustomed to range in search of food. A turkey is considered a semi-wild fowl and must be treated accordingly. The hen teaches the young poults to search for food.

Where the Eggs Come From.

Iowa leads and Kansas stands second in egg production, is the statement made by several produce men, at a meeting of a western producers' and dealers' association. E. M. Slayton of Manchester, N. H., at the head of four large produce houses in the East, bought 150 car-loads of eggs last year in a single transaction and has placed orders for 200 cars to be delivered during the coming summer and early fall. Each car-load holds 12,000 dozen.

Another dealer, J. Dixon Avery, of Chicago, says that the Central West is now depended on for the supply of eggs and that they are shipped both east and west. Iowa leads and Kansas is second and rapidly increasing. The increase in the South has been very marked, notably in Texas, Kentucky, and Tennessee. There are comparatively few eggs exported from the United States, although Cuba is becoming a market and about 40,000 cases have been sent there annually for the past two or three years. Some packing houses make a business of canning eggs which are damaged in shipment, those with cracked shells, which will not keep long.

POULTRY.

BARRED PLYMOUTH ROCKS—Eggs from prize-winners. \$1.50 per 15, of large stock. Write me your wants and I will try to please you. Satisfaction guaranteed. L. L. De Young, Box B 246, Sheldon, Iowa.

ROSE COMB BROWN LEGHORNS—Exclusively. Farm-raised eggs per sitting of 15, \$1. Incubator users write for special prices by case or 100 lots. P. H. Mahon, Hollis, Cloud Co., Kans.

LIGHT BRAHMAS—Exclusively. Eggs—pen, \$1.50 per 13; \$2.50 per 25; farm flock—\$1 per 13; \$1.50 per 25. Mrs. E. W. Gowdy, Garnett, Kans.

HIGH-SCORING, prize-winning, Cornish Indian Games, W. P. Rocks, Black Langshans. Eggs \$1 per 13. Mrs. J. C. Strong, Moran, Kans.

HIGH CLASS POULTRY—White and Silver Wyandottes, and W. P. Rocks. We will continue to book egg orders—15 for \$1. R. F. Meek, Hutchinson, Kans.

EGGS FOR HATCHING—Single Comb White Leghorns; Wyckoff and Knapp Bros. strains. Price \$1 per sitting of 15 eggs, or \$1.75 for 2 sittings, if ordered at one time. Address, Wm. Whitby, Goddard, Kans.

EGGS FOR HATCHING—From Rose Comb White Leghorns, \$1 per sitting. Mrs. John Hill, Vinland, Kans.

EGGS FOR HATCHING—Barred Plymouth Rock, M. B. Turkey eggs from farm-raised, prize-winning stock. M. S. Kohl, Furley, Kans. 13 for \$1; 30 for \$2; 60 for \$3; 95 per 100. Recipe for making and using Liquid Lice Killer, 25 cents. Write for descriptive circular.

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

13 for \$1; 30 for \$2; 60 for \$3; 95 per 100. Recipe for making and using Liquid Lice Killer, 25 cents. Write for descriptive circular.

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Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Buff Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, S. C. Brown Leghorns and Belgian Hares. First class stock of Standard Birds of Rare Quality. Fine Exhibition and Breeding Stock. Write me your wants. Circulars free.

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VICTOR INCUBATORS Hatch every fertile egg. Simplest, most durable, cheapest first-class hatcher. Money back if not positively satisfied. Circular free; catalogue \$2. GEO. EITEL CO., Quincy, Ill.

200-Egg Incubator for \$12.00 Perfect in construction and action. Hatches every fertile egg. Write for catalogue to-day. GEO. H. STAHL, Quincy, Ill.

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HOLLYHOCK POULTRY FARM 56-page Illustrated Poultry Catalogue. The secrets of successful poultry raising told in plain language; all about incubators, brooders, poultry houses, how to hatch and raise every chick, what, when and how to feed, forcing hens to lay and hundreds of valuable subjects contained in no other catalogue. Tells of 35 varieties popular throughout Iowa and quotes extremely low prices. Send 4c in stamps for postage. Hollyhock Poultry Farm, Box 1420, Des Moines, Ia.

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BELGIAN HARES. BELGIAN HARES—Special low price for next 30 days. D. A. Wise, Topeka, Kans.

In the Dairy.

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

Improving the Kansas Cow.

The criticism is sometimes raised that the experiments carried on at our agricultural experiment stations are but little value to the average farmer for the reason that the stock used are either pure blood or high grades and are not the kind with which the average farmer has to deal. On the contrary considerable criticism has been expressed by farmers and agricultural writers about the Kansas State Agricultural College spending its time experimenting with scrub cattle, when it might be spending its time to so much better advantage in testing blooded cows. Undoubtedly both criticisms are well taken. With most of our farmers it would be impracticable as well as unwise for them to sell off their common and grade cows and buy pure bloods. The problem that confronts them to-day is how to make the most of what they have. The record of 25 Kansas herds shows that a number are succeeding. But while a few of our best Kansas cows are yielding from 200 to 300 pounds of butter fat per annum the general average is far below. The average annual capacity per cow of the herds of 82 patrons investigated by the Kansas Experiment Station was 104 pounds of butter fat. In other states where the cow machine has been the object of prolonged and deep study we find whole herds that average over 350 pounds butter fat and individual cows that yield from 400 to 500 pounds. This with our best Kansas records gives us an idea of what we might expect with good dairy cows, and shows very plainly that there are great opportunities for improvement. The dairy interests of Kansas are demanding a dairy cow that has the capacity to transform our cheap raw feeds into milk and do it with such a degree of efficiency that there will no longer be any doubt about the unprofitableness of trying to squeeze milk out of a beef animal. If this great need of Kansas dairying is to be met it will necessitate the use of better sires in grading up our common herds.

A good grade cow may yield as much milk and butter as a pure blood, but a grade of any kind has not the power to transmit its qualities to its offspring as has the pure blood, for the reason that the latter has received the qualities for which the breed is noted through a long series of years of careful breeding and selection, and these qualities have become fixed or permanent. D. H. O.

How Can Choice Cows Be Secured.

Not by buying, for such cows are seldom for sale. In nearly every herd there are at least a few good cows. It is only by persistent selecting, feeding and crossing these with a number one dairy bull that the average farmer can hope to possess a herd of choice dairy cows. How can a man tell his best cow? The only way yet invented is through the record of the scale and the Babcock test. A man often thinks he knows his paying cow without keeping a record, but usually when his judgment is placed alongside of the scales and Babcock test a big discrepancy appears. D. H. O.

Excellent Results With Holstein-Friesians.

E. D. TILLSON.

I have just lately made up my milk record for the past ten months, including all my cows that have gone dry up to the present time. I can not make up the full herd of 55 cows as they have not all milked their full season, but as this is the time of year when the dairy conventions and farmers' institutes are be-

ing held, I was often asked how my cows were doing this year, and a number of parties wished me to send them a record, so I have made up the record of 40 cows, taking them in regular course as they have gone dry, which I think is a fair average of the herd. The average of last year of the entire herd of 55 cows was 10,242 pounds milk, average time of milking 11 months, 23 days; butter fat test 3.5 per cent making 418 pounds butter. This year they are doing considerably better, owing to having been better cared for, and better fed during the summer months. We fed a half winter's ration of both ensilage and grain all summer, and we tried to protect them from the severe heat and flies during July and August, and continued to weed out all the poorer cows, and replace them with good heifers coming in, so that our milk record this year is showing a considerable improvement over last year, and we have been trying to improve every year since we started in to weigh each cow's milk once a week, test the quality with Babcock tester once a month, and keep a yearly record of every cow and weed out twelve to fifteen of the poorest milkers every year and replace them with good heifers which we have coming in every year, as we raise all our best calves and turn them into either beef or cows. We commenced working on this system four years ago, also providing green feed for the cows during a drought or a very dry time during the midsummer months, but last summer we made another great improvement by feeding our cows ensilage and grain all through the summer, when on either good or bad pasture, we fed half a regular winter ration of both ensilage and grain. Cows like ensilage in hot as well as cold weather, even when on good pasture. We also added another improvement last year. In very hot weather we kept our cows in stable during the day and out in the pasture at night, also washed them with a mixture called "Shoo-fly." We put it on either with a brush or a spray pump made for that purpose, applied it twice a week, which drove the horn flies all off the cows. All of these improvements have had a good effect in largely increasing the flow of milk so that this season our cows have averaged 11,660 pounds of milk, testing 3.5 per cent fat, making 476 pounds butter. Average time of milking, twelve months. Twelve months seems long, but that is caused by our milking our 2-year-old heifers with first calf longer than we do older cows, viz: twelve to sixteen months, and cows weeded out for beef are also milked a longer period, which lengthens the average time on the whole herd. My best cow, No. 56 is a cross between a Holstein bull and a Shorthorn cow. She is now 6 years old. She gave first year, as a 2 year old, 10,100 pounds in eleven months. Next time she gave 15,000 pounds in eleven months. Next year 17,740 pounds in ten months, and 21 days, and this year so far in ten months up to the first of February, 18,000 pounds of milk. She is now giving 33 pounds per day, and we intend milking her two and one-half months longer, making twelve and one-half months. We expect she will give in the twelve and one-half months, 20,000 pounds milk, nearly twenty times her weight in milk in one year. The quality of her milk has averaged during the whole four years, about 3.6 per cent, running from 3.4 per cent to 4 per cent fat, which made into butter for the first year would be 424 pounds, second year 630 pounds, third year 745 pounds, and the fourth (this year) (the phenomenal) 840 pounds of butter from one cow in one year.

You will not find many cows in America that have beaten this record. Now the wonderful record was brought about by good breeding, extra care and good feeding. Have a good, warm, well-lighted, well-ventilated, comfortable stable, roomy single stalls, fresh

running spring water and salt always before them, fastened with a chain round neck giving freedom, allowed to run out for an hour or two, twice a week on fine days, but kept in on stormy and bad or cold days. We believe in feeding well, and find it pays well to do so. We feed as follows: First thing in the morning before milking, clover hay. After milking, feed 20 pounds ensilage with 6 pounds of grain feed on top of it in the manger. At noon they are fed a little wheat straw or oat straw for a change. At 4 p. m. just before milking, they are fed ensilage and grain, same as in the morning, and in the evening after milking, clover hay. Grain feed generally consists of 6 pounds bran, 3 pounds pea-meal, 2 pounds cottonseed-meal, feeding an average from 11 pounds to 12 pounds per day. We feed some cows more and some less according to the amount of milk they are giving; we feed our best cow, No. 56, from 16 to 20 pounds per day according to amount of milk she is giving same proportions and mixtures as the other cows. I may say, the different kinds of grain feed are well mixed and weighed out before feeding. A two-days' ration is mixed at a time. We sometimes feed oil-meal in place of cottonseed-meal and corn-meal in place of pea-meal, but prefer the cottonseed and pea-meal, particularly in the summer season as cottonseed feed in summer improves the quality of butter and makes it firmer. Now we are feeding corn-meal in the place of pea-meal for the reason that peas are so high in price this winter, costing from \$7 to \$8 per ton more than corn-meal. Two and a half pounds of corn-meal, 2½ pounds cottonseed-meal, with 6 pounds bran per day makes a day's ration. Our clover hay is good, well saved, well-cured in cocks covered with cotton hay caps, protecting hay from rain or dew whilst curing. Our daily winter ration is 40 ensilage and 10 to 12 pounds of grain feed mixture per day. If cottonseed and oil cake were both the same price, we would feed both, half the quantity of each. But just now oil cake costs \$7 to \$8 per ton more than cottonseed-meal, so that we are not feeding any oil cake to our cows this winter. We are greatly in favor of corn ensilage both for winter and summer feed; find it to be the best, cheapest and most convenient for feeding, both for summer as well as winter. Last summer we fed a half winter's ration of both ensilage and grain feed all summer, and the result was that our cows averaged 1,220 pounds more milk this year than last. Milk worth one dollar per 100 pounds would net \$12.20, the extra cost would be 20 pounds ensilage at ten cents per 100 pounds, two cents; 5 pounds grain feed at 60 cents per 100 pounds, equals 3 cents, making the extra cost for summer feeding 5 cents per day per cow and for the 150 days would be \$7.50, deducting the extra cost of feed, \$7.50, from the extra quantity of milk worth \$12.20, leaves a net balance of \$4.70 per cow, and for the 55 cows, \$258.50 net gain for the season, as the extra manure saved would more than pay for the extra labor in feeding.

In making the above estimate I have left out my best cow, No. 56, which if included would make still better showing of profits on summer feeding. Putting her in with the 40 would bring the yearly average up to 11,800 pounds for this season, but as there are 14 cows yet to come into this year's record, which are still milking, we may find it necessary to put our best cow in with them in order to keep up the average of the herd of 55 cows to the 11,660 pounds as above stated.

We are greatly in favor of alfalfa clover for green summer feed, both for cows and pigs, which we have been growing for four years experimentally. We now have four acres. It produces wonderful crops. We cut four times a year and feed it green to our 300 hogs once a day and feed it to our cows once a day alternately with ensilage. Cows, like ourselves, like a change and a variety of feed.

I might add that we weighed each milking daily from our best cow for three months after she came in fresh on April 4, 1898, and the first month she averaged 88 pounds milk per day, testing 3.4 per cent, equals 3 pounds fat or 3½ pounds butter per day or 21 pounds fat, 24½ pounds butter in seven days. I see in the report of the dairy test at the International Exposition at Omaha last summer the best record on the seven days' test was 13½ pounds butter fat, so you see I am a half better. Unfortunately my cow is not a pure-bred Holstein and not allowed to compete for prize money. I forgot to mention that my herd of cows are most-

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ly Holsteins, one quarter of them pure-bred, the remainder three-fourths to seven-eighths Holstein blood, having used a pure-bred Holstein bull fifteen years, first cross with Shorthorn cows. We have used none other than a pure registered Holstein bull during the past fifteen years.

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She—That was such a funny story you told me yesterday about a donkey, Mr. Griggs.

He—Do you think so?

She—Yes, indeed! After this whenever I see a donkey it will remind me of you.

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United States Butter Extractor Co., BLOOMFIELD, N. J.



The Discussion on Tuberculosis.
(Continued from page 375.)

the use of milk furnished by tuberculous udders. Deny the right and the propriety of such interference, and you deny the right and propriety of any kind of interference. But grant that such interference is proper when exercised in a judicious and prudential way and without unjust loss to the owners of the cattle, and surely no one will deny the right or the propriety of such interference. The principle of the right of such interference being granted to be exercised within the country, the logic is irresistible that would claim that the government may rightfully and with propriety take measures to protect the country from invasion by the disease from without. Would that government be fair to its people which would enact repressive measures for the suppression of tuberculous diseases in cattle within its borders, and which would at the same time wink at invasion from without? To my mind, there are only two positions that may consistently be taken with reference to this question. One is, to deny the wisdom of interference at all on the part of the government, or to assume that such interference is proper and helpful, and that, if it is made within the country it is absolutely necessary that it shall also be applied to all cattle imported into the country for breeding purposes.

No Ice in the Water-tank.

During the last winter, tank heaters were used on the college farm to prevent the water from freezing and to keep it at an agreeable temperature, both for the 130 calves in the experimental feeding lots and for the dairy cows. The water supply is from the city water system, and is controlled in the tanks by float valves, which keep them full all the time.

The heaters used were made by five different manufacturing companies, one kind being made of cast iron, while the rest were made of galvanized iron. They are of various sizes, the larger ones burning more fuel and consequently being better for large tanks. Yet they are all built on the same general principle, resembling a deep kettle provided with a removable grate 4 inches from the bottom. This sits right in the tank, the water coming within a few inches of the top, which is provided with openings for admission of fuel, controlling the draft, and the attachment of a short pipe through which the smoke passes. The draft is the same as in the air-tight heaters, the opening being at the top and carried below the grate by a sheet-iron pipe at the side of the heater. Coal was used for fuel, and we found no difficulty in keeping up the fires. A box of coal was kept at each tank and thus required only a little time. By a little stirring and adding coal morning and evening the fire keeps all right. The ashes must be removed about once a week, and this is best accomplished by taking up the heater, pouring out the ashes and then replacing it.

The fires were started November 10 and continued until April 1. During the extreme cold weather they were given extra attention, while when the weather was warm the fires were barely kept going. During this period of one hundred and nineteen days the 5 heaters burned 9,414 pounds of coal, or a daily average of 16 pounds for each heater. Figuring coal at \$4 per ton, the average cost of one heater would be three cents per day. The largest heater used burned 18½ pounds of coal per day, while the smallest one used burned 13 pounds daily.

The time required to attend to a heater is about the same as that required to break the ice, and during the extreme cold it is almost impossible to keep the ice broken at all times. Thus the animals can not drink when they are thirsty and will stand about the tank in the cold instead of being under the shed. If the best results are desired, either with the dairy cow or with the fattening steer, they must be comfortable. Even if the ice is broken they will often stand about the tank for some time before drinking, because the water is too cold, it is not palatable, it makes the teeth ache, it chills the animal and retards digestion for a time.

On January 3 the ice in a tank without a heater was 6 inches thick, while the water in the tanks provided with heaters was not frozen over. The stock like water at a temperature from 40° to 50° F., rather than at lower temperatures. Everybody has certainly noticed how slowly an animal drinks ice-water, often opening its mouth and dropping it as if it were

hot lead, and sipping away until it has only partially quenched its thirst, and then standing shivering in the cold until the water taken into the stomach is warmed to the temperature of the body.

In the winter we had been watering the horses at a tank without a heater for some time, then afterward watering at a tank provided with a heater. They seemed to like the water better and would drink more. With all animals it is always well to keep the water in the most palatable condition because they will drink more, and a good quantity of water is required to carry off the waste material of the body and keep the animal in good health.

Even laying aside the hygienic phase of the question and considering it in dollars and cents, does it not seem reasonable to suppose that it is better economy to furnish the heat that is required to raise water to a certain temperature with coal at a cost of \$4 per ton than with corn at a cost of \$10 per ton?
O. H. ELLING,
Kansas State Agricultural College.

Classifications for the National Swine Show.

The National Swine Show, to be held at Kansas City, October 7, 8, 9, 10 and 11, 1901, by the breeders of Poland-China, Berkshire, and Duroc-Jersey swine, promises to be a notable event in the history of these breeds.

The Kansas City Stock Yards are making arrangements to accommodate an exhibit of 3,000 head of swine of the breeds named, and additional space will be provided if the exhibit exceeds the present anticipations of the officers of the associations representing said breeds.

The general classification agreed upon for the three breeds will be the same for each, and is as follows:

Boars, 2 years or over, 1 year and under 2, 6 and under 12 months, and under 6 months, champion boar any age, champion boar any age bred by exhibitor.

Sows, 2 years or over, 1 year and under 2, 6 and under 12 months, and under 6 months. Champion sow any age, champion sow any age bred by exhibitor.

Breeding rings: Boar and 3 sows over 1 year old, boar and 3 sows over 1 year bred by exhibitor, boar and 3 sows under 1 year, boar and 3 sows under 1 year bred by exhibitor, 4 pigs under 6 months produce of same sow, 4 swine get of same boar bred by exhibitor.

The association represents the three breeds named above and the patrons of said organizations will provide liberal special premiums for addition rings.

The Kansas City Stock Yards, the business men of Kansas City, the three associations, and the breeders interested in said breeds, will provide more than double the amount of cash prizes ever offered for an exhibit of swine, and all who have made a careful survey of the swine industry and are in the position to judge of the interest in the show referred to above confidently predict that the capacity of the new pavilion will be taxed to the utmost to accommodate the thousands of hogs that have been selected and are now being fitted for this show.

Premium lists, rules, and conditions of the show and other particulars may be obtained upon application to the following parties:

- Poland-China, F. D. Winn, 1500 Grand Avenue, Kansas City, Mo.
- Duroc-Jersey, Robert J. Evans, El Pason, Ill.
- Berkshires, Charles F. Mills, Springfield, Ill.

Eccentricities of Driving.

The man who had never handled horses sat down beside me in front of the store and began to ask me questions:

"Those horses are most interesting creatures, and you drive them everywhere, they say."

"Oh, yes, almost anywhere."

"Is it hard to control them?"

"No, quite easy, if you understand them."

"How do you force them to do what you want?"

"Oh, you don't have to force them, just let them know what you want."

"Indeed! How do you communicate your wants to them?"

"By the use of reins attached to a bit in their mouths and by words, which they get to understand, such as a cluck or a chirrup to start, and the word 'whoa' to stop, the word 'back' to go backward, etc."

Just at this point a man came slashing up in front of the store with a



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horse and wagon and called "Back!" jumped out and the horse stopped.

"Why doesn't the horse go backward?" asked my friend.

"Well, the driver didn't want him to."

"But he said 'back!'"

"Yes, I know, but the horse knew he didn't mean it."

"But what does he say when he means go 'backward?'"

"The same thing."

"Does the horse do it? How does he know when he means 'back' and when 'stop?'"

"I don't know, I am sure."

"Well, this must be a very dull man and a very bright horse."

"Not at all—both are the average."

"This is most peculiar. What does the man say when he wants the horse to start?"

"He has several ways of speaking to him."

"Does the horse always start?"

"Sometimes he does not start very quickly."

"Then what does the man do?"

"He pulls the reins."

"Does that always mean 'go ahead?'"

"Well, no; not always. Of course he pulls on them when he wants him to stop, too."

"What! the same thing for stopping and starting?"

"Well, not exactly the same, but much the same."

"Well, well! and what is the result of such an outrageously mixed code of signals? I don't see how they get along together."

"Well, I don't know just how the horse reasons it out, but they get on surprisingly well. The horse just takes it for granted that all pulls mean 'go ahead' till he gets such a long and strong pull that he wonders if that is intended to 'stop,' and then he stops, and if he doesn't get a cut of the whip he concludes he must have guessed right."

"In the name of common sense, are there any more complications for the poor horse to figure out?"

"Well, yes, there are a few more, of course they usually pull on both reins when they want to urge him on, but sometimes they jerk on one."

"But that means 'turn.'"

"Yes, but he musn't turn when the jerk is not intended for 'turn,' or he will get a harder jerk on the other rein."

"How does he manage it?"

"Well, he supposes that all ordinary jerks mean go ahead, but when he gets an extra hard and long one he tries turning, and if nothing happens he knows that was what was meant."

"Doesn't this guessing policy make driving unpleasant?"

"Yes, both unpleasant and difficult. The driver has to use about twice the strength necessary, and does not accomplish the results he wants nearly as quickly or easily, and it is much

harder and more unpleasant for the horse."

"Well, why do they keep it up, then?"

"I am sure I do not know."

"Well, well! Do many people use this method of driving?"

"Yes, most people."

"What explanation do they give?"

"When they give any they say: 'It is easier.'"

"Then I suppose it must be."

"No, it is not."

"Are you sure?"

"Sure."

"Well, well! I must make a note of this. It is most interesting."—Chicago Post.

Angoras in Australia.

It appears, says the Queenlander, that after many years of failure, the breeding of the Angora goat is to be a success in Australia. As the Australian climate is said to be much akin to that of Asia Minor, the home of the Angora, the want of success hitherto in acclimatizing the animals has been not a little perplexing to those who attempted it in South Australia. But it seems that Mr. E. A. Scammell, who has a station on the Murray about 30 miles from Blanchetown, has solved the problem as to which is the class of country best suited to the Angora goat. Despite adverse seasons the herd has had to contend against, it has increased most satisfactorily. Whether it be the river pasturage, climate, or attention that is responsible, the fact remains that the animals have thriven as they never did in Australia before. The fleeces, too, according to the report, are superior to what have previously been obtained in Australia, whilst the animals have improved both in size and appearance. The goats on Mr. Scammell's station are shorn every nine months; the average weight of wool per goat is about 5 pounds, and the price obtained ranges for the unwashed article at from 18d to 2s [36½ to 48½ cents] per pound. The animals can be shorn the first year. In South Africa the breeding of the Angora goat has proved most lucrative, and according to recent statistics there are something over 2,000,000 of the animals there now.

Government Hog Cholera Remedy.

In response to renewed inquiries we again publish the prescription of the Bureau of Animal Industry. It is thought by many who have tried it to be valuable in warding off the disease.

- Pulverize and mix thoroughly:
- 1 part wood charcoal
 - 1 part sulphur
 - 2 parts sodium chloride (salt)
 - 2 parts sodium bicarbonate (soda)
 - 2 parts sodium hyposulphite
 - 1 part sodium sulphate
 - 1 part antimony sulphate.
- Dose, 1 tablespoonful for each 200 pounds weight of hog once a day.



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MARKET REPORTS.

Kansas City, April 15.—Cattle—Receipts, 8,630; calves, 224. The market was steady. Representative sales:

SHIPPING AND DRESSED BEEF STEERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of beef steers.

WESTERN STEERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of western steers.

TEXAS AND INDIAN COWS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of Texas and Indian cows.

TEXAS AND INDIAN STEERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of Texas and Indian steers.

IOWA STEERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of Iowa steers.

IOWA COWS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of Iowa cows.

NATIVE HEIFERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of native heifers.

NATIVE COWS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of native cows.

NATIVE FEEDERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of native feeders.

NATIVE STOCKERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of native stockers.

STOCK COWS AND HEIFERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various grades of stock cows and heifers.

Hogs—Receipts, 9,019. The market was steady to weak. Representative sales:

Table with columns: No., Av. Price, No., Av. Price. Rows include various grades of hogs.

Sheep—Receipts, 9,000. Lambs were 5 to 10 cents lower and sheep steady to strong. Representative sales:

Table with columns: No., Av. Price, No., Av. Price. Rows include various grades of sheep.

Chicago Live Stock.

Chicago, April 15.—Cattle—Receipts, 24,000. Good to prime steers, \$5.00@6.00; stockers and feeders, \$2.75@4.75; Texas fed steers, \$4.25@5.25.

Hogs—Receipts, 24,000. Mixed and butchers, \$5.87@6.20; bulk of sales, \$6.05@6.17.

Sheep—Receipts, 24,000. Good to choice wethers, \$4.75@5.00; western sheep, \$4.75@5.00; native lambs, \$4.75@5.35.

St. Louis Live Stock.

St. Louis, April 15.—Cattle—Receipts, 2,000. Beef steers, \$4.25@5.75; stockers and feeders, \$2.65@4.90; steers, \$3.40@5.15.

Hogs—Receipts, 5,000. Pigs and lights, \$5.85@6.00; packers \$5.90@6.07.

Sheep—Receipts, 1,000. Muttons, \$4.10@5.15; lambs, \$4.75@5.60.

Omaha Live Stock.

Omaha, April 15.—Cattle—Receipts, 3,500. Native beef steers, \$4.00@5.50; western steers, \$3.75@4.70; Texas steers, \$3.25@4.25; stockers and feeders, \$3.25@4.50.

Hogs—Receipts, 5,100. Heavy, \$6.00@6.10; bulk of sales, \$6.00@6.02.

Sheep—Receipts, 6,600. Common and stock sheep, \$3.70@3.90; lambs, \$4.25@5.10.

Kansas City Grain.

Kansas City, April 15.—Wheat—Sales by sample on track: Hard—No. 2, 68@70c; No. 3, 67@68c.

Soft—No. 2, 70@72c; No. 3, 69@70c. Mixed Corn—No. 2, 42c; No. 3, 41½@41¾c.

White Corn—No. 2, 42½c; No. 3, 42c. Mixed Oats—No. 2, 28½c; No. 3, 28¼c.

White Oats—No. 2, 30c; No. 3, 29@29½c. Rye—No. 2, nominally 52½c. Flaxseed—\$1.50.

Prairie Hay—\$5.00@9.50; timothy, \$6.00@11.00; alfalfa, \$7.00@10.50; clover, \$8.00@9.50; straw, \$4.00@4.50.

Chicago Cash Grain.

Chicago, April 15.—Wheat—No. 2 red, 70½@72½c; No. 3, 68¾@70¾c; No. 2 hard winter, 70¼@71¼c; No. 3, 68¾@70¾c; No. 1 northern spring, 71¼@73c; No. 2, 71¼@73c; No. 3, 68@72c.

Corn—No. 2, 43¼@43¾c; No. 3, 43¼c. Oats—No. 2, 26@27c; No. 3, 26@25½c.

St. Louis Cash Grain.

St. Louis, April 16.—Wheat—No. 2 red cash, elevator, 69¾c; track, 73@74c; No. 2 hard, 71½@72c.

Corn—No. 2 cash, 42½c; track, 42¾c. Oats—No. 2 cash, 27c; track, 27½@28c; No. 2 white, 29½c.

Kansas City Produce.

Kansas City, April 15.—Eggs—Fresh, 11c doz. Butter—Creamery, extra fancy separator, 20c; firsts, 17c; dairy, fancy, 16c; packing stock, 11c; northern cheese, 12c; Kansas and Missouri, 11½c.

Poultry—Hens, live, 7½c; roosters, 15@20c each; spring chickens, 10c; ducks, young, 8c; geese, young, 5c; turkey hens,

8c; young toms, 6c; old toms, 5c; pigeons, \$1.00 doz. Choice scalded dressed poultry 1c above these prices.

Game—Frogs, 25c@1.00 per doz.; plover, \$1.00 per doz.; jack snipe, 75c@1.00 per doz.; sand snipe, 25@40c per doz.

Potatoes—New Florida, \$3.50 per bushel box; home grown, 35@40c; Colorado, 75@80c; northern, 50@55c; sweets, 25@35c bu; seed stock, Kaw, 35@45c; S. Dakota, 60c; Red river stock, 80c; northern Triumph, 75c; Minnesota, 55@65c.

Fruit—Strawberries, Texas, \$3.50@4.50 per crate; apples, fancy, \$3.50@5.00 per barrel; cranberries, \$7.00@8.00 per barrel.

Vegetables—Tomatoes, California and Mexico, \$2.00@2.50 per crate; navy beans, \$2.25@2.30. Cabbage, northern, 1.25@1.50 per cwt. Onions, \$1.90 per bu. Cucumbers, \$1.00@1.50 per doz. Egg plant, \$1.25@2.00 per doz. Celery, 50@75c doz. Cauliflower, California, \$3.00; spinach, 40@50c per bu.

Special Want Column

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

SPECIAL.—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with order. Stamps taken.

CATTLE.

FOR SALE—Three registered Shorthorn bulls of serviceable age; all reds, good individuals, prices right. Mrs. C. B. Anderson, 153 North Ninth Street, Salina, Kans.

FOR SALE—Pure-bred Shorthorn bulls ready for service. Pure White Holland turkeys, scoring 96 to 98. Also Barred Plymouth Rock cockerels. Address A. C. Rait, Junction City, Kans.

FOR SALE—3 registered Shorthorn bulls, 13 to 26 months old. John J. Thorne, Kinsley, Kans.

FOR SALE—Two registered Hereford bulls, 6 months old. A. Johnson, Clearwater, Sedgwick Co., Kans.

FOR SALE CHEAP—Four good registered Galloway bulls, from 1 to 5 years old. J. M. Rhodes & Son, Tampa, Kans.

FOR SALE—Six yearling steers and 3 fall steer calves. Farm one mile west of Seabrook. Geo. M. Pierce, Station B, Topeka, Kans.

FOR SALE—Six registered Hereford bulls, 7 to 12 months old; 7 registered Shorthorn heifers, 20 to 24 months old. Louis Hothan, Carbondale, Kans.

FOR SALE—Solid red Shorthorn bull calf, dropped July 20; registered. F. H. Foster, Mitchell, Kans.

FOR SALE—30 Polled Durham heifers, high grade, dark reds, short legs, 8 to 12 months old, price \$20 each. High grade bull calves, not akin to heifers, \$30 to \$50. C. E. Schee, Chambersburg, Clark Co., Mo.

FOR SALE—Five registered Holstein bulls, also high grade Shropshire rams and ram lambs. E. W. Melville, Eudora, Kans.

HORSES AND MULES.

FOR SALE OR TRADE—For sheep, cattle, or mares, one extra fine 5-year-old Black Jack. J. C. Strong, Moran, Kans.

FOR SALE—Four big black jacks, cheap for cash; no trade. Address J. P. Wilson, Wellsville, Mo.

LEAVENWORTH COUNTY JACK FARM—Seven Mammoth jacks for sale. O. J. Corson, Potter, Kans.

FOR SALE—Two French Draft stallions, 2 and 3 years old, recorded. For particulars, address A. I. Hakes, Eskridge, Kans.

FOR SALE—Two Mammoth jacks, and two Mammoth jennets. W. C. Ward, Linwood, Kans.

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

FARMS AND RANCHES.

160-ACRE improved farm in eastern Kansas; snap; \$16 per acre. G. E. Winders, Ottawa, Kan.

FOR SALE—80 acres improved land, 1 mile from station, 11 miles from Topeka; or will trade for more land further west. Address, Box 14, Wakarusa, Kans.

800 ACRE RANCH FOR SALE—200 acres of it ideal alfalfa land, creek bottom, improved, etc. M. F. Hudson, Osborne, Kans.

FOR SALE OR TRADE—160-acre farm—100 acres in cultivation; 6 room house, outbuildings, 3 miles from Florence, Kans., first-class spring water. Price \$17 per acre. For full particulars, write Jno. Fox, Jr., New Cambria, Kans.

MISCELLANEOUS.

STRAWBERRY PLANTS FOR SALE—J. H. Wendell, 2½ miles on Central Ave., North Topeka.

FARM HAND WANTED—On a general stock and grain farm. Must be experienced, good habits and character, kind to stock, can milk and do all kinds of farm work. If fair wages, steady employment, and a home is wanted, write, with reference, to Box 10, R. R. 2, Columbus, Kans.

LATE SOY BEANS—\$2 per bushel; sacks free. J. C. Strong, Moran, Kans.

CATALPA SPECIOSA—Seed and seedlings. Send for price list. D. C. Burson & Co., Topeka, Kans.

FOR SALE—Early Yellow Soy Beans. J. J. Achenbach, Washington, Kans.

WOOL SHIP DIRECT!

There is no way to get full value for your wool except by shipping direct to market. The fewer hands your wool passes through before reaching the manufacturer, the more profit there is for you.

WE GUARANTEE FULL MARKET PRICE, FULL WEIGHT AND PROMPT RETURNS for all wool received, with no useless or extra expense to the shipper. You run no risk in shipping to us, as we have been established here for 27 years and are reliable and responsible. Write us for price of wool and prospect. Wool Sacks furnished free. In addition to Wool we receive and sell everything which comes from the farm. Write us for prices of anything you may have to sell.

SUMMERS, BROWN & CO., COMMISSION MERCHANTS, 198 S. Water St., CHICAGO

Reference—This paper.

WOOL WANTED—We want, and will pay the highest market price in cash for 500,000 pounds of wool. When you write for prices send us a sample of your wool by mail to Oakland, Kans. Be sure and get our prices before you sell. Topeka Woolen Mill Co.

FOR SALE—Pure Orange, Collier, and Colman cane seed, \$1.25 per cwt.; white seed corn, 50 cents per bushel sacked f. o. b. M. Mathewson, Route 5, Topeka, Kans.

OSAGE ORANGE OR CATALPA fence posts wanted. I want to buy a carload. Write me your prices and description of posts. N. F. Shaw, Cashier Citizens' Bank, Plainville, Kans.

FOR SALE—De Laval Cream Separator, good as new, Baby No. 1. W. E. Vincent Hutchinson, Kans.

EARLY YELLOW SOY BEANS—For sale, at \$1.65 per bushel, sacked on track at Vera, Kans. H. H. Clothier.

FIFTY THOUSAND apple trees \$3 per 100, thousands of peach, pear, plum, etc., at wholesale prices. S. J. Baldwin, nurseryman, Seneca, Kans.

STRAWBERRY PLANTS FOR SALE—30 varieties. Three good ones are Excelsior, Early, Parker Earle (Medium, and Sample late); 50 cents per 100; \$3 per 1,000; also raspberry and blackberry plants. Write for price list. Wm. Brown, Lawrence, Kans.

FOR SALE—100,000 strawberry plants. They are Miner, Windsor Chief, Splendid, and Nick Ohmer, mixed in the row. Price—100, 50 cents; 300, \$1; 1,000, \$2.50; 5,000, \$11. N. O. Waymire, Garfield, Kans.

FOR SALE CHEAP—4 Great Dane pups, 3 months old. Pure-bred, and fine individuals. W. H. Richards, V. S., Emporia, Kans.

500 bushels seed sweet potatoes for sale. Assorted varieties; also plants in season. For prices, address N. H. Pixley, Wamego, Kans.

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

BLOSSOM HOUSE—Opposite Union Depot, Kansas City, Mo., is the best place for the money, for meals, or clean and comfortable lodging, when in Kansas City. We always stop at the Blossom and get our money's worth.

THE STRAY LIST

Week Ending April 11. Wilson County—C. W. Isham, Clerk.

HEIFER—Taken up by M. P. Davis, in Gullford Tp. (P. O. Benedict), on November 1, 1900, one red heifer, polled, white on end of tail, some white on belly; valued at \$16.

Marion County—Ira S. Sterling, Clerk. COW—Taken up by T. L. McCandless, in Marion, on January 20, 1901, one 4-year-old cow, red and white face, piece cut from left ear.

Week Ending April 18. Leavenworth County.

CATTLE—Taken up by E. C. Proctor, in Stranger Tp., January 19, 1901, 1 Shorthorn, deep red, fork in left ear; 1 Shorthorn, light red and white, white bar across forehead, fork in left ear; 2 Shorthorns, light red and white, white spot in forehead, fork in left ear; 1 Hereford, fork in left ear. These cattle are all coming 2 years old; 2 steers and 3 heifers.

Cheyenne County—G. A. Benkelman, Clerk. HORSE—Taken up by E. Chaffee, Jaqua Tp. (P. O. Jaqua), March 9, 1901, one gelding, 3 years old, gray; valued at \$30.

HORSE—Taken up by E. Chaffee, Jaqua Tp. (P. O. Jaqua), March 17, 1901, one roan mare, eight years old; valued at \$30.

HORSE—Taken up by E. Chaffee, Jaqua Tp. (P. O. Jaqua), March 17, 1901, one brown mare, fifteen years old, H on right shoulder; valued at \$1.

HORSE—Taken up by E. Chaffee, in Jaqua Tp. (P. O. Jaqua), March 17, 1901, one roan mare colt, one year old; valued at \$10.

HORSE—Taken up by E. Chaffee, in Jaqua Tp. (P. O. Jaqua) March 17, 1901, one bay mare, three years old; valued at \$25.

HORSE—Taken up by E. Chaffee, in Jaqua Tp. (P. O. Jaqua) March 17, 1901, one bay mare, three years old; valued at \$25.

HORSE—Taken up by E. Chaffee, in Jaqua Tp. (P. O. Jaqua) March 17, 1901, one bay mare colt, one year old; valued at \$10.

HORSE—Taken up by E. Chaffee, in Jaqua Tp. (P. O. Jaqua) March 17, 1901, one bay mare, eight years old; valued at \$25.

Greenwood County—C. D. Pritchard, Clerk. PONY—Taken up by M. Haskins, South Salem Tp. (P. O. Ivanpah) April 5, 1901, one bay mare pony, about nine years old, branded on left shoulder but not able to describe; valued at \$10.

NOTICE OF APPOINTMENT—ADMINISTRATOR. State of Kansas, Shawnee County, SS. In the matter of the estate of Hannah Roby, late of Shawnee County, Kansas.

Notice is hereby given, that on the 2d day of March, A. D. 1901, the undersigned was, by the Probate Court of Shawnee County, Kansas, duly appointed and qualified as executor of the estate of Hannah Roby, deceased, late of Shawnee County.

All parties interested in said estate will take notice, and govern themselves accordingly. HENRY M. ROBY, Executor.

BUTTER AND EGGS.

Sell to us at highest market prices. We will always pay you more than your local dealer can. We furnish this package to ship in. Also, Cream Separators. Write for prices and particulars. O. F. CHANDLER & CO., 1430 Walnut Street, Kansas City, Mo

Grindstones. Direct from maker to user 75-lb. stone, diameter 20 inches, \$2.80. 100-lb. stone, diameter 24 inches, \$3.30. Either size stone mounted, \$1.25 extra. The prices include cost of delivery at nearest railroad station. Write for circular. P. L. COLE, Look Box 381, Marietta, Ohio.

C. F. MENNINGER M. D., CONSULTING PHYSICIAN

727 KANSAS AVENUE, TOPEKA, KANSAS. Specialties: Chronic and Obsolete Diseases. Heart and Lungs.

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....AND.... IRON MOUNTAIN ROUTE

All sorts of crops are being grown, and they are large crops, too. Reduced rates are offered the first and third Tuesdays of each month, and these events are called low rate Homeseekers' Excursions. Literature on Missouri, Kansas, Arkansas, Texas, and on.....

Zinc and Lead Mining, will be mailed free on application to H. C. Townsend, General Passenger and Ticket Agent, St. Louis.



Effective March 10th, 1901, the



Announces the Opening of its Red River Division

...To... Denison and Sherman, Texas.

Through Train Service will shortly be established from St. Louis and Kansas City over the

Shortest Line to Texas

Kansas Crops Officially.

(Continued from page 373.)

Crawford.—No damage; prospects excellent. Condition 95.
 Decatur.—"Best prospects for many years." Condition 100.
 Dickinson.—Several localities report some damage by fly; but very little will be plowed up; prospects fine. Condition 98.
 Doniphan.—No damage; excellent prospects. Condition 100.
 Douglas.—Damaged, some think, ten per cent by fly; very little will be plowed up. Condition 92.
 Edwards.—Possibly slight damage by fly, but none will be turned under. Condition 105.
 Elk.—No damaged fields; ground moist. Condition 100.
 Ellis.—Fly in some localities, but little damage done; a slight acreage will be plowed under. Ground wet. Condition 101.
 Ellsworth.—No damaged fields; ground full of moisture. Condition 101.
 Finney.—Possibly a slight acreage may have to be plowed up; plenty of moisture. Condition 100.
 Ford.—No damage; ground moist; prospects never better. Condition 98.
 Franklin.—Perhaps slight damage by fly, but none plowed up; plenty of moisture. Condition 98.
 Geary.—About five per cent damaged by fly, and a small acreage likely to be plowed up; abundance of moisture. Condition 97.
 Gove.—Slight damage in places; probably some destroyed. Prospects for vigorous growth favorable. Condition 90.
 Graham.—"Never before was there a more promising prospect for a full crop." Condition 100.
 Grant.—But little sown; no damage. Soil conditions very favorable.
 Gray.—Slight damage by fly. Ground wet to considerable depth.
 Greenwood.—No damage; soil favorable. Condition 100.
 Greeley.—Was late in coming up; lack of moisture during most of the winter retarded growth. Ground is wet now from recent snows. Condition 85.
 Hamilton.—No damage; ground dry. Condition 95.
 Harper.—Slight damage by storms; the area plowed, if any, will be small. Condition 103.
 Harvey.—Damaged a little by fly, but none plowed up; favorable prospects. Condition 99.
 Haskell.—No damage; prospects favorable. Condition 95.
 Hodgeman.—No injury; covered with a heavy blanket of snow. Outlook could not be better. Condition 102.
 Jackson.—Possibly a slight damage by fly, but none will be plowed up. Condition 105.
 Jefferson.—But a limited area sown; no damage, and everything favorable. Condition 102.
 Jewell.—Prospects for a good crop were never better; soil conditions are of the best. Condition 105.
 Johnson.—Slight injury by fly, but none will be plowed up. Ground moist. Condition 97.
 Kearny.—No damage; ground wet. Condition 80.
 Kingman.—Some damage by fly feared, but no fields will be plowed up. Heavy snow has put the ground in excellent tith, with the subsoil wet. Condition 105.
 Kiowa.—No damaged fields; prospects very favorable. Condition 101.
 Labette.—No damage; "prospects were never known to be better at the time of year." Condition 104.
 Lane.—A limited acreage will be plowed up. Soil never better.
 Leavenworth.—Some damaged by fly, but none destroyed; prospects delightful. Condition 102.
 Lincoln.—Possibly five per cent damaged by fly; little will be plowed up. Prospects are for a good crop. Condition 95.
 Linn.—Slight damage by fly, but none plowed up; outlook for vigorous growth favorable. Condition 100.
 Logan.—Good stand; plenty of moisture. No damage. Condition 100.
 Lyon.—Possibly slight damage by fly. Ground saturated. Condition 99.
 Marion.—Slight damage by fly in several localities; "prospects the best for many years." Condition 102.
 McPherson.—Some damage possibly by fly, and probably a portion will be planted to other crops. Plenty of moisture. Condition 100.
 Meade.—In excellent form; ground covered with heavy snow; prospects for a full crop. Condition 100.
 Miami.—No damage; conditions for vigorous growth never more favorable. Condition 100.

Mitchell.—No damaged fields; plenty of moisture; prospects good.
 Montgomery.—About five per cent damaged by fly, and about the same per cent of area will be plowed up. Abundant moisture; prospects good.
 Morris.—Very little sown. Condition 90.
 Morton.—Little sown; prospects for growth not favorable. Condition 60.
 Nemaha.—No damage; excellent stand. Condition 101.
 Neosho.—Slight damage by fly, but none will be plowed up. Soil favorable. Condition 96.
 Ness.—A slight per cent damaged during the winter. Five per cent may be plowed up. Soil favorable for quick growth. Condition 90.
 Norton.—No damage; prospects better than for many years. Condition 99.
 Osage.—Acreage small, but present prospects most encouraging; ground is full of moisture. Condition 98.
 Osborne.—No damaged fields; prospects never better. Condition 109.
 Ottawa.—No perceptible damage; ground soaked with moisture; "prospects for a big crop were never better." Condition 100.
 Pawnee.—No injury perceptible; abundance of moisture. Condition 100.
 Phillips.—No damage; prospects never better. Condition 100.
 Pottawatomie.—No damage; ground wet. Condition 100.
 Pratt.—No damage; best condition for many years. Average 100.
 Rawlins.—Growth retarded by cold, wet weather; prospects good.
 Reno.—No damage; "never looked better at this time of year." Condition 103.
 Republic.—Prospects for a good crop never better. Condition 95.
 Rice.—Slight damage by fly, and perhaps a little will be plowed up. Outlook never more favorable than now. Condition 100.
 Riley.—Possibly a slight damage, but none plowed up. Soil excellent.
 Rooks.—No damage; "never better." Condition 107.
 Rush.—Slightly damaged by fly; soil favorable. Condition 102.
 Russell.—No damage; could not be better. Condition 101.
 Saline.—Slight injury by fly; everything now promising; moisture in abundance. Condition 100.
 Scott.—Prospects excellent at this time. Condition 88.
 Sedgwick.—No damage; a stand never looked better; ground in most excellent tith. Condition 103.
 Seward.—Favorable prospects; ground moist. Condition 90.
 Shawnee.—Slight damage by fly, and possibly some will be plowed up; ground moist. Condition 97.
 Sheridan.—No damage; plenty of moisture. Condition 100.
 Sherman.—No damaged fields; soil conditions the best for many years; covered with snow during the last two weeks. Condition 100.
 Smith.—Possible slight injury by fly; prospects excellent.
 Stafford.—Prospects very promising indeed. Ground wet. Condition 102.
 Stanton.—Full stand; no damage; plenty of moisture. Condition 100.
 Stevens.—Everything favorable for vigorous growth; no damage.
 Sumner.—No damaged fields; prospects excellent, and ground moist. Condition 97.
 Thomas.—No damage; ground moist, and covered with snow; prospects very favorable. Condition 100.
 Trego.—Prospects very favorable.
 Wabaunsee.—No damage; ground wet and prospects very favorable.
 Wallace.—A slight acreage winter-killed, and will be plowed up; ground moist. Condition 85.
 Washington.—No perceptible damage; prospects very promising. Condition 105.
 Wichita.—Just appearing above ground; plenty of moisture.
 Wilson.—Damaged by fly about five per cent; the acreage plowed up probably the same. Soil favorable. Present condition 85.
 Woodson.—No damage; soil favorable. Condition 100.
 Wyandotte.—Slightly damaged by fly, but none likely to be plowed up; ground full of moisture. Condition 95.
 The soil of the state as a whole was probably never more generously saturated with moisture at a similar date than now. In fact in a large portion the work of spring is being rather retarded by wet soil, rains, and melting snows—a condition of affairs, however, which a Kansan never enters on the debit side of his ledger. Following a few days of sunshine Kansas fields will be alive with plows and corn-planters, under conditions never surpassed in promise.

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When you buy a carriage, buggy or harness. Choose from the biggest stock and fullest assortment, and pay only the cost of making, with but one moderate profit added. Our plan of selling direct from the factory insures satisfaction—your money back if you're dissatisfied with your purchase—and enables you to **save the dealer's profit.**

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On Everything you Buy or Use.



Will sell you this splendid Full Hail-Platform Spring Wagon for \$38.00. Look at the cut. Note the extra strong 4 ply elliptic spring in front; the 4 springs behind. Many people use only 3 springs, but 4 are better. It not only makes the wagon stronger, but it rides easier. See the elegant and comfortable high cushion backs with solid panels; wide roomy cushion seats; patent leather dash. The body is 7 ft. long, 33 in. wide and 3 in. deep, convex pattern, fully braced and reinforced at corners. Axles are 1 1/2 in. steel with double collars; front axle has carefully fitted axle bed. Rear axles "coached." Double reaches ironed full length. Genuine Sarven all hickory wheels. Body painted black and neatly striped. Gears painted dark green and striped to match. It is simply a world beater at the price which includes shafts. This wagon would cost the buyer \$15 to \$20 more if bought from any local dealer. This is but one sample of the great saving this house is to you. We can supply you with any kind of vehicle you may want and 10,000 other articles. Vehicle Catalogue FREE. Our large General Catalogue sent for only 10c to cover cost of mailing.

WESTERN MERCANTILE CO., DEPT. P., OMAHA, NEB.

Threshing Machine Waste.

Being a farmer you must have grain to thresh. You must, therefore, be interested in threshing machines. It is barely possible that you have not given the subject quite the consideration and thought which it deserves. You have, of course, noticed how the grain springs up and grows where the thresher has stood; or just where the stacker was attached; or even on the stack itself. Well, that means waste, and waste means loss. The owner of the thresher didn't lose it; the man who helped you thresh didn't lose it. You are the man who lost it and you did not discover it for days after the machine had gone. You can hardly afford to keep that sort of thing up from year to year. Better change machines. The

Nichols-Shepard Separators

do things very differently. They not only thresh all the grain from the straw, but they save it all in the cleaning. Unless you spill it in measuring, none of it will get away. They don't chop the straw all to pieces either. Their stackers build a stack that will preserve the straw. They are so built that when they pull into a barn or stack yard they go right into the job and finish it without a hitch or breakdown. They save time, and time is money to the farmer with a big gang of threshers on his hands. To sum up—you save grain, time, annoyance and money by employing the Nichols-Shepard Outfit. It will pay you to drive ten miles to secure such an outfit to do your threshing. Think about these things and then write us.

Nichols & Shepard Co., Battle Creek, Mich.

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250 HIGH GRADE ANGORA DOES

All pure white, thin pendulant ears. Will sell very cheap if taken soon.

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Do you want a **WIND MILL?** Do you want a **FRESH MILK?** We have them the best made and at prices that CAN NOT BE EQUALLED. Write for further information, circulars, etc. **CURRIE WINDMILL CO.,** Topeka, Kans.

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WINTER WATER. When the stock goes into winter quarters you will want to be sure of a reliable and constant supply of water. A bored well is the safest and surest. Our Well Machinery does it best and cheapest. Drills 25 to 1500 ft deep. We make all appliances. Have stood the test of 13 years. We also have Gasoline Engines for all purposes. Send for free catalog. **W. M. Thompson Co.,** Sioux City, Iowa. Successors to Sioux City Engine & Iron Works.

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56 PIECE BREAKFAST SET Contains TEA POT, SUGAR BOWL, CREAM PITCHER, 12 8 1/2 inch Plates, 6 Fruit Plates, 6 Butter Plates, 1 Bowl, 2 Cake Plates, 1 Covered Dish, 1 Platter.

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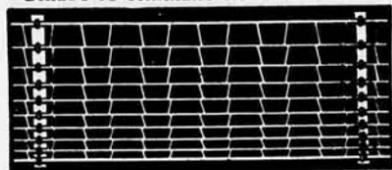
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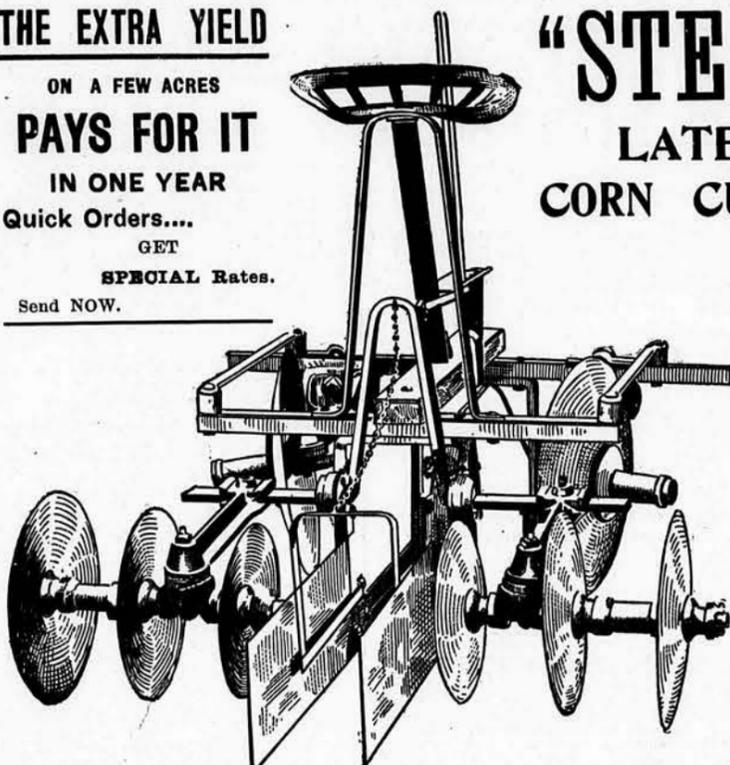
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