

KANSAS FARMER

ESTABLISHED, 1863.
VOL. XXVI, No. 21.

TOPEKA, KANSAS, THURSDAY, MAY 24, 1888.

TWENTY PAGES.
\$1.00 A YEAR.

BREEDERS' DIRECTORY.

Cards of four lines or less, will be inserted in the *Breeders' Directory* for \$15.00 per year, or \$8.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

HORSES.

PROSPECT FARM.—H. W. McAfee, Topeka, Kas., breeder of Thoroughbred CLYDESDALE HORSES for sale now. Write or call.

TWO IMPORTED CLYDESDALE STALLIONS will make the present season at my livery stable, No. 916 Kansas avenue, North Topeka. Terms, \$12 to insure. Also have pure-bred Plymouth Rock eggs for sale—price \$1 per setting. William Finch.

M. D. COVELL, Wellington, Kas., breeder of Registered Percherons. Acclimated animals, all ages and sexes. At head of stud, Theophilus 2785 (8746), black, imported by M. W. Dunham, and sired by his celebrated Brilliant 1271 (755).

R. I. BLACKLEDGE, Salina, Kas., breeder of Thoroughbred and High-grade Clydesdale and French Draft Horses. Horses for sale. Correspondence solicited.

A BOOK OF 500 PAGES—On treatment and care of domestic animals, horses, cattle, sheep, dogs, hogs and poultry, sent free. Humphrey's Homeopathic Veterinary Specifics, 109 Fulton St., New York.

CATTLE.

J. ANDERSON, Dover, Shawnee Co., Kas., breeder of HOLSTEIN-FRIESIAN CATTLE. Thoroughbred bulls and heifers, also grade heifers, for sale at low prices.

E. S. SHOCKEY, Hereford Cattle, TOPEKA, KAS. **SEE MY OFFER!** Page 20 this week.

SPRING GLEN HERD OF SHORT-HORN CATTLE, Buff Cockerhorns and choice Peafowls. Young stock and birds for sale. Eggs in season. Address L. A. Knapp, Dover, Kas.

F. MCARDY, breeder and importer of GALLOWAY Cattle, Emporia, Kas. Young stock for sale at reasonable prices. Liberal credit given if desired. Mention KANSAS FARMER.

JERSEY CATTLE—A. J. C. C. Jersey Cattle, of noted butter families. Family cows and young stock of either sex for sale. Send for catalogue. C. W. Talmadge, Council Grove, Kas.

T. M. MARCY & SON, Wakarusa, Kas., have for sale Registered yearling Short-horn Bulls and Heifers. Breeding herd of 100 head. Carload lots a specialty. Come and see.

H. H. DAVIDSON, Wellington, Kas., breeder of Polled Angus and Galloway Cattle. The largest herd in the State. Choice stock for sale at all times. Correspondence and orders solicited.

F. R. FOSTER & SONS, Topeka, Kas., breeders of Herefords. Bulls for sale.

M. S. BABCOCK, Nortonville, Kas., breeder of Holstein-Friesian Cattle. Inspection and correspondence invited.

GEO. M. KELLAM & SON, Richland, Shawnee Co., Kas., breeders of Galloway Cattle and Hambletonian and Morgan Horses.

A. B. SPENCER, Rockport, Ohio, breeder of Ayrshire Cattle. Registered stock of deep milking strains. Prices to suit the times.

J. S. HAWES, Colony, Kas., importer and breeder of Hereford Cattle. Lord Wilton, Grove 3d and Fortune families. One of the largest and oldest herds in the country. Send for catalogue.

OAKWOOD HERD OF SHORT-HORN CATTLE.—All recorded. Choice-bred animals for sale. Prices low. Terms easy. Imported Earl of Gloster 74522 heads herd. C. S. Eichholtz, Box 1208, Wichita, Kas.

DR. W. H. H. CUNDIFF, Pleasant Hill, Mo., proprietor of **ALTAHAM HERD** and breeder of fashionable Short-horns. Straight Rose of Sharon bull at head of herd. Fine show bulls and other stock for sale.

W. E. GOULD, Marshall, Mo., breeder of Thoroughbred and Grade Holstein-Friesian Cattle. Calumet 3582 H. H. B., heads herd—a choice butterbred Netherland bull. Have now in my herd imported cows and strains from Aagie, Texalar, Astrea, Duchess of York, Coronet and Barent. Choice young stock of both sexes for sale.

J. S. GOODRICH, Goodrich, Kas., breeder of Thoroughbred and Grade Galloway Cattle. Thoroughbred and half-blood Bulls for sale. Sixty High-grade Cows with calf. Correspondence invited.

CATTLE AND SWINE.

H. S. FILLMORE, Lawrence, Kas., proprietor of Green Lawn Fruit and Stock Place, breeder of Jersey Cattle and Poland-China Swine. Stock for sale.

J. L. TAYLOR & SON—Englewood Stock Farm, Lawrence, Kas., breeders of Holstein-Friesian Cattle and Poland-China Hogs. Stock for sale. Terms easy.

J. J. MAILES, Manhattan, Kas., breeder of SHORT-HORN CATTLE AND BERKSHIRE SWINE. Some fine young bulls and choice pigs for sale now.

M. H. ALBERTY, Cherokee, Kas.—Registered Holstein-Friesian Cattle—single or in car lots, recorded Poland-China Swine, Pekin Ducks, Wyandotte, Brown Leghorn, Plymouth Rock fowls. Eggs for sale.

SWINE.

REGISTERED POLAND-CHINA SWINE—Of the most fashionable families, at low rates. Pigs ready to ship May 1. Also, pure Light Brahma Fowls. Wm. Plummer, Osage City, Kas.

F. M. LAIL, Marshall, Mo., breeder of the finest strains of **POLAND-CHINA HOGS AND PLYMOUTH ROCK CHICKENS**. Eggs in season, \$1 for 13. Catalogue free.

F. W. ARNOLD & CO., Osborne, Kas., breeders of pure-bred Poland-China Swine. Breeders all recorded in Ohio Record. Young stock for sale. Also Langshan Fowls and Pekin Ducks. Eggs in season. Write for prices.

POLAND-CHINA SWINE—From No. 1 breeding stock. All stock recorded or eligible to record. Personal inspection solicited. Correspondence promptly answered. Satisfaction guaranteed. Henry H. Miller, Roseville, Kas.

ROBERT COOK, Iola, Kas., thirty years a breeder of Poland-China Swine of the very best and most profitable strains. Breeders registered in O. F. C. R.

W. W. WALTMIRE, Carbondale, Kas., breeder for eight years of Thoroughbred Christmas White Hogs and Short-Horn Cattle. Stock for sale.

Z. D. SMITH, Greenleaf, Kas., breeder and shipper of fine Poland-China Swine. Also Jayhawk strain of Plymouth Rock Fowls. Write for prices.

H. H. GEORGE, Burlingame, Kas., breeder of pure Essex Swine and S. C. Brown Leghorn Fowls. Eggs \$1.50 for 15. Stock for sale. Correspondence solicited.

STEWART & COOK, Wichita, Kas., breeders of Poland-China Swine. Stock of all ages for sale at bottom prices.

OUR ILLUSTRATED JOURNAL—A full and complete history of the Poland-China Hog, sent free on application. Stock of all ages and conditions for sale. Address J. & C. STRAWN, Newark, Ohio.

H. C. STOLL, Beatrice, Neb., breeder and shipper of the most fancy strains of Poland-China, Chester White, Small Yorkshires and Duroc-Jersey Hogs. Special rates by express companies. Satisfaction guaranteed in all cases.

PEDIGREED POLAND-CHINAS—At prices that will sell them. Well loaded with Cornin blood and other popular strains. Marion Brown, Nortonville, Kas.

J. S. HAWES, Colony, Kas., breeder of Poland-China Swine. Lord Cornin 4th, sweepstakes boar at Chicago and St. Louis, and Moorish King, head the herd.

V. B. HOWEY, Topeka, Kas., (Box 103), breeder and shipper of the most fancy strains of Thoroughbred Poland-China Swine. Light Brahma and White Leghorn eggs, \$1.25 per 13.

POLAND-CHINA SWINE—If you want the best that money and experience can buy, send to me. The best herd in Kansas. Satisfaction guaranteed. Special rates by express. G. W. Sloan, Scottville, Kas.

SHEEP.

SHROPSHIRE-DOWNS—Ed. Jones, Wakefield, Clay Co., Kas., breeder and importer of Shropshire-Downs. A number of rams and ewes for sale, at low prices, according to quality.

POULTRY.

PURE-BRED PLYMOUTH ROCKS—Of the finest Ohio strains, at hard-time prices. Fine young cockerels, \$2 each; one cockerel and two hens, \$4.50. Eggs, per 13, \$1.50. Your order will be filled promptly. Address Mrs. M. E. Fitzgerald, Atlanta, Cowley Co., Kas.

D. O. BACON, Fort Scott, Kas., breeder and shipper of standard thoroughbred Poultry—Plymouth Rocks, Langshans, S. C. Brown Leghorns and Champion strain of Pekin Ducks. Eggs and birds in season. Correspondence solicited.

N. R. NYE, Leavenworth, Kas., breeder of the leading varieties of Land and Water Fowls. DARK BRAHMAS a specialty. Send for Circular.

POULTRY.

MRS. A. B. DILLE, Edgerton, Kas., breeder and shipper of the finest strains of M. B. Turkeys, P. Rocks and Wyandotte Chickens. My prices on eggs are as follows: M. B. Turkey eggs, \$2.00 per 11; P. Rocks and Wyandotte eggs, \$1.25 per 11—two or more settings, \$1.00 each. Satisfaction given or money refunded.

IF YOU WANT—Eggs or stock from prize-winning Light and Dark Brahmas, Langshans, Plymouth Rocks, Wyandottes and Pekin Ducks, at reasonable prices, send for circulars. C. A. Emery, Carthage, Mo.

PLYMOUTH ROCKS, WHITE P. ROCKS, ROSE-COMB Brown and White Leghorns and Black Javas. Fowls and eggs for sale. Large illustrated catalogue and price list free. Will send a beautiful little chromo of a pair of P. Rocks for 4 cents in stamps. Address Geo. T. Pitkin, 61 Washington street, Chicago, Ill.

TOPEKA WYANDOTTE YARDS—A. Gandy, 624 Kansas avenue, Topeka, Kas., breeder of White and Laced Wyandottes. White Wyandotte eggs, \$4 per 13; \$7 per 26. Laced Wyandotte eggs, \$3 per 13; \$5 per 26. My yards are located two miles south of State house, on six acres of ground. I have six pens of Wyandottes. My birds are as fine as anybody's and mated for the best results. I have a few cockerels for sale cheap.

EUREKA POULTRY YARDS—L. E. Pixley, Eureka, Kas., breeder of Wyandottes, B. B. Games, P. Rocks, B. and W. Leghorns, Buff Cockerhorns and Pekin Ducks. Eggs and birds in season. Write for what you want.

OAKLAND GROVE POULTRY YARDS—F. A. A'Neals, Topeka, Kas., breeder of Brown Leghorns, exclusively. Eggs \$1.50 per 13.

E. E. FLORA, Wellington, Kas., breeder of Part-ridge Cockerhorns, S. C. Brown and White Leghorns, Plymouth Rocks. Eggs, \$1 per 13; Pekin Duck eggs, \$1 per 10; M. B. Turkey eggs, 15 cents each.

EGGS FOR HATCHING—P. Rock and S. C. Brown Leghorn, \$1 for 13; Langshan, W. F. Black Spanish and S. S. Hamburg, \$1.25 for 13. All choice stock. David Kerns, Leocompton, Douglas Co., Kas.

GEO. H. HUGHES, North Topeka, Kas., breeder of W. F. B. Spanish, L. Brahmas, Langshans, Buff Cockerhorns, Leghorns, P. Rocks and Fancy Pigeons.

KAW VALLEY POULTRY FARM AND APIARY, Rossville, Kas. M. F. Tatman, Prop'r, breeder of Buff Cockerhorns, Light Brahmas and Plymouth Rocks. Also Italian Bees and Poland-China Swine. All breeders first-class—no better blood in existence. Eggs \$1 per setting.

BALDWIN POULTRY YARD—Wm. D. Kerns, Baldwin, Douglas Co., Kas. Eggs per setting: M. B. Turkeys, \$1.75; P. Rocks, S. C. B. Leghorns and Imp. Pekin Duck, \$1.

HENRY DAVIS, Dyer, Indiana, breeder of high-class poultry. Twelve varieties. Prices reasonable. Stock for sale at all times. Eggs in season. Send stamp for circular. Mention Kansas Farmer.

SHAWNEE POULTRY YARDS—Jno. G. Hewitt, Prop'r, Topeka, Kas., breeder of leading varieties of Poultry, Pigeons and Rabbits. Wyandottes and P. Cockerhorns a specialty. Eggs and fowls for sale.

JOHN C. SNYDER, Constant, Cowley Co., Kansas, breeds PLYMOUTH ROCKS exclusively. No stock for sale. Eggs in season. Write for wants or send for circular, and mention this paper.

I. H. SHANNON, Girard, Kas., breeder of Wyandottes, P. Rocks, S. C. Brown Leghorns, Black Cockerhorns. Eggs, \$2 for 15; \$3.50 for 30. Toulouse Geese eggs, \$2 for 7; Pekin Duck eggs, \$2 for 10.

IMPORTED BLACK MINORCAS—Eggs \$2.50 per 13; L. Brahmas, Felch's strain, eggs \$2.00 per 13; Brown Leghorns, eggs \$1.50 per 13. Poultry supplies. Address J. W. White, 725 Kansas avenue, Topeka, Kas.

PLYMOUTH ROCK COCKERELS—Two dollars each; three for \$5. Plymouth Rock and Pekin Duck eggs, \$1 per 13. Mark S. Salisbury, Independence, Mo.

MRS. EMMA BROSIUS, Topeka, Kas., breeder of Thoroughbred Light Brahmas—Felch pedigree strain, the most popular known. Mammoth Bronze Turkeys and Imperial Pekin Ducks. Having the finest stock that time and money can secure (believing the best the cheapest), am now prepared to furnish eggs at half the price Eastern breeders ask. Price of eggs: Light Brahmas, \$3 for 13, \$5 for 39; Mammoth Bronze turkeys, \$3 for 13 straight; Pekin ducks, \$2 for 11. No undersized or inferior-shaped eggs sent out. Everything first-class; true value for money received.

CHAS. H. HARTUNG, Van Horne, Iowa, breeder of Silver Wyandottes, Plymouth Rocks, Light Brahmas, Partridge Cockerhorns and S. C. Brown Leghorns. Express charges paid on eggs for hatching to all points in the U. S. Send for circular—sent free.

Walnut Hill Poultry Yards.

Wyandottes, two fine pens; Langshans, Rose-comb Brown Leghorns and Golden S. Bantams. My birds are of the best strains. Eggs for sale in season, \$1.50 per 15. Chicks for sale in fall. Prices reasonable.

Write for wants to G. W. FRY, Corneau, Grundy Co., Mo.

MISCELLANEOUS.

PIG-EXTRACTOR—To aid animals in giving birth. Circulars free. Send for it to Prof. Wm. Dulin, Avoca, Iowa.

F. H. ARMSTRONG, VETERINARY SURGEON. Graduate of Ontario Veterinary College. All surgical operations scientifically performed. Charges reasonable. Office—214 6th Ave. W., Topeka, Kas.

S. A. SAWYER, Fine Stock Auctioneer, Manhattan S. Riley Co., Kas. Have Costa's English, Short horn, Hereford, N. A. Galloway, American Aberdeen-Angus, Holstein-Friesian and A. J. C. C. H. E. Herd Books. Compiles catalogues.

KANSAS FAIRS.

A complete list of the fairs to be held in Kansas this year:

Kansas State Fair Association—Topeka, September 17-22.
Western National Fair Association—Lawrence, September 3-8.
Anderson County Fair Association—Carnett, August 28-31.
Bourbon County Fair Association—Fort Scott, September 11-14.
Brown County Exposition Association—Hiawatha, September 4-7.
Chase County Agricultural Society—(Cottonwood Falls), Elm Dale, September 26-29.
Cherokee County Agricultural and Stock Association—Columbus, October 11-14.
Cheyenne County Agricultural Association—Wano, September 15-18.
Clay County Fair Association—Clay Center, September 4-7.
Coffey County Fair Association—Burlington, September 10-14.
Crawley County Fair and Driving Park Association—Winfield, September 8-7.
Kansas Central Agricultural Society—Junction City, September 21-23.
Ellis County Agricultural Society—Hays City, October 2-4.
Franklin County Agricultural Society—Ottawa, September 17-21.
Harvey County Fair Association—Newton, September 11-14.
Jefferson County Agricultural and Mechanical Association—Oskaloosa, September 11-14.
Jewell County Agricultural and Industrial Society—Mankato, September 18-21.
LaCygne District Fair Association—LaCygne, September 4-7.
Linn County Fair Association—Mound City, September 17-21.
Pleasanton Fair Association—Pleasanton, September 18-21.
Marion County Agricultural Society—Peabody, September 5-7.
Montgomery County Agricultural Society—Independence, September 4-8.
Morris County Exposition Company—Council Grove, September 25-28.
Nemaha Fair Association—Seneca, September 18-21.
Sabatha District Fair Association—Sabatha, August 28-31.
Osage County Fair Association—Burlingame, September 11-14.
Osborne County Fair Association—Osborne, September 11-14.
Ottawa County Fair Association and Mechanics' Institute—Minneapolis, September 25-28.
Phillips County Agricultural and Mechanical Association—Phillipsburg, September 18-21.
Pratt County Agricultural Society—Pratt City, September 4-7.
Hutchinson Fair Association—Hutchinson, October 2-5.
Blue and Kansas Valley Agricultural Society—Manhattan, September 18-21.
Plainville Fair Association—Plainville, September 25-28.
Rush County Industrial Fair Association—LaCrosse, September 19-21.
Saline County Agricultural, Horticultural and Mechanical Association—Salina, September 11-14.
Smith County Agricultural Society—Smith Center, September 19-21.
Washington County Live Stock, Agricultural and Mechanical Association—Greenleaf, September 12-14.
Neosho Valley District Fair Association—Neosho Falls, September 24-28.

HE KNOWS IT.

Wife, I am going to send a dollar to Topeka, and get one of

SWANN'S BOOKS.

Then I can farm with my eyes open as regards seasons and crops. Address J. C. H. SWANN, Topeka, Kas.

Wants to Come West!

157 acres in Indiana; two miles from county seat; no house; celebrated Wabash bottom land; 75 acres raises 60 to 80 bushels corn per acre; rents for one-third delivered in town. Prospect excellent for owner to get \$600 for his share this year. Will trade for good Kansas improved farm.

Address A. F. RAMSEY, Crawfordville, Indiana.

TOPEKA : BUSINESS : INDEX

Of the Representative and Best Business Firms of the Capital City of Kansas.

The KANSAS FARMER endorses the following business firms as worthy of the patronage of parties visiting the city or wishing to transact business by mail:

H. K. TEFFT, M. D.,
PHYSICIAN AND SURGEON.
Office—212 West Eighth street, Topeka, Kas.

H. C. ROOT, Attorney at Law. Practices in the Supreme Court and U. S. Courts. Collections a specialty. 110 Sixth street West, Topeka, Kas.

Rogers & White,
CIVIL ENGINEERS AND SURVEYORS.

All kinds of engineer work done on short notice. A specialty made of laying out and platting towns and additions. Lost corners and boundaries correctly established. Estimates furnished on all kinds of work. Office: 202 9th St., cor. 9th and Quincy, Topeka, Kas.

HENRY W. ROBY, M. D.,
SURGEON.

General Manager Kansas Surgical Hospital Association.

OFFICE:—118 Sixth Avenue W., TOPEKA, KAS.

MAGILL & THE FLORIST,

Greenhouses: Office and Salesroom:
Cor. Kansas and Euclid 110 West Eighth
Avenues, Street,
TOPEKA, KANSAS.

Premiums with all orders. Send for Price List.

M. S. ALLDAFFER. W. H. ALLDAFFER.

ALLDAFFER & CO.,
Real Estate and Loan Brokers

Choice bargains in City, Farm, Suburban and Country Property.
118 West Sixth St., Topeka, Kas.

GEO. W. WATSON,
(Successor to Watson & Thrapp),
Real - Estate - Agent,
Southwest corner Sixth and Kansas Avenues,
TOPEKA, KANSAS.

Improved Farms, City Property, Improved and Unimproved Lands in all parts of the State, on Long Time and Easy Payments.

TOPEKA
Investment & Loan Co.
Farm Loans a Specialty!

Low rates of Interest. Money paid when papers are accepted.

RED STAR
Real Estate and Loan
AGENCY.

521 Kansas Ave., Topeka, Kansas.

Choice Bargains in City, Farm, Suburban and Country Property.

If you wish to sell or buy real estate of any kind in any part of the county, this agency will be pleased to correspond with you.

W. F. FILE, Manager.

FARM, AGRICULTURAL
AND PASTURE

LANDS

For sale in different portions of Kansas.

Also property in Topeka, and lots in Knox's First, Second and Third Additions to Topeka, on easy terms.

INVESTMENTS MADE FOR PARTIES.

Interest paid on Time Certificates of Deposit. Call on or write to

JOHN D. KNOX & CO.,
INVESTMENT BANKERS,
620 Kansas Avenue, Topeka, Kansas.

WONDERFUL RUSH!**SUNFLOWER STATE**

The ROCK ISLAND LAND OFFICE is making its customers happy every day by locating them on valuable farms or elegant city property.

LANDS IN THE FAMOUS

Golden Belt of Kansas
A SPECIALTY.

Property in every section of the State for sale or exchange. Low prices, moderate interest and long time if desired. Our property is better and safer for investment than GOVERNMENT BONDS.

Write for lists or call at the

ROCK ISLAND LAND OFFICE,
WILLIAM ALLOWAY & CO.,
323 Kansas Ave., TOPEKA.

For reliable information in regard to Real Estate in Topeka and Kansas, write to or call on

STRICKLER, DANIELS & POUNDS,
515 KANSAS AVENUE, TOPEKA, KAS.

They are exclusive agents for many of the best additions to the city of Topeka, and have a large list of desirable Farms, Ranches and Tracts of Land all over the State, and inside City Property.

HEADQUARTERS FOR KANSAS.



PIANO

LEAD ALL OTHERS.

The Best in Quality. Reasonable in Price.

We offer special inducements to those wishing to buy for cash or on easy payments. Write to or call on

E. M. MILLER & CO.,
832 Kansas Avenue, TOPEKA, KAS.

DRS. MULVANE, MUNK & MULVANE,

OF THE
TOPEKA
Medical and Surgical
INSTITUTE

Make a specialty of all Chronic and Surgical Diseases. We have practiced medicine and surgery here for fifteen years, and during that time have treated successfully hundreds of chronic cases which had resisted the skill of local physicians.

WE CURE ALL FORMS OF CHRONIC DISEASES,

Remove tumors, cure cancers without the knife, cure piles without knife or ligature. ALL DISEASES peculiar to women speedily and successfully treated. We remove tumors entire in from two to four hours. If you have any chronic or private disease, you will find it to your interest to write us. Correspondence free and confidential.

Refer by permission to Bank of Topeka; John D. Knox & Co., Bankers, Topeka; Citizen's Bank, North Topeka; American Bank, North Topeka.

Send for printed list of questions.

DRS. MULVANE, MUNK & MULVANE,
110 W. 6th St., Topeka, Kas.

JOB PRINTING

FOR FARMERS! & FOR STOCKMEN!
FOR NURSERYMEN!

Every description of Job Printing neatly and promptly executed. Our facilities are the best and workmanship of the highest grade. Full line of cuts of all kinds of stock. Write for estimates on what you want.
DARLING & DOUGLASS,
Job Printers, Topeka, Kas.

THE LEADING
Furniture House
OF KANSAS.

It is to your interest to get our prices before you buy. Special inducements offered to out-of-town purchasers. **REED & SON, 510 Kansas Ave., Topeka.**

G. HAUSCHILD,
Topeka, Kas.
Box 406.



WEED-CUTTERS---ATTACH TO CULTIVATORS.

For cleaning and weeding Corn, Potatoes, Cabbage, etc. The very thing to use while the plants are young. Will pay for itself manifold in a single season. Per set of four—two right and two left—\$5.00. Write for Descriptive Circular.

O. N. McCLINTOCK & CO.,

MANUFACTURERS' AND

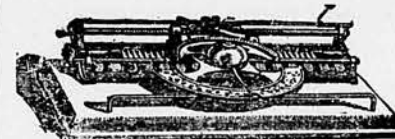
General Purchasing Agents

TOPEKA, KANSAS.

We are State Agents for and keep stock and can fill large or small orders on short notice, of

WHEELDON'S ADJUSTABLE SHADE FIXTURE, INDESTRUCTIBLE FUEL CARTRIDGE, AND PATENT SELF-LOCKING MAIL BOXES.

"The World" Type-Writer



Guaranteed to do as good work as the high-priced type-writers, and only costs \$10.00. Sent to any address on receipt of price, or by sending \$1.00, to guarantee express charges, we will send one C.O.D.

Cylindrical and Portable Letter Copying Press.

Size—11 inches long, 3 inches diameter. Nicked Steel. Weight 2 pounds. Price \$5.00. Fifteen letters copied at a time on single sheets, using ordinary writing utensils, while such copies are adapted to all systems of filing. Use the PORTABLE, in traveling or at the desk.

OBLINGER
CHAMPION - HEAT - DISTRIBUTOR.

It will save half your fuel. It costs only \$2.00 for size No. 6. It can be attached to any stove in fifteen minutes.

The Chicago Edwards' Oil Burner & Manuf'g Co.'s Goods, consisting of PETROLIA HEATING STOVE, for Parlor or Office, and OIL BURNER FOR COOK STOVES AND RANGES. No dust, no ashes, no smell. Cheaper than Wood or Coal. Also OIL BURNERS FOR STEAM BOILERS. Also ECONOMICAL ASBESTUS FUEL CARTRIDGE AND FIRE KINDLER.

ECONOMY WALL DESK.—Everybody who has a home should have a Wall Desk. Cheap, handsome, convenient.

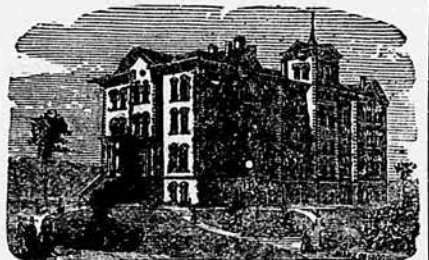
"NEW ERA" HYDRAULIC CLOTHES WASHER—On which the manufacturers offer \$1,000 to any person who will produce its equal. Agents wanted.

Correspondence solicited. Circulars on application.

O. N. McCLINTOCK & CO.,
Manufacturers' and General Purchasing Agents,
No. 417 Kansas Ave., TOPEKA, KAS.
(Rear Room Second Floor.)

WASHBURN :: COLLEGE

TOPEKA, - - KANSAS.



FOR BOTH SEXES. Collegiate and Preparatory courses.—Classical, Scientific, Literary; also in English course, Vocal and Instrumental Music, Drawing and Painting, Oratory and Elocution. Fourteen instructors. Facilities excellent. Expenses reasonable. Winter term opens January 4, 1888.

Address **PETER MOVICAR, Pres**

"Every Soldier's honorable discharge should be his pension certificate,"

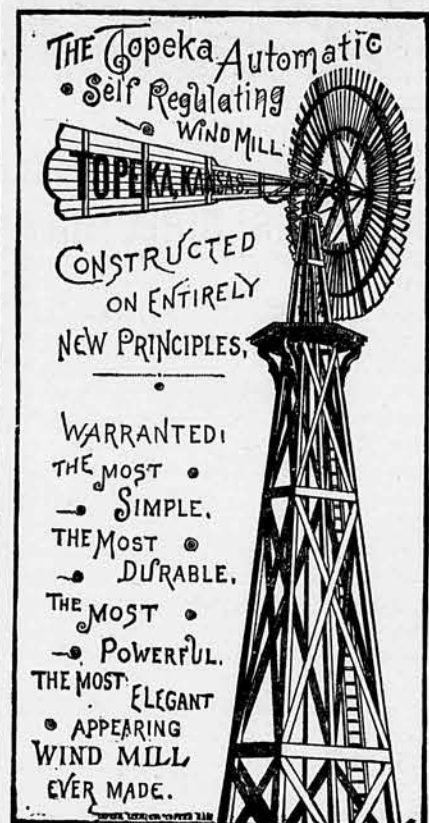
IS THE MOTTO OF THE

Weekly Knight & Soldier,

The official organ of the G. A. R., and its auxiliary societies,
Published by **M. O. FROST, Topeka, Kas.**

It is a genuine old soldier's paper, and fights for their rights. Terms, \$1 a year. Our readers are invited to subscribe. The Knight and Soldier and the Kansas Farmer, one year, for \$1.75. Now is the time to commence.

Advertisers will please note that our subscription price is only \$1 a year, and that no paper in the West has as wide a circulation.



The Topeka Wind Mill Manufacturing Co., manufacturers of Solid and Sectional

WIND MILLS; ALSO POWER MILLS OF ALL SIZES, PUMPS, TANKS, PIPE AND FITTINGS

Of all descriptions. We guarantee satisfaction and invite correspondence. Write for Price Lists, etc. Reliable Agents Wanted.

TOPEKA WIND MILL MANUFACTURING CO.,
Topeka, Kansas.

The Western School Journal

TOPEKA, - - KANSAS.

It is the official organ of the State Superintendent, containing the monthly decisions of that office of the Attorney General, and the Supreme Court on all matters relating to schools.

It prints and answers the Quarterly Examination Questions of the State Board of Education.

Its official, editorial, contributed and selected matter make it indispensable to school officers and teachers. Persons expecting to teach should subscribe.

School officers are authorized to subscribe for their districts.

\$1.25 per year. Clubs of five or more, \$1 each.

Agents wanted in every county. Write for Sample Copy.

× CHEAP ×
EXCURSIONS!

THE UNION PACIFIC will make a rate of one limited first-class fare for the round trip, from all stations to the following

POINTS:

NATIONAL REPUBLICAN CONVENTION AT CHICAGO. — Good going June 16 to 19, inclusive, and returning until June 25.

NATIONAL DEMOCRATIC CONVENTION AT ST. LOUIS. — Good going June 2 to 5, inclusive, and returning until June 11.

MEETING SUPREME LODGE KNIGHTS OF PYTHIAS AT CINCINNATI. — Good going June 8 to 13, and returning till June 19.

DUNKARDS' MEETING AT NORTH MANCHESTER, IND. — Good going May 17 to 24, and returning until June 5.

These rates are open to all.

Secure your tickets of **F. A. LEWIS, City Ticket Agt., 525 Kansas Ave.,** or of **J. F. GWIN, at Depot, Topeka, Kas.**

Agricultural Matters.

AGRICULTURAL DEPRESSION—ITS CAUSE AND REMEDY.

EDITOR KANSAS FARMER:—The depressed condition of agriculture throughout both continents is the subject of much comment by the agricultural press and the source of an infinite amount of anxiety and distress to farmers everywhere. The decline in prices of all leading agricultural products which set in four years ago has been steadily going on, first in wheat, then in sheep, followed closely by cattle and hogs, so that at the present time the markets generally threaten the bankruptcy and ruin of a large number of the farmers of our country.

Considering the capital invested in farms and farm appliances, and the price of labor employed, there has probably never been a time in the history of the country when farming paid so small a dividend or so generally showed a balance on the wrong side of the ledger. At a meeting of the Pennsylvania State Board of Agriculture last winter, a paper was read on wheat-growing, in which the writer stated that by a conservative estimate the cost of growing wheat in that State was \$1 per bushel, and the market price for some years ranged from 80 to 90 cents per bushel. In the West the situation is about the same. While it costs less to grow a bushel of wheat here the price is correspondingly reduced, and Western farmers for the last three years have made no money in growing wheat, while many have actually lost heavily. The cattle market in the last five years has declined at least 50 per cent.; the sheep market still more, while the hog market was saved only by the gracious interposition of "hog cholera," which swept out of existence half the hogs; and so, with the possible exception of horses, it is from *alpha* to *omega* with agricultural products generally. Neither is there much relief in the thought that the rest of the world is exactly in the same condition, that the European farmers are worried and perplexed over the same problem—how to make both ends meet.

That you may know I speak from authority, I quote the following from the May Report of the Commissioner of Agriculture at Washington in relation to France and Germany: "The agitation for higher duties on foreign agricultural products has gathered strength of late in France, both because the enhanced duties of last year have in eight months (August 1, 1885, to April 1, 1886,) reduced the imports of wheat and flour into France 65 per cent. as compared with the corresponding period of the previous year, and notwithstanding prices are as low as before, and the agricultural depression is in no way relieved. The committee on customs of the Chamber have now reported in favor of a duty on maize, oats and rice. A sliding scale with a limit of 5 francs duty is recommended in the case of wheat. When the average price of wheat advances to 25 francs per 100 kilograms (now 22 francs) the duty shall be 3 francs, and when it reaches 28 francs no duty will be imposed." Again—"Unlike the French, the German government appears to be satisfied with the present agricultural tariff, and there is no immediate prospect of any change, although the feeling for higher duties is rife among the farmers. Dr. Lucius, Minister of Agriculture, when asked whether it was intended to take any measures to counteract the present depression in the prices of agricultural produce, in reply said that the government did not consider an increase in

duties on grain and cattle expedient at this time. 'Agricultural distress,' continued the Minister, 'prevails throughout the continent, but was less acute in Germany than elsewhere.'"

A farming world lies prostrate. Agricultural distress prevails throughout both continents, and calls for relief come up from the farmers everywhere.

THE CAUSE.

To a combination of circumstances and events in both continents in the last quarter of a century is to be attributed the present condition of things. First in the western, was the passage of the homestead law and the disbanding of the Union and Confederate armies, supplemented by the cry of Horace Greeley and others—no longer "on to Richmond," but "on to the West, young man, and grow up with the country;" and floating through the air everywhere in stirring melody was the song—

"Come from every nation,
Come from every clime;
Don't fear alarm,
For Uncle Sam is rich enough
To give us all a farm."

Nor was this all. Most important above everything else, at this juncture, a new era of railroad building dawned upon the western world. The great Union Pacific first joined the Atlantic with the Pacific ocean by iron bands. Next the Northern Pacific, then the Southern Pacific, and last, but not least, the great Santa Fe pierced its way through the mountains to the "golden gate." These roads, having millions of acres—the best land on the continent for sale, were powerful factors in elevating from their ancient moorings in the East and in Europe the live portion of humanity, and placing them in good shape on a quarter section of land in the West. These forces, combined with the others mentioned, in connection with the fact that the soldiers on returning home, having been accustomed to the stirring scenes of army life, and broadened in their views, found the East too tame, and naturally sought new homes in the "Wild West." All of these influences and forces operating together, produced the most remarkable hegira of modern times. The result was that a desert was wiped out and millions of new homes, as if by magic, sprang up where the Indian and buffalo a few years before "roamed unscared." The great States of Kansas, Nebraska, Dakota, and Colorado, were carved out of the public domain, and the States east of these more than tripled their population and their producing capacity. Kansas, Nebraska, Dakota, with Minnesota and Iowa in 1884, as shown by statistics, grew 170,000,000 bushels of wheat, which was about two-thirds of the entire amount of wheat necessary to feed the total population of the United States for one year, and the entire wheat product of the United States that year was 512,000,000 bushels, or double the amount consumed by the 60,000,000 men, women and children of our country.

If the foreign demand for wheat had continued strong as from 1876 to 1881, the calamity which has fallen upon us might have been averted; but during those years of this unparalleled development of our agricultural resources, an event transpired in Europe which, stimulating as it did for a time wheat-growing in our country, eventually drove us practically out of the foreign wheat market. The event to which I refer is the five consecutive short wheat crops (from 1875 to 1880) in western Europe, and the masterly move which England made on the agricultural chess board of Europe. During those five years of short European crops the demand for American wheat was so strong that even with our largely increased product the price of wheat in Kansas in 1881 reached \$1.20 per bushel. England, realizing the necessity of having cheaper wheat for which to exchange her manufactured commodities in order to avoid the necessity of enhancing their price, and with

the hope of being independent, in a large measure, of foreign countries for the wheat she needed, turned her attention to developing the wheat resources of her own empire in India and Australia. Seed was furnished gratuitously, and farm implements and machinery at a nominal price, and brains to teach the use of them, with skilled labor to run the machines, and native labor at 7 cents per day, wheat could be grown which defied competition. Railroads were built with English capital into the interior of India, thus facilitating transportation to the seaboard, and immense wheat areas were opened out.

Again, because of the high price of farm products in Europe, thousands of emigrants from France, Spain, and Italy located in the wheat zone of South America—Argentina, Republic and Chili, and proceeded at once to develop, on a large scale, the wheat resources of that region. The best American machinery was used and farming was carried on in the most approved manner. For the last five years the wheat crops of Europe have been up to the full average, and this additional wheat area being opened out amounting to a good many millions of acres, is unquestionably the cause of the agricultural distress throughout the eastern as well as the western hemisphere. The American farmer, with all this unprecedented development of resources, hoped to get a market for his surplus products in the European markets; but that door is closed, and from the present outlook will remain closed except at ruinously low prices.

I have spoken of but one farm product—wheat. But where wheat is grown other crops are also grown, as well as stock of all kinds. Cattle and sheep in time followed wheat down to ruinous prices, and are today even weaker than wheat in the market. This unfortunate condition of these industries is not, however, due to legitimate stock-growing in connection with farming, but rather to the rapid, phenomenal development of these industries on the Western plains during the past ten or fifteen years. Upon the public domain of Kansas, Indian Territory, Texas, Colorado and other Territories, cattle by the million, owned by foreign capitalists, were grown practically at no cost whatever except the looking after by cowboys and an occasional round-up. It was the most stupendous enterprise and speculation of modern times, but as is always the case under such circumstances, the business was overdone, and in time the collapse came—terrible and crushing. Thus endeth the first chapter.

THE REMEDY.

The evil for which we seek a remedy is clearly an aggravated case of overproduction occasioned by an extraordinary combination of circumstances which, in fact, can never occur again. If our farmers, instead of throwing the blame on some one else, will sit down and calmly consider all the facts in relation to this matter, they will find that they themselves are the guilty party. They have been growing too much wheat, too many cattle, sheep, hogs, etc., for the needs of the world. Agricultural products generally in the last eight years have increased about 40 per cent., while the population of our country has increased only 25 per cent. This immense surplus has been accumulating for years and has been, much of it, forced into European markets at ruinously low prices. This back water from the eastern hemisphere is piling up our products here. If our wheat plows were to stand still for a whole year we would find wheat enough in this country to bread us more than three-fourths of the year. There are over 200,000,000 bushels, by statistics, and about 260,000,000 bushels is the annual consumption. Here then is food for reflection. It is as though a man had overeaten, overloaded his stomach. He don't get excited and run for the Doctor, but eats less next time, or defers eating a longer time; the surplus is disposed of and there is a demand for more. I am tempted here to refer to the Allen scheme. It is grand. The plan is to have a man stand right by each market and feed it like he would feed his hog or his horse, just so much and no more each day, so as to keep it hungry all the while. Beautiful scheme. Why had not some one thought of that before?

But things are coming round all right. The law of supply and demand which fixes the price of all products is at work. Farmers are not fools. They know enough "to come in out of the rain," and they know enough, I think, to slacken up their gait a little on wheat, or cattle, or sheep, or any other branch of farming which, at their present rate of movement, is steadily diminishing their bank account. Yes, a brighter day is dawning. In a few years the farmers will be on their feet again, and as the extraordinary circumstances which are responsible for the present agricultural depression can never exist again, there will probably be fair sailing and propitious skies for many years to come. M. MOHLER.
Osborne, Kas., May 18, 1888.

The Value of Cane for Sugar.

EDITOR KANSAS FARMER:—In your recent article entitled "Two Dollars a Ton," you ask, "Is that enough for sorghum cane raised for sugar-making?" You argue that a farmer can produce \$30 worth of milk, butter, pork, mutton or beef with no more labor than is required to produce ten tons or \$20 worth of cane. Your statements are fairly made, and you evidently wish to get the facts in the case, and I wish to state fairly the facts as they appear to me after six years experience in handling from 5,000 to 8,000 tons of cane each year. I think you are in error in stating that a farmer can produce milk, butter, pork, mutton or beef to the value of \$30 as easily as he can produce cane to the value of \$20. If you will notice the localities in this State where farmers have sold cane by weight, and know what cane costs and what it brings, as at Ottawa, at Hutchinson, at Fort Scott, and at Sterling, you will notice that the farmers in those localities are more eager to contract to deliver cane to sugar factories than farmers who never weighed a ton of cane. It is to be supposed that farmers who have sold cane know what it costs to produce 2,000 pounds of cane and also know the value of \$2. This county (Rice) is a good corn county, it can and does produce milk, butter, pork, mutton and beef as well as other countries. The farmers near Sterling have produced thousands of tons of cane for forage; they have also sold thousands of tons of cane to sugar and sirup factories; they may be supposed to know the labor required to produce an acre of cane, and to know the money value of each. A sirup factory now building here wished to make contracts with farmers for 800 acres of cane at \$1.50 per ton, instead of \$2 a ton, the price on which your estimate was based. The farmers were willing to contract more cane at \$1.50 per ton than any sorghum factory which has yet been planned could handle. The Sterling sirup works which has been in operation six years, works up 700 acres of cane; the Moss and Dana sirup works will use 800 acres of cane, 3,000 acres of cane could yet be contracted for in this vicinity at \$1.50 per ton; 1,600 acres of cane can be had in a body at \$1.50 per ton, by any one who thinks cane is too cheap at \$2 per ton. Reliable men, experienced in cane-growing, are willing to contract cane for five years, 1,000 acres a year, at \$1.50 per ton and give bond and security for performance of contract. These facts seem to indicate that there is an error in your calculation as to the cost of cane.

You say "what is needed is a fair division of profit between the farmer and the cane manufacturer. Farmers ought not to accept anything less than their full share of the profits of the business." I do not think the farmers care to share in the profits or in the losses of sugar manufacture. They cannot well be farmers and also manufacturers; they wish simply to sell raw material to sugar-makers. If cane-growing pays them better than corn-growing, they will prefer cane-growing; if not, they will not.

You ask, "Is \$20 per acre enough for a cane crop or for any crop?" We think it correct to reply that no staple crop in Kansas is worth \$20 an acre on an average. Cane comes nearer netting the farmer \$20 per acre for his labor than any other staple crop. It is an advantage to the farmer to have sugar factories built; it is an advantage to the laborer to have sugar factories built; it is an advantage to the business man, because a sugar factory brings money and increases trade; and it is an advantage to the State.

W. P. CLEMENT.

Sterling, Rice Co. Kas.

The Stock Interest.

Relative Profit of Sheep When Fed for Market, as Compared With Other Stock.

Read before the Wool-Growers' Association of Indiana, at Indianapolis, by Isaac J. Williams, January 24, 1888.

I will give my experience with fattening sheep. I have for some twelve years fed either sheep or cattle, and I find the most profit in feeding sheep. Last winter we thought we would try both cattle and sheep. So, November 20, we bought twelve head of cattle for 3½ cents per pound, and their weight was 1,100; 100 average. And the 6th of December we bought 157 sheep for the same money that we paid for the cattle, and we fed them about the same amount of feed till the 1st of March. We shipped the sheep to Buffalo, and sold them, and had \$322 profit for feed; and we fed the cattle until the middle of April when they went off, and we had \$271 for our feed on cattle. So you see that we had \$51 more profit on the sheep than we had on the cattle, and saved the feed for six weeks, which was 125 bushels of corn and three tons of hay, and the corn and hay was worth \$60 more, which we can add to the profit on sheep. We had very good gain on our cattle. They gained fifty pounds a month per head all winter. The gain was not so much on the sheep. More, they laid on fat, and the sap got out of them and they brought a better price in market. It is not the number of pounds that you put on that makes the profit. It is the flesh that they are in that makes them sell well in market. I think that a poor sheep sells meaner in market than any other stock that is shipped to market. You may ship an old, poor cow, and some butcher is ready to buy her. But it is not that way with an old poor sheep. He will have to be sold to the peltry only for his pelt. But if he was kept at home for six or eight weeks and fed well, he would bring a good price.

This feeding has all been done in winter. I have never tried feeding sheep on pasture, but I think if one can fatten a sheep in winter he would surely do better in summer on good pasture and feed than he would do on dry feed. Now, my manner of feeding: As a general thing we cut our corn up in the fall, then, when it is dry and the ground is frozen, we haul out our shock corn and feed on a sod where we want to farm the next season, and give our sheep all they can eat of corn and fodder, and when it is bad weather we stable our sheep, and have plenty of good hay for them to eat at, and plenty of water, and they will do very well. And that is the way we feed our cattle the fore part of the winter, and the last part of feeding we grind their corn and stable and feed in troughs all they can eat. I have had some experience in feeding hogs, and have found it very uncertain business, on account of cholera. It takes more hard labor to feed hogs than it does to tend to sheep. A hog has to have corn or he is left. Other stock will do on the roughness on the farm, and do well on what the hog would make his bed and starve to death, and I am looking for some way of living without so much hard labor and wearing out our land, and we think that we have found it when we took up sheep.

To leave this subject without a few remarks upon the tariff, and its effects upon the wool-growers of the United States, would be sacrilege.

The so-called reformers who are now endeavoring to do away with all the tariff on wool, are simply aiming a blow at our industry which if successful will

cause its entire annihilation. There are to-day at least five millions of people in this country dependent upon sheep-raising for their living, and should the protection to their industry be removed the one million men would be compelled to seek other avenues for gain, and a large majority of them would engage in farming and cause an immense overproduction of farm products.

It is said that a reduction of tariff will help the consumer. Now I happen to call to mind the fact that some time ago there was a reduction of \$3 per thousand on imported cigars, and the same argument was then used as now that the consumer would be benefited, but let us see how much. When the act was passed the importer lowered the price \$2 to the jobber, thus making one on each thousand. The jobber lowered the price \$1 to the retailer, and the retailer sold them as usual, making a dollar for himself. So you see the \$3 which was to benefit the consumer was divided equally among the importer, jobber and retailer.

If the tariff is removed on wool, Australia, with her 70,000,000 of sheep which it costs nothing to keep, will kill the sheep-growing business of this country, and then when it becomes dead or so feeble that it will be no opposition, the importers will combine and make the consumers pay the fiddler for a good lively tune. It should be made the effort of every sheep owner to use his influence against any legislation which would injure a business which affords a living to one-twelfth of the people of the country.

Ensilage for Sheep.

Has any one tried ensilage for sheep? Yes, sir, I have, and regret exceedingly that I did not have enough to carry my stock through until grass. While my experience is limited, I will give it for what it is worth. Last fall being dry, and but little feed, I confined my sheep to the yard about November 20, where they remained afterwards. My feed for ninety head, seventy of them ewes in lamb and twenty last year's lambs, was one bushel basket of bran and one-half bushel shelled corn in the morning, and at night six baskets of ensilage. The basket was a bushel and a half in size. We gave them straw in racks and some weedy hay cut from a piece of weed seeding. There was some four loads of it. Gave them oat straw twice a day and hay once. This feeding was followed up until about the middle of February, when the ensilage gave out, and we were obliged to resort to feeding bran, oats and corn, and in place of the straw feed, which gave out in January, we gave a very nice quality of hay from an old meadow.

I am very much pleased with the way my sheep did in the early part of the season; in fact I am so well pleased that I shall endeavor to have enough to carry me through the entire length of next winter.

Stock fed upon ensilage will not require near the quantity of coarse food, still I think they should have some, also a small allowance of grain. I am of the opinion that I would prefer leaving the grain off rather than the hay, that is for store stock, or stock one wishes to keep right along.

I have never tried giving but one animal all it would eat of ensilage, and that was a mare. She finally would hardly touch the hay given her, and eat but about one-half to two-thirds the usual amount of oats. It caused her to become very soft, but she fattened very fast. In fact I never saw an animal do better.

My ensilage was drilled corn, ninety-day variety mostly, cut just as it was

denting; did not wilt, but passed it directly through cutter to silo. This question I am much interested in, and trust you may give us the experience of many. It is the coming feed, I think. —T. A. Mason, in *Sheep Breeder and Wool-Grower*.

Pork From Cheap Foods.

This is one of the interesting subjects. F. D. Curtis thus discussed it some time ago in the *Country Gentleman*:

I estimate the leaves cut from two acres of Swedish turnips to be equal in food value, for the hogs, to a ton of meal. This gives them a money value of \$23. They are worth more than this for food; as they help make the meal fed to the hogs more valuable. This is a point in stock feeding which farmers rarely appreciate. It is illustrated in this way: On this farm, there were twenty old sows to be turned off. The reason they are to be fattened is because the young sows are better. This is my rule, every year, to turn off the most of the old ones and to select out the best young ones for breeders. There is considerable solid wisdom in this plan. My hogs are all the time growing, and when grown they have only to be fattened to turn them into pork. These sows have all had pigs and reared them. This leaves them in a gaunt and hungry condition. To fill them up on clear meal would be expensive, with the present relations of meal and pork as to money. Something cheaper must be provided. A pasture of fresh aftermath gave them a good start. Then they had a little meal with a few pumpkins. This was in the same line. Next came the leaves of the turnips with some meal. They keep full all of the time. The leaves are succulent food and there is a considerable amount of growth in them. They keep the hogs in a perfect state of health, and combined with rye, ground entire, the food is well balanced.

This term, well balanced, is what American farmers want to know more about. It is, as I have said, healthy, for it fills every part of the animal system. By doing so the gain is all over and this makes it the best of food. Now this gain is not like the gain that corn or more carbonaceous foods would make, as the animals do not fill out so fast and round up so soon. They are not stuffed, but they lengthen, broaden, grow deeper and longer, or in other words they grow. This general growth makes muscle, tissues, or to sum it up in a word—flesh. I argued the crack butcher of Schenectady into buying two fat hogs some time ago, and the other day had no trouble in selling him another lot, a half dollar per hundred above the market price. This was not enough, as hogs fattened on a selected variety of foods are worth twice as much to eat, as those rushed through on fat-making foods. Is this a wild statement? If you think so, then tell me what proportion of a hog, three-fourths fat, wastes in cutting up and in eating; and what proportion is really such food that it does not produce dyspepsia and is not wholesome?

Some old farmers would laugh at the idea of making pork on rutabaga leaves, but let me say to them they can make better and cheaper pork, by stinting the hogs to half the amount they would eat of grain, and then give all the leaves they will eat. I scatter them on the ground from the wagon and the hogs eat them with a relish which tells its own tale, and this kind of food is just what they want. The store hogs will do well on them, and they may be fed well into winter, by putting them into small heaps and feeding as they may be required. The roots will be utilized as the main food of the old hogs during the winter. All hog-breeders should

aim to use less stimulating and fattening foods, and to improve the quality of the meat, as I am, of the coming hog, by these more succulent and flesh-forming foods. When the idea gets well rooted in farmers' minds that these cheaper foods will really make better meat, as well as at a great deal less cost, more hogs will no doubt be kept on the farm and better crops will reward the inauguration of the enterprise. Any one can throw out corn to hogs, but not every farmer combines with it the wastes of the garden and the fields, the cheaper succulent foods, and turns them into a home market with a gain in pocket and soil.

Cattle, or Sheep?

For the reason that in feeding cattle all depends on the ability of the feeder to make a profit out of the carcass alone, many of our most judicious farmers prefer to feed wethers rather than steers, as in the event of a slow meat market in the spring the growth in fleece is a great protection from loss. Some of our fancy beef producers will be slow to acknowledge that anything requires more "science" than the successful feeding of steers, but we are quite positive that to attain eminent success in producing fancy mutton requires closer observation and longer experience than the feeding of either cattle or hogs. At the same time we stand ready to prove by the market reports of the past ten years, by the cost of feed, and by the price of wool for the same period, and by the carefully-prepared ration tables that are the result of the experience of our best feeders of cattle, sheep and hogs for those same ten years, that the heaviest profits have been in favor of the mutton men.

We freely acknowledge, however, that to the item of wool sheep men are largely indebted, and we earnestly advise those who contemplate producing fancy meats to give the sheep question a careful consideration. Look at it on all sides. For a considerable period the beef market has been heavy and discouraging, and the promises for the future are not the most assuring. True, mutton has not been a "bonanza," but a prime article has been in steady demand, and as aforesaid, the wool, though low in price, has helped out. Then decide whether you want to produce your meat from one of the strictly mutton breeds in its purity, from the Merinos, or from a cross between the two. If the first, much of your work will be to produce lamb to be eaten by the wealthy classes with their peas; if the second, it will be in feeding wethers to the age of three years, whether you grow or merely feed them; if the third, you may combine in method and time of market as well as in breed. If it strikes you that three years is a long time to wait for the development of the wether, remember that a steer requires the same time, yet fails to produce three fleeces of wool, worth \$6, which sum goes a long way toward the cost of producing the mutton.—*National Stockman*, in 1887.

Stock Notes.

The most experienced shepherds advise that sheep should never be turned into a yard with cattle and other stock.

Fine stout carriage horses are always quick of sale at extra high prices, as the supply is never equal to the demand.

An acre of sorghum will on an average produce twenty bushels of seed, as good as corn for fattening stock, or feeding horses, with the addition of bran.

It is especially necessary that carriage horses shall be kind tempered, and free from skittishness and shying. They are not used so regularly as the road and farm horse, and after standing in the stable some days with-

out work, as is often the case, they are very apt, unless particularly good tempered, to show too much spirit when taken out, and even a disposition, at times, to be fractious, and are often inclined to run away.

As soon as the calf has been licked and dried by the dam, say within an hour after birth, it should be seen that it sucks well. This often requires assistance from the herdsman, as calves do not always have the strength to get up and suck themselves.

In the Dairy.

Here's a Good Cow.

Mr. T. C. Murphy, Thayer, Kansas, writes: "How will this do? I have just measured the udder of one of my 3-year-old heifers, forty-five inches in circumference. The cow is forty-eight inches high, has dropped two calves sired by Royalist Stoke Pogis; made a cream test of 40 per cent. last May, 10 per cent oil; June, 39 per cent. cream, 9 per cent. oil. Test made by proprietor of the Humboldt creamery under seal. Bred as a special-purpose cow. Her dam, Lady Oxford 4860, being sweepstakes cow over all breeds at Bismarck, Kansas, 1884, and sweepstakes for three years in Jersey class. Is 14 years old and never dry; has made one pound fourteen ounces of butter in one day, thirty days before calving; gave 8,750 pounds of milk in eleven months, 1881, and dropped two calves. The above heifer bids fair to beat her dam as a butter cow."

Improve Quality Rather Than Increase Number of Cows.

The following article was written by Lyman F. Abbott, Lewiston, Maine, for *Hoar's Dairyman*, from which paper we copy it:

The grand characteristic needed, both East and West, is concentration in the line of farming. The tendency of much of our farming is to the adoption of diffuse methods, to the multiplication of acres at the expense of thoroughness in cultivation and tillage. The drift of American progress, self-interest, and common sense, call for more intensity in the methods and work on the farm. We have hitherto been spreading out over too much surface and the consequence has been thin crops and corresponding cash results. Intense farming means more labor, dressing and tillage, and less land. And the principle applied to stock-raising and dairy means enhanced quality of stock and corresponding enhancement of quality and quantity of the product of the stock. The principle applies to methods as related to dairying as well.

The great want of the dairy over a large part of our country is not more cows but better cows and better care and feeding. The times call for intense methods in conducting the dairy, and the call is far-reaching, going down to the root of things, affecting the cow which produces, the feed, and the methods of dispensing the same, from which the milk is produced.

I have said that the drift of American ideas call for a more intense agriculture. The impulse of intensity of thought and action in other departments of science and in the field of general knowledge, makes it an imperative necessity that the farmer bestir himself to keep pace with the progress of the age or he is sure to get left in the race. But the farmer has had his pulse quickened to a more generous policy in conducting his farming operations, and his mind awakened, in a degree, to the possibilities that lie before him by grasping the helping hand which science holds out to him in his work. Science has opened wide the gates to the dairyman and bid him enter to fields Elysian and the enjoyment of privileges that, as compared to those of a quarter of a

century ago, are like the fancies of dream-land realized.

But great as the progress of dairying husbandry has been, there yet remains, in all the departments of its surroundings of animal industry and the products valued from their keeping, ample room for improvement. The fact becomes painfully apparent to the close observer that farmers are keeping too many cows for the aggregate results they produce.

The great want among dairymen is more thought and business put into their work in the way of breeding, feeding, and testing the cows they now have rather than in keeping more cows of the same sort. There is profit in keeping good cows—that has been demonstrated in every locality where dairying has been systematically and sensibly carried on. Some farmers, we know of, beguile themselves into the belief that they are making money in keeping ordinary cows as they pick them up from the discarded dairy stock their more careful neighbors turn off. It may be they do, but why be content to feed the forage of the farm, and pay interest on equipments, and perform the labor in carrying dairy stock that will pay only 50 per cent. on the investment, when it is easy to earn 100 per cent.? That is what three-fifths of our dairymen are doing, going blindly on, keeping cows—many of them—which only turn a new dollar into an old one and the owner has the labor for his pains. There may be cows in his herd that do better than that; earn the owner 25, 50 or 75 per cent. Now, it is the dairyman's business—and he will make it his business if he understands it—to know just what each cow is doing in the dairy, being guided by the use to which her product is put. The cow which is furnishing a good mess of milk may be profitable as a cheese cow or to furnish milk to sell, for it is well understood that there are instances where a cow giving a large mess of milk might not make a paying lot of butter; and yet her milk may not be decidedly poor in quality. The Holstein breed and their grades may be there classed.

There are more possibilities with Jersey cows than with any other breed in the matter of butter-making. But we encounter individuals every week who will tell you that they don't believe it makes much difference what kind of cows one keeps. It is this class of people we wish to reach the eye of. It is true there are many good butter-makers in all classes of stock. There are in our native or, erroneously called, "scrub." But they are an exception and far from forming the rule. With the Jersey the order is reversed. And to cross on the best of our mongrel-bred cows, the purely-bred Jersey bull—the services of which those of the best butter races are open to dairymen in all parts of the country, now at least, within the means of all—brings to the dairymen the means of increasing the ratio of butter production to the third or fourth generation as one to three; or the cow of plebeian blood which will cut her feed in June pastures and make five pounds of butter per week, her granddaughter in whose veins courses the blood of royal Coomassie or Stoke Pogis may be confidently expected, with a little extra in the way of grain feed, to place her butter yield at fifteen pounds per week.

I speak confidently on this point, having had experience in this direction. And this brings us home to the text—better cows rather than increase the number. Success in dairying depends upon raising the best crops, using the best machinery and utensils, and keeping the best stock. And as I have shown, the best cows need not necessarily be

pure-bred cows. If the farmer has not the cash to buy such cows as he desires in the market, there is another channel open to him, whereby he can, by patiently waiting and by good management, attain the end he aspires to in the way I have pointed out. It takes only a few years to breed up to a breed of grade Jerseys or any other breed to which his fancy may incline and double or triple his butter yields.

But there are considerations besides "blood," which enter into the calculations in forming a good dairy herd of butter cows. It lies largely with the breeder and feeder, whether the highest results are attained in this direction. No "blood" can make a good and profitable cow when the blood has come down through a generation of half-starved poorly-housed bovines—I don't care how good a blue the blood may be.

Let the dairyman remember the old adage, "the breed is in the mouth," has much signification. The breed places the possibility before us, it remains for the careful dairyman to improve upon these possibilities by common sense and good judgment.

Some Suggestions About Ensilage.

"Ensilage appears to have established itself pretty firmly in the estimation of dairymen, and the present indications are that the silo will ultimately become a prominent factor on every farm where dairy products are made a specialty." So the *Breeder's Gazette* opens a suggestive article, and it proceeds: "Its value in the production of beef and mutton or for young growing stock has not been so closely studied and is, of course, less perfectly understood. Upon these points there is room for more difference of opinion, and there is likely to be more difference in the judgment and conclusions of experimenters than in the case of its use for milk production, because results are not so easily arrived at and are not so quickly apparent. It is not likely that everybody's opinion in the matter will at any early day indicate the same conclusions, since the question will be necessarily examined and the results estimated from many different standpoints and under many different conditions, but a discussion by practical men of the economical points involved would prove of great profit and interest. The question is not an easy one to solve, and no conclusions save those based upon actual and intellectual experience are likely to possess much value. Aside from the main question of the adaptability of the food for the purpose, its relative cost as compared with hay, fodder and grain, will first claim attention. And here must be considered the difference in the area and consequent capital invested in land required under the two systems. For if the production of ensilage requires less land than is necessary for the production of dry feed of equal nutritive value, it is a point in its favor which will count a long way, as it will permit of more stock being carried on the same landed investment, or the withdrawal of capital from that to other purposes in which it may perhaps be used to greater advantage. Another point to be considered is the alterations in the general system of feeding which may be necessary in order to realize the full feeding value of ensilage or even to render its extended use as a general cattle food at all practicable. The dairymen are readily impressed in its favor because their cows are maintained and fed in stables practically frost-proof, unless in the most severe weather, and they are consequently in position to realize its best advantages, and its succulent character is undoubtedly more favorable than dry feed to a liberal flow of milk, while it is doubtful

whether there is any corresponding advantage to be secured by the beef-producer or stock-grower. On the other hand, cattle for beef and young stock are mainly kept and fed in the open air, where, during much of the period within which it would be ordinarily used, ensilage would become frozen in the feeding-troughs before it could be eaten. How well cattle will thrive on it in this condition is an open question, but certainly not so well as when fresh and unfrozen from the silo. A point, therefore, to be considered, and a most important one, is the practicability of providing warm feeding quarters for all the growing stock and animals undergoing the feeding process for beef. With many, especially those whose operations are conducted on a moderate scale, it may be practicable to supply these conditions; indeed some have adequate protection already for a limited number of animals, but those engaged in beef production or stock-growing on a larger scale will not see their way so clearly. Likely upon the great majority of farms it may be both practicable and profitable to provide ensilage for part of the stock, if not for all; but the question needs to be patiently and intelligently examined and these and other points tested by the results of actual trial before it can be known just where, under what conditions, and to what extent the ensilage system can be advantageously adopted in general cattle husbandry."

The Milch Cow for Western Kansas.

With the recent great strides in civilization westward, and the consequent settling up of the higher and dryer plains of western Kansas, has come the realization that the farm methods practiced in the Congaree or Wabash valleys will not apply there. The considerable elevation above the sea level, the cool nights, the character of the native vegetation, the peculiarities of the soil and rainfall of this section of country, all say to the farmer that he who would thrive there must change his crops, his methods, and, in some degree, his seasons, from those to which he was accustomed further east.

A careful examination of the soil of western Kansas which does not lie in the immediate vicinity of either of the great rivers will show a rather light-colored earth so thoroughly impregnated with fine roots as to be almost like peat in substance. It is covered by a sod of buffalo grass which sheds water "like a rubber blanket;" and it is usually so dry as to suggest the idea that it has never really been wet to any considerable depth below the surface. Experience, however, shows it to be very rich and deep; and that it retains moisture in a wonderful manner when plowed, especially when plowed deep, and that it is of apparently the exact composition and texture for the most thrifty production of root and fodder crops.

These facts, together with the added ones that the day of the range steer is passed, and the range is largely fenced in; that the question of cheap beef production, when compared with older settled and lower-lying parts of the country, where corn is more certain to mature, is as yet an open one; and that the sorghums, fodder corns, root crops, pumpkins, and which thrive best here, and which seem so well adapted to this country, and are the very crops which long experience pronounces among the best in any country for the proper food for the milch cow, all seem to say in the plainest of terms that one of the most potent aids to man's subjugation of this country will be the milch cow.

The sod house furnishes the cheapest and warmest of shelters so needful for this class of cattle; the buffalo grass furnishes an excellent pasture for both beef and butter; the home market for dairy products is a constantly growing one; and the Western mining market will not soon be glutted; and, in view of all these things, we think that the settler in western Kansas who takes advantage of them will be sending for his wife's relations in a dry year rather than going to them.—*Secretary Graham, in Industrialist.*

Correspondence.

How to Cultivate Listed Corn.

EDITOR KANSAS FARMER:—Mr. J. B. Berry wrote an article published April 12, in which he says the use of the lister does not admit of thorough cultivation. Now four-fifths of the corn planted down here is listed, and the methods of cultivation is to take two pieces of boards—say one eight and the other nine inches wide and three feet long; nail them together trough shape, letting the wide one lap on to the narrow one, round off the corners of the front end and attach to the arch of the cultivator by two pieces of wire or rope, one on each side, letting this box drag in the furrow and over the corn. This will take care of the corn. The box may be almost covered up, but it will draw out and leave the corn standing, while all weeds are carried down and covered by the inward pressure of the dirt when the box is drawn out. Every one who has listed corn should try this method.

J. W. DARR.

Burden, Cowley county, Kansas.

P. S.—I have had all my cattle dehorned with no bad effect, and am well pleased with the idea.

Mr. Elder Replies to Mr. Snyder.

EDITOR KANSAS FARMER:—In the KANSAS FARMER May 30, Mr. Snyder says:

"P. P. Elder throws a wet blanket on the tariff discussions in the FARMER and desires a 'boom,' such as was created by the large volume of currency in 1866. Having been one of the many thousands who went in debt about that time upon the strength of the fictitious values of money and went out of debt as the currency was getting back to a solid basis and had a desperate struggle in the attempt."

If the large volume of currency in 1866 had continued and not been contracted one-half, prices would have kept up to the standard of '66 and '67. The shrinkage of the volume carried down prices correspondingly. To pay Mr. Snyder's debt four years later would have taken double the amount of any and all farm products—two cows, two steers, two bushels of grain, when one would cancel it in 1866—Mr. Snyder's debt did not shrink! It was not "scaled down." This is the sole cause of his "desperate struggle." The "swindle" comes in when debts are contracted with a large volume of money and high prices, and then forced to pay under the paralyzing effect of a diminished volume of money and low prices. What discourages and bankrupts farmers is a low range of prices for farm products. The "solid basis" for farmers is plenty of money in circulation, producing always healthy prices. Debts are then paid easily. Read Plumb's speech on this. P. P. ELDER.

Princeton, Franklin county Kansas.

Fodder Crops.

EDITOR KANSAS FARMER:—As a rule in growing the necessary supply of corn to winter the stock as well as fatten those intended for market, a supply of fodder for use during the winter can be readily secured, so that it is only in exceptional cases that it will be found necessary to grow crops of any kind especially for this purpose. In some localities where a specialty is made of new crops, it may be necessary to plant crops to make into fodder. I prefer to use hay with what fodder and straw can be secured in raising the grain crops. It is not so especially for winter feeding that the Western farmer will find it often advisable to grow what we may term fodder crops, but rather to feed during the latter part of the summer or early fall after the supply of feed begins to fall short in the summer and before it is really necessary or desirable to commence feeding dry food.

Of the different plants grown for this purpose, good corn or Early Amber cane is probably the best. The planting can be made the first few days in June, and with a good soil well prepared, a sufficient growth can be secured by the latter part of July or the first of August to commence using if necessary.

If grown especially to feed out green, I prefer to use sorghum; but if grown with the expectation of cutting and curing for winter feeding, I prefer corn. It is not a good plan to sow too thick. I have tried both the plan of using a drill and sowing the seed thick and not cultivating, and then of planting in rows sufficiently far apart to give

at least two cultivations, and I prefer planting thinner and cultivating, and especially if to be cut off and fed while green. If the soil is rich and well prepared, as it should be in order to secure a good growth and yield, a very large amount of feed can be secured in this way on comparatively a small piece of ground. I have adopted this plan of raising a supply of food several times and can strongly recommend it. There are so many times when it is quite an item to have a supply of green food to bridge over the time when the summer pasture usually fails and before the fall rains induce a sufficient growth to insure a supply of grass in the fall, and by sowing a small acreage I find it quite a help to keep the stock in a good thrifty condition without being obliged to feed either dry feed or cut off corn that we are growing for grain. N. J. SHEPHERD.

Eldon, Miller Co., Mo.

A Word With Farmers.

EDITOR KANSAS FARMER.—As political discussions are not, or at least ought not to be tolerated in your columns further than the welfare of the farmer is concerned, I hope that what I wish to say will not be considered of that character. I merely desire to ask the farmers to note the difference between the United States senators, who (in other times) were supposed to be the servants of the people. One an intense partisan, subline in self-conceit, a sort of political ring master in a senatorial circus. The other assiduously and ably looking after the interests of his constituency, especially the interests of the farming community, exposing the wrongs imposed upon them by grasping organized monopolies. Taking the proper and what seems to me the only feasible course to emancipate farmers and stock raisers from the schemes of oppression concocted by combinations of organized monopolists and speculators for the purpose of enriching themselves on the traffic between producer and consumer. In all these combines—and their name is legion—the farmer and producer are the victims of insatiable cupidity for which there seems to be no escape, unless they can find friends in the honest and honorable law-makers who can be induced to come down with a heavy hand upon such fraudulent combinations. The co-operation of the ripest statesmanship and the wisest senators are needed to grapple with the great wrongs being imposed upon the credulous and confiding farmers. Have we not such a friend in one of our senators?

The farmers are not "bond slaves and pagans," neither ought the "statesmen" to be. They are not so blinded by party fealty as to eternally disregard their own interests, though somewhat slow to apprehend them, hence are often hoodwinked by oily tongued impostors. They have the power in their own hands for self protection if they could be induced to exercise that power by electing the right man (the woods are full of them) to office to represent their interests who should be instructed to "cry aloud and spare not" until trusts, syndicates, monopolies and frauds of all kinds be driven from our midst. But so long as politicians are corrupt and legislatures corruptible, so long as the people are being bamboozled by the specious claim that a "high protective tariff" is just and equitable, so long will the cry for reform come rolling back a mockery and delusion—"as sounding brass and a tinkling cymbal." OLD FARMER.

Stock Peas.

EDITOR KANSAS FARMER:—Since the publication of my article on stock peas in your paper, taken from *Colman's Rural World*, I have received more than a dozen letters from farmers in your State and Dakota asking for information in regard to seed and best method of culture. Seed can be obtained in St. Louis, Mo., Memphis, Tenn., or New Orleans, La., and will cost about \$1.50 per bushel. As to culture, that is not a very tedious task. There are various methods of culture in favor here. The first is to plant three or four peas in every hill of corn when corn is planted. This method does not prove very satisfactory, except on land that produces very low and small stalks of corn, in which case peas will do well. The next and by all odds the best way is to drill peas in rows three or three and a half feet apart with a one-horse corn drill, planting the peas twice or three times

as thick in row as drilled corn; plow two or three times and they take care of themselves. If planted in this manner they should not be planted until the weather becomes quite warm—from middle of May until first of July is the season here (latitude 36 deg.) that best results are obtained. The next best manner of seeding is to sow broadcast at the rate of two bushels per acre. This method proves very satisfactory also if land is well prepared and rich.

There is still another way of planting, and that is to sow them broadcast in corn at the last plowing. But this method has the same objection as the first; they will not do well if corn grows very high, as peas require plenty of sunlight.

In several of the letters referred to above, I have been asked if I thought peas would stand the hot, dry winds of Kansas? In answer, I will say yes, most emphatically. Nothing short of a prairie fire will scorch a pea vine. If any one has a good clover field, I would not advise him to plow it up and plant peas; but there is so much land in every State in the Union upon which it is useless to try to get a set of clover, and on which peas will do well and restore the life to the soil as quickly as clover, that farmers will find it greatly to their advantage to give peas a trial.

The Whip-poor-will and black peas are in greatest favor here on account of their early maturity, ripening, or rather beginning to ripen, in sixty days from time of planting. If left undisturbed they will continue to bear until frost kills the vines. Or two crops of hay can be cut from one planting the same season. So far as my own experience goes, peas are pre-eminently at their best when fed in the field where grown. For milk cows or fattening cattle, hogs and sheep, peas are unequaled as a forage plant, answering the double purpose of clover and corn combined. Indeed, I think peas so much superior as to hardly admit the comparison.

I fear your readers will think me an enthusiast on the subject, and I am; but it is an enthusiasm born of several years experience in pea-raising. * LEE PHILLIPS.

La Forge, New Madrid Co., Mo.

Letter from Lyon County.

EDITOR KANSAS FARMER:—Inclosed find postal note to renew my subscription to KANSAS FARMER. In the issue of May 3 I was much interested in reading your article on "Railroads and Manufactures." In the last column you say, "All we want the government to do for us is to see that we have fair play." When reading that sentence I recalled an article from some contributor a few weeks ago who advanced the idea that if the government would establish a bank in each county and loan money at a low rate, one result would be that many capitalists who now loan money at high rates would turn their attention to other investments and probably to establishing factories all through the State. I was favorably impressed by the idea and have watched for some one to show why such a thing is not practicable.

Corn is nearly all planted here in this southwest corner of Lyon county, and more of it has been listed than ever before. Oats do not seem to have suffered from chinch bugs as they have in the northern part of the county, though I have not been away from home enough to see for myself. Flax has been sown this season more than before. This part of the county had feed enough and to sell, but more stock has been lost than usual.

I think you do well in your choice of articles as published in the FARMER, and hope that the good old paper will continue to omit the mud-throwing and wrangling that will fill the newspapers for the next few months, so that to many of the plain farmers they are nearly worthless. If we pay for a farmer's paper we like to get a farmer's paper, and I think no one, or but few, will complain of it as published nowadays.

J. W. YOUNGS.

Verdigris, Lyon Co., Kas.

A Defence of Hired Men.

EDITOR KANSAS FARMER:—I saw an article in your paper of May 3 entitled "How Can a Farmer Judge a Man?" There are two ways—right and wrong. The right way is to judge him according to his merits, not by his mistakes nor his imperfections. The poor fellow may think he is

right and be altogether wrong in the eyes of his employer. For instance, in some portions of the United States in plowing a field the lands are laid off one rod wide. Now if a person that is accustomed to plowing in that way should chance to hire out to a Kansas farmer and should go to the field and lay off the land in that shape he would be called a fool and be discharged.

I would like to ask C. A. Kingman if he has a diploma for teaching, and if his way of farming is practical, and if there is any one else in this State that farms the same way he does. If not, what would be the use of a man devoting three years of his time to learn what little one man knows about the science of farming? I never saw a man who worked by the month on a farm that could not harness a horse, or that refused to do chores before breakfast. As to doing the chores on Sunday, that is merely a matter of agreement, and if such is the agreement he should do them cheerfully, and not use any profane language to jar the nerves of his employer.

I believe that a 10-cent advertisement in the KANSAS FARMER for a practical hand would be far more beneficial than the article that was inserted. As to treating a hired man like a gentleman, the majority would prefer a good square meal and a bed to lay his weary body on after toiling fourteen hours per day. Those hired men are a terrible affliction upon the poor farmer, but nine cases out of ten if these fault-finding persons who can't keep a hand were to hire out by the month they would be discharged from the farm before noon, as they would not be tolerated by a thorough-going, practical farmer.

FRANK BURDUE.

P. O. box 195, Topeka, Kas.

The Lawrence Business College

and Academy of English and Classics has no vacation during the summer. Students can enter at any time with equal advantage. During the spring and summer months is a most excellent time to pursue a *Business, Short-hand or Teacher's course*. Our Summer Normal Institute will begin June 12 and continue eight weeks. Terms, \$8. There will be thousands of public school teachers and other young men and young ladies in the West out of employment during the spring and summer months. Why not devote that time in making yourself more proficient in school work by attending this Summer Institute devoted to drills, reviews, examinations and lectures? or attend the Short-hand department and study short-hand and type-writing six months and thus qualify yourself for a good position. There is no field of labor open to young men and women so certainly remunerative as this. Attend the business department six months and secure a good sound business education—an education that is always at par value in every profession, trade and calling. Send for catalogue giving full information concerning this live school. Address

E. L. McILRAVY, Lawrence, Kas.

Health and thrift are the first elements of success with swine.

By the way, feed mills and cutting-boxes are great institutions for stock-keeping farmers.

Alsike clover originally came from Alsike, Sweden, and is said to be a cross between the white and red clovers.

"We consider *American Housekeeping* one of the best ladies' papers published. We feel that we cannot keep house without it."

Do not cover small seeds with too much earth. Half an inch is deep enough for some kinds, as too thick a covering would cause them to perish before they could germinate and push through.

Medical experts, by the use of the microscope, have recently discovered and classified specific living germs in the blood of all persons suffering from Malaria, and say that to cure the patient these germs must be killed. Thirty years ago Dr. Shallenberger advanced this theory as the correct one, and prepared his "Antidote for Malaria" to destroy these poisonous germs. If you have Malaria in your system, a few doses of this medicine will destroy the poison immediately, and not injure an infant. Sold by druggists.

WEATHER PREDICTIONS.

By Prof. C. C. Blake, Topeka.

[Correspondence and remittances on account of this Weather Department should be directed to C. C. Blake, Topeka, Kas.]

JUNE WEATHER.

While there will be considerable nice weather and several warm spells of short duration in June, 1888, yet the temperature in the United States east of the Rockies will average a little cooler than usual for that month, with more than the average amount of frost in high latitudes, though we do not think the frosts will be extensive enough to do serious damage, as it must be remembered that frosts do not occur at that time of year, even though it be pretty cool, if it is cloudy or windy, and it is quite improbable that many places will have calm clear weather on the coldest nights, as the month will average rather wet. A reasonable amount of cool and wet weather in June we consider an advantage this year, as it will prevent the chinch bugs from ruining the wheat and oats, which otherwise, they certainly would do, as the last two years of drought have enabled them to multiply till the Western States are full of them.

We do not think it will be very wet in the New England States, but south of there the Atlantic and Gulf States will have considerable rain during the first half of June, with a reasonable amount at the same time in the Western and Northwestern States, but during the last half of June the greatest precipitation will probably be in the Western and Northwestern States. In some places the rains the last of June will probably interfere with harvesting, but farmers can generally avoid much damage by knowing what kind of weather to expect and by watching their opportunities. As in times of drouth there are spots and streaks where the rain is abundant, so too, in times of plentiful precipitation there will be spots and streaks that will be too dry. The latter will be the case in June, but it is not easy to definitely locate these exceptions to the general rule.

We do not see why the June weather in Kansas will not be all that could be desired, as there will be neither an excess nor deficiency in temperature or precipitation when taken as a whole.

ON THE PACIFIC COAST.

There will be moderate precipitation during the first half of June, but not much during the last half, while the temperature there for the month will average not quite so warm as usual for June.

IN ENGLAND AND EUROPE.

The precipitation will be rather more than usual for June, except that we do not expect much, if any, excess in Russia; but the temperature in Russia will be lower than usual for that month and hardly up to the average in other parts of Europe, though in England we do not expect any deficiency in the June temperature.

Crop Prospects.

It will be noticed that the weather is appearing substantially as we predicted in the last issue of the KANSAS FARMER. While there will be some cool spells the last of May and in June, yet we think there will be no danger of frosts in the latitude of Kansas, though there may be in some places farther north.

It is now a favorable time for sowing buckwheat and millet throughout the United States, as there will be plenty of moisture for these crops; and when they are ripe, if sown now, the weather will be favorable for harvesting them. By an inspection of our Almanac you will see the reasons why there will be a demand for all that can be raised.

As it may be found desirable to plow up wheat in places, and as there may not be a good stand of corn in all places, necessitating planting over, and as unavoidable necessity may cause many to plant their corn late or not at all, we will say that after a careful inspection of all our calculations we consider it safe this year to plant corn in the latitude of Kansas, especially in the Western States, until the first of July, and still raise a good crop of sound corn. We do not think it will be safe to plant corn that late in all sections of the country, for reasons which we have set forth at length in the Almanac. Kansas farmers should not fail to plant all the corn possible, even if planted late. There will be a demand at good prices for all that can be raised.

Harvest in the winter wheat belt occurs

during June and the first days of July. During that period this year there will be a reasonable number of rains and showers in the greater portion of said belt. It is of very great importance that farmers so calculate as to avoid damage to their grain by these rains during harvest. These rains will not cover all parts of said belt at the same time, and we advise farmers to be ready for harvest and then commence cutting as soon as a storm has passed, and by working vigorously they can get their grain in shock before another shower comes. We do not think it will be wise to cut wheat or oats this year till they are fully ripe, as the dampness will generally be such that they will mould in the shock if cut while the straw is slightly green. If cut when ripe and between showers, with good caps on, and the shocks not too large, we think the grain will keep well till it is dry enough to stack. We will give our opinion as to the best time for stacking in a future issue of the FARMER.

Our calculations show a dry spot in Iowa during the first half of June, and a dry spot in Nebraska, eastern Kansas and Missouri during the last of June; but it may be that we are not justified in mentioning these, as we have not as much confidence in our ability to correctly calculate these local exceptions to general rules as we have in our general predictions.

If you raise only a small crop of corn the rats and mice will generally take it all, while if you have a large crop these vermin cannot eat it all. So, too, if you raise only moderate crops the monopolists will take them all and let you starve; but if you raise very large crops of all kinds, the parasites will be glutted and will have a small per cent. for yourselves, for which you should be duly thankful!

Two years ago we advised the farmers to store their surplus corn for the drouth which we then said was at hand; but we are sorry that many thought "Sufficient unto the day is the evil thereof," and sold very cheap the corn which they are now buying back at big prices to feed their teams while putting in present crops. But we are getting our system of mathematical weather predictions more perfect each year; and we believe we have it so far perfected at the present time that people will be willing to overlook such small errors as we may make, placing confidence in the major part of our calculations with safety, thus avoiding great losses.

KANSAS WEEKLY WEATHER REPORT.

Furnished by the Kansas Weather Service.

Abstract for the week ending Friday, May 18, 1888:

Rainfall.—There has been an excess of rain extending through Cherokee county west into Sumner county, an average rainfall in Elk, southern half of Butler, southeastern part of Sedgwick and northwestern part of Sumner counties, while over the rest of the State there is a deficiency. Less than one-tenth of an inch has fallen in the Smoky Hill valley and none in the central and northern parts of Republic county. A severe hail and thunderstorm on the evening of the 17th from Montgomery to Sumner counties, the hail being severest in the Walnut valley.

Temperature and Sunshine.—The week has been cold and comparatively cloudy.

Results.—In Cowley county, the hail destroyed the window glass on the north side of the Frisco train, and damaged growing crops. In the central counties the frost has killed the grapes in the bottoms; upland grapes are unhurt. The cherries are dropping off in Chautauqua and Elk counties. The apple crop gives good promise. Wheat and oats are doing very well generally. Corn is complaining in the Republican and Smoky Hill valleys and extreme west, but elsewhere is growing right ahead. Grass is backward all over the State. In Cowley county corn is being damaged by a worm that works down through the roots; a worm is also working on the potatoes. In Coffey the Colorado beetle is at work. The cold has put a quietus on the chinch bugs.

TOPEKA REPORT.

For the week ending Saturday, May 19, 1888: **Temperature.**—Highest at 2 p. m., 69° Saturday the 19th; lowest at same hour, 47° Friday the 18th. Highest recorded during the week, 73° on the 13th; lowest, 30° on the 19th. Heavy frost the 13th and 19th.

Rainfall.—Traces of rain the 14th, 15th, 16th and 17th.

The Summer Normal Institute of the Lawrence (Kas.) Business College and Academy of English and Classics begins June 12. Send for circulars. Address E. L. McILRAVY, Lawrence, Kas.

SHANNON HILL STOCK FARM.

Headquarters for Bates Short-horns, Owned by Ex-Gov. G. W. Glick, Atchison, Kas.

Notwithstanding the depression of the cattle market, it is very gratifying to note some good results during this period. It has caused stock-raisers to study their business more carefully and to devise means of economy. Raising "scrub stock" has been found quite expensive. It has been demonstrated that at least a year's feeding can be saved by raising improved cattle. Good grades bring the top prices in the markets. Mr. Glick sold seven Short-horn steers last week that brought \$45 each at his farm; three were just 3 years old and four would be 3 years old in June and July. The average weight was 1,150 pounds.

A representative of the FARMER had an opportunity this week to visit Shannon Hill Stock Farm. This establishment is owned by ex-Gov. G. W. Glick, of Atchison, Kas. He located his Short-horn herd at this place in 1871, since which time he has been constantly improving his herd by breeding and occasional select additions whenever the right opportunity was present to improve the original herd. Mr. Glick has been exceedingly fortunate in the selection of his breeding bulls at the head of his herd, having demonstrated that a breeder can never overestimate the importance of this animal to the herd. At present the herd comprises excellent representatives of the families of Kirklevingtons, Princesses, Filberts, Craggs, Gwynnes, Lady Janes, and such fashionable strains. The breeding bulls now in use are the 8th Duke of Kirklevington 41798, and the \$3,000 bull, Waterloo Duke of Shannon Hill 89879. The bulls are both grand Bates bulls of the very best breeding and individuality. The herd of 100 Short horns is quite uniform throughout and a herd in every way creditable to the State. In so large a herd the writer was surprised in not finding an inferior individual.

The farm is one of the best equipped breeding establishments in the country and has all the essential conveniences necessary for the successful handling of a large herd. The farm of 500 acres is divided into small pastures, all of which have shade, water, and tame grasses, either clover, timothy or blue grass. About 100 acres is devoted to raising crops, fruits, etc.

To stockmen who are needing good practical Short-horn bulls or females, the writer would advise a trip to Shannon Hill Stock Farm, where representative Short-horns can be purchased at prices and terms to suit the times. To young breeders who desire to establish a herd of Bates foundation, it will pay to inspect this establishment and secure some of the very choice young animals which Mr. Glick will sell at prices which will encourage those who contemplate starting a Short-horn herd to delay no longer. Produce of this herd have been sold in every part of Kansas, besides good sales in Missouri, Nebraska, Colorado, Texas, Illinois, Wisconsin and Indiana.

Gossip About Stock.

Capt. Jack Hungate, the Topeka live stock auctioneer, is now the possessor of some Holstein-Friesians, which he modestly asserts are the best in Topeka.

Remember that we can supply "Haaff's Practical Dehorner," the best book on the subject ever published, for only \$1.25, or we will send it and the KANSAS FARMER one year for only \$2.

Mr. G. B. Bothwell, of Breckinridge, Mo., an old-time breeder, is authority for the statement that Missouri's decrease in number of sheep is nearly 200,000 in the last two years, and still they melt away under the free trade system.

Thos. P. Babst, of Dover, Shawnee Co., Kas., has just purchased the fine Short-horn herd of J. B. McAfee, at prices ranging from \$100 to \$600 per head. Farmers wishing to purchase fine Short-horn cattle would do well to call on Mr. Babst, four miles southwest of Dover, who now has nearly 100 head of finely-bred cattle, with the splendid Cruickshank bull, Earl of Gloster, at the head of the herd.

J. J. Mails, breeder of Short-horns and Berkshires, Manhattan, writes: "Cattle and hogs are looking splendid for this time of year. I have made a few sales this spring, notwithstanding the hard times, and still

have a few choice animals to sell. Crops of all kinds are looking splendid; even the crop of chinch bugs promises well, and will do much damage if they are not killed in some way."

The *Breeder's Gazette*, in its report of Luther Adams' Short-horn sale at Chicago last week, says that it must certainly be regarded as a gratifying success. When fifty head of cattle sell for \$15,000—an average of practically \$300 per head—there is certainly much encouragement to be derived by the breeding interest at large. The imported Scotch cattle were in some cases too young to bring their full value, but twenty-five bulls of that description sold brought a total of \$7,700, an average of \$308; the twelve females of same breeding fetching \$4,400, an average of \$366. There was a good attendance of representative breeders from many States, and in all cases where individual merit of a pronounced character was shown competition was brisk. The bulls averaged \$308, and the females \$281.35.

Our enterprising advertiser of Cameron, Mo., Mr. M. E. Moore, has just added another fine service Holstein-Friesian bull to his choice herd—Chief of Maple Hill, No. 1674, H. F. H. B.; dam, Klasina Hengerveld, No. 656, N. H. B. Europe, No. 230, main register, D. F. H. B., recorded in Holstein Herd Book as Klasina Payne, No. 5896. Milk record, single day, 99 pounds; 10 days, 918.6 pounds; butter record as per sworn statements below: Sire, Major Pel, No. 53, advanced register, D. F. H. B., imported; bred by Mr. K. N. Kuperus, Marssum, Friesland, who is substantially the author of the Friesian Herd Book in Friesland, and one of the most painstaking cattle-breeders, started the "Pel" family by purchasing a heifer from a man by the name of Pel; this heifer proved to be the best milk and butter cow Mr. Kuperus ever owned; she was exhibited by him at the International Cattle Show at Hamburg in 1882, and gave most milk and made most butter of any cow on exhibition.

Creameries and Dairies.

D. W. Willson, Elgin, Ill., makes a specialty of furnishing plans and specifications for building and operating creameries and dairies on the whole milk or gathered cream systems. Centrifugal separators, setting cans, and all machinery and implements furnished. Correspondence answered. Address, D. W. WILLSON, Elgin, Ill.

ROYAL



BAKING POWDER
Absolutely Pure.

This powder never varies. A marvel of purity, strength and wholesomeness. More economical than the ordinary kinds, and cannot be sold in competition with the multitude of low-test, short-weight alum or phosphate powders. Sold only in cans. ROYAL BAKING POWDER CO., 106 Wall street, New York.

EVERY LADY

Who will send us 10 cents and the names and addresses of 3 lady friends in different families who love to read will receive **AMERICAN HOUSEKEEPING**, a Ladies' Home Journal, 4 MONTHS FREE. A 20-page monthly, full of beautiful Pictures, Charming Stories, Fashion Notes, Art Needlework, Household Decorations, in fact it contains everything of interest to Ladies and the Home. Our new department—**WOMEN'S RECOLLECTIONS OF THE LATE WAR** is a novel feature for a Ladies' Magazine. Yearly subscription 50 cents, \$2 to \$5 per day to Agents. Reference: The publisher of this paper. **AMERICAN HOUSEKEEPING**, 143 La Salle St., Chicago, Ill.

The Home Circle.

Over the Hill to the Poor-House.

Over the hill to the poor-house, I'm trudgin' my weary way—
I, a woman of seventy, and only a trifle gray—
I, who am smart an' chipper, for all the years I've told,
As many another woman that's only half as old.

Over the hill to the poor-house—I can't make it quite clear!
Over the hill to the poor-house—it seems so horrid queer!
Many a step I've taken a-tollin' to and fro,
But this is a sort of journey I never thought to go.

What is the use of heapin' on me a pauper's shame?
Am I lazy or crazy? am I blind or lame?
True, I am not so supple, nor yet so awful stout,
But charity ain't no favor, if one can live without.

I am willin' and anxious, an' ready any day,
To work for a decent livin', and pay my honest way;
For I can earn my victuals, an' more too, I'll be bound,
If anybody only is willin' to have me round.

Once I was young and han'some—I was, upon my soul—
Once my cheeks was roses, my eyes as black as coal;
And I can't remember, in them days, of hearin' people say,
For any kind of reason, that I was in their way.

'Taint no use of boastin' or talkin' over free,
But many a house an' home was open then to me;
Many a han'some offer I had from likely men,
And nobody ever hinted that I was a burden then.

And when to John I was married, sure he was good and smart,
But he and all the neighbors would own I done my part;
For life was all before me, an' I was young and strong,
And I worked the best that I could in tryin' to get along.

And so we worked together; and life was hard but gay,
With now and then a baby, for to cheer us on our way;
Till we had half a dozen, an' all growed clean and neat,
An' went to school like others, an' had enough to eat.

So we worked for the childr'n, and raised 'em every one;
Worked for 'em summer and winter, just as we ought to 've done,
Only perhaps we humored 'em, which some good folks condemn,
But every couple's childr'n 's a heap the best to them.

Strange how much we think of our blessed little ones!
I'd have died for my daughters, I'd have died for my sons;
And God He made that rule of love; but when we're old and gray,
I've noticed it sometimes somehow falls to work the other way.

Strange, another thing; when our boys and girls was grown,
And when, exceptin' Charley, they'd left us there alone;
When John he nearer an' nearer come, an' dearer seemed to be,
The Lord of Hosts He come one day an' took him away from me.

Still I was bound to struggle and never to cringe or fall—
Still I worked for Charley, for Charley was now my all;
And Charley was pretty good to me, with scarce a word or frown,
Till at last he went a courtin', and brought a wife from town.

She was somewhat dressy, an' hadn't a pleasant smile—
She was quite conceited and carried a heap o' style;
But if ever I tried to be friends, I did with her, I know;
But she was hard and proud, an' I couldn't make it go.

She had an education, an' that was good for her;
But when she twitted me on mine 't was carryin' things too fur;
An' I told her once 'fore company (an' it almost made her sick),
That I never swallowed a grammar, or et a rithmetic.

So 't was only a few days before the thing was done—
They was a family of themselves, and I another one;
And a very little cottage for one family will do,
But I have never seen a house that was big enough for two.

An' I never could speak to suit her, never could please her eye,
An' it made me independent, an' then I didn't try;
But I was terribly staggered, an' felt it like a blow,
When Charley turned ag'in me, an' told me I could go.

I went to live with Susan, but Susan's house was small,
And she was always a-hintin' how snug it was for us all;
And what with her husband's sisters, and what with children three,
'Twas easy to discover that there wasn't room for me.

An' then I went to Thomas, the oldest son I've got,

For Thomas' buildings 'd cover the half of an acre lot;
But all the childr'n was on me—I couldn't stand their sauce—
And Thomas said I needn't think I was comin' there to boss.

An' then I wrote to Rebecca—my girl who lives out West,
And to Isaac, not far from her—some twenty miles at best;
And one of 'em said 'twas too warm there, for any one so old,
And 't other had an opinion the climate was too cold.

So they have shirked and slighted me, and shifted me about—
So they have well-nigh soured me, an' wore my old heart out;
But still I've borne up pretty well, an' wasn't much put down,
Till Charley went to the poor-master, an' put me on the town.

Over the hill to the poor-house—my childr'n dear, good-bye!
Many a night I've watched you when only God was nigh;
And God 'll judge between us; but I will al'ays pray
That you shall never suffer the half I do to-day.

—Will M. Carleton.

Curious Notions About Rainbows.

As a survival of the serpent myth, we find almost universally a belief that the rainbow drinks the water from ponds and rivers. This idea is found in antiquity, allusion to it being frequently made by classical authors. Slovaks say of one who drinks much, that he "drinks like a rainbow." Many European people think the rainbow drinks up the water. Throughout Russia it is generally believed to feed the clouds with the water thus drawn. In Little Russia it is called Veselka, and is said to be a maiden, who, with her bucket, draws water from the rivers and waters the earth with it. Esthonians say it has a bull's head, which it thrusts into the water when it would drink. In Finisterre it is said to drink up fish, frogs, etc., from the shallow ponds. In Cornwall it is said to be the devil drinking up the water of the ponds and streams. In the Tyrol it is called the "drinking bow;" in Votjak the "drinker of water." Children are assured in the French department of Cotes du Nord that the bow drinks in the river or in the pond.

In many places the rainbow is said to be a great pump or tube, drawing water by mechanical means. So in parts of Russia it is called the "bent tube," and in Hungary "the pump," while in Slavonia dialect it is the "siphon." In one part of France it is said to come from the sea and to pump up the water in the streams. In the Charkov province of Russia the bow is likened to a tube, with one end in the sky and the other in the wells, while in the Saratov government it is said to be controlled by three angels, one of whom pumps the water, the second feeds the clouds and the third sends the rain. In Lettonia, showers of fish, frogs, etc., are believed to come from the rainbow, which has sucked them up from the ponds and rivers. Similar beliefs exist among the Wends. In many parts of Russia it is compared to a water carrier, dipping his buckets into the ponds and streams. In the Charente department of France they say the bow fishes in the streams, and prognostications are drawn from the selection it makes. Malay Nias say it is the net of Nadoaja fishing in the streams.

The rainbow is frequently credited with great power for good or evil. It is a widespread belief that it hides great riches, or brings fortune or good luck with it. In Swabia, it is said to rest on bowls of gold; in Hungaria, that cups of silver will be found where it touches the earth or water, and the finder will divine the future. It is quite likely that a shoe cast over it will fall on the other side filled with gold, as it is believed in Brene and among Swabian peasants. The difficulty is to get it over. In Carinthia it is a hat. Czech tradition says that if iron or other base metal be cast into the rainbow it will be turned to gold, and similar things are recorded of it in Tyrol. In many parts of Germany a golden key, or a treasure, is said to be found where the bow touches the earth; in Portugal, a silver hen, and in modern Greece, a curious Byzantine coin, called a Constantine coin. Any one finding this will be endowed with marvelous power.

In Norway, it is said that a cup and spoon, with a kind of gruel, will be found where the bow rests. It is also believed to bestow health. Among the Letts, if you can reach the bow and touch it you will have the healing power. The water found immediately beneath the arch will, it is believed, cure

those afflicted with demoniac. Old women keep this water in trenches dug in the ground or in a hollow tree, but not in the house, where it will lose its force or bring some disaster on the household. It is also said that flocks should not be pastured where the bow rests, or they will fall sick. German peasants say the touch of the bow will render plants odorant. On the other hand, in some departments of France, the rainbow is said to injure plants on which it rests, to dry up vines and to ruin the harvest. In Bohemia also it withers up the herbage, say the peasants. In the Ukraine, you must not put out your tongue at the rainbow, or it will dry it up. In Hungary there is a Vila or fairy sitting on the water where the rainbow touches it, and whomsoever she sees first will die. Esthonians say the bow is but the scythe used by the thunder to chase wicked souls. In Austro-Hungary the sick are not allowed to lie stretched at full length when the first bow of spring appears, for it is thought they would die if permitted to do so. Many ordinary tasks must not then be performed for fear of evil consequences.

Another strange belief has existed, that the rainbow has the power to change the sex. This obtains in districts widely separated. A story from the Nango tribe in Africa relates the adventure of a young man so transformed. Slavonian peasants have a similar notion, and it is a general belief in modern Greece among the common people that any one jumping over the rainbow will have their sex changed. Among the Albanians, Servians and in Upper Loire, France, it is by passing under the rainbow that the sex is changed.

The notion that the luminous bow possesses so great a power for good or evil has probably led to another curious belief, that harm will come to any one pointing at it. The ancient Hindoo laws of Manou forbade this, and it is said in the Hartz mountains that God will punish any one who points at the rainbow. In modern Greece and in Amies you will lose a finger, and in Bohemia the same disaster will occur unless it immediately thunders. The Chinese say your hand will be attacked with ulcers, and German peasants tell you that you dig out the angel's eyes when you point at the rainbow. Ancient Peruvians said that the mouth must be kept shut when a rainbow was in sight or the teeth would be spoiled.—*Exchange.*

Fashion Notes.

New tennis coats are made of gray striped serge, quite short, with fitted back, loose fronts and deeply rolled collar.

Black lace dresses are now made up over slips of shot silk, either moss green with rose, pink with gray or red with blue.

Flowers are now mounted with their own leaves, or ferns or grass, as the taste of the moment is against the mixture of blossoms.

Close wreaths of roses, without leaves, either quite upon the edge or half way the brim, will be immensely stylish upon lace spring bonnets.

Very few handkerchiefs have not merely a colored border, but dots, blocks, bars and rings, even pompadour bouquets rioting over their whole surface.

Both hats and bonnets grow larger—though architecturally their lines are so much of the last season's that the effect is that of looking backward through a magnifying glass.

Green, greener, greenest are the tints of the future—and the hat or bonnet that escapes a green bow, upholding a spray of flowers, will be something in the nature of a rarity.

New pompadour silks are printed in large designs—and have so dull a surface that five yards away they cannot be told from cottons—indeed are by no means so silky looking as the fine sateens.

New basques have pointed backs, stiffly boned throughout, and though there is an effort to trim sleeves into untidiness, the favorite mode is yet the natty folds, held by closely strapped bow.

Pointed capes of black cashmere, edged with one or two deep frills of lace, the point held in place by a belt of watered ribbon, will be worn with spring gowns of all sorts as the season advances.

Fortune's Favorites

are those who court fortune—those who are always looking out for and investigating the opportunities that are offered. Send your address to Hallett & Co., Portland, Maine, and they will mail you free, full particulars about work that you can do while living at home, wherever you are located, and earn from \$5 to \$25 per day and upwards. Capital not required. You are started free. Both sexes. All ages. Some have earned over \$50 in a single day. All is new.

How to Act in Emergencies.

If an individual is endowed with common sense and can exercise self-control when necessary, a slight knowledge of physiology will enable him to act in emergency.

A boy is brought home with a severe cut on his arm. The blood spurts out of the wound, showing plainly that an artery has been severed. It is fortunate if a member of the family can come forward and bind two pieces of cloth tightly around the limb directly above and below the wound; the blood will cease to flow, and even if there should be unavoidable delay in the arrival of the doctor, he will be able to save a life that would certainly have been sacrificed if the prompt treatment mentioned had not been resorted to.

A whole family were thrown into a state of excitement by the youngest child rushing into the house, and declaring that a big black snake had "bited" him. The mother swooned, the father paced the floor frantically, while the rest of the family embraced the child and cried over him until, between the wound and the excitement, the little fellow came near being thrown into convulsions. A sensible neighbor, hearing the excitement, came into the room, and taking the child in her arms, murmured words of encouragement, then turning towards a member of the family she asked for carbonate of soda. Moistening a small portion of the soda with water, she applied it to the wound; when the soda became dry she moistened it again, and at the expiration of an hour was overjoyed to see upon the white surface of the application unmistakable evidence of snake virus.

Rusty nails make ugly wounds, which if not attended to at once may cause great suffering—perhaps death. Smoke the wound with wool or woollen cloth; fifteen minutes in the smoke will remove the worst class of inflammation.

The terrible pain caused by being severely burned may be almost instantly relieved by applying a mixture of strong, fresh, clean lime-water mixed with as much linseed oil as it will cut. Before applying, wrap the burn in cotton wadding saturated with the lotion. Wet as often as it appears dry, without removing cotton from burn for nine days, when a new skin will probably have formed.

Bleeding at the nose frequently causes extreme prostration. If the nose bleeds from the right nostril, pass the finger along the edge of the right jaw until the beating of the artery is felt. Press hard upon it for five minutes and the bleeding will stop.

A child who has a morbid propensity to force buttons, beans, etc., into his nostrils keeps his whole family in a state bordering upon terror, for they never know at what precise moment they may be called upon to perform an operation upon Master Harry's nasal appendage. Pressure against the empty nostril and quick, strong breathing into the open mouth will dislodge the foreign substance and send the suffering youngster upon his way rejoicing.—*Good Housekeeping.*

Heroic Lives at Home.

The heroism of private life, the slow, unchronicled martyrdoms of the heart, who shall remember? Greater than knightly dragon-slayers of old is the man who overcomes an unholy passion, sets his foot upon it, and stands serene and strong in virtue. Grandier than Zenobia is the woman who struggles with the love that would wrong another or degrade her own soul, and conquers. The young man, ardent and tender, who turns from the dear love of woman, and buries deep in his heart the sweet instinct of paternity, to devote himself to the care and support of aged parents or an unfortunate sister, and whose life is a long sacrifice, in manly cheerfulness and majestic spirit, is the hero of the rarest type.

The young woman who resolutely stays with father and mother in the old home, while brothers and sisters go forth to homes of their own, who cheerfully lays on the altar of filial duty that costliest of human sacrifices, the joy of loving and being loved—she is a heroine. I have known many such.

The husband who goes home from everyday routine and the perplexing cares of business, with a cheerful smile and a loving word for his invalid wife; who brings not against her the grievous sin of a long sickness, and reproaches her not for the cost and

discomfort thereof; who sees in her languid eyes something dearer than girlish laughter, in the sad face and faded cheeks that blossom into smiles and even blushes at his coming—something lovelier than the old-time spring roses—he is a hero. I think I know some such.

The wife who bears her part in the burden of life—even though it be the larger part—bravely, cheerfully, never dreaming that she is a heroine, much less a martyr; who bears with the faults of a husband not altogether congenial, with a loving patience and a large charity, with noble decision hiding them from the world—who makes no confidants and asks no confidence, who refrains from brooding over shortcomings in sympathy and from seeking perilous "affinities," who does not build high tragedy sorrows on the inevitable, nor feel an earthquake in every family jar; who sees her husband united with her indissolubly and eternally in their children—she, the wife in very truth, in the inward as in the outward, is a heroine, though of rather an unfashionable type.—*Grace Greenwood, in Woman's Magazine*

The Young Folks.

Written for the KANSAS FARMER.

The Isle of Memory.

BY MARY E. COLE.

When I would seek a quiet hour,
And sleep seems o'er me stealing,
When I would rest apart from care,
Then memory's bells are pealing.

I seek the isle of long ago,
Where pleasant fancy lingers,
But feel the touch upon my brow
Of ghostly, clammy fingers.

In vain I try unbidden guests'
Companionship to sever;
They will not down, they will not out,
Their ghosts will live forever.

I sit me down beside the stream,
Where placid waters flowing,
Reflect the sweetest memory-flowers,
In life-like freshness growing.

But in the mirror-making stream
Will fall some sad reflection,
That mingles with the sweetest thought
Some bitter recollection.

Ah! It is well; but while I see
The thorns among the flowers,
I'll try to leave no poison seed
To grow in memory's bowers.

Written for the KANSAS FARMER.

Song of the Frogs.

BY PHOEBE PARMALEE.

As the years roll round and the May-times
Come,
Bringing the voices and songs of the spring,
Amid the glad singing and joyous hum
Some sad minor strains in mourning notes
Ring.

One May-time now past, oh, years, years ago!
Wide awake through the night in my trundle-bed,
I heard soft foot-falls and words whispered
low,
And out in the night air a song for the dead.

Peaceful and silent, hands folded to rest,
The form of our loved and dead grandmother
lay.
Through the long night my sleepless head
pressed
The tear-wetted pillow, till dawning of day.

And the sounds which came in upon the night
air,
Come now every spring-time, and carry my
mind
To the cottage home and the trundle-bed
where
I heard the frogs' song carried on the night
wind.

ABOUT BIG BEASTS.

As any one about the show can tell you, no elephant is sent into the ring without at least a year's training. Only the tamest animals, those most used to crowds and confusion, are taken to start with. The keepers are kept with them constantly, and the same round of tricks and movements that they are to go through in the circus is followed out, day by day, from one year's end to another. Habit and example takes so strong a hold in the end that a trick elephant, the keepers say, comes in time to be a mere machine, and would no more think of cutting loose in the midst of his performances than of stopping half way with a

bag of oats that he had stolen. Trick elephants, too, as a rule, are lazy and amiable. They stand in fear of the keeper's whip or hook, and watch generally in perfect submission for a sign from him before making the first motion.

There is an idea abroad that elephants are more easily trained than other animals. They have a high intelligence among quadrupeds, of course, but all trainers agree that they learn tricks only after a long and painful routine. There is scarcely a shade of difference, either, in the matter of quickness between different elephants. Nineteen out of twenty will master a given trick in just about the same length of time. And so even is the average power to learn and hold tricks that pairs, and even groups of six or eight for the more complicated pieces of acting, are chosen now to match only in size, without any question in advance of quickness or dullness.

The newest and most striking tricks shown this year at the Madison Square garden are the younger Adam Forepaugh's.

Young Mr. Forepaugh has been training elephants from his boyhood and has originated half the tricks that elephants are now doing in all circuses. He has a peculiar control over the big beasts, apparently, having discarded the steel prod from the first and using nothing but a light whip of rawhide.

"It is hard to tell much about one's method of training," he said the other day when interrupted in his morning's work at the big garden. "There are no special short cuts or brilliant strokes about it. I think the secret of the whole thing is hard, patient work. Elephants, everybody knows, are intelligent enough, but they don't care to show tricks somehow. One of our elephants had the ingenuity to steal a bag of oats a day or nearly a whole summer by pulling out a tent stake near his quarters when no one was looking, lifting the flap of canvas and grabbing the bag with his trunk from the pile that was kept just outside. Then he ate the oats, threw the bag outside, fastened the flap and put in the stake again. Yet he was one of the dullest at learning tricks. And I could never explain it, except on the theory that he was playing off.

"Elephants have to be taught everything by mere routine. They never seem to know that they are doing anything with an end or purpose. They could as well begin at the last movements and work back. I take a green elephant in the fall and put him in with those trained the year before. At first he does nothing but walk about, learning to keep step and march with the rest. When he is fairly broken in I try him in some of the simpler things—to come at command, to lie down, to rise on his hind legs, to stand on a tub. From that on it is all an unbroken routine. Every movement has to be repeated daily till the elephant gets the whole thing in his memory. The same thing must always be done in the same order and as nearly as possible in the same space of time. It would throw out every elephant here if I changed the tricks in the least, or even the order of them in the slightest.

"A keeper must never allow an elephant any freedom of action. To keep them going through the same motion, almost mechanically, with no chance to vary them, is the best means of making them perfectly harmless and docile. They go on through any amount of confusion, and they know that if they stop the keeper will be on hand to punish them. The tricks become so mechanical, finally, that almost anybody who knows them himself can put the elephant through them. It is the same way even with the minutest details which the clown elephants master. They get them by memory only, and the slightest deviation on the part of the assistant would spoil everything.

"As the elephants get on with the simpler work I try them with new tricks. The quadrille that the eight big elephants dance cost me six solid months of training. The work was simply this, to make each one walk over his intricate course to the right time. The elephants, I think, have an idea of what they are doing. The movements are simply beaten into their heads. They don't seem to notice the music in the waltz. They were trained without music, of course, and wouldn't miss it. The boxing act is the most elaborate I have yet attempted. John L. Sullivan is not a remarkably intelligent elephant and I had a long hard pull with

him. He had to be made accustomed first to wearing a glove on his trunk and swinging it to and fro. Then I had to get him to understand what the blows meant and when to fall down. I strike so many times and then speak to him, and his cue is to tumble over on his side. He had to be pulled and pushed about a good deal to get his part, especially where he follows me around and knocks me out of the ring.

"The elephants are more popular in the country than in the city, and make a much bigger figure in the ring and in the street parade. The elephants have no leader apparently. Any one I pick out will do. The trained elephants are all Indian. I never saw a trained African one. Most of them, too, are males. All the clown elephants are males. Still there is little, if any, difference in cleverness in the long run between the males and females. Elephants die rapidly here and I have to break new ones in every winter. It is a popular mistake about their skin being so thick as not to feel a prong much. They smart even under the rawhide. They catch cold easily and go off chiefly from consumption."—*New York Tribune.*

Beware of Scrofula

Scrofula is probably more general than any other disease. It is insidious in character, and manifests itself in running sores, pustular eruptions, boils, swellings, enlarged joints, abscesses, sore eyes, etc. Hood's Sarsaparilla expels all trace of scrofula from the blood, leaving it pure, enriched, and healthy.

"I was severely afflicted with scrofula, and over a year had two running sores on my neck. Took five bottles Hood's Sarsaparilla, and am cured." C. E. LOVEJOY, Lowell, Mass.

C. A. Arnold, Arnold, Me., had scrofulous sores for seven years, spring and fall. Hood's Sarsaparilla cured him.

Salt Rheum

Is one of the most disagreeable diseases caused by impure blood. It is readily cured by Hood's Sarsaparilla, the great blood purifier.

William Spies, Elyria, O., suffered greatly from erysipelas and salt rheum, caused by handling tobacco. At times his hands would crack open and bleed. He tried various preparations without aid; finally took Hood's Sarsaparilla, and now says: "I am entirely well."

"My son had salt rheum on his hands and on the calves of his legs. He took Hood's Sarsaparilla and is entirely cured." J. B. Stanton, Mt. Vernon, Ohio.

Hood's Sarsaparilla

Sold by all druggists. \$1; six for \$5. Made only by C. I. HOOD & CO., Apothecaries, Lowell, Mass.

100 Doses One Dollar

GOLD. Live at home and make more money working for us than at anything else in the world. Either sex. Costly outfit FREE. Terms FREE. Address, TRUE & CO., Augusta, Maine.

EMPORIA BUSINESS COLLEGE

—EMPORIA KANSAS.—

PROF. O. W. MILLER, : : : PRESIDENT.

TOPEKA STATE SCHOOL OF ORATORY.

Fall Term Opens October 3. Summer Session Begins June 20.

The Summer Term will afford an exceptional opportunity for the study of Elocution, English Literature, Rhetoric and Logic. Send for Catalogue. Address C. H. PUFFER, Topeka.

FUNNIEST BOOK YET! Nearly 75,000 SOLD! NEW Edition ONLY \$1.75. **AGENTS WANTED! BIG TERMS!**

"SAMANTHA AT SARATOGA"

"See her, Them dumb fools believe in supernatural things. Why can't they believe sunthin' sensible?"—J. ALLEN. Critica say of it: "Delicious humor."—Will Carleton. "Full of genuine wit."—O. H. Tiffany. "Keenest sarcasm."—Observer. "Exceedingly amusing."—Rose E. Cleeland. "Excruciatingly funny."—Weekly Witness. "Bitterest satire coated with exhilarating fun."—Rev. J. P. Newman, D.D. Agents Coining Money. One book AS 50¢ by mail \$1.25. Apply to HUBBARD BROS., Publishers, Kansas City, Mo.

GOLD WATCH FOR YOU!

A new family story paper, in every place, for the next few months, we make the following great offer: Send us 28 cts. for six months subscription and we will send you free, post-paid, the following goods (provided you agree to show the paper to your friends and induce them to subscribe), 2 skeins each Red and White embroidery cotton, 2 reeds Dorcas Mending Cotton, 1 package White Feather Edge Braid, 1 package of Rick-rack Braid, 1 paper Needles, 1 paper Hair Pins, 1 skein Embroidery Silk. These cannot be bought at retail for the money therefore you get double value. Remember you get The Household Treasure for 6 months and the above assortment of goods for only 28 cts. To any one old or young, who will send us 60 subscribers, within the next six months, we will give a Gold Watch. Need not all be sent at one time. "They can do little, who can't do that." Address, THE TREASURE PUBLISHING CO., CLINTONVILLE, CONN.

POLYCAMY UNVEILED

THE MORMON'S DAUGHTER.

A romantic and entrancing story of Inner Life among the Latter Day Saints, has just commenced in the May number of THE HOUSEHOLD TREASURE. Written while living in Utah. THIS IS NOT ALL it contains by any means, it being a beautifully printed and handsomely illustrated family paper, full to the brim of just the sort of reading you do not get in any other shape.

To Introduce "THE HOUSEHOLD TREASURE"

Send us 28 cts. for six months subscription and we will send you free, post-paid, the following goods (provided you agree to show the paper to your friends and induce them to subscribe), 2 skeins each Red and White embroidery cotton, 2 reeds Dorcas Mending Cotton, 1 package White Feather Edge Braid, 1 package of Rick-rack Braid, 1 paper Needles, 1 paper Hair Pins, 1 skein Embroidery Silk. These cannot be bought at retail for the money therefore you get double value. Remember you get The Household Treasure for 6 months and the above assortment of goods for only 28 cts. To any one old or young, who will send us 60 subscribers, within the next six months, we will give a Gold Watch. Need not all be sent at one time. "They can do little, who can't do that." Address, THE TREASURE PUBLISHING CO., CLINTONVILLE, CONN.

\$85 SOLID GOLD WATCH FREE!

This splendid, solid gold, hunting-case watch, is now sold for \$85; at that price it is the best bargain in America; until lately it could not be purchased for less than \$100. We have both ladies' and gents' sizes with works and cases of equal value. **ONE PERSON** in each locality can secure one of these elegant watches absolutely FREE. These watches may be depended on, not only as solid gold, but as standing among the most perfect, correct and reliable timekeepers in the world. You ask how is this wonderful offer possible? We answer—we want one person in each locality to keep in their homes, and show to those who call, a complete line of our valuable, and very useful HOUSEHOLD SAMPLES; these samples, as well as the watch, we send ABSOLUTELY FREE, and after you have kept them in your home for 2 months, and shown them to those who may have called, they become entirely your own property; it is possible to make this great offer, sending the Solid Gold Watch and large line of valuable samples FREE, for the reason that the showing of the samples in any locality, always results in a large trade for us; after our samples have been in a locality for a month or two, we usually get from \$1,000 to \$5,000 in trade from the surrounding country. Those who write to us at once will receive a great benefit for scarcely any work and trouble. This, the most remarkable and liberal offer ever known, is made in order that our valuable Household Samples may be placed at once where they can be seen, all over America; reader, it will be hardly any trouble for you to show them to those who may call at your home, and your reward will be most satisfactory. A postal card, on which to write us, costs but 2 cent, and if, after you know all, you do not care to go further, why no harm is done. But if you do send your address at once, you can secure, FREE, AN ELEGANT \$85, SOLID GOLD, HUNTING-CASE WATCH and our large, complete line of valuable HOUSEHOLD SAMPLES. We pay all express freight, etc. Address, STIMSON & CO., Box 101 Portland, Maine.

\$65 A MONTH & BOARD for 3 Bright Young Men or Ladies in each county.

P. W. ZIEGLER & CO., CHICAGO, ILL.

FLORIDA

If reliable information regarding Florida is desired, send stamp and address. E. B. VAN DEMAN, Gen'l Agt. Florida Immigration Assoc'n, Jacksonville, Fla.

ORGANS & SEWING MACHINES.

50 Styles. Cut Prices. Big Inducements. Goods sent on trial. New, perfect and warranted 5 years. Agents Wanted. Ask for Free Circulars at once. GEO. F. BEST, 281 Wabash Ave., Chicago.

AGENTS WANTED.

either sex, to sell our new book, EARTH, SEA and SKY. 364 pp. 221 illustrations. (Eng. or German print.) Good pay. Experience unnecessary. Success certain. Headquarters for Bibles, Albums and Gift Books. E. P. JORDAN & CO., Pub., St. Louis, Mo.

ORGANS AND SEWING MACHINES

\$3.00 up. 30 styles. Sent on trial; new and perfect; warranted 5 years. Buy direct and save half. Circular with 10,000 testimonials FREE. GEO. FAYNE & CO. M'Frs, 125 S. Clinton St., Chicago, Ill.

TELEGRAPHY.

Never were the opportunities so frequent, or the demand so great for telegraph operators and railroad agents, as at present. Never were the financial inducements so great as now. The facilities are nowhere better than at the Central Iowa Telegraph and Railroad Institute, at Ogden, Iowa. Circulars and all information, mailed upon receipt of postal. MADDLEY & HALL, Ogden, Ia.

State Agricultural College

Free Tuition. Expenses Light.

Endowment, \$500,000. Buildings, \$120,000. Grounds and Apparatus, \$100,000.

20 INSTRUCTORS. 500 STUDENTS.

Farmers' sons and daughters received from Common Schools to full or partial course in Science and Industrial Arts. Send for Catalogue to MANHATTAN, KANSAS.

HOME STUDY

Thorough and practical instruction given by MAIL in Book-keeping, Business Forms, Arithmetic, Penmanship, Short-hand, etc. Low rates. Distance no objection. Circulars sent free. BRYANT'S COLLEGE, 423 Main street, Buffalo, N. Y.

KANSAS FARMER.

ESTABLISHED IN 1883.

Published Every Thursday, by the
KANSAS FARMER COMPANY.

OFFICE:

321 Kansas Avenue, Topeka, Kas.

S. J. CRAWFORD, . . . PRESIDENT.
J. B. MCAPPER, . . . GENERAL AGENT.
H. A. HEATH, . . . BUSINESS MANAGER.
W. A. PEPPER, . . . MANAGING EDITOR.

SUBSCRIPTION PRICE:

ONE DOLLAR A YEAR.

An extra copy free one year for a Club of six, at \$1.00 each.

Address KANSAS FARMER CO.,
Topeka, Kansas.

ADVERTISING RATES.

Reading notices 25 cents per line.
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of 45.00 per line for one year.
Annual cards in the *Breeders' Directory*, consisting of four lines or less, for \$15.00 per year, including a copy of the *KANSAS FARMER* free.
Responsible advertisers may contract for display advertising at the following rates:

	One inch.	Two inches.	Quarter column.	Half column.	One column.
1 week . . .	\$ 2 00	\$ 3 50	\$ 6 50	\$ 12 00	\$ 20 00
1 month . . .	6 00	10 00	18 00	35 00	60 00
2 months . .	10 00	18 00	30 00	55 00	100 00
3 months . .	14 00	25 00	40 00	75 00	125 00
6 months . .	25 00	45 00	75 00	135 00	225 00
1 year . . .	42 00	75 00	120 00	225 00	400 00

All advertising intended for the current week should reach this office not later than Monday.
Electrics must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.
To insure prompt publication of an advertisement send the cash with the order, however monthly or quarterly payments may be arranged by parties who are well known to the publishers or when acceptable references are given.
Every advertiser will receive a copy of the paper free during the publication of the advertisement.
Address all orders,
KANSAS FARMER CO.,
Topeka, Kas.

The Minneapolis flour mills, the last week in April, turned out 181,800 barrels of flour, the largest quantity ever made there in one week.

The semi-annual meeting of the Kansas State Horticultural Society will be held at Holton, Jackson county, on the 19th and 20th days of June next.

The seventh annual meeting of the American Southdown Association will be held in the Illinois National Bank building, Springfield, Ill., May 30, 1888, at 2:30 p. m.

The *Western School Journal*, published in Topeka, deserves a very wide circulation. It is unquestionably one of the best educational journals in the country, and is specially adapted to Western society.

Senator Blair, of New Hampshire, introduced a bill to require the observance of Sunday by all government agents and employees and by all people in places subject to the exclusive jurisdiction of Congress.

A correspondent of the *Michigan Farmer* gives the following remedy for goitre in lambs: Equal parts of iodine and camphor rubbed on the throat once or twice. I have also used kerosene oil with very good results.

The bill to create a department of agriculture, with its chief officer a member of the President's cabinet, passed the House by an almost unanimous vote Monday. Eleven votes against it; none of them from Kansas, however.

The *Iowa Homestead*, one of the best agricultural papers in the country, suffered greatly by fire recently, but the men of the *Homestead* are men of nerve as well as of brains, and they ordered new material while the old was burning. Iowa farmers could better endure a famine than the loss of the *Homestead*. This fresh evidence of its courage ought to secure for it 10,000 new subscribers.

THE GREAT TARIFF DEBATE.

Last Saturday the debate on the Mills Tariff Bill was closed. A great deal was said on both sides, but a small number only of the speakers handled the subject understandingly. A few of them rose higher than their party prejudices and discussed the bill in a spirit of patriotic devotion to their country. At least nine of every ten of them on both sides seemed to be unable to reach that high plane, for their arraignments were of the opposite party, not of the provisions or principles of the bill and there arguments were intended to show the other party in an unfavorable light, without touching the merits of the bill either for or against. Of all the one hundred and upward speeches delivered during the four weeks' discussion, three on each side may be regarded as the most able and as best representing the opposite views of the matters in issue—Messrs. Mills, of Texas, Scott, of Pennsylvania, and Carlisle, of Kentucky, for the bill; Messrs. Kelly, of Pennsylvania, McKinley, of Ohio, and Reed, of Maine, against it. The attitude of the friends of the bill, is that of men who have undertaken a change of policy, but desire to make short steps along the way, doing a little at a time, so that the changes shall not be so sudden or radical as to cause serious disturbance in business circles or annoyance anywhere; and where there is a complete change proposed, as in the case of wool—putting it on the free list, they say the change will prove to be beneficial to all interests concerned. They deny that they favor free trade, absolutely, with foreign nations; they deny that this bill is framed on such basis or with such intent; they say they favor a tariff, but they do not believe in a tariff for protection which, they allege is a discrimination in favor of certain industries and certain sections of the country against others equally deserving, and further, that it is a despoiling of the poor in favor of the rich; they favor a tariff only for revenue, but in reaching that point they aim to take care not to injure interests which have been built up under protection; in short, they would go from the protective system to the revenue system of tariff, but in such slow, regular and easy methods as that no harm shall follow. Mr. Carlisle, closing the debate, gave the kernel of the argument in these words:

What the American farmer wants is a home market in which he can purchase his supplies as cheap as his competitors. When he cannot get this, then he asks that there may be such a system as will enable him to purchase them elsewhere and import them without being unreasonably fined for carrying on this harmless business. We want not only the home markets, but the markets of all the world for the variety of products of this great country. We want to sell our manufactured products in India, and the hungry manufacturing places of Europe, and the agricultural places of Mexico and South America and Europe. We want to remove as far as we can the barriers which annoy our industries so that this country may take its place with the greatest commercial countries of the world and become rich and powerful as no other country has been before.

In the opening of his argument Mr. Carlisle said: "I presume the gentlemen will concede that all taxation is an evil which it would be well to avoid if possible, and we are reduced to a choice between that system which would confine the trade of our people to our limits without increasing the revenue of the government, and the more liberal system which will make commerce as free as possible, consistent with raising sufficient revenue for the support of the government. If, under this latter system our manufacturing and mining industries receive a benefit from the duty on imported goods, they are entitled to it."

In reply to this doctrine, Mr. Reed suggested:

If it be true that by having their goods manufactured abroad the people of the United States as a whole would become richer or more prosperous, would have their houses better furnished, their tables spread with finer linen and covered with more healthful food; if their bodies would be protected by finer woollens from the cold of Maine and by finer cottons from the burning sun of Texas; if they would on the whole, and from generation to generation, enjoy more of the comforts and luxuries of life, and would themselves be more intelligent, more independent, and better fitted for citizenship in a republic already great and destined to be mighty beyond all former dreams of empire, then by all means sink national prejudices, burst the barriers of provincial narrowness, and with one accord adopt not merely the pending bill, but such legislation as would treble the spindles of Europe and destroy our own such measures as would put out the light of our own furnaces and illumine those beyond the sea.

These extracts indicate the dividing line in the debate—the line of method. Both parties to the discussion mean well; both aim at the same high ideal—the greatest good of the people; but they differ as to methods of attaining the object sought. One would have a revenue tariff with such incidental protection as that will afford; the other would have a tariff for revenue but so adjusted as to afford the most protection possible to home industries. Protection, not the amount of revenue, is the bone of contention. Both agree that duties should be materially decreased; the only real difference between them arises from differing opinions concerning the way in which it is done.

The general debate having been concluded, amendments are in order with five-minute speeches on them, and unless the proposition of Mr. Mills is agreed to—to vote directly on the bill as it stands and on a substitute offered by the other party, we will soon have opportunity to learn how individual members regard the situation. By agreement nothing will be done with the bill in the House this week. If the Mills idea prevails, then we will have, next week, a substitute proposed by the minority, when the people will have an opportunity to study the two ways of tax reduction proposed by the two great parties upon which they propose to go to the country in the coming Presidential campaign. Our readers will be fully informed upon both as soon as possible.

Douglas County Horticultural Society.

We have a report of the proceedings of a meeting of this Society held last week, from which we take the following points:

Mr. Pierson said some of his old apple trees are dying. His orchard is seeded to clover. Mr. Barnes believes in cultivating orchards three or four times a year. Mr. Deming said the Grimes Golden apple tree is dying in all parts of the county. He thought pruning close would be good treatment because the root of that tree is small compared with the top. Mr. Flory said he saved his trees of that variety by pruning the tops and keeping them open. The Secretary, B. F. Smith, said that Illinois orchards which he had seen recently, are dying out. Mr. Griesa had letters from western Kansas showing that the berry crop is killed. Several members reported injury to small fruits from frost. Mr. Deming said now is a good time to spray apple trees with London purple.

The meeting was held at the residence of N. P. Deming—Orchard Hill. Ex-Gov. Charles Robinson and "Father" Brown were present. Vocal and instrumental music, with good things and plenty to eat, enlivened the occasion. The KANSAS FARMER representative was kindly received and hospitably entertained, for which his and our thanks are hereby tendered.

One dollar is all that we now ask for this paper one year.

RESTRICTIONS IN CORPORATION CHARTERS.

A charter grants special privileges. Formerly charters were given only by Legislatures representing sovereignty. Recently, among the several States of this Union, Legislatures pass general laws concerning corporations, and when the provisions of the law are complied with, a charter issues as matter of course. In Kansas the laws authorize the incorporation of bodies upon the filing with the Secretary of State a written statement showing certain facts. That statement, properly verified, passes for the charter; a certified copy is used by the corporation. The law is intended to be general, so that the Legislature need not consider special cases. A question is now raised whether there ought not to be restrictions imposed upon corporations. The people, being sovereign, may do as they will about this; it is only a question of public interest—what ought to be done about it.

The reader remembers an article in these columns three weeks ago entitled "Railroads and Manufactures." It was written in comment on a communication and an editorial article which had appeared in the *Iowa Homestead*. Referring to the matter, Hon. Thomas Ryan, member of Congress from this district, writes us a good letter, which, though he gives us no authority to do so, we take the liberty of publishing:

HOUSE OF REPRESENTATIVES U. S.,
WASHINGTON, D. C., May 10, 1888.

W. A. PEPPER, EDITOR KANSAS FARMER—
My Dear Friend:—I am in receipt of a copy of the FARMER, containing your editorial upon the subject of the *Homestead* letter and article. I read it with interest and pleasure. Your treatment of the subject is fair and thorough. The article will doubtless do good. Every labor disturbance, every failure of crops, every temporary business depression, is utilized by the free traders to do service against protection. It is impossible that practical men can be sincere in urging that free trade will promote the interests of American labor; although labor is very materially benefited by protection, still it is undoubtedly true that it is made to suffer unjustly from conditions that must receive sooner or later, serious attention. Our telegraph system is doing a business on a basis of several hundred per cent. in excess of cost of construction and equipment. All products of labor are transported to the markets upon railway lines doing business upon a basis of from 25 to 50, and in some instances as high as 100 per cent. in excess of cost of construction and equipment. This is really a wicked robbery. The system is constantly robbing labor of its just share of profits. If this evil could be removed, and combinations called trusts could be made impossible, and the saloon abolished, a relief would be thereby extended to labor beyond all calculation. I do not see why quasi public corporations ought not to be required to do business and carry commerce upon the basis of what it would cost to construct and equip the lines of transportation. I cannot see that there is anything really communistic about this. For instance: The Union Pacific in Kansas is doing business upon a basis of something like \$64,000 a mile, if I remember aright. The actual cost of duplicating that line to-day, inclusive of terminals, could not exceed \$25,000 per mile. Now, what justice is there in compelling commerce and (labor) to pay tribute to that excess of nearly \$40,000 per mile?

It is much easier to point out the evil than it is to prescribe a remedy. The fault lies chiefly with the incorporation laws of the several States and of the United States. A partial remedy for the future, it seems to me would be to impose proper restrictions in all corporate charters. Very Truly,

THOS. RYAN.

Bulletin No. 2.

Prof. Shelton, Director of the Kansas Experiment Station, has just issued Bulletin No. 2, devoted to "cultivated grasses and clovers," giving the experience of fourteen years' experiments at the College farm. A large edition is ready for distribution among the farmers of the State. Copies may be obtained by addressing the Director, Prof. E. M. Shelton, Manhattan. We will give extracts next week covering all the leading points in the Bulletin.

WAR ON THE DRESSED BEEF COMBINE.

Among the many evidences of the good work being done by farmers through the agricultural press is the arousing of action among statesmen on matters pertaining to agriculture. Take the dressed beef combine as a case in point. A year ago last December, Hon. P. P. Elder, postoffice address Princeton, Franklin county, Kansas, sounded the alarm in the columns of the KANSAS FARMER. Other correspondents had been complaining of falling prices for stock and the departing profits of stock-raising. Different opinions were expressed as to the cause. Mr. Elder called attention specially to a combination among the dressed-beef men. He said: "No cattleman has failed to observe the shipment and sale of this fresh beef along the line of all railroads at every station of importance. Quarters neatly canvassed are being ordered by local butchers all over the land. Rates are obtained by these monstrous monopolies, so that in a few years local butchering at any of our towns will be a thing of the past. No local butchering is now done in Kansas City, the retail trader ordering his dressed meat from these slaughtering establishments every morning for the day. Not a town or city from Chicago to the seaboard but is daily receiving this dressed beef by refrigerator cars in large or small quantities, according to the demands of trade at the point. Nor have the consumers of cut meats failed to observe any reduction in retail prices from the block commensurate with ruinous reduction in prices of beef on the foot." Much more of the same sort, and many figures and circumstances in support of it. Mr. Elder's letter occupied over two columns in the paper, under the heading—"The Future Price of Beef." That was December 8, 1886. Since then we have published many other communications on the same subject from other farmers, besides several from Mr. Elder in support of the view he had first taken. Last week, May 17, 1888, our readers had the satisfaction of reading burning words of indignation from two of the strongest members of the United States Senate, and it is not saying too much to assert that Mr. Elder's letter to the KANSAS FARMER, if not the first of the kind which appeared in print, was among the first to charge the beef combine with manipulating prices to the injury of farmers.

This is another illustration of the growing influence and benefit of agricultural publications which are intelligently and honestly conducted. Farmers have no other means of defense equal to the agricultural press. It is unfortunate that so few papers have the nerve to cry aloud and spare not whenever occasion demands. This paper to-day is worth more to the agricultural interests of Kansas than it is possible to estimate in dollars and cents. It is read and filed by all classes of men, legislators, railroad managers, bankers, lawyers, preachers, grain and stock men—as well as by farmers and working people.

The war has begun on the dressed meat combine, and it will not cease until, as Mr. Elder calls it, this "monstrous monopoly" is exposed and crushed.

HOW TO CHECKMATE THE DRESSED MEAT COMBINE.

It is easy to criticize and point out mistakes and wrongs, but it is not always easy to prescribe appropriate remedies. This is reasonable, too, as well as actual. There is no need of remedy when there is no wrong, and until it is called to our attention in some way we do not

know that there is wrong; hence the discovery of the wrong necessarily precedes all thought of remedies. And besides, persons who are affected by wrongs of others, do not always or generally know what caused the wrong until investigation or hard experience has disclosed it.

So it is with the "dressed beef combine," as it is frequently called. Farmers knew that prices for fat animals were falling, but they did not know why. They saw that local butchers were not purchasing as many fat cattle as they did formerly, but no reason for the change was apparent. It now appears that dressed meat establishments at great stock market towns are drawing the live animals to their slaughter houses, and the packers ship out dressed meat to local butchers. The writer of this article was told by a Topeka butcher last Saturday that most of the butchers in this city receive all their meat from the Kansas City packing houses. Farmers are thus compelled to ship their cattle to Kansas City, instead of selling them to Topeka butchers direct, and the consumers of meat receive what is sent from Kansas City without knowing where it was grown or what was its condition at time of slaughter.

If there was any improvement in quality of beef, or if there was any reduction of prices to consumers, there would be some benefit coming from the change of place of slaughter, and townspeople at least would not complain. But neither of these things has taken place. Quality is not improved, and cut meats cost as much as they did six years ago. Somebody is losing money by reason of this state of things, and somebody is gaining money on the same account. The farmer knows who is losing, and the packer knows who is gaining.

Now, how is this wrong to be remedied? It has been suggested in some quarters that every State have a meat inspector. That is good, as far as it goes. But one man is not two men, nor is he two hundred men or their equivalent. He can perform the work of one man only, and his personal duties can be performed in only one place. The KANSAS FARMER suggests that every city and town be required to provide for the office of Live Stock Inspector, and then prohibit the use of all fresh meats within the city from animals which had not been inspected before slaughter by the stock inspector. That would shut out foreign meats altogether and re-open the local market to the farmers of the vicinage. This would bring the producer and consumer as close together as it is possible to bring them unless the farmer should slaughter the animals himself, and that is not practicable.

The Legislature should enact a law of the kind suggested, requiring cities to have always a live stock inspector, prescribing his duties in a general way, leaving city ordinances to name details, and then prohibiting butchers, under penalties from slaughtering animals not inspected, and from purchasing carcasses or parts thereof from animals not so inspected. States cannot reach corporations which are located in other States and doing business under their laws; but they can look after and regulate affairs within their own jurisdiction.

Topeka Argus, is the name of a new newspaper venture owned and managed exclusively by women, devoted to "prohibition, equal suffrage, human rights and Western immigration"—Republican in politics. Mrs. M. E. De Geer is editor-in-chief; Mrs. Kate B. Russell is associate editor; Mrs. Judge Buck is corresponding editor; Mrs. Ida Miller

has charge of the advertising department, and Miss Laura Kune is publisher. The KANSAS FARMER extends the right hand of fellowship, and wishes its young friend the greatest attainable success. The Argus will be published weekly at \$1 year.

A GOOD SHOWING AND GOOD DOCTRINE.

At a meeting of the stockholders of Atchison, Topeka & Santa Fe railroad company recently in Topeka, some things were said and done of great interest to the people of Kansas. It was our intention to call attention to the occasion last week, but a pressure of other matter late coming in prevented it.

The report of Mr. President Strong shows a good condition of the company's finances; it gives in detail the operations of the company during the year just past describing the new lines acquired and opened—every thing needed to see the "Santa Fe system" as it is.

We copy a few paragraphs from the financial part of the report, as follows:

The light crops harvested in the latter part of the summer and fall of 1887, the competition for business accompanied as is usual by a serious decline in the rates obtained, and the insufficiency of the company's rolling stock (which to a considerable extent was employed on construction work) to move the business offered,—all the causes combined to make a serious reduction in the usual increased earnings of the company for the second half as compared with the first half of the year, so that, while in the year 1886 the earnings for the last six months were \$9,042,939.47 against \$6,941,367.72 for the first six months, in 1887 the earnings of the last half of the year were only \$9,369,731.28 against \$9,091,634.98 for the first half. It is satisfactory to know that, although owing to the causes named, the earnings for the year did not come up to expectations, yet the volume of business, notwithstanding also the competition of additional lines in our territory, has shown a large increase, arising chiefly from business received by the Atchison & Southern Kansas from the new auxiliary lines.

The number of tons of freight carried one mile in 1887 was 909,167,842 at an average rate of 1.347 cents per ton per mile, against 687,399,093 tons one mile, at an average rate of 1.615 cents per ton per mile, in 1886.

These figures include freight on construction material, which, if deducted from the two years would show 813,625,031 tons of commercial freight carried one mile in 1887, at an average rate of 1.385 cents per ton per mile, against 644,567,773 tons of commercial freight, at an average rate of 1.655 cents per ton per mile, in 1886.

The earnings from commercial freight for the twelve months thus show a reduction of no less than 0.27 cents in the average rate per ton per mile; and, if the same rate had been obtained for the commercial business for 1887 as for 1886, the increased revenue would have amounted to \$2,196,049.29. In 1882, the average rate per ton per mile obtained was 2.516 cents, so that in the five years since then, the average rate has declined 1.131 cents. While this has been to some extent caused by the carrying of an increased tonnage of a lower class of freight, yet it is sufficient to show the large reduction in rates generally that has occurred during so short a period; and it is a matter of satisfaction that the company has borne up so well against such a severe decline.

In passenger business, owing to the competition for California passengers in the early part of 1886, the average rate for 1887 shows some improvement, there having been carried 217,909,566 passengers one mile, at an average rate of 2.357 cents, against 176,810,489 passengers one mile, at average rate of 2.277 cents in 1886.

Three important facts are shown here: (1) Earnings of the roads are increasing; (2) charges for transportation of freight have been reduced; (3) passenger fare has slightly increased, though the average is lower than the legal rate in Kansas—three cents a mile. The people of Kansas have always felt kindly toward this company, and their good will is appreciated by the officers.

But that part of the proceedings which will go to the people with special force is the language of Mr. Strong concerning the rights, privileges, duties and responsibilities of carriers and the men in their employ. We reproduce part of the words here and commend them to our readers as words of wisdom. If every railroad man in the country held opinions like these, and if every railway company's business

were conducted on as broad and liberal principles as this company's is, there would be little friction indeed between the people and their servants, the carriers. Here are President Strong's words as they were printed in the daily papers:

But I wish the time might come when railroad companies would act upon the principle that they are not entirely rivals, but servants of a common master—the public. I deny the right of a railway company, as I do that of a labor organization, to punish the public for the sake of punishing a rival, or advancing its own apparent interest. Growing out of the labor troubles, as you are aware, a strike was inaugurated over nearly the whole extent of our systems, and it was a strike which confessedly was not aimed at us, but another company. I felt at the time, as did all our officers who were called to deal with it, that those who had entered into it did so generally with reluctance and that those who were actively encouraging it were misled and deceived as to the true situation. The course pursued by the management of our company was one which I am glad to say received the sanction of public sentiment in Kansas and throughout the country, and happily resulted in a resumption of work by the engineers and firemen after a few days from the time the strike began.

It is a curious illustration of the unnatural condition into which our industrial relations have fallen, that the engineers and firemen who stopped work, were, in almost every case, at heart faithful and loyal friends of the company. Many of them had been in the service for years and had attested their fidelity to the company in many ways, and yet, so strongly were they devoted to the organization of which they were members, that they engaged though unwillingly, in a movement which inflicted very heavy loss upon the company, great inconvenience upon the public, and which could not by any possibility do any harm to the particular company which they sought to reach. The facts are full of material for reflection. But they do not by any means constitute a valid objection to the organization of labor for its own protection. They suggest with startling emphasis the idea which I have already mentioned—the great responsibility which rests upon those to whom are entrusted interests other than their own.

Wise leaders, honest and intelligent counselors, working with and for the welfare of the workers in any branch of industry can do and accomplish much for the advancement of their members. But a demagogue is as bad in one place as in another; wherever he is he does harm. But in my judgment the interest of the engineers, and of the companies they serve, as well also of the public, who are primarily most concerned, have been and will be promoted by maintaining the organization and following the just, fair and conservative policy which has generally characterized the order. After all the interests of the company and its employees are identical. Justice, fair, manly and straightforward dealing between the two should be the inflexible rule, for these are the true conservators of harmony—the only true promoters of success. When controversies arise the moral advantage of being right outweighs all other considerations. It is my intention so long and to such extent as you may confide your interests to me to so conduct the affairs of the company as to deserve the good will of our employees and of our patrons, and I have no fear that in the long run we shall fail to receive it.

We acknowledge receipt of a complimentary ticket to the Inaugural Race meeting to be held at Wichita June 5 to 9 next. The FARMER will have an eye open on the occasion referred to—just to see what the boys do at an Inaugural Race meeting.

A great flood is doing incalculable damage along the Mississippi river below Quincy where the Sny levee broke some days ago. The river bottoms for miles are covered with water, in some places twenty feet deep. Families are camped on the hills beyond homeless and penniless.

The transactions of the American Horticultural Society at its California meeting last fall will be published in June. It is published for members only. A membership costs \$2, and that secures the book. Address W. H. Ragan, Secretary, Greencastle, Ind.

Book Notices.

HARPER'S.—Harper's Magazine for June is an example of what a magazine for early summer ought to be. It contains a judicious mixture of the best things in literature, and is thus suited to all the moods of a June day.

CHAUTAUQUAN.—James Parton furnishes an interesting biographical sketch of Thaddeus Stevens to the June number of The Chautauquan.

Horticulture.

FUNGIoidES.

From the Department of Agriculture at Washington—Circular No. 5. April 25, 1888.

In combating the various fungus diseases of plants many chemicals and chemical compounds have been tried from time to time, and not a few nostrums of the quack order have been widely advertised for this or that, or for every distemper that plants are heir to. A little knowledge of vegetable anatomy and of the character and habits of the fungi to be treated would enable us to avoid the impositions of quacks and assist us in determining the rationale of any proposed treatment. The diseases in plants caused by fungi are simply the effects produced by other plants of parasitic habits, and we must keep the two—the parasite and the plant attacked—distinct in our minds in our efforts to protect the one from the evils produced by the other.

For some of these so-called diseases there is no remedy but the knife or the complete destruction of the infested plant. It is important to understand the cases of this character, not only that we may avoid wasting time and money in vain efforts to treat them otherwise, but in order that prompt action may be taken and sources of infection be quickly destroyed, for all fungus diseases may be regarded as infectious. A large class of these diseases, many occasioning heavy annual losses, may be mitigated or entirely overcome by the application of certain remedial or preventive agents. Those remedies or preventives which have apparently yielded positive results are here enumerated, together with directions for their preparation, mention also being made of the diseases for which they have been employed.

APPLYING THE REMEDIES.

In applying the remedies we must consider the period and manner of the attack made by the parasite and the manner of action of the substance applied. Fungi living within the tissues of the host must be prevented from gaining an entrance to these tissues; fungi which live upon the surface of plants or having their bodies soon exposed through the breaking up of the epidermis, like the apple scab fungus or the fungus of bird's-eye rot of grapes, may be treated by curative methods. The compounds having sulphate of copper for a base are, so far as we know to-day, the best preventive remedies; sulphur, sulphur and lime, sulphide of potassium, hyposulphite of soda, are to be classed as curatives.

Destructive treatments are available between the periods of vegetation (winter season), and consist in destroying all infectious material and in washing the plants to be protected with strong caustic solutions, e. g., solutions of sulphate of iron or copper and sulphuric acid.

During the growing season the strength of the solutions used is governed by the power of the green tissues to resist their action. In the early part of the season while the shoots and leaves are yet tender, weaker solutions than those which may safely be applied later in the season, must be employed. There is great diversity of susceptibility to the caustic action of the remedies between different species of plants and even between different varieties of the same species. The condition of the weather at the time the applications are made may be of importance in this connection. Sulphur alone, applied when the weather is very hot and the sun bright, may cause a

burning of the foliage. The same is true of sulphatine and also of eau celeste.

Explicit directions can not be given for these cases. Much has yet to be learned by experiment, and each one must exercise judgment and govern himself by surrounding circumstances.

Avoid making the applications excessive; do not drench the plants with the fluids nor plaster them with the powders. With a suitable spraying apparatus, which projects a fine, mist-like spray, merely wet the plant surfaces, and employ bellows which will discharge the powder evenly and in such a manner that the plants may be enveloped in a cloud of dust, which, settling upon all parts, becomes just perceptible.

The necessity for good and easily-worked spraying pumps and bellows is evident. For small plantations and general vineyard use, the knap-sack form of sprayer, having the reservoir and pump combined, to be carried on the back of the operator like a knapsack, is the best. For spraying fruit trees more powerful appliances are required.

Nixon's Climax nozzle is excellent for spraying clear liquids, but its use demands considerable power in the pumps.

The Vermorel modification of the eddy-chamber or cyclone nozzle is a most excellent pattern for both clear and pasty or thick liquids. The degorger combined with it renders the spraying of the latter possible.

LIQUIDS.

1. *Simple solution of sulphate of copper.*—Dissolve 1 pound of pure sulphate of copper in 25 gallons of water.

For treatment of downy mildew and oidium of the vine. For treatment of downy mildew and black-rot of the grape.

2. *Simple solution of sulphate of copper.*—Simple solution in water, 5 to 8 pounds to 10 gallons.

For soaking grains previous to sowing to destroy the spores of smuts.

3. *Copper mixture of Gironde, Bordeaux mixture.*—Original formula.—Dissolve 16 pounds of sulphate of copper in 22 gallons of water, in another vessel slake 30 pounds of lime in 6 gallons of water. When the latter mixture has cooled it is slowly poured into the copper solution, care being taken to mix the fluids thoroughly by constant stirring. It is well to have this compound prepared some days before it is required for use. It should be well stirred before applying.

Numerous modifications in the preparation of this compound have been suggested, chiefly for the purpose of reducing the amount of copper.

A solution containing the ingredients in the following proportions has been recommended for general use: Sulphate of copper, 4 pounds; lime, 4 pounds; water, 22 gallons.

The copper is dissolved in 16 gallons of water, while the lime is slaked in 6 gallons. When cool the solutions are mixed as described above.

For treatment of mildew. For downy mildew and black-rot of the grape. For blight and rot of the tomato and potato.

4. *Eau Celeste, Audouin's process.*—Dissolve 1 pound of sulphate of copper in 2 gallons of hot water; when completely dissolved and the water has cooled, add 1½ pints of commercial ammonia (strength 22 deg. Baume); when ready to use dilute to 22 gallons. The concentrated liquid should be kept in a keg or some wooden, earthen, or glass vessel.

For downy mildew. For treatment of downy mildew and black-rot of the grape. For treatment of mildew and anthracnose. For blight and rot of the tomato and potato. For apple scab.

5. *Eau Celeste, modified formula.*—Sul-

phate of copper, 2 pounds; carbonate of soda, 2½ pounds; ammonia, (22 deg. Baume), 1½ pints; water, 22 gallons.

Dissolve the sulphate of copper in 2 gallons of hot water, in another vessel dissolve the carbonate of soda in a similar manner; mix the two solutions, and when all chemical reaction has ceased add the ammonia; then dilute to 22 gallons.

6. *Solution of ammoniacal carbonate of copper.*—Prepared as follows: Into a vessel having a capacity of two quarts or more pour one quart of ammonia (strength 22 deg. Baume), add 3 ounces carbonate of copper, stir rapidly for a moment and the carbonate of copper will dissolve in the ammonia, forming a very clear liquid. The concentrated liquid thus prepared may be kept indefinitely. For use, dilute to 22 gallons.

For peronospora of the vine.

7. *Sulphate of iron.*—Simple solution in water 4 to 8 pounds to the gallon, to be used only as a wash.

For anthracnose.

8. *Chloride of iron.*—According to Nature (Vol. XXXVII) a very dilute solution of the above-named substance has been used with success in combating the coffee disease due to *Hemileia vastatrix*. This fungus is a member of the group *Uredineae* (rusts), and it is said that the chloride of iron not only cures the disease, but also prevents its recurrence. The solution is applied to the under surface of the leaves by means of a pulverizator or spraying apparatus. Its sticky nature causes it to adhere for two months.

9. *Skawinski's sulphate of iron and sulphuric acid solution.*—Sulphate of iron, 110 pounds; sulphuric acid, (53 deg.), 1½ pints; warm water, 22 gallons.

"In order to avoid sputtering it is necessary to be very careful in pouring the sulphuric acid upon the crystals of iron sulphate, and not to add the warm water until after this operation. Besides, it is best to use sulphuric acid of only 53 deg. Baume, because it is less dangerous to handle. I am careful to use this mixture the same day and while warm, for when it becomes cold the sulphate of iron crystallizes and the solution has no longer the strength necessary in order to be efficacious."

10. *Sulphide of potassium, liver of sulphur.*—Simple solution in water, 1 to 1 ounce to the gallon.

For mildew in greenhouses. For mildew on roses. For oidium and erinose of the vine. For orange leaf scab. For celery leaf blight. For pear and apple scab.

11. *Solution of hyposulphite of soda.*—Simple solution made by dissolving 1 pound of the soda in 10 gallons of water. Must be used as soon as prepared.

For apple scab. For celery leaf blight. For orange leaf scab.

12. *Liquid Giron.* *Eau Giron.*—Prepared by boiling 3 pounds each of flowers of sulphur and lime in 6 gallons of water until reduced to 2 gallons, when settled pour off the clear liquid and bottle it. When used, mix 1 part of the clear liquid in 100 parts water.

For mildew on grape vines. For powdery mildew of the vine.

13. *Milk of lime.*—Simple solution in water, 2 to 6 parts lime to 100 parts water.

For peronospora of the vine. For anthracnose.

14. *Phenic acid.* *Carbolic acid.*—Simple solution in water one-half pint to 10 gallons.

For powdery mildew of the vine. 15. *Phenic acid in solution diluted with soap-suds and glycerine.*—Soap-suds, 10 gallons; glycerine, 1 pound; carbolic acid, one-half pint; mix thoroughly to form an emulsion.

For orange leaf scab?

POWDERS.

16. *Sulphur.*—For grape mildew. For powdery mildew of the vine.

17. *Sulphur and lime.*—A mixture of

sulphur and lime in equal parts by weight.

For treatment of anthracnose during the growing season.

18. *Blight powder, sulphated sulphur.*—Prepared by thoroughly mixing from 3 to 8 pounds of anhydrous sulphate of copper with 90 to 100 pounds of flowers of sulphur.

For simultaneous treatment of oidium and the downy mildew. For downy mildew of the vine. For tomato and potato blight and rot.

19. *Sulphatine, the Esteve process.*—Mix 2 pounds of anhydrous sulphate of copper with 20 pounds of flowers of sulphur and 2 pounds of air-slaked lime. The proportions may be varied.

For the treatment of mildew. For the treatment of the downy mildew and black-rot of the grape. For the treatment of the tomato and potato for blight and rot.

20. *Skawinski's powder.*—Mix 22 pounds of finely-powdered sulphate of copper with 33 pounds of soot or alluvial earth and 165 pounds of coal dust.

For simultaneous treatment of oidium and downy mildew of the vine. For treatment of mildew.

21. *Sulfosteatite or cuprique steatite.*—An exceedingly fine bluish powder composed of steatite, or talc, and sulphate of copper, the proportion of the latter substance amounting to about 10 per cent. Very easily applied; considered the most adherent of all the powders.

For the treatment of mildew (*Peronospora*).

22. *David's powder.*—Dissolve 4 pounds of sulphate of copper in the least possible amount of hot water, and slake 16 pounds of lime with the smallest quantity of water required. When the copper solution and slaked lime are completely cooled mix them together thoroughly; let the compound dry in the sun, crush and sift. Apply with a sulphuring bellows furnished with an outside receptacle for the powder. The copper coming in contact with the leather will soon destroy it.

For downy mildew. For downy mildew and black rot of the grape. For mildew and anthracnose.

23. *Podechard's powder.*—Air-slaked lime, 225 pounds; sulphate of copper, 45 pounds; flowers of sulphur, 20 pounds; ashes, 30 pounds.

Dissolve the sulphate of copper in the water; when thoroughly dissolved pour the solution upon the lime, which is surrounded by the ashes to keep the liquid from spreading; after twenty-four hours add the sulphur, thoroughly mix the compound, ashes and all, and when dry sift through a sieve with meshes of one-eighth of one inch. This preparation may be made several months before it is required for use.

For the downy mildew of the vine. For the treatment of mildew and anthracnose.

Peculiar in medicinal merit and wonderful cures—Hood's Sarsaparilla. Now is the time to take it, for now it will do the most good.

Drain around the wells. Allow all surface water to flow away. It is a very easy matter to contaminate the drinking water, especially in spring, when the ground is saturated.

The Chicago, Kansas & Nebraska railway (Rock Island Route) has authorized a rate of a fare and a third for the round trip to the Democratic convention at Wichita, May 17. Tickets on sale May 16 and 17, good to return until May 21.

The timid nature of sheep make them a prey to all other animals, and hence they should be guarded from harm. They are hooked about by the cattle, and playfully stamped upon by the horses and colts. Give them their own particular domain, and separate the ewes with lamb, that they may have extra feed as well as quietness.

The Poultry Yard.

Points to Be Remembered.

These points are reprinted from the *Poultry-Keeper*.

When your hens get sore feet, or have bumble foot, it means that your roosts are too high.

Use pure-bred cocks always. A mongrel does not pay, and causes loss of time.

Feed sulphur sparingly, as it will cause rheumatism, or leg weakness. Never give it in damp weather.

Never bring a hen from another yard into your own, or you may introduce lice and disease. Raise them.

Giving water to chicks so as to allow them to get their bodies wet is certain death, as dampness is fatal to them.

A mixture of two parts lard and one part kerosene oil will remove the rough scabby formation on the legs of fowls.

Always have your nests removable, and kerosene the roosts, (under and upper sides), once a week.

Mating for the show room and mating to produce show birds from prize winners are different.

Cheap egg foods are mostly ground oyster shells, and the benefits are only imaginary. Don't buy them.

There is more in the management than in anything else. Everything depends on the poultryman.

Give the hens leaves, cut straw, or dry dirt, and scatter the grain in it, so as to compel them to work. The good scratcher is always a good layer.

Broilers usually begin to come into market about January 15. The highest prices are in April and May, for chicks less than two pounds weight, sold dressed, and they sometimes reach 60 cents per pound.

Pullets do not fatten as readily as hens. It requires a little science to feed Brahmas, Cochins, or Plymouth Rocks to prevent them becoming too fat. The more active the breed the less liability to fatten.

When you find a dead hen under the roost the cause is apoplexy, from over-feeding. When your hens gradually droop and die remove the cock, as he is the cause, especially if he is heavy. If a hen has blind staggers she is too fat.

When chicks grow very fast it sometimes causes leg weakness, but in such cases they have good appetites, and it is not necessarily fatal. Bottom heat, or feeding sulphur, will also cause leg weakness.

When chicks droop, look sleepy, have a rough appearance, refuse food, and do not grow, look closely on the heads, necks, and vents for the large body lice—not the little red mites.

For warts, sore heads, and skin diseases, rub, once a day, with a few drops of the following: Lard, two table-spoonfuls; cedar oil, one teaspoonful; carbolic acid, twenty drops.

Disinfect the entire premises, when disease appears, with Douglass Mixture, which is made of two gallons water, one pound copperas, and one gill sulphuric acid.

The reason the hen that steals her nest always hatches well is that she is not too fat, and every egg has the same vitality, but when persons put eggs under a hen the eggs are usually of all sorts and from anywhere they can be gotten.

To feed young chicks, give nothing for thirty-six hours. Then feed bread, crumbled, made of corn meal three parts, middlings one part, ground meat

one part. Cook well, and feed every two hours, cleaning away all that is left over. Mix the materials with milk if convenient, but if not, mix with hot water, before cooking. Feed no eggs, as they cause bowel disease. As soon as they are old enough keep cracked corn and wheat before them. When two weeks old feed on a mixture of ground corn and oats three parts, bran one part, ground meat one part, with a little salt and ground bone, the whole well scalded, and fed four times a day. Give all the drinking water they wish, but only the beaks must get wet. Give milk and also chopped fresh meat three times a week. Chopped onions, mashed potatoes, fine-chopped clover (scalded) or any variety, may also be fed. That is the Hammonton method.

When young chicks are feathering rapidly, feed chopped meat once a day. A pound for fifty chicks is sufficient. Avoid draughts of air on them.

The droppings are worth 50 cents per hen a year. The best way to preserve them is to clean out the house every alternate day. Mix one bushel dry earth, one bushel droppings, and half a peck of kainit, (crude German potash salts) together, and put away in a dry place. Kainit can be bought by the bag at any fertilizer store, and is not only cheap, but of itself a good potash fertilizer. In the mixture it forms sulphates, and fixes the ammonia. If it cannot be procured, use dry land plaster instead, but kainit is much better.

The advantages of an incubator are not that they are always better than hens, but that with their aid you can hatch at any time you prefer, and strike the market at the right time, hence an incubator chick may be worth four hatched under hens because he brings a high price.

More chicks can be hatched in winter, and raised in brooders, with one-tenth the labor, than with hens. An incubator is as much a necessary part of a poultryman's outfit as a reaper and binder is for a wheat-grower.

We have raised chicks in brooders to weigh two pounds (when forced in feeding) in nine weeks, but ten to twelve weeks is the average time. Our brooder turkeys weighed five pounds when four months old.

About Shells in the Poultry Yard.

The poultry editor of the *Mirror and Farmer* (N. H.) recently claimed that the ground shells, etc., eaten by fowls was not used as material for the shells of eggs. To this, a correspondent took exception, which elicits the following from the editor:

A correspondent does not agree with us in our claim that the use of ground oyster shells does not provide the shells for eggs, and he asks in regard to the oyster shells eaten, "What becomes of it?" We are pleased to have any reader give his opinion, and even to correct any error we may make, but in this case the correspondent, though denying our proposition, does not attempt to show that the oyster shells do provide the lime for the shells of the eggs. Our reasons for assuming our position are: First, that we have had hens to lay soft-shelled eggs, though the ground was almost covered with small sea shells and broken oyster shells. Second, that the materials of an egg are all carried to the place of deposit in the blood. Third, that shells (carbonate of lime) are insoluble, and serve for grinding the food rather than serving as food material. Fourth, that after being used for the grinding of food, they are

voided from the body, the same as the gravel, broken crockery ware, etc. Fifth, that there is more lime in the food consumed than is required by the hen to lay one egg a day. Sixth, that where hard water is used large quantities of soluble lime (as sulphate) is appropriated. Seventh, that as long as a hen can provide the nitrogen and carbon necessary for an egg, she always secures sufficient lime, for the reason that the lime in the food is in excess of any other substance. Now let our readers discuss the matter.

To all of which the Orange County (N. Y.) *Farmer* replies:

We are glad to be able to endorse all that the poultry editor has to say. It is simple common sense, such as we have for years been trying to inculcate in the minds of our readers. "Egg shells are composed (mainly) of carbonate of lime, hence we must feed our hens that article." That is the position taken by poultrymen generally, but it is unsound. Let us see. Among other constituents of an egg, we find sulphur. Ergo, we must feed our hens sulphur in order that they may lay us perfect eggs. But what we do not do and yet we get perfect eggs. The hen, like the fowls of the air, gets a supply of sulphur without our aid, but from where? The blood of a healthy man contains iron; an examination of a sick man's blood shows a deficiency of iron, hence we jump to the conclusion that we must feed him some chemical preparation of iron.

This is simple empiricism, the opposite of science. Neither a hen or a man can assimilate inorganic matter like carbonate of lime or iron. They are not in the shape desired. In the various foods, nature has placed the constituents needed, in organic form, and they are thus capable of being assimilated—becoming a part of the system. Wheat contains potash, soda, magnesia, lime, phosphoric acid, sulphur, iron, etc., and it is in this way that the fowl or the man gets the chemical constituents of his body. It would seem that such a position cannot be refuted.

Another Prize Offered by Mr. Hughes.

Mr. Geo. H. Hughes, poultryman, North Topeka, Kas., offers the following prizes for best and second best articles written by ladies for the KANSAS FARMER on "The Peculiar Traits and Dispositions of Thoroughbred Hens"—the articles to be published before the first day of September next, the merits of the articles to be decided and the prizes awarded by Mr. E. G. Moon, Secretary of the Kansas State Fair: First prize, thirty pounds prepared sea shells for poultry; second prize, one copy of the "American Standard of Excellence."



How to Cure
Skin & Scalp
DISEASES
with the
CUTICURA
REMEDIES.

THE MOST DISTRESSING FORMS OF SKIN and scalp diseases, with loss of hair, from infancy to old age, are speedily, economically and permanently cured by the CUTICURA REMEDIES, when all other remedies and methods fail. CUTICURA, the Great Skin Cure, and CUTICURA SOAP, an exquisite Skin Beautifier, prepared from it, externally, and CUTICURA RESOLVENT, the new Blood Purifier, internally, cure every form of skin and blood disease, from pimples to scrofula. Sold everywhere. Price, CUTICURA, 50 cents; SOAP, 25 cents; RESOLVENT, \$1. Prepared by the POTTER DRUG AND CHEMICAL CO., BOSTON, MASS. Send for "How to Cure Skin Diseases."

Pimples, blackheads, chapped and oily skin prevented by CUTICURA SOAP.

Relief in one minute, for all pains and weaknesses, in CUTICURA ANTI-PAIN PLASTER, the only pain-killing plaster. 25 cents.

Paine's Celery Compound

For The Nervous
The Debilitated
The Aged

CURES Nervous Prostration, Nervous Headache, Neuralgia, Nervous Weakness, Stomach and Liver Diseases, and all affections of the Kidneys.

AS A NERVE TONIC, It Strengthens and Quiets the Nerves.

AS AN ALTERATIVE, It Purifies and Enriches the Blood.

AS A LAXATIVE, It acts mildly, but surely, on the Bowels.

AS A DIURETIC, It Regulates the Kidneys and Cures their Diseases.

Recommended by professional and business men. Price \$1.00. Sold by druggists. Send for circulars.

WELLS, RICHARDSON & CO., Proprietors, BURLINGTON, VT.



HUMPHREYS' HOMEOPATHIC VETERINARY SPECIFICS

That the diseases of domestic animals, Horses, CATTLE, SHEEP, DOGS, HOGS and POULTRY, are cured by Humphreys' Veterinary Specifics, is as true as that people ride on railroads, send messages by telegraph, or sew with sewing machines. It is as irrational to bottle, ball, and bleed animals in order to cure them, as it is to take passage in a sloop from New York to Albany. Used in the best stables and recommended by the U. S. Army Cavalry Officers.

500 PAGE BOOK on treatment and care of Domestic Animals, and stable chart mounted on rollers, sent free.

CURES
A. A.—Fever, Congestions, Inflammation.
B. B.—Spinal Meningitis, Milk Fever.
C. C.—Strains, Lameness, Rheumatism.
D. D.—Distemper, Nasal Discharges.
E. E.—Bots or Grubs, Worms.
F. F.—Coughs, Heaves, Pneumonia.
G. G.—Colic or Gripes, Bellyache.
H. H.—Miscarriage, Hemorrhages.
I. I.—Urinary and Kidney Diseases.
J. J.—Eruptive Diseases, Mange.
K. K.—Diseases of Digestion.

Stable Case, with Specifics, Manual, Witch Hazel Oil and Medicator, \$7.00

Price, Single Bottle (over 60 doses), .60
Sold by Druggists; or
Sent Prepaid on Receipt of Price.
Humphreys' Med. Co., 109 Fulton St., N. Y.

LEWIS' 98% LYE
POWDERED AND PERFUMED
(PATENTED)
The strongest and purest Lye made. Will make 10 lbs. of the best Perfumed Hard Soap in 20 minutes without boiling. It is the best for disinfecting sinks, closets, drains, etc. Photographers' and machinists' uses. Foundrymen, bolt and nut makers. For engineers as a boiler cleaner and anti-incrustator. For brewers and bottlers, for washing barrels, bottles, etc. For painters to remove old paints. For washing trees, etc., etc.
PENN. SALT MFG CO., Gen. Agts., Phila., Pa.

OPIUM AND MORPHINE HABIT CURED
in 10 to 20 days. No pay until cured. Address
DR. JAS. J. HOLDEN, 119 N. 11th St., PHILA., PA.

PATENTS
THOMAS P. SIMPSON, Washington, D. C. No attorney's fee until Patent is obtained.
Write for Inventor's Guide.

FAT FOLKS
using "Anti-Corpulence Pills" lose 15 lbs. a month. They cause no sickness, contain no poison and never fail. Particulars (sealed) 4c. Wilcox Specific Co., Phila., Pa.

CHICHESTER'S ENGLISH PENNYROYAL
ORIGINAL ONLY GENUINE
SAFE ALWAYS TO LADIES INDISPENSABLE
RELIABLE NEVER FAIL
ENGLISH DIAMOND BRAND TAKEN OUT
OR INCLOSE 4¢ PARTICULARS RETURN MAIL
CHICHESTER CHEMICAL CO. MADISON SQ. PHILA. PA.
5,000 LADIES WHO HAVE USED THEM.

M.M.L. MEXICAN MUSTANG LINIMENT
Should be kept in stable, Kitchen, Factory, Store & Shop!

M.M.L. MEXICAN MUSTANG LINIMENT
is for Man & Beast. Kills Pain. Rub it in very vigorously!

M.M.L. MEXICAN MUSTANG LINIMENT
Should be kept in stable, Kitchen, Factory, Store & Shop!

M.M.L. MEXICAN MUSTANG LINIMENT
is for Man & Beast. Kills Pain. Rub it in very vigorously!

INSURANCE IN KANSAS.

The amount of money which has been paid out by Kansas people on wild cat insurance is very large; the exact figures will never be known. There never was a community where frauds of all kinds had better picking, not because the people were less watchful or more credulous, but because Kansas has been a wide-awake, progressive land where all manner of schemes for rapid accumulation of money grew together just as corn and sunflowers grow together in our rich soils. The masses tilled the soil and worked in legitimate lines of trade, while the sharpers lived off them.

It is a source of much gratification to know that our Superintendent of Insurance, Hon. D. W. Wilder, is exercising the authority vested in him by law to secure to the people honest and safe insurance. His department has just issued a report full of interesting facts concerning insurance in this State. It gives the names of companies now authorized to do business in the State, the names of those whose application has been refused, and the names of those whose authority was cancelled, besides a great deal of other pertinent information. By way of showing how the Superintendent feels about it, we quote a few extracts from the report, as follows:

In the New York Spectator of March 1, 1888, there is a tabular statement "showing the increase or decrease of surplus for all the competitive companies." There are in this list 276 fire insurance companies. The number having an impaired capital is only seven. Four of these seven were authorized to do business in Kansas last year. The number was disgracefully large; more than our share. Not one of them is here now. The officers and lawyers make smooth excuses for all of these companies; but the great fact remains that a sound and strong company is better than a weak and sick one. If companies can not be shut out on the 1st of March, when can they be? That is the beginning of the "insurance year." If the authority of a company is not renewed at that time it ceases to do business in Kansas. Companies that have been slow and negligent in paying losses, that do not answer letters sent to them by sufferers; companies that make illegal annual statements, and companies with impaired capital, can be shut out on the 1st of March. They were this year. Reform must come at some time, or this department would be a curse instead of a benefit to the people. The debarred companies and their lawyers all talk about vested rights; once in Kansas, always in Kansas. A bigger right is that of the State and people for sound insurance, insolvent companies that promptly pay actual losses. Every company now knows that it is watched; that it can not stay in Kansas unless it behaves itself. * * * A bogus insurance company is a thief and a pirate, robbing honest men of their money. For the sake of the people preyed upon and for the good name of the State, these base organizations should be speedily exposed and closed. Purify the atmosphere. Give the thieves notice to quit.

ADJUSTING LOSSES.

Insurance companies get into the habit of looking at every loss as a dishonest loss. "That fellow burned his store to get the insurance. He wants us to start him in business again." The adjuster acts upon that theory. He is very apt to look upon the man who has been burned out as a criminal, and the sufferer is half way convinced of the fact before the adjuster gets through with him.

A company regards an adjuster as a very poor insurance man unless he can make his salary out of the losses that he compromises. * * * These facts are the common-places of insurance, known to all sensible persons. So good is its name, so grand is its work, that every modern land abounds in miscreants who steal its livery to serve the devil in. They take your money and promise to return it a thousand fold in the event of fire, disaster, or death. Their promise is a lie; their treasury is bankrupt. In my very brief and imperfect administration of this department I have every day heard the voice of the poor man and the poor woman who has been robbed by base and infamous wretches who promised, for pay, to give insurance. This has been done in Kansas, the State of our pride, our love, our hope; done by men living here, done for years, and done ten thousand times. I should deem myself unfit to live if I did not do everything in my power to strike down the hands of these infamous men—men who have betrayed and robbed the poor, the helpless and the ignorant—and to hand their names down for perpetual execration. It is not fit that Kansas should longer endure the shame of pocket-picking in the name of insurance.

The four feet of an ordinary ox will make a pint of neat's foot oil. Not a bone of any animal should be thrown away. Many

cattle shin bones are shipped to England for the making of knife handles, where they bring \$40 per ton. The thigh bones are the most valuable, being worth \$80 a ton for cutting into tooth brush handles. The fore-leg bones are worth \$30 a ton, and are made into collar buttons, parasol handles and jewelry, though sheep legs are the staple parasol handles. The water in which the bones are boiled is reduced to glue, and the dust which comes from sawing them is fed to cattle and poultry.

Inquiries Answered.

GRAFTING.—Questions about grafting will be answered in our Horticultural department next week.

POSTOFFICE ADDRESS.—The full name and postoffice address of C. A. Kingman, who recently had a communication in the KANSAS FARMER, is wanted by Nathan Lindley, Protection, Comanche Co., Kas., for the purpose of a business correspondence.

CHEESE-MAKING.—Please state through the columns of your valuable paper, details for making cheese for family use. Especially how and the amount of rennet to use.

—We have several times given this information in the FARMER, and will do so again, unless some of our dairy friends will relieve us.

STATE ALLIANCE.—Is there a State Alliance organized in this State? If so, who are the officers?

—There is no State Alliance in Kansas now, but there ought to be. If some interested persons would write to J. Burrows, Filley, Nebraska, President of the National Alliance, he would put them in the way of reorganization.

CANNING FRUIT.—A correspondent wants information from experienced persons about canning fruit, more particularly tomatoes and sweet corn.

—In the meantime, let him remember that what is necessary in such cases is thorough heating. Corn must be subjected to greater heat than any of the vegetables or fruits, and in order to effect that, at a farm house, it must be kept in heat caused by boiling water about four hours. The can, filled with corn, is boiled that long, and then sealed.

BORERS.—A correspondent writes: "I see in your paper of May 3, something about borers in apple trees, and about rabbits barking them. Take a brush and some white lead, and give them a light coat of paint, and the rabbits will not disturb them. How to keep borers out of apple trees: After you set them out, take a pint of wood ashes and put around every tree in the spring and fall, and white-wash with lime spring and fall. I have raised two orchards in that way and never was troubled with rabbits or borers."

Patents to Kansas People.

The following list is prepared for the week ending Saturday, May 19, 1888, from the official records of the Patent office by Washington correspondent. A printed copy of any patent here named can be had for 25 cents.

Desk cabinet—Frank S. Thomas, Topeka.
Tire tightener—Frank S. Dimon, Fort Scott.
Car mover—George S. Currier, Garnett.
Device for converting motion—Salvin F. Kellogg, Clay Center.
Trace carrier—Oliver I. Langworthy, Nortonville.
Feed trough—Eli P. Newbanks, Beloit.

Teachers can enter Campbell Normal University (Holton, Kas.) any week.

A thrifty farmer says 50 cents' worth of awls, punches, linen thread and shoemaker's wax will save \$10 in harness repairs in twelve months.

To the Deaf.

A person cured of deafness and noises in the head of twenty-three years standing by a simple remedy. Will send a description of it free to any person who applies to Nicholson, 177 Macdougall St., New York city.

Sheep should be looked on as auxiliaries in keeping up the fertility of the land rather than a direct means of large profit. Their manure will last in the ground for years. What a radical and wholesome change it will be in American farming when sheep shall be kept for the good they do on the farm.

Farm Loans.

Loans on farms in eastern Kansas, at moderate rate of interest, and no commission. Where title is perfect and security satisfactory no person has ever had to wait a day for money. Special low rates on large loans. Purchase money mortgages bought.

T. E. BOWMAN & CO.,
Jones Building, 116 West Sixth street,
Topeka, Kas.

Hardware for Farmers.

D. A. Mulvane & Co., 713 Kansas avenue, Topeka, always keep a full line of hardware, and especially desire the patronage of every farmer, who will find it to his interest to inspect our complete stock of hardware of every description, including the cheapest and best line of gasoline stoves, refrigerators, barb wire, screen doors, tinware, ladders, wheelbarrows, etc.

It is not the weight of a single fleece that adds value to a flock, it is not the premiums won at a single or a series of fairs by the pick of a flock, that makes a substantial reputation, as many have found to their cost. It is the generally careful and judicious coupling, feeding, caring for and handling that make the average flock at home the mecca of the buyer.

To Nervous Men.

If you will send us your address, we will mail you our illustrated pamphlet explaining all about Dr. Dye's Celebrated Electro-Voltaic Belt and Appliances, and their charming effects upon the nervous debilitated system, and how they will quickly restore you to vigor, manhood and health. If you are thus afflicted, we will send you a Belt and Appliances on trial.

VOLTAIC BELT CO., Marshall, Mich.

In selling hay, let it be timothy instead of clover, for the latter pays best when fed on the farm. Timothy brings the highest price in market, and clover makes the best manure. In order to run clover through the cutting-box, moisten it and sprinkle with a mixture of corn meal and bran; or a mixture of oats and corn ground together makes a food on which horses and cows will thrive well during winter.

Consumption Surely Cured.

TO THE EDITOR:—Please inform your readers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy FREE to any of your readers who have consumption if they will send me their Express and P. O. Address. Respectfully, T. A. Slocum, M. C. 181 Pearl St., New York.

Only one quart of milk per cow for each day may be the turning point between profit and loss in the dairy. As some cows will yield twice as much as others, it becomes the duty of the dairyman to raise his cows, and use only those from good milking families. No dairyman can succeed who buys fresh cows to replace those that dry off, as the chances are against him. No cow can be depended upon as a milker until she shall have been tested.

Get Ready for Haying.

Now that rains, which were so much needed in most localities, have fallen, and a good hay crop is thereby assured, it becomes the duty of all good farmers to see that their haying tools are put in good shape ready for use when wanted. If another hay-rake has to be bought this season get a good one, as it will cost less in the end than some of the cheap things with which the markets are flooded. Probably the "Bradley No. 2," made by the David Bradley Manufacturing Co., of Chicago, and sold by their agents throughout the country, is as good as any, if not the best. It has been well known for years and is made by an old establishment, which has the reputation of making very reliable rakes, plows, cultivators, etc.

Thirty Miles Disappear.

Thirty miles of journey is a big thing to disappear, but this distance has been dropped out between Kansas City and Chicago. How it happened is thus figured: The Chicago, Santa Fe & California railway is completed between Kansas City and Chicago, and the distance between the two cities is only 458 miles, measuring from Union Depot, Kansas City, to Dearborn Station, Chicago. This is exactly thirty miles less than by any of the old lines, so you have to travel thirty miles less, your freight has to be hauled thirty miles less, and practically the Santa Fe has made thirty miles disappear. A few years at this rate and Kansas will be in New England.

This paper is now a twenty-page weekly and only costs \$1 a year. Compare it with any farm journal in America.

**JOLLY
TAR
PLUG
TOBACCO**

is the
people's favorite, because
it gives the
largest quantity of good
tobacco for
the money—
All dealers
keep it—take
no other but
get JOLLY TAR.

BINDER TWINE
OF BEST GRADES.

DUCK HARVESTER

Binder Covers

Hay Caps & Stack Covers.

GEO. B. CARPENTER & CO.,
202 to 208 South Water St., CHICAGO.



The BUYERS' GUIDE is issued March and Sept., each year. It is an encyclopedia of useful information for all who purchase the luxuries or the necessities of life. We can clothe you and furnish you with all the necessary and unnecessary appliances to ride, walk, dance, sleep, eat, fish, hunt, work, go to church, or stay at home, and in various sizes, styles and quantities. Just figure out what is required to do all these things COMFORTABLY, and you can make a fair estimate of the value of the BUYERS' GUIDE, which will be sent upon receipt of 10 cents to pay postage, MONTGOMERY WARD & CO. 111-114 Michigan Avenue, Chicago, Ill.

OPIUM Morphine Habit Cured in 10 to 20 days. No pay till cured. Dr. J. Stephens, Lebanon, Ohio.

The Busy Bee.

Beginners in Bee-Keeping.

One of the first things for the beginner in apiculture to consider is what hive to adopt. Nearly every hive manufacturer in the country will insist that the hive he has for sale is the best, and he may be honest in his belief; but as all are not of the same opinion on this subject, the question comes up, "What are the requirements of a perfect hive?" That is, if perfection has been reached, what hive can claim it?

I would not have my readers suppose that I consider myself most excellent authority on this subject; on the contrary I am not. But as it is a matter of considerable importance, just at this time, and as no one else seems likely to give their ideas, I will give mine, in the hope that some may be benefited thereby.

I will not name any particular hive, but will tell just what I think should be combined to make it as near perfect as possible. First it should be easy and quickly manipulated, it should be large enough in its full capacity to accommodate the most prolific queen at any time of the year, and at the same time so arranged that it may be contracted to one-fourth, or even one-fifth of its full capacity.

From my experience I think that a hive containing 2,800 cubic inches, or about that, and holding ten frames, would accommodate almost any queen, and should her prolificness go beyond this, I would add another story to the hive rather than have the single story much larger. Third, it should open from the top, so when the cover is removed the operator may remove any frame that he wants without first having to remove several others. This you will see cannot be done with a hive that is manipulated from the side—such as some still adhere to—simply because it is the first and only movable frame hive they have used. It should be well adapted to the one one-pound sections in its surplus department, and should be interchangeable—by interchangeable I mean, every chamber or hive body should be exactly like the others, so that the lower story may be used for an upper story, or vice versa, and should admit of tiering up without limitation.

The bottom should be movable for several reasons, too numerous to mention. One of the best features of a hive seems to be overlooked by many of our most successful apiarists, viz.: Metal cornered frames resting on metal rabbits. The very small cost of these in excess of the all-wood frame, resting on a wooden rabbit, should not prevent any one from having them when we consider the annoyance caused by the wooden frames being fastened to the hive with wax and propolis, thus causing a loss of time and much jamming and snapping to disturb and anger the bees, to say nothing of the one handling them.

I do not want all-wood frames for my part. During the last few years there has been much discussion in the journals about inversion, invertible frames, supers and hives. The best authorities seem to differ very much in their opinions on the subject.

I intended to have experimented with the reversible frame last summer, but as the bees made little in the way of comb-building I had no opportunity, so can only speak from what I have read. Judging from present indications I should not advise the beginner to invest in invertible hives, at least not if he has to pay much more for them than he would have to pay for hives otherwise as good but not invertible.

ble. But if he wishes to experiment try one or two hives, and then if satisfied, it is time to adopt the invertible. —Farm, Field and Stockman.

A Question.

A correspondent writes: "I want to ask through your paper the best hive to keep bees in, and what will keep ants out of the hive? I want to raise bees and want to go at it in the right way."

The best dollar investment in the world is for any reader of this paper to send us \$1 for the KANSAS FARMER one year.

Where the water is slow in disappearing from certain portions of the field the best remedy is the tile drainage, which will incur but little expense.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYSE, 149 Power's Block, Rochester, N. Y.

THE MARKETS.

By Telegraph, May 21, 1888.

LIVE STOCK MARKETS.

Chicago.

The Drovers' Journal reports:

CATTLE—Receipts 9,000, shipments 5,400. Market strong on light, weak on heavy. Steers, beefs, \$3 90a5 00; cows, \$1 80a3 50; stockers and feeders, \$2 50a4 10; Texans, \$2 00a 2 50.

HOGS—Receipts 22,000, shipments 7,000. Market steady. Mixed, \$5 50a5 75; heavy, \$5 60a 5 90; light, \$5 45a5 65; skips, \$3 25a5 25.

SHEEP—Receipts 8,000, shipments 1,000. Market dull, 5c lower. Shorn \$3 50a5 00, Texas woolled yearlings \$5 50, Texas shorn \$1 62a4 50.

Kansas City.

CATTLE—Receipts since Saturday 676; for to-day 191. The offerings were the lightest of the season and scarcely sufficient to market. Values on such as were sold ruled strong and about 10c higher. Sales ranged \$3 75a4 30 for dressed beef and shipping steers.

HOGS—Receipts since Saturday 4,618. The quantity of the offerings was not so good as Saturday, and the market ruled strong and a shade higher, quantity considered. A weaker feeling, however, existed at the close. Extreme range of sales \$4 85a5 60, bulk at \$5 40a 5 45.

SHEEP—Receipts since Saturday 150. Market ruled firm for good muttons and weak for common. Sales at \$3 10a5 30.

PRODUCE MARKETS.

New York.

WHEAT—1½a1½c lower. No. 2 red, 95½a96c elevator, 97½a97½c delivered.

CORN—1c lower. No. 2, 64a64½c elevator, 65a65½c delivered.

St. Louis.

FLOUR—Very dull and lower to sell.

WHEAT—No. 2 red, cash, 91c; June, 90½a 90¾c.

CORN—Cash, 56c.

OATS—Lower. Cash, 34½.

RYE—Nothing doing.

BARLEY—Nominal.

HAY—Firm. Prime timothy, \$12 00a18 00; prairie, \$8 50a12 00.

BUTTER—Firm. Creamery, 20a22c; dairy, 16a20c.

EGGS—12½c.

PROVISIONS—Firm. Pork, \$15 00; lard, \$8 25.

Chicago.

Cash quotations were as follows:

FLOUR—Prices without quotable change.

WHEAT—No. 2 spring, 80½a86c; No. 3 spring,; No. 2 red, 90½c.

CORN—No. 2, 55½c.

OATS—No. 2, 31c.

RYE—No. 2, 65c.

BARLEY—No. 2, 75c.

FLAXSEED—No. 1, \$1 40.

TIMOTHY—Prime, \$2 25a2 30.

PORK—\$14 37½a14 40.

LARD—\$5 60.

SUGARS—Granulated, 7c, standard A 66½c.

BUTTER—Creamery, 19a23c; dairy, 17a21c.

EGGS—12½a13.

Kansas City.

WHEAT—Receipts at regular elevators since last report, bushels; withdrawals,

bushels, leaving stock in store as reported to the Board of Trade to-day, 54,827 bushels. On track by sample: No. 2 soft, cash, 86c.

CORN—Receipts at regular elevators since last report, 965 bushels; withdrawals, 8,500 bushels, leaving stock in store as reported to the Board of Trade to-day, 19,907 bushels. On track by sample: No. 2 mixed, cash, 52c; No. 2 white, cash, 54½c.

OATS—On track by sample: No. 2 mixed, cash, 33c; No. 2 white, cash, 36c.

RYE—No. 2 cash, 58c bid, no offerings; May, no bids nor offerings.

HAY—Receipts 33 cars. Market firm; fancy, \$11 00 for small baled; large baled, \$10 50; wire-bound 50c less; medium, \$8 00a8 50; poor stock, \$4 00a5 00.

SEEDS—We quote: Flaxseed, \$1 10 per bu. on a basis of pure; castor beans, \$1 00 for prime.

OIL-CAKE—Per 100 lbs. sacked, f. o. b., \$1 25; \$1 00 per 1,000 lbs.; \$2 10 per ton; car lots, \$20 00 per ton.

FLOUR—Firm. Quotations are for unestablished brands in car lots, per ½ bbl. in sacks, as follows: XX, 95c; XXX, \$1 05a1 10; family, \$1 20a1 30; choice, \$1 55a1 65; fancy, \$1 70a1 75; extra fancy, \$1 80a1 85; patent, \$2 10a2 15; rye, \$1 40a1 60. From city mills, 25c higher.

BUTTER—Receipts large and market active. We quote: Creamery, fancy, 18c; good, 16c; dairy, 13a14c; storepacked, choice, 12c.

CHEESE—We quote: Full cream, twins, 12c; full cream, Young America, 13½c.

EGGS—Receipts light and market firm at 12c per dozen for strictly fresh. Goose eggs no sale.

POTATOES—Irish, home-grown, \$1 25 per bus.; Colorado and Utah, \$1 20 per bus. Sweet potatoes, yellow, 75a90c per bus.

BROOMCORN—Dull and weak. We quote: Green self-working, 4c; green hurl, 4c; green inside and covers, 2½a3c; red-tipped and common self-working, 2c; crooked, 1c.

PROVISIONS—Following quotations are for round lots. Job lots usually ½c higher. Sugar-cured meats (canned or plain): Hams 11c, breakfast bacon 10c, dried beef 9c. Dry salt meats: clear rib sides \$7 50, long clear sides \$7 40, shoulders \$5 85, short clear sides \$7 70. Smoked meats: clear rib sides \$8 15, long clear sides \$8 05, shoulders \$6 00, short clear sides \$8 55. Barrel meats: mess pork \$14 00. Choice tierce lard, \$7 50.

Topeka Markets.

PRODUCE AND PROVISIONS—Corrected weekly by W. W. Manspeaker & Co., 711 Kansas avenue. (Wholesale price).

Butter, per lb.	15a 18
Eggs (fresh) per doz.	11
Beans, white navy, H. P., per bus	2 10
Sweet potatoes	1 90
Potatoes	90a1 30
Beets	40a



JUDICIOUS AND PERSISTENT Advertising has always proven successful. Before placing any Newspaper Advertising consult LORD & THOMAS, ADVERTISING AGENTS, 45 to 49 Randolph Street, CHICAGO.

HAGEY & WILHELM, COMMISSION MERCHANTS ST. LOUIS, MO.

REFERENCES:—KANSAS FARMER CO., Topeka, Kas.; Boatmen's Bank, St. Louis; Dunn's Mercantile Reporter, St. Louis; First National Bank, Beloit, Kas.

GENERAL AGENTS FOR COOPER'S SHEEP DIP.

We guarantee sale and full returns inside of TEN DAYS from receipt of shipment.

GREAT OFFER!



T. SWOGER & SON, Fine Church and Parlor ORGANS.

DIRECT FROM THE FACTORY AT MANUFACTURERS PRICES. No Such Offers Ever Made.

EVERY MAN HIS OWN AGENT. BOXED IN THE FACTORY.

OPENED AT YOUR HOME NO MIDDLEMEN.

NO WHOLESALE DEALERS. NO AGENTS.

NO RETAIL DEALERS. NO CANVASSERS.

WRITE FOR PARTICULARS, ADDRESS T. SWOGER & SON, ORGANS, Beaver Falls, Pa., U. S. A.

RIVERVIEW

The Prettiest Young City of the Smoky Valley.

Beautiful Springs, Lake, and also, what the name implies,

RIVER VIEW.

Buy a home in or farm adjoining Riverview. Call on or address

THOS. E. FULGHUM, Hays City, Kansas.



After Forty years' experience in the preparation of more than One Hundred Thousand applications for patents in the United States and Foreign countries, the publishers of the Scientific American continue to act as solicitors for patents, caveats, trade-marks, copyrights, etc., for the United States, and to obtain patents in Canada, England, France, Germany, and all other countries. Their experience is unequalled and their facilities are unsurpassed.

Drawings and specifications prepared and filed in the Patent Office on short notice. Terms very reasonable. No charge for examination of models or drawings. Advice by mail free.

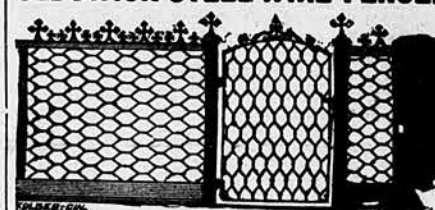
Patents obtained through Munn & Co. are noticed in the SCIENTIFIC AMERICAN, which has the largest circulation and is the most influential newspaper of its kind published in the world. The advantages of such a notice every patentee understands.

This large and splendidly illustrated newspaper is published WEEKLY at \$3.00 a year, and is admitted to be the best paper devoted to science, mechanics, inventions, engineering works, and other departments of industrial progress, published in any country. It contains the names of all patentees and title of every invention patented each week. Try it four months for one dollar. Sold by all newsdealers.

If you have an invention to patent write to Munn & Co., publishers of Scientific American, 361 Broadway, New York.

Handbook about patents mailed free.

SEDGWICK STEEL WIRE FENCE.



The best Farm, Garden, Poultry Yard, Lawn, School Lot, Park and Cemetery Fences and Gates. Perfect Automatic Gate. Cheapest and Neatest Iron Fences. Iron and wire Summer Houses, Lawn Furniture, and other wire work. Best Wire Stretcher and Plier. Ask dealers in hardware, or address, SEDGWICK BROS., RICHMOND, IND.

TANSY PILLS!

Safe and Sure. Send 4c. for "WOMAN'S SAFE GUARD." Wilcox Specific Co., Phila., Pa.

The Veterinarian.

[The paragraphs in this department are gathered from our exchanges.—ED. FARMER.]

BARB WIRE WOUND.—I have a bay horse that is coming 2 years old in the spring, a half-blood Percheron. He ran into a wire fence in May, and cut the skin through across the breast under the neck, so that a person could lay his hand in the cut. I had it healed up, but it broke open at the left shoulder again. Let me know what treatment to follow. [Would advise you to inject into the wound the following: Carbolic acid, one-half ounce; glycerine, eight ounces; water, eight ounces.]

HORSE OUT OF CONDITION.—I have a black horse, age 7 years this fall, which at 2 years old was very lousy, and got very weak. For two years he has been troubled with worms. They are six inches in length. He has had something like a fit. He would shy and be very nervous, and appeared as though he could not see. He is in good condition, feels good, eats harty and fast. Food does not digest good. Has been well fed, and has not had much exercise. [Would advise you to give a teaspoonful of the following three times a day: Powdered nux vomica, one and one-half ounces; white sugar, two ounces; ground flaxseed, four ounces.]

POOR EATER.—A driving mare, 6 years old, has not been in good condition since she was taken up to drive at 8½. Is high-strung and rather nervous; very free traveler; has to be held back all the time; does not eat well. Have tried cut hay, bran and corn meal, both dry and moistened, but she will not eat a pound at a feed, and will pick her bedding over if left in the stall. Have put salt with her feed, with no better result. She will not touch bran mash with oats. After being driven, looks gaunt and tucked up; sometimes has a slight cough. Her coat shines, and otherwise she appears in good health. She had an alternative purge a month ago, and six tonic balls a week later. Appetite has improved a little. She gets good clover hay and corn on the ear, as she prefers that to meadow hay and meal and hominy. Still refuses to eat cut feed. [Mare is evidently of nervous temperament, and not the sort to carry flesh. Have her teeth seen to, and give regular exercise. Give one of the following balls a week apart: Powdered aloes, eighteen drachms; powdered gentian, six drachms, and a sufficient quantity of sirup; make three balls. Feed one-half pound of whole flaxseed with oats and bran daily, and give her course of Moore Bros.' worm and tonic powders.]

ERUPTIVE FEVER.—I would like to have you give a name and remedy for a disease passing through the cattle on our place. It commenced early last fall and in no case has proven fatal yet, and has only affected the old cattle. They commence swelling under the chops (sometimes very hard) till it in some cases bothers them to eat, drink and breathe. In most cases it did not last longer than a week or two. The two that are affected now eat well, but the swelling keeps very hard. I know of no other cases in this neighborhood. I have never done anything for it and, until of late, have not been worried about it. [The disease is probably an eruptive fever which appeared among many cattle this winter. It is characterized by swelling in and between the bones of the lower jaw, quite often terminating in an abscess. The cause seems to be a germ of a poisonous character in the blood, and confined chiefly to adult cattle. A few cases have come under

CHICAGO.

KANSAS CITY.

ST. LOUIS.

JAMES H. CAMPBELL & CO.,

Live Stock Commission Merchants,

FOR THE SALE OF CATTLE, HOGS AND SHEEP.

Rooms 23 and 24, Exchange Building, KANSAS CITY STOCK YARDS.

Unequaled facilities for handling consignments of stock in either of the above cities. Correspondence invited. Market reports furnished free. Refer to Publishers KANSAS FARMER.

our notice where the disease affected other portions of the body. The disease rarely proves fatal and very little medicinal treatment is needed, except where there is a hard swelling, as in the case above mentioned. For the above give the following treatment: Make a free opening in about the center of the swelling, taking care to avoid the blood vessel; inject tincture of iodine night and morning for three or four days. This treatment usually proves efficacious.]

UNCOVERED We will print your name and address in American Agents' Directory, for only 10 cents in postage stamps; you will then receive great numbers of pictures, cards, catalogues, books, sample works of art, circulars, magazines, papers, general samples, etc., etc. UNCOVERING to you the great broad field of the great employment and agency business. Those whose names are in this Directory often receive that which if purchased, would cost \$20 or \$30 cash. Thousands of men and women make large sums of money in the agency business. Tens of millions of dollars worth of goods are yearly sold through agents. This Directory is sought and used by the leading publishers, booksellers, novelty dealers, inventors and manufacturers of the United States and Europe. It is regarded as the standard Agents' Directory of the world and is relied upon: a harvest awaits all whose names appear in it. Those whose names are in it will keep posted on all the new money making things that come out, while literature will flow to them in a steady stream. The great bargains of the most reliable firms will be put before all. Agents make money in their own localities. Agents make money traveling all around. Some agents make over ten thousand dollars a year. All depends on what the agent has to sell. Few there are who know all about the business of those who employ agents; those who have this information make big money easily; those whose names are in this Directory get this information FREE and complete. This Directory is used by all first-class firms, all over the world, who employ agents. Over 1,000 such firms use it. Your name in this directory will bring you in great information and large value; thousands will through it be led to profitable work, and FORTUNE. Reader, the very best small investment you can make, is to have your name and address printed in this directory. Address, AMERICAN AGENTS' DIRECTORY, Augusta, Maine.

Dyspepsia is the bane of the present generation. It is for its cure and its attendants, Sick Headache, Constipation and Piles, that

Tutt's Pills

have become so famous. They act speedily and gently on the digestive organs, giving them tone and vigor to assimilate food. No griping or nausea.

Sold Everywhere.

Office, 44 Murray St., New York.

Maple Grove Duroc-Jerseys.

We use only the choicest animals of the most approved pedigree, hence our herd is bred to a very high state of perfection. Pigs in pairs not akin. Stock of all ages and sows bred for sale at all seasons. Prices reasonable and quality of stock second to none.

J. M. BROWNING, Perry, Pike Co., Ill.

POLAND - CHINA PIGS!

135 FOR SALE.

Sired by six first-class boars, for season's trade. My herd is headed by STEM WINDER 7971.

Address F. M. LAIL, Marshall, Mo. [Mention KANSAS FARMER.]

LANEY & PFAFF,
GREEN RIDGE, MISSOURI.

THOROUGHbred

POLAND - CHINA HOGS

FOR SALE.

No poor pigs sent out. [Mention KANSAS FARMER.]

THE GOLDEN BELT HERD OF Thoroughbred Poland-Chinas

This herd comprises the richest blood to be found in the United States, and in uniformity and style has no superior in this country. Choice animals of all ages and either sex for sale. Stock shipped from here over either the A. T. & S. F., Mo. Pacific or St. Louis & San Francisco R. R. All breeders registered in American P.-C. Record. Pedigree with each sale. F. W. TRUESDELL, Lyons, Kas.

OTTAWA HERD

OF POLAND - CHINA and DUROC - JERSEY Hogs. Twenty head of first-class boars from four to nine months old. Also seventy-five head of sows of same age, sired by Bruce 4695, C. R. Leek's Gilt Edge 2887, C. R. Whipple's Stemwinder 4701, Daisy's Corwin 4697. Dams—Mazy 2d 6214, Zeldin 3d 8250, Maggie's Perfection 8210, Vone's Perfection 9424, Fay's Gold Drop 11676, Jay's Dimple 12172, Eureka Mayo 12176, and many other equally as well bred, and fine as can be produced by any one. Part of sows bred to gilt-edge boars of the most popular strains. Will sell at prices to suit the times. Never had any cholera in the herd. Write for prices.

I. L. WHIPPLE, Box 270, Ottawa, Kas.

MAINS' HERD OF POLAND-CHINAS.



Jas. Mains, Oskaloosa, (Jefferson Co.), Kas., is located two and a half miles southeast of Oskaloosa, on Maple Hill Stock Farm. All hogs eligible to Ohio Poland-China Record. A fine lot of spring pigs now ready, for sale at prices that will suit the times. Also some fall sows now ready to breed or will be bred if desired. Personal inspection solicited.

FOUR BOARS. TWENTY SOWS.

IMPROVED Poland-Chinas

W. S. HANNA,
OTTAWA, - - - KANSAS.

Have shipped to fourteen States, and twenty-six counties in Kansas, and headed nearly fifty herds of pure-breds.

SEND FOR CIRCULAR. Describe exactly what you want.

Gold Dust Herd of Poland-Chinas.



J. M. MOORE, WELLINGTON, KANSAS.

Tom Corwin 3d 5293 A. P. C. R. at head of herd. Strains representing Model, Give or Take, Gold Dust, Black Bess and Black Beauty. Have some choice male pigs for sale. Also eggs of P. Rock, Brown Leghorn and Light Brahmas, \$1.25 per 13; Toulouse Geese, 15c.; Pekin Duck 10c. each. Write; no catalogue.

For Berkshire Swine and Southdown Sheep that are first-class, or money refunded, call on or address J. M. & F. A. SCOTT, Box 11, Huntsville, Mo. [Mention KANSAS FARMER.]

ORDERS TAKEN NOW

For SPRING PIGS sired by



ROYAL GRANITE 10105,

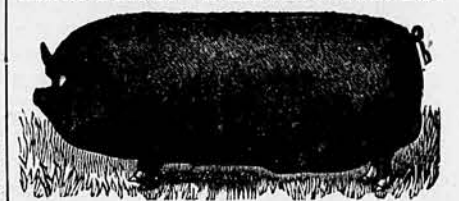
The best BERKSHIRE boar ever owned at "HAW HILL," and several other first-class sires. Enclose stamp for catalogue and prices. SPRINGER BROS., Springfield, Ill.

PLEASANT VALLEY HERD OF Pure-bred Berkshire Swine.



I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars, headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not akin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free. S. McCULLOUGH, Ottawa, Kansas.

ENGLISH BERKSHIRES.



THE WELLINGTON HERD consists of twenty matured brood sows of the best families of home-bred and imported stock, headed by the celebrated HOPEFUL JOE 4880, and has no superior in size and quality nor in strain of Berkshire blood. Also Plymouth Rock Chickens. Your patronage solicited. Write. [Mention this paper.]

M. B. KEAGY, Wellington, Kas. P. S.—Yearling sows, already bred, for sale.

LOCUST & GROVE & HERD

OF LARGE ENGLISH BERKSHIRE SWINE.

Nothing sent out but what is a credit to Locust Grove Herd. Individual excellence combined with purity of breeding, is my motto. Prices to suit the quality of stock offered. Correspondence and inspection solicited. Orders booked now for spring pigs. Address as below, or better, come and see.

JAMES HOUK, Prop'r, Hartwell, Henry Co., Missouri.

SELECT HERD OF LARGE BERKSHIRES!

G. W. BERRY, PROP'R, TOPEKA, KAS.

My sows represent the Royal Duchess, Sallie, Hillside Belle, Charmer, Stumpy, and other families. These Swanwick and Humfrey families are larger, thicker-fleshed, set on shorter legs, and possess finer qualities than other hogs. Herd headed by British Champion III. 13481 and Dauntless 17417. My aim is to produce a type of Berkshires honorable to the Select Herd and the breed. Correspondence in regard to spring pigs invited.

ELY'S CATARRH CREAM BALM

I was so much troubled with catarrh it seriously affected my voice. One bottle of Ely's Cream Balm did the work. My voice is fully restored.—B. F. Leipsner, A. M., Pastor of the Olivet Baptist Church, Philadelphia.

A particle is applied into each nostril and is agreeable. Price 50 cents at Druggists; by mail, registered, 60 cts. ELY BROS., 56 Warren St., New York.

TO WEAK MEN

Suffering from the effects of youthful errors, early decay, wasting weakness, lost manhood, etc., I will send a valuable treatise (sealed) containing full particulars for home cure. FREE of charge. A splendid medical work; should be read by every man who is nervous and debilitated. Address, Prof. F. C. FOWLER, Moodus, Conn.

DYKE'S BEARD ELIXIR Forces Heavy Mustache, Moustache, Whiskers, and Hair on Bald Heads in 20 to 30 days. The only remedy. Extra strong, 2 or 3 days' use. We prove this or pay \$100.00. Just think, second \$100.00. Smith & Big, Co., Palatine, Ill.

Devon Cattle! LINWOOD SHORT-HORNS

We are the largest breeders of this hardy, easy-keeping breed, one of the best for the West. Stock for sale singly or car lots.

RUMSEY BROS. & CO.,
EMPORIA, KANSAS.

Thoroughbred Cattle and Poultry

JOHN T. VOSS, GIRARD, KAS.,

BREEDER OF

THOROUGHBRED SHORT-HORN AND JERSEY CATTLE.

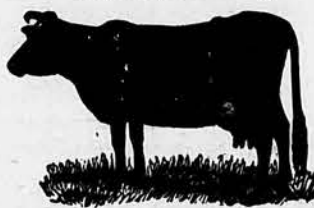
Stock for sale. Also FIFTEEN VARIETIES OF LAND AND WATER FOWLS of the very choicest strains. Send for Price Lists.

Inspection and correspondence invited.

Address JOHN T. VOSS, Girard, Kas.

Sherwood & Rohrer Stock Farm,

VALLEY CENTER, KANSAS,



Breeders of
A. J. C. C.
H. R.

JERSEY
CATTLE.

The herd
is headed
by the Stoke
Fogias Victor

Hugo Duke bull, St. Valentine's Day 15273, and the Coomassie bull, Happy Gold Coast 14713. Sons and daughters by above bulls, out of highly-bred cows, for sale for next ten days. SHERWOOD & ROHRER.

A BARGAIN

High-bred Short-horns



For the next
month I will
offer
LOW

Three Bulls and four Cows and Heifers of the Young Mary, Young Phyllis and Miss Hudson families.

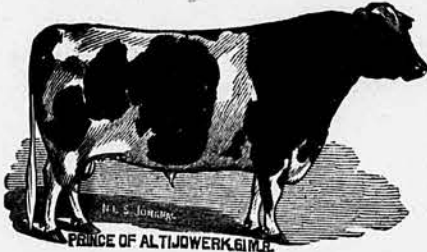
Will stand the Healey test.

CUTHBERT POWELL,

Journal Building, KANSAS CITY, MO.

Holstein - Friesian Cattle

Of European Herd Book Registry.



The sweepstakes bull PRINCE OF ALTIJWERK (61 M. R.) at head of herd, has no superior. Cows and heifers in this herd with weekly butter records from 14 pounds to 19 pounds 10 1/2 ounces; milk records, 50 to 80 pounds daily. The sweepstakes herd. Write for catalogue. M. E. MOORE, Cameron, Mo. (Mention this paper.)

SHANNON HILL STOCK FARM.



G. W. GLICK, Proprietor,
Atchison, Kansas.

Breeds and has for sale Bates and Bates-topped

SHORT-HORNS

Including representatives of

Kirklevingtons, Filberts, Craggs, Princesses, Gwynnes, Lady Janes, and other fashionable families.

The Grand Bates Bulls,

8th Duke of Kirklevington No. 41798, Waterloo Duke of Shannon Hill No. 89879,

At head of herd.

Fifteen choice young Bulls for sale now. Correspondence and inspection of herd solicited, as we have just what you want and at fair prices. Address

W. A. HARRIS, PROP'R, LINWOOD, LEAVENWORTH CO., KAS.

Substance, flesh, early maturity and good feeding quality the objects sought. The largest herd of Scotch Short-horns in the West, consisting of Cruickshank Victorias, Lavenders, Vilets, Secrets, Brawith Buds, Kinellar Golden Drops, etc., headed by Imp. Baron Victor 42824, a prize-winner and sire of prize-winners.
LINWOOD—Is twenty-seven miles from Kansas City, on Kansas Division Union Pacific R. R. Farm joins station. Inspection invited. Catalogue on application.

Kansas Hereford Cattle Co.,

(PAID IN CAPITAL \$100,000.)

IMPORTERS AND BREEDERS OF

HEREFORD CATTLE.

—BREEDING HERD AT GROVE PARK,—

2 1-2 Miles Northeast of Lawrence, Kas., on U. P. R. R.
Known as the "Gibb Farm."



W. D. EWART, Pres't, }
A. D. DANA, Treas. }
Chicago, Ill.

Address all communications to Lawrence, Kas.

{ F. P. CRANE, Manager, }
{ J. GORDON GIBB, Ass't Mgr, }
Lawrence, Kas.

E. Bennett & Son,

TOPEKA, - KANSAS,

The Leading Western Importers of

CLYDESDALE, PERCHERON, CLEVELAND BAY

French Coach Horses.

AN IMPORTATION OF 125 HEAD,

Selected by a member of the firm, just received.

Terms to Suit Purchasers. Send for illustrated catalogue. Stables in town.

E. BENNETT & SON.



IMPORTERS AND BREEDERS OF ENGLISH SHIRE AND SUFFOLK PUNCH HORSES

RED POLED CATTLE.



STERLING.
4713.

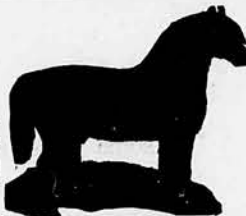
We have on hand a very choice collection, including a recent importation of horses, several of which have won many prizes in England, which is a special guarantee of their soundness and superiority of form and action. Our stock is selected with great care by G. M. SEXTON, Auctioneer to the Shire Horse Society of England. Prices low and terms easy. Send for catalogues to

SEXTON, WARREN & OFFORD, Maple Hill, Kansas.



Peter Piper (717).

EVANS Brothers



Hartford, Ks. Fred Barnaby (5011) 8448

We have a choice collection of Imported Clydesdales and Percherons Stallions that for style, action and quality, combined with choice Pedigrees, defy competition. All good colors, two to six years old. Each Stallion guaranteed a breeder.

TERMS EASY.

Hartford is situated thirty miles southeast of Emporia on the Missouri Pacific Railroad.

Take care of your Horses and Cattle by using Dr. S. P. Cregar's

STOCK CAKE & ANTI-WORM REMEDY,

a cathartic stimulant for HORSES, CATTLE and other LIVE STOCK. This Stock Cake removes worms, purifies the blood and water, loosens the hide, acts upon the kidneys, regulates the system and puts the animals in healthy, thriving condition. Also is a Preventive Against Pleuro-Pneumonia in Cattle. Price 15 cents per cake.

Dr. S. P. Cregar, 1464 Wabash Ave., Chicago.

HAAFF'S NEW PRACTICAL DEHORNER. Fifty illustrations. New Tools. Cattle Tags. New Water-heater. Send for circular. Agents wanted. Mention this paper.
H. H. HAAFF,
Box 193, Chicago, Ill.



The Imported CLYDESDALE Stallion
KNIGHT OF HARRIS 995
(2211),

The property of H. W. McAFEE, will make the season at Prospect Farm, three miles west of Topeka, Sixth street road.

Some Valuable Papers

CLUBBED WITH KANSAS FARMER:

The Breeder's Gazette, price \$3.00—both..... \$3.00
The Topeka Weekly Capital, price \$1.00—both..... 1.50
The Topeka Weekly Commonwealth, price \$1.00—both..... 1.50
The Weekly Kansas City Times, price \$1.00—both..... 1.75
Scribner's Magazine, price \$3.00—both..... 3.50

Chicago, Kansas and Nebraska Railway

"Rock Island Route"

Most Direct, Safest, Best, and Most Convenient

Means of inter-communication between all points in the States of KANSAS and NEBRASKA.

This great system presents the most comprehensive grouping of Central Lines in the United States, touching all principal localities in KANSAS, NEBRASKA, ILLINOIS, IOWA, MISSOURI, MINNESOTA and DAKOTA.

The Chicago, Kansas & Nebraska Railway

Joins the GREAT ROCK ISLAND ROUTE at KANSAS CITY and ST. JOSEPH FOR CHICAGO, and points EAST, and makes close connection with all the leading Railway Lines for ST. LOUIS and points EAST, SOUTH and SOUTHEAST; and with the famous ALBERT LEA ROUTE to ST. PAUL, MINNEAPOLIS, and points in the NORTHWEST.

By means of its central position, the substantial character of its construction, and its magnificent Passenger Equipment, consisting of restful RECLINING CHAIR CARS, magnificent PULLMAN PALACE SLEEPING CARS, AND ELEGANT DAY COACHES, THE CHICAGO, KANSAS AND NEBRASKA RAILWAY is enabled to offer superior advantages to its patrons, and to lead all of its competitors in time, security, comfort and accommodation.

Among the numerous Cities and Towns on

The Chicago, Kansas & Nebraska Railway,

ARE:
Wichita, St. Joseph, Kansas City, Clyde, Wellington, Belleville, Manhattan, Clay Center, Caldwell, Topeka, Abilene, Manhattan, Canton, Holton, Salina, Alma, McPherson, Horton, Solomon City, White City, Hutchinson, Sabathia, Manhattan, Herington, Pratt, Pawnee City, Smith Centre, Marion, Greensburg, Beatrice, Phillipsburg, Peabody, Dodge City, Hebron, Norton, Fairbury.

It is a line of modern construction, with the latest and best improvements, and traverses the most important portions of the States of KANSAS and NEBRASKA, where there are opportunities not found elsewhere for the Farmer, the Merchant, the Mechanic, the Laborer, the Professional Man, and all classes of business and industrial pursuits.

For tickets, maps, folders and other information, apply to your nearest Ticket Agent, or to

C. W. FISHER, JOHN SEBASTIAN,
General Manager. Gen. Tkt. & Pass. Agt.

W. D. MANN,
Asst. Gen. Tkt. & Pass. Agt.

TOPEKA, KANSAS.

Memphis Route,

KANSAS CITY, FT. SCOTT & MEMPHIS R. R.
(Formerly Gulf Route—Kansas City, Fort Scott & Gulf R. R.)

Offers you the most pleasant and desirable route to Kansas City and all points East, North and West; to Memphis and all points South.

At Kansas City, connections are made at Union Depot with all through trains for Chicago, St. Louis and the East; to St. Paul, Denver, San Francisco, Portland, and the West and Northwest. Via this line, entire train with Free Reclining Chair Car and Pullman Buffet Sleeping Car runs through to Memphis, Tenn.; through coach Kansas City to Bristol via Chattanooga and Knoxville. There is no other direct route from the West to Jacksonville, Pensacola, Nashville, Chattanooga, and all Southern cities.

This route, via Hoxie, is over one hundred miles the shortest line to Little Rock, Hot Springs, and points in Arkansas.

Write for large map and time-tables, showing through connections.

Before purchasing your ticket, call upon a ticket agent of this Company, or write to the undersigned for rates. Special rates and arrangements for parties and their movables, going South to locate.

Send for a copy of the Missouri and Kansas Farmer, giving full information relative to the cheap lands of Southwest Missouri. Mailed free.

J. E. LOCKWOOD,
Gen'l Passenger and Ticket Agent,
KANSAS CITY, MO.

The Burlington System

Of nearly 6,000 miles of steel rail, well-ballasted, with iron and steel bridges, an equipment unexcelled with over 300 passenger trains daily, traversing the great States of Missouri, Illinois, Nebraska, Iowa, Kansas, Colorado, Minnesota and the Territories, with trains made up of Pullman Palace Sleeping Cars, the Burlington's Celebrated Dining Cars, and Improved Modern Free Chair Cars, is unquestionably the Route for travelers to take going East, West or North.

Three Daily Fast Trains between Kansas City, St. Joseph, Atchison, Leavenworth and Quincy, Burlington, Peoria and Chicago without change.

Two Daily Fast Trains between Kansas City, Council Bluffs, Omaha, Sioux City, Des Moines, Minneapolis and St. Paul, with no change.

Two Fast Daily Trains between Kansas City, St. Joseph, Atchison and Denver without change.

The line carrying the government fast mail between the East and far West. Any ticket agent can give you maps and time table of this well-known route, or you can address H. C. ORR,

Gen'l Southwestern Passenger Agent,
Kansas City, Mo.
Or A. C. DAWES,
Gen'l Passenger and Ticket Agent, St. Joseph, Mo.

ON 30 DAYS' TRIAL.

THIS NEW

ELASTIC TRUSS

Has a pad different from all others, is cup-shaped, with self-adjusting Ball, center, adapts itself to all positions of the body while the Ball in the cup presses back the intestines just as a person does with the finger. With light pressure the Hernia is held securely day and night, and a radical cure certain. It is easy, durable and cheap. Sent by mail. Circulars free.
EGGLESTON TRUSS CO., Chicago, Ill.

THE STRAY LIST.

HOW TO POST A STRAY.

THE FEES, FINES AND PENALTIES FOR NOT POSTING.

BY AN ACT of the Legislature, approved February 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker-up, to the Kansas Farmer, together with the sum of fifty cents for each animal contained in said notice.

And such notice shall be published in the Farmer in three successive issues of the paper. It is made the duty of the proprietors of the Kansas Farmer to send the paper, free of cost, to every County Clerk in the State, to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5.00 to \$50.00 is affixed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the Farmer for a violation of this law.

Broken animals can be taken up at any time in the year.

Unbroken animals can only be taken up between the first day of November and the first day of April, except when found in the lawful enclosure of the taker-up.

No persons, except citizens and householders, can take up a stray.

If an animal liable to be taken up, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up a stray, must immediately advertise the same by posting three written notices in as many places in the township giving a correct description of such stray, and he must at the same time deliver a copy of said notice to the County Clerk of his county, who shall post the same on a bill-board in his office thirty days.

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered; also he shall give a full description of the same and its cash value. He shall also give a bond to the State of double the value of such stray.

The Justice of the Peace shall within twenty days from the time such stray was taken up (ten days after posting), make out and return to the County Clerk, a certified copy of the description and value of such stray.

If such stray shall be valued at more than ten dollars, it shall be advertised in the Kansas Farmer in three successive numbers.

The owner of any stray may, within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having first notified the taker-up of the time when, and the Justice before whom proof will be offered. The stray shall be delivered to the owner, on the order of the Justice, and upon the payment of all charges and costs.

If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker-up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and appraise such stray, summons to be served by the taker-up; said appraisers, or two of them, shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and the benefits the taker-up may have had, and report the same on their appraisal.

In all cases where the title vests in the taker-up, he shall pay into the County Treasury, deducting all costs of taking up, posting and taking care of the stray, one-half of the remainder of the value of such stray.

Any person who shall sell or dispose of a stray, or take the same out of the State before the title shall have vested in him, shall be guilty of a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

FOR WEEK ENDING MAY 10, 1888.

Cherokee county—J. C. Atkinson, clerk.

HORSE—Taken up by G. M. Swanson, in Ross tp., April 17, 1888, one dark bay horse, about 12 years old, 15 hands high, gray in forehead; valued at \$40.

MARE—By same, one roan mare, about 11 years old, half circle on right shoulder, and bad sore on right hind leg; valued at \$10.

PONY—Taken up by J. H. Stanley, in Spring Valley tp., April 25, 1888, one roan mare pony, 5 or 6 years old, branded M. C. on left shoulder; valued at \$30.

Crawford county—J. C. Gove, clerk.

MARE—Taken up by J. A. Everett, in Washington tp., (P. O. Pittsburg), April 17, 1888, one light sorrel mare, 14½ hands high, three white feet, blaze in face, white spot on root of tail; valued at \$35.

Atchison county—Chas. H. Krebs, clerk.

HORSE—Taken up by Fred Kuhn, in Center tp., (P. O. Lancaster), April 18, 1888, one brown horse, white star on forehead, saddle marks, four feet shod, about 9 years old; valued at \$10.

HORSE—Also one bay horse, white star in forehead, speck in left eye, harness marks, four feet shod, about 20 years old; valued at \$15.

FOR WEEK ENDING MAY 17, 1888.

Stevens county—Chas. Moore, clerk.

HORSE—Taken up by S. P. Galloway, in Center, Lincoln tp., March 21, 1888, one bay horse, marked HD; valued at \$20.

Shawnee county—D. N. Burdge, clerk.

HOGS—Taken up by N. M. Brosius, (P. O. Topeka), May 7, 1888, two black sows and one pig, round hole in left ear of each; valued at \$7.50 each.

Wilson county—D. N. Willits, clerk.

MARE—Taken up by John F. Spellman, in Talleyrand tp., May 5, 1888, one dun mare, about 14 hands high, 4 or 5 years old, saddle or harness marks; valued at \$15.

Osage county—R. H. McClair, clerk.

MARE—Taken up by John Hooper, in Valley Brook tp., (P. O. Lyndon), December 31, 1887, one bay mare, branded D. L. S. on left hip and 8 M. S. S. on right shoulder.

MARE AND COLT—By same, one bay mare with sucking colt, branded D. L. S. on left hip; all of the value of \$50.

Russell county—J. B. Himes, clerk.

2 COLTS—Taken up by Jasper M. Boston, in Fairfield, April 23, 1888, one sorrel colt, 2 years old, blaze face, and one sorrel colt, 1 year old, blaze face, no marks or brands; valued at \$60.

Morris county—G. E. Irvin, clerk.

2 HORSES—Taken up by E. C. Hannah, of Warren tp., April 28, 1888, two bay horses, supposed to be about 4 years old, marked as follows: One has small star in forehead and white snip on nose; the other has white left hind foot; neither has harness marks, and are about 16 hands high.

FOR WEEK ENDING MAY 24, 1888.

Neosho county—T. B. Limbocker, clerk.

MARE—Taken up by John Meade, in Grant tp., April 21, 1888, one dark brown-roan mare, 16 hands high, 12 years old, right hind foot white, saddle and collar marks, heavy with foal, (P. O. address of taker-up Stark); valued at \$75.

PONY—Taken up by Wm. Watt, in Canville tp., April 24, 1888, one dark bay mare pony, 7 or 8 years old, 4 feet 8 inches high, heavy black mane and tail, hind feet white, small figure 7 branded on left shoulder, small white spot in forehead, (P. O. address of taker-up Earlton); valued at \$15.

Washington county—John E. Pickard, clerk.

MARE—Taken up by George F. Dunnoek, in Franklin tp., (P. O. Hollenberg), one roan mare, 12 or 15 years of age, small scar on right shoulder, right hind foot white, white stripe in face.

Mitchell county—A. D. Moon, clerk.

PONY—Taken up by Peter Halferty, (P. O. Beloit), April 1, 1888, one bay mare, 7 years old, 13 hands high, branded T H on left hip, two white hind feet, small spot in forehead, halter on with strap.

Cherokee county—J. C. Atkinson, clerk.

COLT—Taken up by W. H. Stetes, in Shawnee tp., (P. O. Smithfield), April 25, 1888, one sorrel horse colt, 2 years old, both left feet white, white stripe in face; valued at \$20.

FILLY—By same; one sorrel filly, 2 years old, bald face, four white feet, silver mane and tail; valued at \$25.

PONY—Taken up by M. Bigtam, in Pleasant View tp., April 25, 1888, one small black mare pony, branded O. W. on left shoulder, had on web halter; valued at \$10.

HORSE—Taken up by B. F. Heagler, in Shawnee tp., May 7, 1888, one sorrel gelding, 15½ hands high, three white feet, blaze face, collar marks, branded D F on left shoulder, shod all round; valued at \$60.

BLAKE'S ALMANAC

Weather Predictions,

From June 1, 1888, to June 1, 1889.

According to Mathematical Calculations based on Astronomical Laws, is now ready for mailing. Price One Dollar per Copy. Direct to C. C. BLAKE, Topeka, Kas.

This Almanac gives the predictions for each month separately, and for June, July, August and September the predictions are made for each half month. The temperature, rainfall and kind of weather are given each month for all the different sections of the United States, including the Pacific coast, Canada and Europe. Separate calculations have been made, showing what the temperature and precipitation will be in each locality, each month, which has required a vast amount of calculating. It gives many suggestions as to what crops to plant and when. Nearly every one who has had our former Almanacs has ordered this one. They are almost unanimous in saying our Almanac is the best-paying investment they have made. Address C. C. BLAKE, Topeka, Kansas.

Consolidated Barb Wire COMPANY,

MANUFACTURERS OF

BARB WIRE

Fencing Staples, ETC.

Sold more largely in Kansas than all other kinds together, because it is the

MOST POPULAR, COMMON-SENSE, EVERY-DAY WIRE MADE.

Ask your dealer for Lawrence Wire. Every spool warranted.

OFFICE AND WORKS: Lawrence, Kansas.

COLORADO SHORT LINE

Mo. Pacific Railway Co.

BETWEEN

ST. LOUIS, KANSAS CITY, PUEBLO, AND DENVER.

Daily Trains equipped with Pullman Buffet Sleeping Cars.

THROUGH WITHOUT CHANGE.

Tourist Tickets at reduced rates now on sale at all ticket offices.

For further information apply to

H. C. TOWNSEND, J. H. LYON, Gen'l Pass. & Ticket Agent, Western Pass. Agent, St. Louis, Mo. 533 Main St. Kansas City, Mo.

SMALL FRUIT PLANTS FOR SALE

Forty acres in Small Fruits. 700,000 plants sold this year. 900,000 to sell in fall of 1888 and spring of 1889. To those who desire to plant small fruits, my 1888 Small Fruit Manual will be sent free. B. F. SMITH, Box 6, Lawrence, Kas.

Kansas City Stock Yards,

KANSAS CITY, MISSOURI,

ARE BY FAR THE

Most Commodious and Best Appointed in the Missouri Valley,

With ample capacity for feeding, weighing and shipping cattle, hogs, sheep, horses and mules. They are planked throughout, no yards are better watered and in none is there a better system of drainage. The fact that

Higher Prices are Realized Here than in the Markets East,

Is due to the location at these Yards of EIGHT PACKING HOUSES, with an aggregate daily capacity of 3,300 cattle, and 27,200 hogs, and the regular attendance and sharp competitive buyers for the Packing Houses of Omaha, Chicago, St. Louis, Indianapolis, Cincinnati, New York and Boston. All the thirteen roads running into Kansas City have direct connection with the Yards, affording the best accommodations for stock coming from the great grazing grounds of all the Western States and Territories, and also for stock destined for Eastern markets.

The business of the Yards is done systematically, and with the utmost promptness, so that there is no delay and no clashing, and stockmen have found here, and will continue to find, that they get all their stock is worth, with the least possible delay.

C. F. MORSE, General Manager.

E. E. RICHARDSON, Secretary and Treasurer.

H. P. CHILD, Superintendent.

CONSIGN YOUR CATTLE, HOGS & SHEEP TO

Larimer, Smith & Bridgeford,

LIVE STOCK COMMISSION MERCHANTS,

Kansas City Stock Yards, Kansas City, Kansas.

Highest market prices realized and satisfaction guaranteed. Market reports furnished free to shippers and feeders. Correspondence solicited. Reference:—The National Bank of Commerce, Kansas City.

ATTENTION, FARMERS!

You no doubt are aware of the fact that the dairy business is the most remunerative part of farming, and that there is no reason in the world why Kansas should not rank foremost in the creamery interests.

Kansas Creamery Butter

to-day is selling at the highest market prices in Denver and the West, but there is not enough butter made in Kansas to supply this great Western demand. Colorado has to buy her creamery butter in Iowa and Illinois, and these States are getting all of this good money that should go to our

KANSAS FARMERS.

Every town of six hundred inhabitants and upwards should have a CREAMERY, which they can procure at a VERY SMALL COST.

We are so situated that we can furnish all necessary Machinery and Apparatus, and give full instructions for erecting the building, which we will be glad to do at any time.

Let some enterprising farmer take hold of this, and work up a small stock company, and correspond with us.

We will be very glad to hear from anybody regarding this great industry.

OUR CATALOGUE FOR 1888 is now out. Send 2-cent stamp for same. Respectfully,

Creamery Package Mf'g. Co.

KANSAS CITY, MO.

Pure-bred Short-horn Bulls FOR SALE.

Sired by Imp. Cruickshank bull, Knight Templar 66638 (51503). Address

THOMAS CAIN, Burlingame, Kas. (Farm three miles west of town.)

WANTED - TEXAS - WANTED

We have several bodies of Farming Land in Northwest Texas, with rich and productive soil. We wish to arrange with responsible parties to make a business of settling these lands with a substantial class of settlers. We must be satisfied with the character and responsibility of parties with whom we contract. For further information address MEADE & BOMAR, Real Estate and Investment Brokers, Ft. Worth, Texas.

VICTOR

MORE KINDS and sizes of Mills & Evaporators, for Sorghum & Sugar Cane, are made by The Blymyer Iron Works Co. of Cincinnati, O. than by any other works in the world. They are the sole makers of the Victor, Great Western and Niles Mills, and the Genuine Cook Evaporator. Sorghum Hand Book for 1888, FREE.



CHEAPEST & BEST MILL

GRINDING MILL

CHAS. KAESTNER & CO.

305-311 SO. CANAL ST. CHICAGO

BUY THE MORRISON PLOW

BEST IN USE

MORRISON MFG. CO.

FORT MADISON IOWA

DELAWARE COUNTY CREAMERY

We will pay Freight.

Write for our wholesale offer to first purchaser. Address Delaware County Creamery Co., BENTON HARBOR, MICH.

COOK FEED YOUR STOCK

With the TRIUMPH STEAM GENERATOR and save 1/4 to 1/2 of your feed. Also ENGINES & BOILERS, GRINDING MILLS, FEED CUTTERS and CORN SHELLERS. Send for Catalogue A and state what you want. RICE & WHITACRE MFG. CO. 43 & 44 W. Monroe St., Chicago.

MOSELEY'S OCCIDENT CREAMERY AND REFRIGERATOR.

Quantity INCREASED. Quality IMPROVED. No sediment with either milk or cream. Sold Strictly on Merit. One at wholesale where we have no Agent. MOSELEY & PRITCHARD MFG. CO. Send for circular. Clinton, Iowa.

ARTESIAN AND TUBULAR WELL MACHINERY AND TOOLS

FOR EVERY KNOWN PROCESS.

Send for Catalogue. NEEDHAM & RUPP. 66 W. LAKE ST. CHICAGO, ILLINOIS.

WELL DRILLING AND BORING MACHINES.

IMPROVED. BEST MADE.

Because of their DURABILITY, EASE of Operation, and Few and Short Stoppages (a machine earns nothing when the drill is idle). Illus. Catalogue Free. J. E. B. MORGAN & CO. OSAGE, IOWA.

LIGHTNING WELL-SINKING MACHINERY.

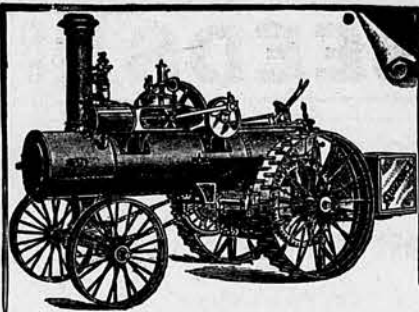
Our ENCYCLOPEDIA contains 700 Engravings, describing all the tools and machinery used in the art of Well-Sinking, Prospecting Machinery, Diamond Pointed Rock Drills, and all manner of Artesian Pumping Appliances. Encyclopedia free, 25 cts. for mailing. The American Well Works, AURORA, ILLS., U. S. A.

THE LANE & BODLEY CO., CINCINNATI.



SAW MILLS AND ENGINES

for all purposes. An experience of thirty years permits us to offer the best. Good work at low prices. Send for circular.



ADVANCE

Traction Engines, Separators, Horse Powers, Wagon-Loaders, Baggers.

Great improvements in Threshing Machinery. Write for illustrated catalogue. Address

ADVANCE THRESHER CO., Battle Creek, Mich. Or 10th & Hickory St., Kansas City, Mo.



Halladay Wind Mill.

PUMPS, PIPE, WATER TANKS, FEED MILLS, ETC.

Write for catalogue. Address U. S. WIND ENGINE & PUMP CO., 1311 West 12th St., KANSAS CITY, MO.

WARRANTED not to blow down off the tower, and that our Geared Wind Mills have double the power of all other mills. Mfrs. of Tanks, Wind Mill supplies, and the Celebrated

CHALLENGE Feed Grinders, HORSE POWERS, CORN SHELLERS, PUMPS and BRASS CYLINDERS

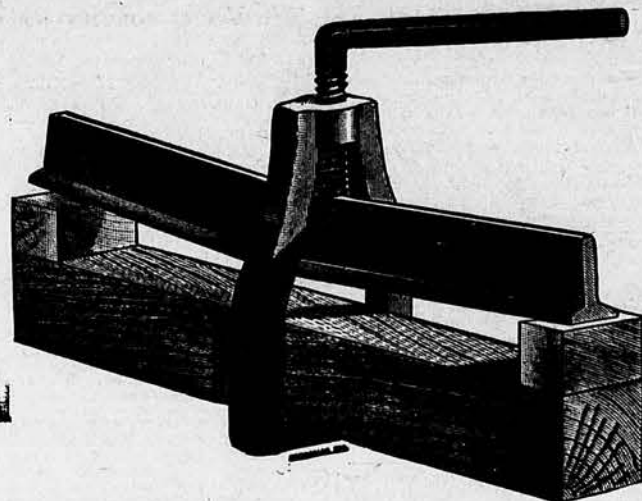
Send for Catalogue and Prices. Good AGENTS WANTED. CHALLENGE WIND MILL & FEED MILL CO., ST. LOUIS, MO.

PEARCE'S IMPROVED CAHOON BROAD-CAST SEED SOWER

Sows all kinds of Grain and GRASS SEED. 4 acres Wheat sown by walking 1 mile. Will do 5 times as much work as can be done by hand, and better work than by any other means. Sold in all parts of the world. Warranted to save their cost in less time than any other farm implement yet introduced. Price \$5.00. Send for circular. GOODELL CO., Sole Manuf'rs. ANTHIM, N. H.

FOR SALE BY L. M. RUMSEY MFG. CO., St. Louis.

Zinc Collar Pad. Over 3,000,000 of them have been used. The most reliable and durable P.A.D. for sore-neck horses or mules. Weather or wear has no effect on their curative properties. We solicit a trial. For sale by all saddlery jobbers. Ask your harness-maker for them and insist on having the ZINC PAD and no other. ZINC COLLAR PAD CO., Buchanan, Mich.



WOOD VS. STEEL.

Which is the Stronger in Proportion to Weight—A Simple and Interesting Experiment.

The relative weights of wood and steel in proportion to their strength is a matter which probably not one out of one hundred readers has ever had occasion to investigate. If the conundrum were propounded: "Which is the stronger—Wood or Steel?" ninety-nine out of a hundred would be likely to answer that steel possesses greater strength in proportion to weight than does wood. Experiments have recently been made in Ohio which show that wood weighing only half as much as steel will, when put under pressure, stand a greater strain than steel. The illustration on this page shows a piece of wood and a piece of steel (the latter weighing just twice as much as the former), under equal pressure, and in every instance the steel yields and is bent out of line. Any one can make this experiment. The device is extremely simple, and yet it illustrates an important point with which every intelligent farmer should familiarize himself, especially as there seems to be a disposition on the part of some manufacturers to change from wood to steel and iron. We are indebted to Messrs. Aultman, Miller & Co., of Akron, Ohio, for the accompanying illustration. It was the pleasure of a representative of this paper, while in Akron, a few days since, to witness this experiment. A piece of ash, such as is used in the Buckeye machine, was placed in a clamp along with a piece of steel of equal length, the same as is used in all

steel Binders. The steel weighed just twice as much as the wood, and yet the steel invariably yielded and bent as the pressure was brought down. The wood was scarcely out of line, and when the clamp was removed it sprung back to its original shape. Not so with the steel. It not only bent under the pressure of the clamp, but remained bent when the clamp was taken off. This, it is claimed, is a clear illustration of the difference between wood and steel-frame Binders. When an all-steel machine is brought into sharp contact with some unyielding obstacle, its frame is liable to spring, and when once sprung its usefulness is at an end. It cannot be straightened without resort to the shop for repairs. A wood frame is not thus affected. If bent under a violent strain, it at once springs back to its original shape. At the first glance it would seem that a steel Binder is lighter than a wood frame, and that it possessed greater strength. But it is an instance in which appearances are deceptive. A piece of steel one foot long and a half inch square, weighs double as much as a piece of seasoned ash one foot long and one and three-eighths inches square. In other words the steel, in proportion to bulk, is fifteen and one-eighth times as heavy as the wood. A steel frame of a machine which is one-fifteenth as large as a wood frame, weighs exactly the same as the wood. But even with this difference in size, the wood has four times the strength. These are simple problems which every farmer can solve for himself. He need not accept the word of any man whose interests would be subserved by having him believe one way or the other. Make the test yourself, and when an agent comes to you with a denial of this proposition, you can talk intelligently from personal knowledge.—Ohio Farmer.

WHITMAN'S Continuous Hay Straw Press



Write for Catalogue, Prices and Terms.

WEIR PLOW CO., Kansas City, Mo., State Agents for Kansas.

REAR VIEW. THE HAMILTON CULTIVATORS

Adjustable-Arch RIDING, WALKING AND TONGUELESS

With the Bar-Shares and Coulters used only on these Cultivators the farmer can plow 6 to 10 days earlier, and deep thorough work can be done very close to young plants without injury. The Hitch is Direct, Draft Equal, Plows Deep, Runs Steady, is Easily Handled. The Adjustable Arch and Adjustable Standard Castings render any kind of work possible and easy. Avoid Imitations.

THE LONG & ALLSTATTER CO., HAMILTON, OHIO.

LABEL

Dana's White Metallic Ear Marking Label, stamped to order with name, or name and address and numbers. It is reliable, cheap and convenient. Sells at sight and gives perfect satisfaction. Illustrated Price-List and samples free. Agents wanted. C. H. DANA, West Lebanon, N. H.

GIVEN AWAY. I will give my Double Cam HAY PRESS away if it will not fill the demand of my circulars. Send for Circulars and Price to the Manufacturer, JAS. KEMP, Kempton, Ill.

Kansas Box and Basket Co., MANUFACTURERS OF Grape Baskets, Egg Cases, Berry Boxes and Crates, Peach Boxes, Tree Wrappers, Veneering, and Packing Boxes. (Telephone 1,008.) WYANDOTTE, KAS.

FRUIT EVAPORATORS Secure Agency Now. Catalogue FREE. ZIMMERMAN MACH. CO., Cincinnati, O.

TWO-CENT COLUMN.

"For Sale," "Wanted," "For Exchange," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order.

Special.—All orders received for this column from subscribers, for a limited time, will be accepted at one-half the above rates—cash with the order. It will pay you! Try it!!

25 MAGAZINES—All different, 10 cents. Card Works, Grand Island, Nebraska.

FOR SALE—Cabbage Plants, early and late, \$2.00 per 1,000; Tomatoes, best kinds, \$3.00 per 1,000; Sweet Potatoes, \$2.50 per 1,000. All kinds of house and bedding plants. J. W. Laing, Florist, Osgood City, Kas.

FOR SALE OR TRADE—For Small Improved Farm, 240 acres of land twenty-three miles west of Topeka; good two-story house; 200 feet shingled roof shedding; watered by five living springs—milkhouse connected by pipe. Address Howard Chalmers, Tecumseh, Kas.

GOOD FARM FOR SALE—171 acres, well improved; three miles south of State University. Also good house and ten lots in Lawrence, near the University (good location). Either of these at a sacrifice if sold before June 25. Inquire of G. W. White, Box 55, Lawrence, Kas.

BRILLIANT GLOSS FOR SCALP AND SKIN—Will remove dandruff, pimples and blackheads. Will also prevent hair from falling out. In order to introduce this into new territories, I will send two 75-cent bottles for only \$1. This offer good ninety days. Address W. H. Groce, Haydensville, Ohio.

FOR SALE—Five Red Short-horn Bulls, 6 to 12 months old. Prospect Herd. J. M. Taylor, Pearl, Kas.

FOR SALE—A fine young Holstein Bull, 16 months old, from imported dam; finely marked. Address C. A. Tyler, Burrton, Kas.

J. M. SLONAKER—Garnett, Kas., has for sale one C. Renick Rose of Sharon and one Bloom Bull, both richly bred. Write for pedigree and terms.

I. S. BARNES—Blue Mound, Kas., has for sale registered Holsteins. Terms to suit.

SWEET POTATO PLANTS—In large or small quantities, for sale. Orders filled at once at reasonable prices. Address T. M. Sellers, Ottawa, Kas.

SWEET POTATO PLANTS—200,000, of all varieties, for sale at "bed-rock" prices, and carefully shipped. Terms furnished on application. Stephen Cox, Box 64, Lawrence, Kas.

STRAYED—TWO COLTS.—One brown mare, 3 years old, both left feet white, white spot on right fore leg above the knee, and curl on neck. One bay horse colt, 1 year old, feet white, some white on belly, small star in forehead. Any person taking up such colts will confer a favor by addressing J. J. Nation, Myra, Woodson Co., Kas.

HEREFORD CATTLE TO EXCHANGE FOR IMPROVED PROPERTY. Write full particulars, give town, range and section of farms. J. S. Hawes, Colony, Kas.

COMMON-SENSE CALF-WEANER—Endorsed by stockmen and farmers. 150,000 sold in three months. Large profits. Small capital secures monopoly. Stamp for particulars. Reed & Co., 1123 Arch St., Philadelphia, Pa.

BEEES, HIVES, ETC., CHEAP—Write! St. Joseph Agency, St. Joe, Mo. Conger's Plymouth Rock eggs, 15 for \$1. Fine!

FOR SALE—One hundred tons of Baled Prairie Hay. Rogers & Son, Harper, Kas.

FOR SALE OR TRADE—Eighty acres of land in Woodson county, within ten and a half miles of Toronto; sixty-five acres under cultivation. For particulars address Robert Ritchie, Peabody, Kas.

DEHORNING AND SPAYING PIGS—By Frank Jordan, Drawer B, Topeka, Kas.

A. WHITCOMB & SON, FLORISTS—Lawrence, Kas. Catalogues free; send for one.

FOR SALE—Or will trade for a young Holstein bull, Galloway Bull "Kansas" 2459, calved January 1, 1883. James Dunlap, Detroit, Kas.

TREES! TREES!—Fruit, Forest, Shade and Ornamental Trees and Shrubbery. Great variety, excellent quality. Write for prices. Roubush & Smyth, 816 Kansas avenue, Topeka, Kas.

WANTED—75,000 readers of the FARMER to read this column each week for great bargains.

FOR SALE—160 Acres; all fenced and cross-fenced; two good barns, horse stable, granary will hold 2,000 bushels, carriage house, corn crib; a large variety of fruit trees in bearing; six-room house, nearly new. Four and a half miles from Stafford. Price \$4,500—\$700 four years at 7 per cent. C. G. McNeil, Stafford, Kas.

FOR SALE—Light Brahma, Langshan and Wyandotte Cockerels and Pullets. Cheap for quality of stock. Express rates low. M. D. Mulford, Guide Rock, Neb.

FOR SALE—Pure Plymouth Rock eggs. J. D. Jencks, 411 Polk street, North Topeka.

WANTED—To crop with some farmer to raise Broomcorn and manufacture into brooms, or will rent small farm; everything furnished; no crop will pay as well. S. Potenger, Kankakee, Ill.

HOLSTEIN-FRIESIAN—Registered Cattle for sale. Wm. A. Travis & Co., North Topeka, Kas.

STRAYED—On March 31, 1883, from Pinkerton place, south of Elevator school house, one bay three-year-old filly, a scar on left hind leg, and had halter on. Also a one-year-old brown horse colt. A liberal reward for their recovery. S. W. McKnight, Topeka, Kas.

100,000 THIRD-CLASS HEDGE PLANTS for sale. Nice, healthy plants. Fifty cents per 1,000. 10,000 Catalpa, 12 to 24 inches, \$2.25 per 1,000. Boxed free. Douglas County Nurseries, Box 33, Lawrence, Kas.

100,000 THREE BEST SORTS TIMBER—Claim Trees for sale by Martin Allen, Hays City, Kas.

FOR TRADE FOR STOCK—Two good Improved Creek Bottom Farms, with timber and water. Address A. M. Mason, Neodesha, Wilson Co., Kas.

FOR TRADE—Farm of 150 acres; 50 acres under cultivation; 145 acres tillable; in Cowley Co., Kas. Will trade for blooded horses—Norman or Cleveland Bays preferred. Address B. L. Wilson, Atlanta, Kas.

TWO-CENT COLUMN—(Continued.)

WE SELL—Only warranted goods. Any society badge, 62 cents; charm, 87 cents; collar-button, 28 cents. Standard gold plate. Charles H. Williams & Co., Manufacturing Jewelers, Attleboro, Mass.

PATENTS—J. C. Higdon, Solicitor of Patents, Kansas City, Mo. Sample copy patent, instructions, references, free. Reliable associate at Washington.

FOR SALE OR TRADE FOR CATTLE—One bay Clydesdale and Morgan Stallion; weight about 1,500 pounds; is a good breeder. P. J. Eychaner, Oketo, Kas.

POLAND-CHINA BOAR PIGS—Sire and dams from Duffield's Fountain Head Herd, at farmers' prices. Perry Brown, Valley Falls, Kas.

25 COLEUS, GERANIUMS, VERBENAS, ETC., assorted, \$1 by mail or express; \$4 per 100. Cabbage, Tomato and Sweet Potato Plants, 25 cents per 100; \$2 per 1,000—by express. Bonner Springs Nursery, Bonner Springs, Kas.

J. B. FERGUS, GARNETT, KANSAS—Makes a specialty of Pure Mammoth Bronze Turkeys. Eggs for sale. Write.

STRAYED—From Martin Finney, Fourth and Jefferson streets, Topeka, a light roan mare, with silver tail and mane, shed in front and branded on left hip. Liberal reward.

WILL TRADE—House and lots in Topeka for young cows and steers. Property worth \$900, with \$250 incumbrances. Address L. T. Rice, Halifax, Kas.

SWEET POTATOES—Sent out to be sprouted on shares. No experience required. Directions for sprouting free. T. J. Skinner, Columbus, Kas.

TRY IT!—This column for cheap advertising. It is worth five times the price asked.

BARTHOLOMEW & CO., Real Estate and Loan Brokers, 189 Kansas avenue, Topeka, Kas. Write them for information about Topeka, the capital of the State, or lands, farms or city property.

Agricultural Books.

The following valuable books will be supplied to any of our readers by the publishers of the KANSAS FARMER. Any one or more of these standard books will be sent postage paid on receipt of the publisher's price, which is named against each book. The books are bound in handsome cloth, excepting those indicated thus—(paper):

FARM AND GARDEN.	
Allen's New American Farm Book.....	\$2.50
Barry's Fruit Garden.....	2.00
Broomcorn and Brooms.....	.50
Flax Culture (paper).....	.30
Fitz's Sweet Potato Culture.....	.60
Henderson's Gardening for Profit.....	2.00
Hop Culture (paper).....	.30
Onions: How to Raise Them Profitably (paper).....	.30
Silos and Ensilage.....	.50
Stewart's Irrigation for the Farm, Garden and Orchard.....	1.50
Tobacco Culture: Full Practical Details.....	.25
FRUITS AND FLOWERS.	
Elliot's Hand-Book for Fruit-Growers.....	1.00
Every Woman Her Own Flower Gardener.....	1.00
Fuller's Small Fruit Culturist.....	1.50
Fuller's Grape Culturist.....	1.50
Henderson's Practical Floriculture.....	1.50
Parsons on the Rose.....	1.50
HORSES.	
Dadd's Modern Horse Doctor.....	1.50
Jennings' Horse Training Made Easy.....	1.00
Horse-Breeding (Sanders).....	2.00
Law's Veterinary Adviser.....	3.00
Miles on the Horse's Foot.....	.75
Woodruff's Trotting Horse of America.....	2.50
Youatt & Spooner on the Horse.....	1.50
CATTLE, SHEEP AND SWINE.	
Allen's American Cattle.....	2.50
Coburn's Swine Husbandry.....	1.75
Dadd's American Cattle Doctor.....	1.50
Harris on the Pig.....	1.50
Jennings' Cattle and Their Diseases.....	1.25
Jennings' Sheep, Swine and Poultry.....	1.25
Randall's Sheep Husbandry.....	1.50
Stewart's Shepherd's Manual.....	1.50
The Breeds of Live Stock (Sanders).....	3.00
Feeding Animals (Stewart).....	2.00
MISCELLANEOUS.	
American Standard of Excellence in Poultry.....	1.00
Wright's Practical Poultry-Keeper.....	2.00
American Bird Fancier.....	.50
Quincy's New Bee-Keeping.....	1.50
Dogs (by Richardson).....	.60
Atwood's Country Houses.....	1.50
Barns, Plans and Out-buildings.....	1.50
Arnold's American Dairying.....	1.50
Fisher's Grain Tables (boards).....	.40
Fuller's Forest Tree Culturist.....	1.00
Willard's Practical Dairy Husbandry.....	1.00
Practical Forestry.....	3.00
Household Conveniences.....	1.50
Dodd's American Reform Horse Book.....	2.50
Jennings on the Horse and His Diseases.....	1.25
Profits in Poultry.....	1.00
Frank Forrester's Manual for Young Sportsmen.....	1.00
Hammond's Dog Training.....	1.00
Farm Appliances.....	1.00
Farm Conveniences.....	1.50
Household Conveniences.....	1.50
Husman's Grape-Growing.....	1.50
Quinn's Money in the Garden.....	1.50
Reed's Cottage Homes.....	1.25
Dogs of Great Britain and America.....	2.00
Allen's Domestic Animals.....	1.80
Warington's Chemistry of the Farm.....	1.00
Williams' Window Gardening.....	1.50
Farm Talk (paper).....	.50
American Bird Fancier (paper).....	.50
Wheat Culture (paper).....	.50
Gregory's Onions—How to Kind to Raise (paper).....	.50
Gregory's Cabbages—How to Grow Them (paper).....	.50
Our Farm of Four Acres (paper).....	.50
Cooked and Cooking Foods for Animals (paper).....	.50
The Future by the Past, by J. C. H. Swanwick.....	1.00

Address **KANSAS FARMER CO., TOPEKA, KANSAS.**

For Sale!

Registered Berkshire Pigs from prize-winners. Foundation stock Duchess and Windsor Castle families. Largest and best in England or America.

Premium Langshan and Wyandotte Chickens. Eggs, \$2 for thirteen. Write for catalogue and price list before purchasing. J. L. BUCHANAN, Belle Rive, Ill.

SEEDS J. C. PEPPARD, 1220 UNION AVENUE, (One block from Union Depot) KANSAS CITY, MO.

TOPEKA SEED HOUSE.

Established 1878.

All Kinds of Field, Garden and Flower Seeds.

We have a fresh stock of reliable Seeds, and a full stock of all kinds of Field Seeds:

RED CLOVER, ALFALFA CLOVER, KENTUCKY BLUE GRASS, ORCHARD GRASS, ENGLISH BLUE GRASS, RED-TOP, MILLET, BROOM-CORN, CANE SEED.

SEED CORN PURE NORTHERN-GROWN 90-DAY CORN, SEED POTATOES, all kinds of useful Field and Garden Seeds, at Wholesale and Retail. Also a full line of GARDEN IMPLEMENTS. Send for Catalogue. Address

DOWN'S ELEVATOR & SEED CO., 304 KANSAS AVENUE, TOPEKA, KANSAS.

KANSAS HOME NURSERY

OFFERS

BEST HOME-GROWN TREES. Choice Fruit and Ornamental Trees of real merit for the Western Tree-Planters. Also best Fruit and Flower Plants. Water-proof. Samples by mail, 10 cents each; \$6 per 100, by express.

A. H. GRIESA, Drawer 28, Lawrence, Kas.



FOREST TREES.

Catalpa Speciosa, White Ash, European Larch, Pines, Spruces, Arbor Vites, etc., etc. Catalpa Speciosa Seed. Forest and Evergreen Seeds.

R. DOUGLAS & SON, Waukegan, Ill.

Mount Hope Nurseries

ESTABLISHED 1869.

Offer for Spring of 1883. Fruit and Ornamental Trees, Grape Vines, Small Fruit and Shrubbery. All the old established sorts, and the desirable new ones. Bed-rock prices. Quality of stock unsurpassed. We solicit club orders and by the carload. Shipping facilities best in the State. We are not publishing prices, but send us a list of your wants and we will price them to your satisfaction. A. C. GRIESA & BRO., Drawer 13, Lawrence, Kansas.

THE LAMAR NURSERIES.

Headquarters for Fine Nursery Stock Which is Offered at

HARD - TIME PRICES!

Dealers and Nurserymen supplied at lowest wholesale rates.

Parties desiring to buy in large or small quantities will save money by purchasing our stock.

We have Apple, Peach, Pear, Plum, Cherry and Evergreen Trees. Grape Vines in all varieties, and FOREST TREES a specialty. Osgood Hedge Plants and Russian Mulberry in any quantity. Write for Prices.

C. H. FINK & SON, LAMAR, MO.

LA CYGNE NURSERY.

MILLIONS

Fruit Trees, Shade Trees, Small Fruits. Vines. Ornamental Trees, Etc.

TEN MILLION FOREST TREE SEEDLINGS.

ONE MILLION HEDGE PLANTS.

ONE HUNDRED THOUSAND TWO-YEAR APPLE TREES—Grown from whole root grafts.

FIVE THOUSAND IRISH JUNIPERS—Two-feet, SPLENDID WALNUTS, and other forest tree seeds and nuts, prime and fresh.

Full instructions sent with every order, and perfect satisfaction guaranteed. Send for full list and prices. Address

D. W. COZAD Box 25, LACYGNE, LINN CO., KANSAS.

J. L. STRANAHAN, DEALER IN BROOMCORN

And all BROOM MATERIALS AND MACHINERY.

Twenty-five years experience as a Manufacturer and Wholesale Dealer. Liberal advances on consignments. References:—Hide & Leather Nat'l Bank, Chicago. 194 Kinzie St., Chicago, Ill.

Hart Pioneer Nurseries

OF FORT SCOTT, KANSAS.

A full line of Nursery Stock, Ornamental Trees, Roses and Shrubbery. We have no substitution clause in our orders, and deliver everything as specified. 230 Acres in Nursery Stock. Reference: Bank of Fort Scott. Catalogue Free on application. Established 1857.



HEREFORD CATTLE.

I have 12 Thoroughbred Hereford Bulls and a few Young Cows with calves at foot, to sell at reasonable prices and on easy terms. They are of the best blood of the breed and individually first-class.

Farm, four miles south of Topeka postoffice building, on Burlingame wagon road. [Mention FARMER.]

E. S. SHOCKEY, TOPEKA, KANSAS.

HIGH - CLASS

Jersey Bulls FOR SALE CHEAP.

DUKE OF WELLWOOD 14919—Three years old; solid color; black points. First prize at the St. Louis Fair, 1886; first prize and sweepstakes at Iowa State Fair, 1886; first prize at Kansas State Fair, 1887, and sweepstakes over all dairy bulls at Nebraska State Fair in 1887. He is the only bull known to his owner whose blood lines close up trace to the three greatest of all Jersey bulls—judged by the butter records of their daughters, viz.: Mercury, Stoke Pogis 3d and Rex. Price \$100.

SIGNAL BOY 16178—Two years old; fawn—some white on legs and tail. Tracing to twenty butter tests, close up, ranging from 16 pounds to 22 pounds 8 ounces in seven days. No better blood. Individually fine. Sold for no fault—right every way. In good condition, but owner has no use for them. Price \$75.

Will take one-half cash down, balance in six months. Also, a few Yearling Heifers in Calf, at \$75 to \$100. Must be sold. Address

CHAS. H. HOLMES, Beatrice, Nebraska.

HUGH E. THOMPSON,

BROOMCORN

Commission and Dealer in Broom-Makers' Supplies. Reference:—National Bank of Commerce. 1412 & 1414 Liberty St., Kansas City, Mo.