

# KANSAS FARMER

ESTABLISHED, 1863.  
VOL. XXVII, No. 20.

TOPEKA, KANSAS, THURSDAY, MAY 16, 1889.

TWENTY PAGES.  
\$1.00 A YEAR.

## BREEDERS' DIRECTORY.

Cards of four lines or less, will be inserted in the Breeder's Directory for \$15.00 per year, or \$3.00 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.

**NORRIS & CLARK**, of Malden and LaMotte, Ill., are going to close out their entire stud of imported Clydesdale and Shire horses—ninety-two head—at bottom prices. Send for catalogue.

**PROSPECT FARM**—H. W. McAfee, Topeka, Kas., breeder of Thoroughbred Clydesdale Horses for sale now. Write or call.

**M. D. COVELL**, Wellington, Kas., breeder of Registered Percherons. Acclimated animals, all ages and sexes. At head of stud, Theophile 2785 (3746), black, imported by M. W. Durham, and sired by his celebrated Brilliant 1271 (755).

### CATTLE.

**M. E. MOORE**, Cameron, Mo., breeder of pure-bred HOLSTEIN-FRIESIAN CATTLE ONLY. The horse of Gerben 4th, who has a butter record of thirty-two pounds in seven days.

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

**L. A. KNAPP**, FOR SALE  
SHORT-HORNS, DOYER, KANSAS. **BUFF COCHINS & PEAFOWLS**

**THOS. J. HIGGINS**, Council Grove, Kas., breeder of pure-bred Hereford Cattle. Choice young bulls and heifers rich in Wilton, Grove and Anxiety blood for sale at reasonable prices. Correspondence and inspection solicited.

**A. BE HOURQUIN**, Nekoma, Illinois, Breeder of BROWN SWISS CATTLE.

**WM. A. TRAVIS & SON**, North Topeka, Kansas, breeders of Holstein-Friesian Cattle. Registered. Young bulls for sale.

**JOHN P. HALL**,  
HOLSTEIN-FRIESIAN CATTLE.  
EMPORIA, KANSAS

**NORWOOD HERD OF SHORT-HORN CATTLE**, V. R. Ellis, proprietor, Gardner, Johnson Co., Kas. Herd is headed by Baron Biggs; No. 84476, a pure-blood Rose of Sharon. Stock of both sexes for sale.

**ENGLISH RED POLLED CATTLE**—Young Bulls for sale, pure-bloods and grades. Your orders solicited. Address L. K. Haseltine, Dorchester, Greene Co., Mo. [Mention Kansas Farmer.]

**VALLEY GROVE HERD OF SHORT-HORNS**—For sale choice young bulls and heifers at reasonable prices. The extra fine Cruickshank bull Earl of Gloster 74523 heads the herd. Call on or address Thos. P. Babst, Dover, Kas.

**JERREY CATTLE**—A. J. 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.

### BULLS FOR SALE!

**O. E. WALKER**, TOPEKA, KAS., breeder of ABERDEEN-ANGUS CATTLE, has six bulls ready for service this spring for sale on easy terms at satisfactory prices.

**EARLY DAWN HEREFORD HERD**—Apply to owner, George Fowler, Kansas City, or to foreman, G. I. Moyer, Maple Hill, Kas.

**W. E. GOULD**, MARSHALL, MO., breeder of Thoroughbred and Grade Holstein-Friesian Cattle. Calumet 3592 E. H. B., heads herd—a choice butter-bred Netherland bull. Stock for sale.

**WM. BROWN**, LAWRENCE, KAS., breeder of Holstein-Friesian and Jersey Cattle of noted families. Correspondence solicited.

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

**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 & Son, Wichita, Kas.

**C. E. DAVIS**, WELLINGTON, SUMNER CO., KANSAS, breeder of A. J. C. Jersey's from the greatest prepotent butter families. Bull calves for sale or to trade for heifer calves. I am also a breeder of BROWN AND-BRED registered mares and horses. Correspondence solicited. Mention KANSAS FARMER.

### CATTLE AND SWINE.

**SAVED**—By getting my prices before buying SHORT-HORN CATTLE and POLAND-CHINA HOGS. Good individuals and pedigrees. FLYMOUTH ROCK fowls of most noted strains. Eggs \$1 per thirteen. C. M. T. HULETT, Edgerton, Johnson Co., Kansas.

**A. B. DILLE & SON**, Edgerton, Kas., breeders of choice Poland-China hogs, Short-horn cattle and thoroughbred Poultry. Choice young bulls and boars for sale cheap.

**JOHN LEWIS**, MIAMI, MO., breeder of Short-horn Cattle, Poland-China Hogs, Cotswold Sheep, Light Brahms and Bantam Chickens, Bronze Turkeys, Peafowls, Pekin Ducks and White Guineas. Young stock for sale. Eggs in season.

**M. H. ALBERTY**, Cherokee, Kas., breeder of Registered Holstein-Friesian cattle and Poland China swine.

**J. J. MAILES**, Manhattan, Kas., breeder of Short-horn Cattle, Berkshire and Poland-China hogs. Fine young stock of both sexes for sale. Examination or correspondence always welcome.

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

**HILLSIDE STOCK FARM**—W. W. Waltmire, Carbondale, Kas., importer and breeder of CHESTER WHITE swine and Short-horns. Pigs for sale now.

### SWINE.

**THE GOLD DUST HERD OF POLAND-CHINAS**. Established 1880. Are premium hogs of very best strain. They please visitor's eye. Stock, both sexes, for sale, and a few choice sows ready bred. Your patronage solicited. Address J. M. McKee, Wellington, Kansas. Also Fancy Poultry.

**SCOTT FISHER**, Holden, Mo., breeder of the very best strains of Poland-Chinas. Pigs from five noted boars. Can furnish small herds not akin. Sell nothing but first-class stock. Over 100 pigs for this season's trade. Write me and mention this paper.

**LONGVIEW HERD OF POLAND-CHINAS**. Pigs of either sex for sale at all seasons. All breeders recorded. Correspondence promptly answered. Walter Ferguson, Valley Falls, Kas.

**Z. D. SMITH**, Greenleaf, Kas., breeder and shipper of the Poland-China Swine. Also Jayhawk strain of Plymouth Rock Fowls. 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, Rossville, Kas.

**THOS. C. TAYLOR**, Green City, Mo., breeds best strains of Poland-China pigs; also Langshan fowls. Write for prices of pigs and eggs.

**V. B. HOWEY**, Box 103, Topeka, breeder of Thoroughbred Poland-China and English Berkshire swine. Recorded stock for sale. Also fancy poultry eggs; \$1.25 for 13; \$2 for 25.

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

**THE PIONEER HERD**—Of Pure Duroc-Jersey Swine, Partridge Cochins and Blue Turkeys. A. Ingram, proprietor, Perry, Pike Co., Ill. Showed at seven fairs in 1888 and won 60 premiums. Orders promptly filled.

**KAW VALLEY HERD POLAND-CHINAS**—Tat's Sample at head. All breeders fine individuals. Also fancy poultry. Inspection invited. Correspondence promptly answered. M. F. Tatman, Rossville, Kas.

**MAHAN & BOYS**, Malcolm, Nebraska, breeders of pure Essex Swine.

**JOHN BUCHE**, breeder of Poland-China Swine. Stock of all ages for sale. Young pigs ready to ship May 1st. Pleasant View Farm, Miltonvale, Kas.

### POULTRY.

**MRS. JOHN T. VOSS**, Girard, Crawford Co., Kas., breeds fifteen varieties of land and water fowls. Eggs for sale. Send for price list.

**MRS. A. B. DILLE**, Edgerton, Kas., breeder and shipper of the finest strains of Plymouth Rocks, Wyandottes, Brown Leghorns and Mammoth Bronze turkeys. Stock for sale, and eggs at \$1 per thirteen, \$2 for thirty. Turkey eggs at \$2 per eleven.

**REV. E. O. RAYMOND**, Wiley, Kas., breeds White Minorcas, Black Minorcas, Plymouth Rocks, White Plymouth Rocks, to standard. Eggs, \$1.50 for 15; \$2.50 for 30. Also Jersey cattle. Circular free.

**PRAIRIE LAWN POULTRY YARDS**—Contain the best strains of Golden Pheasants, Brown Leghorns, Light Brahmas, Plymouth Rocks—two yards, Bronze Turkeys, Toulouse Geese and Pekin Ducks. Eggs in season. Also proprietor GOLD DUST HERD OF POLAND-CHINA HOGS. J. M. McKee, Wellington, Kas.

### POULTRY.

**TOPEKA WYANDOTTE YARDS**—Breeder of Silver-Laced, White and Golden Wyandottes, S. S. Hamburgs. Pen No. 1—eggs, \$3 for 13; pen No. 3—\$2 for 13; Hamburgs, \$2.50 for 13. A. Gandy, 624 Kansas Ave., Topeka, Kas.

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

**G. C. WATKINS**, Hiawatha, Kas., originator of the G. Sunflower strain of Plymouth Rocks. Largest size and good layers. Eggs \$2.00 per thirteen. Express prepaid.

**BRONZE TURKEYS, PEKIN DUCKS, PLYMOUTH ROCK**, Wyandotte and Brown Leghorn chickens. Stock pure. Eggs in season. No circulars. Write for wants. Mrs. M. R. Dyer, Box 40, Fayetteville, Mo.

**JOHN C. SNYDER**, Constant, Gowley Co., Kansas, breeds PLYMOUTH ROCKS and BRONZE TURKEYS. No fowls for sale. Eggs in season. Write for wants or send for circular, and mention this paper.

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

**TOULOUSE GOOSE EGGS** \$1.75; S. L. WYANDOTTES, Langshans and Pekin Ducks, fifteen eggs, \$1.25. First premium breeding pen of S. C. B. Leghorns, thirteen eggs, \$1.50. Ten per cent. discount on two sittings. Each rock has free range and is headed by first premium male. Birds to sell. W. D. Kerns, Baldwin, Kas.

**E. E. FLORA**, Wellington, Kas., breeder and shipper of pure-bred poultry—Partridge Cochins, Plymouth Rocks, Single-comb Brown and White Leghorns, Rose-comb Brown Leghorns, Wyandottes, Light Brahmas, Buff Cochins, Langshans. Eggs \$1 per 13, \$2 per 30. Pekin duck and Hongkong geese eggs 10 cents each. Bronze turkey eggs 15 cents each. Stock next autumn.

**KANSAS POULTRY YARDS**—Fifteen eggs for \$2 from Silver Wyandottes, Plymouth Rocks and Light Brahmas. Stock strictly first-class. J. H. Blenker, Abilene, Kas.

**MRS. EMMA WROSIUS**, TOPEKA, KANSAS, 1889. Established in 1880. Four miles southwest of city. Breeder and shipper of highest class fancy poultry. Eggs—Light Brahma, \$3 per 13, \$5 per 25; Silver Wyandotte, \$2.50 per 13, \$5 per 25; Pekin duck, \$1.50 per 13, \$3 per 25; M. Bronze turkey, \$3 per 9. Breeders first class in every respect.

**S. C. BROWN LEGHORNS EXCLUSIVELY**—At S. Evergreen Fruit Farm. Whoever purchases a setting of eggs or a fowl, receives a good poultry monthly for a year. Mrs. Belle L. Sprout, Frankfort, Marshall Co., Kas.

**CAPITAL POULTRY YARDS**—A. D. Jencks, Prop'r., North Topeka, Kas., box 883. Breeder of high-scoring Plymouth Rocks. Eggs, \$1.50 per 13.

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

**H. A. WATKINS**, Agt. Pacific Express, Bayneville, Kas. Best Wyandottes, Plymouth Rocks and B. B. Games. Eggs \$2 per thirteen. Stock for sale.

**EXCELSIOR POULTRY YARDS**—C. E. Masters, Prop'r., Irving Park, Ill., breeder of the leading varieties of Poultry. Also Ferrats, Rabbits, Pigeons and Pets. White Leghorns, White Wyandottes and White-Face Black Spanish a specialty. "Excelsior" is my motto—the very best is none too good. Eggs in season \$2. Send for circular, giving full description.

**JAMES ELLIOTT**, ENTERPRISE, KAS.—Proprietor of the Enterprise Poultry Yards, composed of the following varieties: Silver and White Wyandottes, White and Banded Plymouth Rocks, Light and Dark Brahmas, White and Buff Cochins, Langshans, R. C. White and Brown Leghorns, B. B. Red Games and Mammoth Bronze Turkeys. Breeding fowls strictly No. 1. Eggs \$1.50 and \$2 per 13. Also breeder of pure Berkshire Swine and Cotswold Sheep. Swine, sheep and poultry for sale. Your patronage solicited. Golden rule guarantee. Mention the "Kansas Farmer."

**PLYMOUTH ROCK EGGS**—One dollar per thirteen. Plymouth Rock cockerels, two dollars each. Mark S. Salisbury, Independence, Mo.

### MISCELLANEOUS.

**W. L. LAYSON LUMBER CO.**—Farmers, call and get prices. Yards, First and Jackson streets, Topeka.

**WICHITA AND SOUTHWESTERN KENNELS**—D. T. Snow, Veterinary Surgeon, proprietor, No. 1927 South Wichita street, (Lock Box 154), Wichita, Kas. Breeder of Imported Dogs. Leonburg St. Bernards, Newfoundlanda, English Coches, German Mastiffs, English Mastiffs, Bull Terriers and Pugs, Fox Hounds, Large and Small Black-and-Tans, Irish Setters, King Charles, Cocker and Japanese Spaniels, English Shepherds, Scotch Terriers, Maltese, Mexican, Poodles, and others, always on hand. Mention KANSAS FARMER.

**PRESCOTT & HANNA**,  
Livery, Feed & Bearding Stable.  
Buying and Selling Horses  
a specialty.  
618 Quincy St., Topeka, Kas.

## Important Sale of Short-horns

On May 29, 1889, at Independence, Mo., I sell thirty-four Bates and Bates-topped Short-horns. Fifteen Waterloos and Wild Eyes, fourteen Peris and five Gazelles. Catalogues ready. H. M. VAILE, Independence, Mo.

**T. W. ANDREWS**,  
ROSSVILLE, KAS.,  
Owner of the right for Shawnee and Wabunsee counties and agent for E. P. C. Webster.

IS PREPARED TO DEHORN CATTLE by the use of the Webster chute, in the above counties, in the best and easiest possible way. Address him.

**DON'T** Wait until the weather gets hot, and your cattle are bawling and your hogs are squealing for water, but buy a "JOKER" WIND-MILL now, while the price remains at \$25. Ask your dealer for the "Joker." For sale by dealers everywhere. For circulars and further information, address PEABODY MANUFACTURING CO., Peabody, Kas. Established in 1880.

## Wanted NEW SUBSCRIBERS A Big Premium!

Given away to everybody who will send us only two new subscribers at \$1 each. First—We will send Blake's Weather Tables and Predictions to any one sending us two new subscribers and \$2. Second—We will mail the valuable dairy book, "A B C Butter-Making," to any one sending us two new subscribers and \$2; or, Third—We will send the Home Magazine, a splendid monthly ladies' home journal, one year, to any one sending us only two new subscribers and \$2. These valuable premium offers are open to every reader of this paper. Send in the names, and mention which premium you wish. Address  
**KANSAS FARMER CO.**,  
Topeka, Kansas.

## WASHBURN COLLEGE.



FOR BOTH SEXES. Collegiate and Preparatory courses.—Classical, Scientific, Literary; also an English course, Vocal and Instrumental Music, Drawing and Painting, Oratory and Elocution. Fourteen instructors. Facilities excellent. Expenses reasonable. Address  
**PETER MOVICAR**, Pres.

**FARMS WANTED!** A large number of farmers in the Northern and Eastern States and Canada want to buy farms in the West and South. If you have a farm to sell, send your address to  
**THOS. H. CHEW & CO., ST. LOUIS, MO.**  
Refer to the editor of this paper.

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:

HENRY W. ROBY, M. D., C. F. MENNINGER, M. D., Surgeons.

118 WEST SIXTH AVENUE, TOPEKA, KANSAS.

J. P. LEWIS, M. D., 519 KANSAS AVENUE, TOPEKA, KANSAS.

Special attention given to General Orthopedic and Gynecological Surgery.

OFFICE HOURS—10 to 12 a. m., and 2 to 4 p. m.

SELF-INKING PEN AND PENCIL RUBBER STAMP. ONLY 25C. Complete by mail. Marks Clothes, Cards, Books, Etc., name and address. Club 5, \$1. DARLING & DOUGLASS, Topeka, Kan.

TOPEKA Investment & Loan Co. TOPEKA, KANSAS.

FARM LOANS A SPECIALTY Low rates of interest. Money paid when papers are accepted. Write for terms.

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, 630 Kansas Avenue Topeka, Kansas.

The Western School Journal, TOPEKA, KANSAS.

OFFICE STATE SUPT. OF PUBLIC INSTRUCTION, TOPEKA, KAN., January 16, 1889. To County Superintendents:—I have this day designated the Western School Journal as the official organ of this department, through which medium, by agreement with the editor of the Journal, I shall in each issue reach Superintendents, teachers and many school officers. This designation is complete evidence of my confidence that the Journal can be safely entrusted by Superintendents as a paper which should be in the hands of every teacher.

Very respectfully yours, GEO. W. WINANS, State Supt. Public Instruction. The Western School Journal publishes monthly all the opinions and decisions of the State Superintendent, Attorney General, and Supreme Court on questions relating to our schools. These opinions and decisions will be worth much more than the cost of the Journal to any school officer. According to an opinion given by the Attorney General, school officers have the power to subscribe for an educational journal and pay for it out of the district funds. Our regular rate is \$1.25 a year, but to district boards, if three copies be taken, we can make the rate \$1.00. Please remit by money order, postal note, or registered district order.

WESTERN SCHOOL JOURNAL, Topeka, Kansas. We can send the Journal and KANSAS FARMER one year for \$1.90; three subscriptions to the Journal and one to the FARMER for \$3.70.

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 tape worm 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.

TOPEKA Commercial Security Co., 307 Kansas Avenue, Topeka.

Six to twelve months loans at current rates. Approved stock sale notes bought. Correspondence solicited.

THE GEO. W. CRANE PUBLISHING Co., Topeka, Kas., publish and sell the Kansas Statutes, Kansas and Iowa Supreme Court Reports, Spalding's Treatise, Taylor's Pleading and Practice, Scott's Probate Guide, Kansas Road Laws, Township Laws, Lien Laws, &c., and a very large stock of Blanks, for Court and other purposes, including Stock Lien Blanks, Conveyancing Blanks, Loan Blanks, &c., &c. For fine printing, book printing, binding, and records for County, Township, City and School Districts, this is the oldest and most reliable house in the State.

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......30 Flax Culture (paper)......60 Fitz's Sweet Potato Culture.....2.00 Henderson's Gardening for Profit.....2.00 Hop Culture (paper)......30 Onions: How to Raise Them Profitably (paper)......20 Silos and Manure......50 Stewart's Irrigation for the Farm, Garden and Orchard.....1.50 Tobacco Culture: Full Practical Details......2- Farming for Profit.....3.75 James' Peanut Plant: Its Cultivation, etc. (paper)......50 FRUITS AND FLOWERS. Fruits and Fruit Trees of America (new edition) —Downing.....5.00 Propagation of Plants—Fuller.....1.50 Field Notes on Apple Culture—Bailey......75 Elliott'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. American Reformed Horse Book—Dodd.....2.50 The Horse and His Diseases—Jennings.....1.50 Dodd's Modern Horse Doctor.....1.00 Jennings' Horse Training Made Easy.....2.00 Horse-Breeding (Sanders).....3.00 Law's Veterinary Adviser......75 Miles on the Horse's Foot.....1.50 Woodruff's Trotting Horse of America.....2.50 Youatt & Spooner on the Horse.....1.50 CATTLE, SHEEP AND SWINE. The Dairyman's Manual—Henry Stewart.....2.00 Allen's American Cattle.....2.50 Coburn's Swine Husbandry.....1.75 Dodd's American Cattle Doctor.....1.50 Harris on the Pig.....1.50 Jennings' Cattle and Their Diseases.....1.25 Jewell's Sheep, Swine and Poultry.....1.25 Randall's Practical Shepherd.....1.50 Stewart's Shepherd's Manual.....3.00 The Breeds of Live Stock (Sanders).....2.99 Feeding Animals (Stewart)......80 A B C Butcher-Making (boards)......80 MISCELLANEOUS. King's Bee-Keeper's Text Book.....1.00 Silk Culture (paper)......30 American Standard of Excellence in Poultry.....2.00 Wright's Practical Poultry-Keeper......50 American Bird Fancier.....1.50 Quinby's New Bee-Keeping......60 Dogs (by Richardson).....1.50 Atwood's Country Houses.....1.50 Barns, Plans and Out-buildings.....1.50 Arnold's American Dairying.....1.00 Fisher's Grain Tables (boards)......40 Fuller's Forest Tree Culturist.....1.00 Willard's Practical Butter Book.....3.00 Willard's Practical Dairy Husbandry.....1.50 Practical Forestry.....1.50 Household Conventions.....2.50 Dodd's American Reformed 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.....2.00 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.....1.25 Reed's Cottage Homes.....2.00 Dogs of Great Britain and America.....1.80 Warington's Domestic Animals.....1.00 Warington's Chemistry of the Farm.....1.50 Williams' Window Gardening......50 Farm Talk (paper)......50 American Bird Fancier (paper)......50 Wheat Culture (paper)......50 Gregory's Onions—What Kind to Raise (paper)......30 Gregory's Cabbages—How to Grow Them (paper)......30 Our Farm of Four Acres (paper)......30 Cooked and Cooking Foods for Animals (paper)......20 The Future by the Past, by J. C. H. Swann.....1.00 Address KANSAS FARMER CO., TOPEKA, KANSAS.

TOPEKA Business College



COLLEGE OF THE SISTERS OF BETHANY. TOPEKA KANSAS. BETHANY COLLEGE. Under care of the Protestant Episcopal Church. For GIRLS AND YOUNG LADIES, exclusively Boarding and Day Pupils. Twenty-six Officers and Teachers. Faithful Maternal oversight for all entrusted to our care. ALL BRANCHES TAUGHT—Grammar and Collogiate, French, German, the Classics, Instrumental and Vocal Music, Elocution, Drawing, Painting. THE MUSIC DEPARTMENT—Employs ten teachers, and twenty-four pianos and three organs. In the ART DEPARTMENT, the Studio is well equipped with casts, models and copies. Send for Catalogue to T. C. VALL, Business, or Bishop T. H. VANL. President, Topeka, Kansas.

EMPORIA BUSINESS COLLEGE EMPORIA KANSAS. PROF. O. W. MILLER. PRESIDENT.

STATE LINE To Glasgow, Belfast, Dublin and Liverpool FROM NEW YORK EVERY THURSDAY.

Cabin passage \$35 to \$50, according to location of stateroom. Excursion \$65 to \$80. Steerage to and from Europe at Lowest Rates. AUSTIN BALDWIN & CO., General Agents, 53 Broadway, New York. JNO. BLEGEN, Gen'l Western Agent, 164 Randolph St., Chicago. ROWLEY BROS., Agents at Topeka.

JOB PRINTING! Quick Time. Reasonable Prices. Large Line of Chrome Cards, \$2.50 per 1,000 up. RUBBER STAMPS. Every Kind and Style. STEEL STAMPS AT 15c PER LETTER. Check Protectors and Perforators. Notary and Corporation Seals. DARLING & DOUGLASS, Topeka, Kas.

DETECTIVES We want a man in every locality to act as Private Detective under our instructions. Particulars free. Central Detective Bureau, Box 185, Topeka, Kansas.

TURKISH HAIR GROWER. Guaranteed to give a beautiful growth of hair on bald heads, without injury, in 3 weeks, or money refunded. 10,000 testimonials. The only reliable article of the kind on the market. Beware of worthless imitations. One pkg. 25 cts., 4 for 50 cts. EASTERN MAN'S CO., Box 127, Boston, Mass.

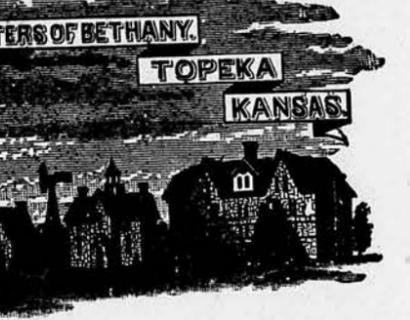
THE GLORY OF MAN STRENGTH VITALITY!

THE SCIENCE OF LIFE KNOW THYSELF. THE SCIENCE OF LIFE A Scientific and Standard Popular Medical Treatise on the Errors of Youth, Premature Decline, Nervous and Physical Debility, Impurities of the Blood, EXHAUSTED VITALITY AND THE UNTOLD MISERIES. Resulting from Folly, Vice, Ignorance, Excesses or Overtaxation, Enervating and unfitting the victim for Work, Business, the Married or Social Relation. Avoid unskillful pretenses, royal \$vo. Beautiful work. It contains 300 pages, royal \$vo. Beautiful binding, embossed, full gilt. Price, only \$1.00 by mail, post-paid, concealed in plain wrapper. Illustrative Prospectus Free, if you apply now. The distinguished author, Wm. H. Parker, M. D., received the GOLD AND JEWELLED MEDAL from the National Medical Association, for the PRIZE ESSAY ON NERVOUS and PHYSICAL DEBILITY. Dr. Parker and a corps of Assistant Physicians may be consulted, confidentially, by mail or in person, at the office of THE PEABODY MEDICAL INSTITUTE, No. 4 Bulfinch St., Boston, Mass., to whom all orders for books or letters for advice should be directed as above.

Resulting from Folly, Vice, Ignorance, Excesses or Overtaxation, Enervating and unfitting the victim for Work, Business, the Married or Social Relation. Avoid unskillful pretenses, royal \$vo. Beautiful work. It contains 300 pages, royal \$vo. Beautiful binding, embossed, full gilt. Price, only \$1.00 by mail, post-paid, concealed in plain wrapper. Illustrative Prospectus Free, if you apply now. The distinguished author, Wm. H. Parker, M. D., received the GOLD AND JEWELLED MEDAL from the National Medical Association, for the PRIZE ESSAY ON NERVOUS and PHYSICAL DEBILITY. Dr. Parker and a corps of Assistant Physicians may be consulted, confidentially, by mail or in person, at the office of THE PEABODY MEDICAL INSTITUTE, No. 4 Bulfinch St., Boston, Mass., to whom all orders for books or letters for advice should be directed as above.

Resulting from Folly, Vice, Ignorance, Excesses or Overtaxation, Enervating and unfitting the victim for Work, Business, the Married or Social Relation. Avoid unskillful pretenses, royal \$vo. Beautiful work. It contains 300 pages, royal \$vo. Beautiful binding, embossed, full gilt. Price, only \$1.00 by mail, post-paid, concealed in plain wrapper. Illustrative Prospectus Free, if you apply now. The distinguished author, Wm. H. Parker, M. D., received the GOLD AND JEWELLED MEDAL from the National Medical Association, for the PRIZE ESSAY ON NERVOUS and PHYSICAL DEBILITY. Dr. Parker and a corps of Assistant Physicians may be consulted, confidentially, by mail or in person, at the office of THE PEABODY MEDICAL INSTITUTE, No. 4 Bulfinch St., Boston, Mass., to whom all orders for books or letters for advice should be directed as above.

Give thorough inst action in Book-keep ing, Arithmetic, Writing, Commercial Law, Civil Government, Political Economy, Letter Writing, Spelling, Business Practice, Banking, Shorthand and Typewriting. The school stands second to none in Kansas. Catalogue sent free by addressing the Business Manager, E. E. ROUDEBUSH, 521 and 523 Quincy St., Topeka, Kansas. [Mention this paper.]



BETHANY COLLEGE. Under care of the Protestant Episcopal Church. For GIRLS AND YOUNG LADIES, exclusively Boarding and Day Pupils. Twenty-six Officers and Teachers. Faithful Maternal oversight for all entrusted to our care. ALL BRANCHES TAUGHT—Grammar and Collogiate, French, German, the Classics, Instrumental and Vocal Music, Elocution, Drawing, Painting. THE MUSIC DEPARTMENT—Employs ten teachers, and twenty-four pianos and three organs. In the ART DEPARTMENT, the Studio is well equipped with casts, models and copies. Send for Catalogue to T. C. VALL, Business, or Bishop T. H. VANL. President, Topeka, Kansas.

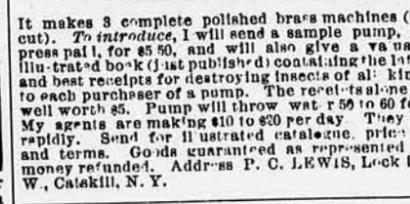
Dr. SPINNEY & CO. NATIONAL DISPENSARY.

NERVOUS, CHRONIC and PRIVATE DISEASES of MEN and WOMEN successfully treated. YOUNG MEN Suffering from the effects of youthful follies or indiscretions, or are troubled with Weakness, Nervous debility, Loss of Memory, Despondency, Aversion to Society, Kidney Troubles or any diseases of the Genito-Urinary Organs, can here find a safe and speedy cure. Charges reasonable, especially to the poor. MIDDLE-AGED MEN. There are many troubled with too frequent evacuations of the bladder, often accompanied by a slight smarting or burning sensation, and weakening of the system in a manner the patient cannot account for. On examining the urinary deposits a rropy sediment will often be found, and sometimes small particles of albumen will appear or the color be of a thin, milky hue, again changing to a dark or torpid appearance. There are many men who die of this difficulty, ignorant of the cause, which is the second stage of seminal weakness. The doctor will guarantee a perfect cure in all such cases, and a healthy restoration of the genito-urinary organs. Consultation free. Send 2-cent stamp for "Young Man's Friend, or Guide to Wedlock." Address

DR. SPINNEY & CO., Main and 12th Sts., Kansas City, Mo. Mention this paper.

"FOR SPRAYING FRUIT TREES"

The Lewis Pump is the best. Will thoroughly spray a ten-acre orchard per day. Endorsed by the leading State entomologists.



It makes 3 complete polished brass machines (see cut). To introduce, I will send a sample pump, express paid, for \$5.00, and will also give a valuable illustrated book (just published) containing the latest and best receipts for destroying insects of all kinds, to each purchaser of a pump. The receipts alone are well worth \$5. Pump will throw water 50 to 60 feet. My agents are making \$10 to \$20 per day. They sell rapidly. Send for illustrated catalogue, price list and terms. Goods guaranteed as represented or money refunded. Address P. C. LEWIS, Lock Box W., Catskill, N. Y.

SORGHUM SIRUP & SUGAR Write to DENSMORE BROS. RED WING, MINN., for circular of the PORTER STEAM EVAPORATOR. The best, most economic and cheapest evaporator in use. It has an enviable reputation for rapidity of work and the ease, reliability and precision with which it operates. Circulars free. Write at once and name this paper. A SUFFERER from errors of youth, lost vigor, etc., was restored to health in such a remarkable manner after all else had failed, that he will send the mode of cure FREE to all fellow sufferers. Address L. G. MITCHELL, East Haddam, Conn.

## TABLE OF CONTENTS.

PAGE 3—AGRICULTURAL MATTERS.—County Agricultural Societies.  
 PAGE 4—THE STOCK INTEREST.—Prevention of Hog Cholera. Sussex Cattle. A Good Horse. Lamb Cholera.  
 PAGE 5—IN THE DAIRY.—The Constitution of Milk, and Some of the Conditions Which Affect the Separation of Cream (continued). Making Milk.  
 PAGE 6—A Complaint. Gossip About Stock. Rainfall and Temperature in Western Kansas. Farmers' Alliance Notes. Constitution and By-Laws for Agricultural Societies.  
 PAGE 7—The Advantages of Soiling. Learn to Economize. Publisher's Paragraphs. Weather-Crop Bulletin. Patents. New Advertisements.  
 PAGE 8—THE HOME CIRCLE.—Rest, poem. Among the Alps. Food for an Infant. House-Cleaning. A Work of Art. Influence of a Good Woman. How the Arabs Make Tea.  
 PAGE 9—THE YOUNG FOLKS.—The Song of the Atom, poem. Above the Clouds.  
 PAGE 10—EDITORIAL.—State Documents for Farmers. The Business Situation.  
 PAGE 11—EDITORIAL.—Some Lessons of a Strike. Down the Twine Combine. Inquiries Answered. The Spring Palace.  
 PAGE 12—HORTICULTURE.—Care of Vines and Summer Pruning. Thumb Pruning. Roses.  
 PAGE 13—THE POULTRY YARD.—Practical Talks on Poultry. The Poultry Blaze.... Culture of the Castor Oil Bean.  
 PAGE 14—VETERINARIAN.—System. To-beka Weather Report.  
 PAGE 15—Pasturing Farm Lands.  
 PAGE 16—THE BEE.—The United States Honey-Producers' Exchange.

## Agricultural Matters.

## COUNTY AGRICULTURAL SOCIETIES.

From the Quarterly Report of the State Board of Agriculture, for March, 1889.

At the annual meeting of the State Board of Agriculture, last January, a resolution was passed by a unanimous vote, that the board take measures to assist in organizing and holding farmers' institutes throughout the State; and to this end a committee was appointed to secure if possible an appropriation from the Legislature for that purpose. The committee failed to get the appropriation; and the question arises, what can the board without such appropriation do to help the farmers of the State in this greatly needed work? Much in various ways.

As the relation of county and district agricultural societies to the State Board of Agriculture does not seem to be generally understood, and as I believe an understanding of that relation will induce many counties to organize and keep up agricultural societies, I have concluded to give to the public the facts in relation to this matter.

The State Board of Agriculture, as originally constituted, is composed, in addition to the President, Secretary, and Treasurer, of twelve members, two, the Governor and Secretary of State, being *ex-officio* members. The law further provides that each county or district agricultural society which through its Secretary performs certain duties shall be entitled to a delegate at the annual meeting of this board, and these delegates shall be for the time being *ex-officio* members of the State Board of Agriculture, and are therefore entitled to all the rights and privileges of regular members of the board; among these being the right to vote and draw pay for expenses in attending the annual meetings of the board.

In order that all may know just what is required by law of the Secretary to entitle the society to representation at the annual meeting, we quote two sections of the law in relation thereto:

SECTION 2. That every county or district agricultural society, composed of one or more counties, whether now organized or hereafter to be organized under the laws of the State of Kansas, shall be entitled to send the President of such society, or other delegate therefrom, duly authorized in writing, to the annual meeting of the State Board of Agriculture, to be held on the second Wednesday of January of each year, and who shall, for the time being, be *ex-officio* members of the State Board of Agriculture: *Provided*, That the Secretary of each district or county society, or such other person as may be designated by the society, shall make a monthly report to the State Board of Agriculture, on the last Wednesday of each month, of the condition of crops in his district or county, make a list of such noxious insects as are destroying crops, and state the extent of their depredations, report the condition of stock, give a description of the symptoms of any disease prevail-

ing among the same, with means of prevention and remedies employed so far as ascertained, and such other information as will be of interest to the farmers of the State: *And provided further*, That each county or district society herein mentioned, which shall have held a fair the current year, offered and awarded premiums for the improvement of stock, tillage, crops, implements, mechanical fabrics, and articles of domestic industry, shall make out a statement containing a synopsis of the awards, and an abstract of the Treasurer's account, and report on the condition of agriculture in their county to the State Board. Said statement to be forwarded, by mail or otherwise, to the Secretary of the State Board, on or before the 15th day of November of each year. It shall be the duty of the State Board of Agriculture to furnish the monthly reports provided for in this section to the press of the State.

SEC. 3 It shall be the duty of the State Board of Agriculture, together with so many of the Presidents or authorized delegates of county societies as may be in attendance, to meet at the capital of the State on the second Wednesday of January, 1873, and annually thereafter, and proceed to elect by ballot a President, Vice President, Secretary, Treasurer, and five members of the State Board of Agriculture, who when regularly convened shall constitute the State Board of Agriculture. The President, Vice President, and Treasurer shall be elected to serve for one year, and the Secretary and members shall serve for two years from the time of their election.

From the above we see—

First—That every county or district agricultural society organized and kept up in the State may have a delegate to the annual meeting of this board.

Second—That that delegate, for the time being, is an *ex-officio* member of the State Board of Agriculture, and by virtue of that is entitled equally with the regular members to vote and draw pay for expenses in attending the annual meeting of the board.

Third—That an agricultural society is not required to hold a fair, nor own property; but if a fair is held, a financial statement of the same must be made out and sent to the office.

Fourth—That such society, the Secretary thereof having performed his duties as required by law, shall be entitled to send the President or other delegate therefrom, duly authorized, to the annual meeting of the State Board of Agriculture.

Here then is a perfect and entirely complete machinery, eminently adapted to promote the agricultural interests of our State.

The law creating this board provides that the members thereof, and the authorized delegates of agricultural societies, shall meet annually at the State capital to elect officers; and for many years comparatively nothing was done beyond that. But of late years the question came up, Why should not those who are required by law to meet annually to elect officers, bring with them thoroughly digested and well-written papers on topics of interest to farmers, and submit them for consideration and discussion? This idea first took definite form four years ago, and the annual meetings since have each year been growing in numbers and interest, and the State at large is being greatly enriched by them. Publications containing the papers read and the discussions following are distributed throughout every county and township of the State, and the more important matter is given to the public through the press of the State.

While these meetings have been increasing in membership each year, yet it is a singular fact that at the last and largest meeting ever held, not over one-third of the counties in the State were represented. That all the counties, especially in the eastern half of the State, are not represented at these meetings, can be accounted for only on the theory that they do not know the facts as to how membership may be secured; for surely no people can be so indifferent to their agricultural interests as to knowingly deprive themselves of the helpful and efficient means so generously and wisely extended by the State for the promotion and growth of agricultural prosperity in their midst. Enlarging the membership of these

annual meetings, therefore, is one way by which the board can promote institute work.

Every county which sends a delegate to the annual meeting of this board will soon have an institute of its own. If it does not, it is most likely because the county doesn't send the right kind of a man.

The commingling together of those engaged in the same calling in life; the relating of experiences; the interchange of thought; the friction of mind upon mind; the evolution of new thoughts, and the zeal and enthusiasm aroused—all these taken together are of such value that they can hardly be estimated. And those who share in these awakening influences—who participate in these mental gymnastics which bring into vigorous play the entire intellectual being—carry home with them a mind quickened, strengthened and invigorated, and besides a fund of knowledge which it is a pleasure to them to communicate to others at every opportunity presented. One such mind, thoroughly aroused and full of zeal, is enough to move a whole community of farmers into the organization of an institute, and this he will do unless insurmountable obstacles are in the way.

The true theory, I think, is to build up one grand central farmers' institute such as this board aims to build up, and then as rapidly as may be send branches out to every county in the State, which may again send out other branches to every township in the county, and thus there be established a free and complete circulation of vital forces from the central institute throughout every portion of the State, promoting thrift everywhere.

To endeavor to build up county farmers' institutes without this grand central institute is much like growing a tree with wide-spreading branches and no root or life center from which to receive strength and support.

But again, this board through its Secretary and members may do much to promote institute work by personally assisting in organizing and holding farmers' institutes throughout the State. The Secretary holds himself in readiness to respond to calls for aid in any portion of the State at such times as his strictly official duties permit. The members of the board also will assist in their own and adjacent counties in this work. Besides, there are many able, active and thoroughly practical farmers in the State, who, when some one leads, will be glad to contribute valuable aid to the success of this work.

In my humble opinion it is not possible to improve on the present wisely constructed machinery for the upbuilding of agriculture in our State. All we need now to make this machine turn out first-class work is—*money*; and I trust in two years from now we will have that.

One thing more which is important: Organization for the purpose of holding farmers' institutes, in order to become a part and parcel of this State organization and be entitled to representation at the annual meeting of the board, must conform to the requirements of law in their organization. Of course all farmers' institutes, as well as all other organizations of farmers, may and ought to send delegates to the annual meeting; but the thought I wish to impress is this, that in order that delegates from societies may be entitled to all the rights and privileges of members of the board proper, societies must be organized in conformity to law, and the Secretaries thereof must perform the duties required of them by law. The only name recognized in the law for these organizations is "county or district agricultural society;" that is, it must be a county organization, and not a township or mere local organization, or it must be a district organization composed of one or more counties; and while the holding of a fair is not required, yet the organization must provide the machinery necessary to hold a fair. This is evidently the kind of organization contemplated by the authors of the law creating the board. No farmers'

institute organized for that purpose alone, would under the law be entitled to a delegate in full standing at the annual meeting.

Let me impress this thought: that while on account of the oppression of farmers "the fountains of the great deep" in the farming world "are broken up," the watchword everywhere being "Organize! Organize!" let us in Kansas organize "once for all." Whatever other organizations there may be in the county, let us have one organization broad enough and strong enough to take in agricultural societies, farmers' institutes and all—meetings for the discussion of the living issues of the day which pertain to the elevation of farmers throughout the world; and let that organization be in harmony with and a part of the State organization.

Any legally organized agricultural society must do only what is specified in the law; but certainly this additional work—holding farmers' institutes—does not invalidate its legal relations to the board. Neither does an increased number of officers. All the officers required are a President, a Secretary, and a Treasurer. A society may and I think ought to have a Vice President in each township in the county, whose duty it should be to organize and keep up township institutes or farmers' clubs. These township institutes should be centrally located, and during the winter the meetings frequent. Besides discussing topics of local interest, the principles and methods advocated in the papers read and passed upon at the annual meeting of this board should be studied, and whatever of practical value they contain would in this way be utilized, and the farmers greatly benefited. In this way the problem as to the most effectual distribution of the agricultural literature sent out by this board would be solved.

At all these meetings, whether township, county or State, an element of strength and efficiency and certainty of ornamentation, would be the presence and aid of woman, not to read a paper and then take a seat alone among the "lords of creation," but a whole community of women and girls should be present and make a sort of social and intellectual picnic of the occasion. While some would participate in the exercises—give a view of farm life from a woman's standpoint, others would assist in song, and all would contribute a vast deal to the zest and tone of the meeting. Yes, by all means have the farmers' wives and daughters at the meeting. To emphasize the proposition that the participation of women in such meetings is eminently proper, may be mentioned the fact that at a recent meeting of the Royal Agricultural Society of England, the Queen herself presided—not simply to give dignity and character to the meeting, but because she takes a lively interest in agriculture, and prides herself in growing the best-blooded stock in Europe.

But to return. Every agricultural society should of course have an executive committee to arrange for, control, and manage all things pertaining to meetings, etc.

Another thought I wish to impress most profoundly: There can be under the law only one county agricultural society in one and the same county entitled to public money for fair purposes, with possibly this exception, viz., where a second society in a county covers a sufficient amount of territory in adjoining counties to come within the meaning and terms of a "district agricultural society composed of one or more counties." And as a logical sequence it follows that an agricultural society not entitled to draw money from the county treasury is not entitled to a delegate in full standing at the annual meeting of the board.

The Attorney General has been consulted in relation to these matters. It is about time we know what the law is, and have a full understanding in regard to it.

I say again, let us have at least one strong, well-manned agricultural society, as soon as may be, in each county in the State, and in harmony with the State organization. There are many agricultural societies in the State which, on the collapse of the "boom," became well-nigh defunct. Into these dry bones we must infuse new life, new blood. Peradventure they may come to life again. If not, let them be decently buried, and new ones created.

Sorghum is a good food for sheep. Sown thickly with a common grain drill and the resultant growth is more like coarse hay than anything else. Cut with a mower it can be cured as perfectly as hay.

## The Stock Interest.

### THOROUGHbred STOCK SALES.

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

MAY 29—Hon. H. M. Valle, Short-horns, Independence, Mo.

#### Prevention of Hog Cholera.

A most unfortunate condition in reference to any transmissible disease is the belief that nothing can be done to prevent it. Every such disease can, to a greater or less extent, be prevented by proper attention. This is true of the plague which constantly renders insecure the swine industry of Kansas. How often we hear the expressions, "Oh, you can't prevent cholera; I have tried everything. Dr. Curital's sure cure, Professor Soandso's specific, and all the rest. They all fail. We must put up with our luck."

If we visit the farm of our friend, we quite likely find the following surroundings: The hogs are kept in a good lot, and have an old shed for shelter during storms. Cholera breaks out quite likely soon after the importation of some hogs from another region. Many of the herd die, and the carcasses are left where they dropped. With what result? Nothing in the light of present knowledge could be plainer. What would be the consequence if the human victim of smallpox should be left in the house of the infected family for several days before burial?

Hog cholera is an infectious disease caused by a special micro-organism which finds the best possible conditions for its growth and multiplication in the tissue and fluids of the hog. After the death of the host, the germs retain their vitality for a certain length of time. They can live in the dead body of the host, in the litter in the locality, or in the soil; just how long we cannot, at present, say.

From the above it must be evident that after cholera is once introduced it cannot be eradicated without killing the germs.

To prevent cholera, we must do one of two things, namely: first, render the system of the hog capable of resisting the germ; or, second, keep the germ at a proper distance. The investigators are striving for the former result, and it must be left largely in their hands. But the farmer can do much to aid in the second case. First, be careful not to purchase hogs from an infected district. If you purchase from any region, be sure that the cars used for transportation have not been used to carry infected swine. It is safer to insist that the car be disinfected before use. If the disease actually breaks out in your herd, remove all healthy hogs at once to some higher and dryer ground if possible. The writer recalls a case where the healthy animals were removed to an old lime-kiln, as the most suitable place, which resulted in checking the disease. It is better to remove the healthy and leave the sick animals, because the soil, litter, etc., become infected and capable of transmitting the disease. When an animal dies, burn it on the spot; don't remove it to some other lot, or wait till your neighbor's dog eats part of the carcass and carries the disease home to his master's hogs. Be sure that the infected hogs do not have a chance to drink from any running water. If they do, hogs drinking further down the stream may take the disease. Burn all loose litter and rubbish about the infected pen. Do not allow persons taking care of sick hogs visit the lot not affected. For a similar reason the attendant of the well animals should not visit the sick. Keep ani-

mals of every sort out of the infected place.

After the disease has run its course, we must try and remove all possibility of future outbreaks by thorough disinfection. The method of accomplishing the desired result will depend upon the nature of the surroundings. If the infected animals have run at large, it would be well to plow the lot and not use it for a hog lot for two or three years. If the sick have been kept in a small enclosure, everything not of value should be burned. All wood-work should be thoroughly whitewashed and the soil intimately mixed with a good dressing of lime. Other disinfectants may be used, but lime is cheap, effective, and, in most parts of Kansas, readily obtainable for the burning.

These suggestions, based upon a knowledge of the way diseases are transmitted, may seem to many to be too "fussy;" but the man who most thoroughly attends to such details will be the most successful in preventing cholera. Even if he lose his entire herd, he may know that he has probably saved his neighbors' hogs. To that extent he will be a public benefactor.—*Prof. Burleigh, in Industrialist.*

#### Sussex Cattle.

During the past thirty to fifty years these cattle have been so improved in England as to be quite equal in most respects to the Herefords, and if anything a little superior in quality of beef. Formerly the Sussex were generally large-boned, quite coarse in their make-up, slow feeders, and did not mature fully till 6 to 7 years old. This made them an unprofitable stock to raise in comparison with the Devons, Herefords and Short-horns.

The breeders say that they have obtained this great improvement in cattle by continued selections entirely from their best, and have not resorted to out-crosses from other stock at all; though some imagine, who are not breeding them, that in order to make a more rapid improvement resort has been had to a stolen cross now and then from the South Devon, which is intermediate in size between the North Devon and Sussex. These three breeds are of pure red color, which is a great advantage in taking a cross between them, for that is not disturbed by it, or does not turn out in the least different in the progeny.

The cows yield a small mess of milk, but the quality is so rich that they can bring their calves up well on it till six months old. The steers fatten finely on rather coarse feed, and are ripe for the butcher at 3 or 4 years of age. Cut up on the block, they have occasionally taken first prize at the fat cattle shows both in England and America. They are undoubtedly a valuable breed to rustle on our great Western plains, for they possess a very robust constitution and are hardy, thrifty and good-tempered. The heifers now are generally put to the bull at 2 years old, and are quite sure breeders. Milk fever is rarely known among them. This is a great advantage when turned out with their calves to be raised by them and not be milked. Their udders under these circumstances are kept in first-rate condition, and not bodily injured, as is often the case with such as give more milk than the calf can daily draw out clean for its sustenance. In consequence of the early Short-horn cows being such copious milkers when first imported here and turned out with their calves, which often could not take half their milk, the udders were frequently ruined by suffering their surplus of milk to remain in them, for the breeders would not give their time to strip the cows well after the calves ceased sucking morning and night.—*A. B. Allen, in National Stockman.*

#### A Good Horse.

"I can't explain what a good horse is," said a well-known dealer. "They are as different as men. In buying a horse you must look first to his head and eyes for signs of intelligence, temperance, courage and honesty. Unless a horse has brains you can't teach him anything any more than you can a half-witted child. See that tall bay there, a fine-looking animal, fifteen hands high. You can't teach that horse anything. Why? Well, I'll show you the difference in heads, but have a care of his heels. Look at the brute's head, that rounding nose, that tapering forehead, that broad, full place below the eyes. You can't trust him. Kick? Well I guess so! Put him in a ten-acre lot where he's got plenty of swing, and he'll kick the horn off the moon."

The world's treatment of man and beast has the tendency to enlarge and intensify bad qualities, if they predominate. This good-natured phrenologist could not refrain from slapping in the face the horse whose character had been so cruelly delineated, while he had nothing but the gentlest caresses for a tall, docile, sleek-limbed sorrel, that pricked her ears forward and looked intelligent enough to understand all that was being said.

"That's an awful good mare," he added, "she's as true as the sun. You can see breadth and fullness between the ears and eyes. You couldn't hire that mare to act mean or hurt anybody. The eye should be full, and hazel is a good color. I like a small thin ear, and want a horse to throw his ears well forward. Look out for the brute that wants to listen to all the conversation going on behind him. The horse that turns back his ears until they almost meet at the points, take my word for it, is sure to do something wrong. See that straight, elegant face. A horse with a dishing face is cowardly, and a cowardly brute is usually vicious. Then I like a square muzzle, with large nostrils, to let in plenty of air to the lungs. For the under side of the head, a good horse should be well cut under the jaw, with jaw bones broad and wide apart under the throttle.

"So much for the head," he continued. "The next thing to consider is the build of the animal. Never buy a long-legged, stilty horse. Let him have a short, straight back and straight rump, and you've got a gentleman's horse. The withers should be high, and the shoulders well set back and broad; but don't get them too deep in the chest. The foreleg should be short. Give me a pretty straight hind leg, with a hock low down, short pastern joints and a round mulish foot. There are all kinds of horses, but the animal that has these points is almost sure to be sightly, graceful, good-natured and serviceable. As to color, tastes differs. Bays, browns and chestnuts are the best. Roans are very fashionable at present. A great many grays and sorrels are brought here for shipment to Mexico and Cuba. They do well in a hot climate, under a tropical sun, for the same reason that you find light-colored clothing the most serviceable in summer. The circus horse behind you is what many people call a calico horse, now I call him a genuine pie-bald. It's a freak of nature and may happen anywhere."—*Horse and Stable.*

#### "Lamb Cholera"

The popular name of this disease, as given in the title, is apt to be misleading. It may be, and frequently is, epizootic—that is, it prevails more or less extensively over a neighborhood or a section, being induced by similar conditions of soil, pasturage, etc. It gener-

ally attacks the finest, fattest lambs of the flock; indeed, almost the only strictly safe generalization which may be made as to its causes is, that it does not prevail in an under-fed flock. It seems also to occur very seldom among sheep ranging on the sweet grasses and drinking the clear, running waters of a hilly country. It is found chiefly on flat, sour lands, which are insufficiently drained or not at all; and this fact leads to the belief that the acidity of vegetation growing on this description of soils is mainly the cause of the trouble.

The lamb is taken very suddenly and violently; falls on the ground in a tremor, with spasmodic kicks; sometimes froths at the mouth, and throws the head back, further and further every minute, until finally it almost rests on the shoulders; the eyes are rolled up, and have a fixed, staring look. Death usually ensues in a few minutes, and dissection reveals the first stomach full of cakes of curd, very acid, and generally distended with gas. The lungs will probably be found full of blood, and the bowels watery or slimy, with indications of diarrhea. It may occur even in a cosset which is fed on cow's milk, which seems to demonstrate that it is caused by some unwholesome quality of the milk produced by all animals in that section, just as the cow's milk of certain prairie regions of the West is found to be harmful to infants, and even sometimes fatal. It is probably the sourness of the soil, communicated to the vegetation, which produces "lamb cholera."

As with all diseases of sheep, prevention is 100 per cent. better than cure; but in this case the preventive measures must be brought to bear on the ewes. One excellent, practical shepherd recommends to take a half gallon of tar, mix into it all the salt it will hold together, and smear the salt-troughs with it, withholding all other salt so as to compel the sheep to eat this. Grain and dry feed are also recommended as a corrective of the acidity and flatulency of the stomach. Better than either, perhaps, is sharp wood ashes or lime well mixed in the salt, say in the proportion of one part ashes to ten of salt. If possible, during the suckling season the ewes and lambs should be removed to a piece of sweet pasture, with sufficient slope to secure drainage, where the grass is short and tender.

If the lamb is seen as soon as attacked, and the shepherd is skilled in drenching, let him administer an ounce of Epsom salts in a teacup of warm water; it may save its life. Or, put a lump of tar as large as a hickory-nut well back on the base of the tongue, and shut the mouth and hold it closed to compel it to swallow.—*Sheep Breeder and Wool Grower.*

TIBBEE, MISS., October 16, 1886.

MESSRS. A. T. SHALLENBERGER & Co., Rochester, Pa.—*Gents:* The bottle of Shal- lenberger's Pills sent me in February last I gave to W. G. Anderson, of this place; a long standing case of chills and fever. He had tried everything known without any permanent good. In less than ten days after taking your Antidote he was sound and well, and has gone through the entire season without any return. It seems to have effectually driven the Malarious poison from his system. Yours truly, V. A. ANDERSON.

It is a good plan to teach a horse to stand without hitching even if you expect to tie him securely every time you leave him. A horse that has been taught this habit is to be trusted so much farther when tied if anything unusual occurs.

Dyspepsia causes depraved blood, which, in time, affects every organ and function of the body. As a remedy for these troubles, nothing can approach Ayer's Sarsaparilla. It vitalizes the blood, strengthens the stomach, and corrects all disorders of the liver and kidneys.

## In the Dairy.

### THE CONSTITUTION OF MILK,

And Some of the Conditions Which Affect the Separation of Cream.

Extracts from Bulletin No. 18 of the Wisconsin Experiment Station, prepared by Prof. S. M. Babcock.

(Continued from last week.)

#### SPONTANEOUS COAGULATION OF MILK

It is not uncommon for milk to be found which coagulates spontaneously before any perceptible acidity has developed. Cases of this kind were very prevalent in the city of Rochester, N. Y., in the summer of 1878. Prof. Arnold gives the following account of this case. The italics are mine.

"The city was furnished by numerous small dealers who brought milk in their wagons once a day, their farms being from three to five miles distant. Some of the dealers reported no unusual thickening, while others said their milk sometimes curdled before they could get it to their customers, without being sour to the taste, and when it was delivered apparently sound, customers now and then complained that it lopped while sweet. \* \* \*

"One milkman stated his experience substantially as follows: He lived three miles from the city and delivered milk only in the morning; his night's milk was strained into his carrying cans which were placed in tubs of cold water where they stood all night with the covers partly open; the morning's milk was also cooled in the same way, but of course was not kept long enough to cool so thoroughly as the night's milk. \* \* \* The premature thickening always arose with the morning's milk and oftener with the small cans than with the larger ones. With the night's milk there was no trouble. It kept longer than the morning's milk and was therefore dealt out last. His experience was similar to that of many others, and represented a considerable share of the milk brought to the west half of the city."

This fairly represents the circumstances under which this phenomenon occurs. The coagulation is facilitated by warmth and by agitation, or transportation, conditions which are most favorable to the coagulation of fibrin, and I believe that an examination of such milks will show that they contain an abnormal amount of fibrin.

#### GROUPING OF FAT GLOBULES.

I have stated that under the microscope the fat globules of milk appear to be more or less collected into groups that are not really broken up. These groups are quite different in character from those formed in the churning process, as the globules composing them retain their spherical form and are rarely distorted or united with each other; in the groups formed in churning, the globules are to a great extent distorted and are more or less incorporated with one another. The analogy between the grouping of globules in milk and the grouping of the corpuscles in blood is very close, as no grouping is found either in milk or blood when perfectly fresh, nor when substances are added to them which prevents the coagulation of fibrin. It is a difficult matter to observe milk with the microscope before any grouping takes place and it can only be accomplished by taking the microscope to the stable, milking directly upon the slide and examining the milk immediately. Even with all precautions many failures will be made, but by perseverance some milks will be found that show no signs of grouping until they have stood for a time. In all samples, however, the grouping will appear in a few minutes at most.

If milk be drawn directly into a solution of sodium or potassium hydrate, in

such quantity that the alkali will comprise about one-tenth per cent. of the milk, no aggregation of the fat globules will be found in this milk, even after it has stood for twenty-four hours. That this appearance is not caused by the alkali breaking up groups that are already formed may be shown by adding the same amount of alkali to milk some time after it is drawn. In this case the grouping is not broken up although it appears to be somewhat modified, the globules being held together with less firmness than when nothing was added.

In order to make certain that the grouping of the globules is due to the coagulation of a substance analogous to blood fibrin, many experiments have been made with artificial emulsions and blood serum. The first trials were made by emulsifying fat directly with blood serum. The serum for this purpose was obtained in a liquid condition and quite free from blood corpuscles, by mixing beef blood, directly as it escaped from the body, with magnesium sulphate and allowing it to stand quietly for several hours in a tall vessel until the corpuscles had mostly settled. With this serum a very good emulsion may be prepared, but when it is diluted with water to a point where the coagulation of the fibrin takes place, the clot formed is so firm and contracts with so much force that all appearance of an emulsion is destroyed by the distortion of the globules. If, on the other hand, the dilution with water be carried to a point where the amount of fibrin present is sufficiently small, the emulsion will be practically destroyed, and so little fat will remain in suspension that the grouping is not satisfactory. To avoid this difficulty an emulsion of cotton-seed oil was prepared, with a strong aqueous solution of dextrine. Other emulsifying agents may be used instead of dextrine, but this medium is especially suitable on account of the facility with which it may be filtered while warm, it being desirable that the emulsion shall contain no solid particles. When cool it makes a very viscous solution that emulsifies fat readily and the emulsions formed are quite permanent. A suitable emulsion may be formed by adding about one quart of cotton-seed oil to ten parts of the dextrine solution and shaking the mixture vigorously for some time until the fat is in a finely-divided condition. This emulsion should be placed in a separating funnel and allowed to stand for a few minutes, until the largest globules have risen to the surface, when a portion may be drawn from the bottom, in which the globules are quite small and uniform in size.

Under the microscope such an emulsion resembles milk which has been drawn directly into a solution of sodium or potassium hydrate, the only difference being a greater variation in the size of the globules. There is no tendency to grouping whatever, the globules being uniformly distributed throughout the field of view. If to an emulsion formed in this way a small quantity of blood serum prepared as described above be added and thoroughly mixed with it, the globules will appear, after standing a short time, to be grouped in almost identically the same way as in milk. The chief precaution to be taken in this experiment is not to use too much of the blood serum. If the serum exceeds 1 per cent. of the emulsion the clot formed is liable to be so firm that the globules will be incorporated with one another and, to a great extent, the emulsion will be destroyed. One-tenth per cent. of the blood serum will cause a very marked grouping of the globules.

#### AMOUNT OF FIBRIN IN MILK.

In regard to the amount of fibrin present in normal milk, I can only say, in the absence of accurate methods for its determination, that it is very small. I have endeavored, as described in the

preceding pages, to determine the relative amount of fibrin in different milks by measuring the oxygen which they would liberate from the peroxide of hydrogen. This has been quite satisfactory, but gives no clue to the absolute amount of fibrin in the milk. Fresh pig's or cow's blood when diluted to two thousand times its volume with water is more active in this respect than milk, but blood contains other principles besides fibrin which decompose the peroxide of hydrogen, so that this gives but little clue to the quantity in milk. If blood be diluted with five hundred parts of water and allowed to stand, a very perceptible clot will form that will extend throughout the whole mass, and judging from appearance normal milk must contain considerably less than such a solution.

Blood is supposed to contain on the average about three-tenths of 1 per cent. of fibrin, so that the above solution would not contain more than six ten-thousandths of 1 per cent. By comparing the behavior of diluted blood with milk, I am inclined to believe that milk does not often contain more than two or three ten thousandths of 1 per cent. of fibrin, and the amount may be considerably less than this.

It seems almost incredible that so small a quantity of any constituent could have sufficient influence upon milk to effect in the slightest way the results obtained in ordinary dairy practice, but the numerous experiments which I have made with diluted blood indicate that this amount is sufficient to account for many of the difficulties met in the manufacture of butter.

If one part of liquid blood serum be diluted with five hundred parts of water and placed in a moderately-warm place (about 70 deg. F.) for sometime a visible clot will form which will have the appearance of a net-work of very fine threads, surrounding the whole contents of the vessel and will usually be attached to the sides of the vessel in places. The net formed by this clot has sufficient firmness to intercept small bubbles of air and prevent their rising to the surface; it will upon standing gradually contract, drawing the bubbles of air which are entangled in it into groups analogous to those of the fat globules in milk. If the blood be diluted with distilled water which contains no air in solution the clot will finally settle to the bottom; if, however, spring or river water which contains considerable dissolved air be used, the air will be gradually set free from the water and enough of it will be entangled in the clot to cause it to float. In contracting, the net will retain in its meshes, not only bubbles of air but all small solid particles such as diatoms, infusoria or algae that the water contains and concentrate them in the clot where they may be readily found by a microscopical examination, even if the quantity in the water is very small. If this blood solution be disturbed before the clot has completely formed it will often be broken up into small masses, some of which will imprison bubbles of air and be carried to the surface while others will sink to the bottom. If the clots be small and have not been formed for a long time the addition of a few drops of muriatic, acetic or lactic acid will cause them to disappear immediately; if, however, the clots are large and have been formed for some time they will not be readily dissolved by the acids and will disappear only after digestion for several hours, and sometimes they will not dissolve at all. If the mixture of blood and water be immediately surrounded by ice and kept as cool as possible the clot will form very slowly, being scarcely perceptible, and will have much less firmness than that from a similar solution kept moderately warm.

#### THE CREAMING OF MILK.

Having now described the characteristic properties of the different constituents of milk we are prepared to consider their influence upon the separation of cream and to note how far the different methods of creaming conform to the most favorable conditions.

The cream which separates upon standing from a perfect emulsion is composed of the same constituents as the original emulsion, and differs from it only in the relative amounts of serum and fat which it contains. The separation of the cream is purely a physical phenomenon, depending upon the difference between the specific gravity of the fat and that of the serum, and upon the resistance which the serum offers to the movement of the fat globules. The greater the difference in the specific gravity of the serum and the fat, other

## WELLS, RICHARDSON & CO'S IMPROVED Butter Color.

EXCELS IN STRENGTH  
PURITY  
BRIGHTNESS

Always gives a bright natural color, never turns rancid. Will not color the Buttermilk. Used by thousands of the best Creameries and Dairies. Do not allow your dealer to convince you that some other kind is just as good. Tell him the BEST is what you want, and you must have Wells, Richardson & Co's IMPROVED BUTTER COLOR. For sale everywhere. Manufacturer, Burlington, Vt.

### BABY PORTRAITS.

A Portfolio of beautiful baby pictures from life, printed on fine plate paper by patent photo process, sent free to Mother of any Baby born within a year. Every Mother wants these pictures; send at once. Give Baby's name and age. WELLS, RICHARDSON & CO., BURLINGTON, VT.

conditions being the same, the more rapidly will the cream rise and the less volume will it occupy after a given time. The more viscous the serum is, the more resistance will it offer to the separation of the cream and the greater will be the volume of cream after a given time.

When first drawn from the cow, milk is undoubtedly a perfect emulsion and I shall assume, for the present, that it continues in this condition throughout the creaming process, and on this basis shall consider the circumstances which influence the creaming. The difference in the specific gravity of the fat and the milk serum, which is the cause of the separation, depends mostly upon the nature and amount of the solids not fat, that the milk serum holds in solution. For we may safely assume that the slight changes which occur in the composition of the fat will not materially effect its specific gravity.

According to Clausnizer and Mayer the effect of each per cent. of solids not fat, is to increase the specific gravity of the milk serum .00875; consequently the greater the amount of solids not fat found in milk, the greater will be the difference in the specific gravity of the milk serum and the fat, and the greater will be the tendency of the fat to rise; but, on the other hand, the viscosity of the serum, and consequently the resistance to movement through it, increases with the amount of solids not fat more rapidly than the specific gravity. It follows that the higher the per cent. of solids not fat in the serum the more slowly and more imperfectly will the cream separate. This condition, however, is somewhat modified by the size of the fat globules, for the resistance of the serum is much less with large globules than with small ones. Large fat globules and a small amount of solids not fat are therefore favorable to creaming, whether we regard the time required, or the thoroughness with which it is accomplished, while small globules and a high per cent. of solids not fat are opposed to creaming.

(To be continued next week.)

#### Making Milk.

EDITOR KANSAS FARMER:—There is no trouble in getting a good flow of milk in the fore part of the season when feed is lush and before fly-time, but after it comes hot, fly-biting weather and the feed in the pastures gets short and dry, then cows cannot live "by faith alone." During the last dry summer I fed the cows I milked once a day, after the first of August, and managed to keep up a reasonably good flow of milk. I use corn fodder planted about twenty inches in the row, the rows running one way. Sweet corn is the best, but any variety will do; one that does not grow too large stalk and has plenty of leaves is the best. Now is the time to make our plans to plant a patch handy to the pasture, and as near the stable as convenient. It ought not to be planted before the last of May, as we want it to keep green until frost. After frost comes, partly cured sorghum is the best feed, and a good patch of the Cushaw squash makes a No. 1 feed for both milk and butter. The best way is to feed at night after milking all the fodder the cows will eat up clean, and not feed in the morning if there is any feed in the pasture. Try and feed at the same hour or the cows will be uneasy. J. G. MCKEEN.

Russell, Kas.

**A Complaint.**

**EDITOR KANSAS FARMER:**—Is Kansas an agricultural country? While her laws are made by lawyers, doctors and merchants, I am afraid most of the agricultural articles are written and most of the agricultural reports are made by men who have no direct interest in agriculture. For instance: In your report of the acreage and condition of crops in the various counties of Kansas for 1889, the reporter for Morris county says, "There was no wheat sown in the county," while the fact is there were hundreds of acres sown and is now in fine condition. He also says, "There was not as much oats sown this year as last," while the fact is there never was as much oats sown in the county as there is this spring. I can not believe a farmer made that report.

Again, there are many farmers in this county who are raising hundreds of head of stock and farming hundreds of acres of land who have failed to get one of the reports of the State Board of Agriculture. These men are not ignoramuses. They take and read many agricultural and political papers. They pay for all the reading they get and much State printing which they do not get. They fail to get these State documents which I believe they are entitled to, simply because they do not lounge about town and wait to interview their Representative, (who by the way is a lawyer), or being very busy putting in spring crops they did not write to the Secretary of the State Board at the opportune moment. I have been farming and stock-raising in Kansas for twenty years and take a deep interest in improved methods of farming and stock-raising. I wrote to the Secretary of the State Board several times during the past winter and spring requesting State documents, but up to this time have received nothing; and to make the case more aggravating, I know several merchants, lawyers and doctors who have received reports of the sugar industry and also the sixth biennial report of the State Board of Agriculture. Farmers! there is undoubtedly a reform badly needed.

Morris Co., Kas. F. M. WIEMAN

This subject is referred to editorially in another place under the head "State Documents for Farmers."

**Gossip About Stock.**

At Lincoln, Neb., May 22, there will be held a public sale of thirty-five Jersey cattle, said to be one of the best offerings made in the West, the property of Orville Compton, Bennett, Neb.

Dairymen should look up the Holstein-Friesian sale at Lincoln, Neb., May 21, consisting of fifty head, fifteen of which are bulls, the offering of Martin P Van Osterhout, Orange City, Iowa.

The National Military Home, Leavenworth, Kas., will receive bids from Kansas creameries to supply them with from 125 to 150 pounds of butter per day. Bids will be received up to 2 p. m., May 23.

At the next Fat Stock show, at Chicago, the judges will consist of one butcher, one breeder and one feeder. This view from the different classes engaged in the business ought to give satisfaction to the exhibitor.

A local correspondent of the *Tescott Herald* says W. W. Crampton, of that place, patronized a creamery with eighteen cows, and realized \$2.08 per head, during the past year-receiving 71 cents per 100 pounds of milk.

Clay Center Democrat: Jim White, living three miles south of town, boasts of a set of triplet calves, all white heifers, with red heads and a white face. They are a week old, doing well and as much alike as three black-eyed peas.

We are in receipt of the sale catalogue of Hon. H. M. Valle's Bates Short-horns, to take place at Independence, Mo., Wednesday, May 29, at 1 p. m. Every animal offered is of his own breeding and of the choicest Waterloos, Wild Eys, Gazelles and Peris. Don't fail to secure a catalogue.

Manhattan Republic: The Blue Valley herd of sixty Short-horns will be shipped to-night for Chicago in charge of W. S. Brown and Wm. Littlechild, where the dispersion sale occurs May 14. It is with regret that we see this noted herd of excellent Cruickshank cattle pass from Riley county, where it has done more than all

other agencies combined to carve for this county the enviable record she has held as headquarters for fine stock.

The auction sale of W. D. Paul, at Pauline, six miles south of Topeka, on Wednesday, May 22, consists of thirty-five 2 and 3 year-old steers, and twenty high-grade Clyde and Hambletonian brood mares, also a few young mares and geldings. Some very desirable stock is offered.

The Jewell County Review gives some solid and important facts from three different townships in that county. From Grant township nine different parties shipped out during the past year \$49,806 worth of live stock, from Sinclair township a Mr. H. Fesler manufactured 2,000 pounds of cheese, and eight farmers in Harrison township marketed 10,020 pounds of butter from February 29 to March 1, 1889. In conclusion the editor remarks: "How's this for 'bleedin' Kansas?'"

E. P. Miller, a New York subscriber, has recently sent a car load of Holstein cows to Barber county ranche, at Medicine Lodge, and the young bull, Pietertje Prince, sired by Pietertje Netherland, whose dam and grand dam have made the largest milk record ever made by any cows of their age of any breed. He also has four head of standard bred trotting mares and a Hambletonian colt, Miller's Pride, sired by Knickerbock, who has nine in the 2:39 list out of a dam by Hambletonian Prince who has eleven in the 2:30 list.

In the late Holstein-Friesian transfers we note the following: Bulls—Count of Maple Hill, 12754, M. E. Moore, D. S. Sale, Axtell, Kas.; Bregje Swart's Prince, 8669, M. E. Moore, D. S. Sale; Gori Pel's Consolation, 12753, M. E. Moore, D. S. Sale; Hanover Prince, 8950, C. D. Perry, W. D. Miner & Sons, Burlingame, Kas.; Duke of Claremont, 6237, C. D. Perry, J. F. Telford & Co., Burlingame, Kas.; Prince Lewis, 6233, C. D. Perry, W. D. Miner & Sons, Burlingame, Kas.; Lottery's Prize, 3922, H. H. B., C. D. Perry, J. W. Townsend, Burlingame, Kas.; Klasina Payne's Fearnought, 10180, L. H. Payne, M. E. Moore, Cameron, Mo.; Klasina Payne's Fearnought, 10180, M. E. Moore, H. W. Cheney, North Topeka, Kas.; Kroontje's Bell Boy, 12745, L. H. Payne, M. E. Moore, Cameron, Mo. Cows—Afka De Vrles 31., 11719, L. H. Payne, M. E. Moore, Cameron, Mo.; Afke Lee, 5714, N. S. Carlisle, Bush & Moore, Denver, Col.; Akke Swart, 9236, C. C. Fuller, M. E. Moore, Cameron, Mo.; Bluff City Belle 2d, 9027, H. H. B., C. D. Perry, W. D. Miner & Sons, Burlingame, Kas.; Bluff City Belle 3d, 1451, C. D. Perry, J. W. Townsend, Burlingame, Kas.; Maid of Claremont, 7497, C. D. Perry, W. D. Miner & Sons, Burlingame Kas.; Maid of Hanover, 3214, H. H. B., C. D. Perry, W. D. Miner & Sons; Maid of Hanover 2d, 1450, C. D. Perry, J. W. Townsend, Burlingame, Kas.; Rose-dale, 1936, H. H. B., C. D. Perry, J. W. Townsend; Rosedale 2d, 3942, H. H. B., C. D. Perry, E. Farnsworth, Burlingame, Kas.; Holland Maid 2d, 11721, L. H. Payne, M. E. Moore, Cameron, Mo.; Lady Elgin, 3215, H. H. B., C. D. Perry, J. George, Burlingame Kas.

**Rainfall and Temperature in Western Kansas.**

Mr. S. B. Jackson, of Tribune, Greeley county, hands us the following figures showing the normal rainfall and temperature of Kansas as made up from observations taken at different places in recent years:

	Precipitation, in inches.	Temperature, in degrees.
January.....	.37	23.3
February.....	.43	31.0
March.....	.66	41.1
April.....	1.26	51.0
May.....	3.19	60.9
June.....	3.71	71.0
July.....	2.91	76.4
August.....	2.59	73.0
September.....	1.06	66.1
October.....	.91	53.8
November.....	.46	38.1
December.....	.73	29.8
Annual amount.....	17.28	.....
Annual mean.....	.....	51.2

**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

**Farmers' Alliance Notes**

Geo. T. Crobarger, Peabody, Kansas, has been appointed lecturer and organizer for the alliance and any of our readers who wish to organize may secure his services at any time.

We are gratified to learn from so many of the members of the alliance that they now realize that this paper, more than all others, has been battling in their interests constantly. Our old readers have long ago learned to depend upon the "old reliable" for effective service.

We hope that every member or officer that knows of any alliance news of general interest would forward the same promptly to this office. They will help the organization materially and constantly improve this column. We want fresh and live matter so as to make this column interesting.

The Colorado State Grange has requested the National Grange to issue a proclamation, immediately asking all the members of the subordinate granges in the United States and Canada to take immediate action in regard to this "twine trust," and if they cannot secure fair rates for twine, then that they so arrange their harvesting machinery that they may discard the use of it entirely.

Shawnee county has organized a county alliance at the court house, Topeka, recently, with D. F. Van Orsdoll, Silver Lake, President; D. F. Nelswander, North Topeka, Vice President; J. N. Wilkerson, North Topeka, Secretary. Mr. Wilkerson was also appointed purchasing agent. Steps were also taken regarding the establishment of a market house at Topeka. The next meeting will be held the first Friday in June.

A Norton county farmer sends us an advertisement of the Aultman & Taylor Threshing Machine company in which they offer to sell farms for low prices and easy terms; the result of farmers buying on time and being unable to pay have lost their security—farms besides the exorbitant interest. The writer earnestly protests against farmers mortgaging their homes under any consideration and advises all to buy nothing until they have the cash to buy with. In conclusion he sensibly remarks, "if Kansas farmers would read your paper and live within their income for five years they could buy machines and everything else needed for cash."

**Constitution and By-Laws for Agricultural Societies.**

The following form of constitution and by-laws for county agricultural societies was proposed by the Secretary of the State Board of Agriculture, and was printed in the March report of the Board:

**CONSTITUTION.**

1. This association shall be known as the County Agricultural Society.
2. The object of this association shall be the development of agriculture, horticulture, stock-raising, household economy and the encouragement of the fine arts and the elevation of farm life, by holding farmers' institutes and county fairs.
3. This association shall exist for the term of ninety-nine years.
4. The business of this association shall be transacted at the county seat of the county.
5. The number of directors of this association shall be seven, and the names and residences of those who are appointed for the first year are as follows:
6. The amount of capital stock of this association shall be — dollars, and the number of its shares into which it shall be divided shall be —.

**BY-LAWS.**

1. The officers of this association shall be a President, Vice President, Secretary and Treasurer, whose term of office shall be one year, or until their successors shall have been elected and qualified.
2. It shall be the duty of the President to preside at all meetings of the association, and he shall have a general supervision of the affairs of the association.
3. The Vice President shall assume the duties of the President in the absence of the President.
4. It shall be the duty of the Secretary to attend to all correspondence of the association and keep a record of its meetings.
5. All moneys received by the officers or directors shall be paid to the Secretary forthwith, who shall pay same to the Treasurer, and take his receipt therefor; and the Treasurer shall pay no money out except upon an order drawn on him by the Secretary and signed by the President, which order shall state the object for which given.
6. The Secretary and Treasurer shall each execute a sufficient bond for the performance of all duties and the safety of funds intrusted to them, said bond to be approved by the board.
7. Standing committees shall be an Executive committee and Finance committee.
8. The Executive committee shall make the necessary arrangements for holding the annual fair and other meetings of the society and board, and let all contracts for buildings and supplies, etc. They shall have the control of the property and affairs of the society when the board is not in session, and report

annually upon the condition of the same, with such recommendations as their experience and judgment may suggest. They shall keep an accurate account of all transactions, and make an itemized account to the board.

9. To the Committee on Finance all accounts and money transactions shall be referred for examination and approval, and upon their recommendation only shall orders be drawn, except when authorized by vote of the board.
10. The President may appoint any special committee that may be needed at any time.
11. At the expiration of his term of office each officer and director shall turn over all property of his office to the board for the use of his successor.
12. The board of directors shall have authority to fill any vacancy that may occur in their number.
13. The annual meeting of stockholders shall be held in the town of —, in the Secretary's office, on the second Tuesday of December each year, at which time three directors shall be elected for one year, and four for two years; and ever after, all vacancies shall be filled for two years. All officers elected shall file their acceptance with the Secretary within ten days after their election, otherwise the office shall be declared vacant and the vacancy filled by the board. The new board shall organize on or before the fourth Tuesday in December.
14. Each shareholder shall be entitled to as many votes as he or she owns shares of stock at all meetings of stockholders.
15. Any stockholder may vote by proxy provided a proper certificate shall have been given to the Secretary by shareholder authorizing said proxy to cast vote representing his shares.
16. All stock shall be transferable, and a record of such stock shall be kept by the Secretary in a book provided by the association, showing by whom held, and if sold, the Secretary shall record the same, and to whom sold.
17. All stock subscribed shall be paid as follows: Forty per cent. when subscribed, after which no greater amount than 20 per cent. of such stock shall be assessed in any one year until the full amount of such stock shall have been paid.
18. Any shareholder will forfeit his stock to the association by failing to pay any assessment within thirty days after written notice by Secretary.
19. These by-laws may be amended by a two-thirds vote of the directors at any meeting regularly called.

**Low Rates to Puget Sound Points.**

The St. Joseph & Grand Island and Union Pacific railroads, and Oregon Railway & Navigation company, via Portland, form the new short line to Tacoma, Seattle, Olympia and Port Townsend, Washington Territory, and Victoria, British Columbia.

The ticket rates to these points via the above line have just been lowered to \$60 first class, and \$35 second class, baggage checked through. For further information, call on any agent.

E. MCNEILL, General Manager,  
W. P. ROBINSON, JR., G. P. & T. A.,  
St. Joseph, Mo.

The Maryland Farmer is authority for the statement that a single application of caustic potash will prevent the growth of the horn in young stock. Its directions are as follows: Get a 5 cent stick at the drug store and keep it in a corked bottle so it will not "air-slack." On the arrival of a calf which you wish to be hornless, wrap a piece of paper around one end of the stick of caustic, and with it in one hand, take the calf between your knees, wet the hair over the "horn spots," rub the uncovered end of the caustic well on the spots, and let the calf go.

**Do You Wish to Raise Perfect Fruit?**

If so, we cannot urge upon you too strongly the importance of spraying your fruit trees, to guard against our insect foes. Many of our farmers and fruit-growers neglect this most important work. Recent statistics show that the actual loss to our fruit interests from the depredations of insects is \$20,000,000 annually, while the loss to the apple crop by the codling moth alone amounts to millions each year. The experiments of our leading entomologists and fruit-growers have demonstrated the fact that you can save from 70 to 75 per cent. of this loss by spraying your fruit trees. The actual cost of this spraying does not exceed 2 or 3 cents per tree, and your labor is repaid a thousand-fold in the quantity and quality of your fruit. Many do not spray their trees from the lack of a proper machine for doing this work, or because they do not know what kind of insecticides to use, or are deterred on account of the high prices asked for spraying outfits. To such we would say that P. C. Lewis, of Catskill, N. Y., makes one of the best pumps for this purpose that we know of. It is a combination of three complete brass machines in one, as shown in cut. It has been used extensively



for spraying fruit trees, with splendid results. It has a patent spray nozzle, by which you can change from solid stream to spray instantly while pumping. It is endorsed by all our leading State Entomologists. The price of this pump is only \$5, and will spray a ten-acre orchard in a single day. Mr. Lewis gives free to each purchaser of a pump, a valuable illustrated book on "Our insect foes and how to destroy them." The getting up of this book and the making of the illustrations cost hundreds of dollars. The information and receipts are well worth \$5 to any one who has a dozen fruit trees. If any of our readers are troubled with insects of any kind on their fruit or trees, or need a pump for any purpose, we would advise them to write Mr. Lewis at above address for full information and illustrated catalogue.

### The Advantages of Soiling.

Hon. Hiram Smith delivered an address before the Farmers' Institute, at Waukesha, Wis., on March 26, from which the following is an extract:

"I am well aware of the prejudice existing towards any invasion of the old established methods of farming. We have all been brought up to regard pasturing animals as the true way to keep them through the summer, cutting hay on which to winter them. We have been brought up in these habits, and many who do not figure closely nor reason logically conclude that there is no better way of keeping animals than the way in which we were first taught to do it; but the combinations existing in all branches of business and trade have forced many either to abandon the work engaged in, or devise some means by which they could increase the product of their farms, and add to the animals from which they derive the remuneration for their work. It occurred to me several years ago that soiling cattle from the green crops that grew upon the land could be done with less expense than to pasture the herd. Of course many will think that this is a poor way of keeping cows, and we will often hear the stereotyped objection—they ought to have some exercise. I am satisfied from my own experience, and it has been proved by repeated experiments, that animals that chew their cud do not require exercise other than the exercise of chewing. A cow that is giving milk does not need exercise any more than a horse that works a tread power. Any one would think it perfectly ridiculous to take out and exercise a horse that worked in a tread power, but it would be no more ridiculous than to exercise a cow that, in the chewing of her cud in the elaboration of milk, is getting all the exercise she needs. The elaboration process requires power produced by the food consumed. The next question is the amount of money. How many more cows can we keep, how much more feed can we raise to the acre than we can to let the cows run on the land and pick their own feed? Whoever has watched the character of cows knows that no matter what the size of the field they visit every rod; every foot of that soil is trodden upon every day that they are in pasture. Now, it is known to those who have observed closely that cows that travel over the soil to get their own living, foul and tread down two-thirds of all that grows upon that soil. It is a matter of economy to husband what we have in our possession, and, if we can, keep three cows where we now keep one. Right here comes in an opportunity to make our business more profitable. By keeping three cows where we had one, or say two cows where we had one, we may better our condition and at the same time better our land, for the more stock we keep the more fertilizers we shall have to raise larger crops. The history of soiling in this country is something like the history of the silo. It has been found that by raising a crop of fodder corn and putting it in the silo that every acre will winter three cows, and that one acre of meadow land will hardly winter one cow. If we take into account how much we have gained by the silo it will be easy to understand how much we have gained by silo-feeding instead of pasturing them. Another consideration. In the spring the frost has done very perfect work and left the soil in loose condition, so that the crop may grow and have a chance to mature as nature intended, but if we put on to every two acres a heavy animal to travel over them every day and tread them down in their soft condition, the soil gets perfectly packed and can furnish little more nourishment than a stone or clod. Our land becomes like a clod. It has fertility, but will not give forth the fertility that is in it. Plants to live must have moisture and room for their roots to grow, but if the cows pack the soil down firmly, very little will grow after the 1st of July. Hence, almost generally we have short pastures and the cattle run down and become of little value after July or August. Corn and rye will grow right along if it is hot and dry, and there are many crops farmers can utilize. The only objection urged against soiling is the great expense, but if you figure the expense it looks so small you are almost ashamed of it. A boy of 18 years can go into a field of clover or millet and cut sufficient for the night and the next morn-

ing, get it in and do the milking in half a day. It costs 15 cents to soil 100 head of cattle every day in the year. I doubt whether it costs much more than it used to do when we drove the cows to pasture and hunted them up at night. I believe the time spent ten or fifteen years ago in getting cows in and out of pasture cost as much time as it now takes to soil the entire herd the year around. \* \* \* It is high time that we met this question fairly and looked at it from a standpoint of practicability. An acre of ordinary land will produce more feed for summer feeding than the best two acres of pasturage in Wisconsin. In regard to the silo, here is an opportunity to double the proceeds or receipts of the farm. As many again cows can be kept with very little more expense and no increase of farm machinery. The only expense will be a little extra hired help. If a man is running a summer dairy why should he let his cows run on two and three acres to get their summer feed and go dry in August, and then cut hay for them in winter when corn in the silo is a great deal better. The change from one to the other seems almost to cost nothing. The cost is nothing, and there is at the same time an increase of product. We should quit reading the census reports that grass is worth more than all the other crops. The grass crop may be worth much, but we do not get as much of it in our pockets."

In conclusion, Mr. Smith again referred to the exercise theory, saying: "The experiments are numerous to show that the cow does not require exercise. Force requires feed, and there is a constant loss while cows are traveling over pastures to find their food."

### Learn to Economize.

Trials are seldom without their compensations. When the farmers' produce is high, and prices flush, carelessness and extravagance inevitably results. This is the time when man's judgment is warped and his vision blinded. He is thrown off his guard. He indulges in extravagant bargains and carelessly contracts debts. Then when closer times come, large debts have to be paid with low prices for labor and produce. The present time is favorable for calculating economy and enforcing a moral.

Then let our readers recollect that a man is happier in his old house with cramped conveniences, than he can be in a large mansion with a heavy mortgage on it. Or a family can go to church in a farm wagon as easily, and worship more devoutly than they can with a fine carriage with a mortgage on the carriage and horses, especially if it be just after harvest and the chinch bugs have taken all their grain. If in the farm wagon, they would not be embarrassed if they should meet old Silverhorn, who generally has the chattel mortgages on fine horses and carriages. Stick to the old house and wagon, and to a clear conscience, and a happy mind, until you have the money and spare cash to build and to buy.

It is not generally the best policy to borrow money to buy more land, and give a mortgage on the new land and the old farm. Interest eats like a canker—it de-houers day and night; it rests not for cold or heat; it spares not the high or the humble—it eats on forever, and cries for more. He that is caught in its meshes is not wise.

Now is the time to learn—and to learn it so well you will never forget—that one hundred bushels of corn can be raised as easily on one acre as on three with one-half the labor. It is a good time to have the fact ground into all the senses, that three hundred pounds of pork can now be made for half the cost in eight months that your father took thirty years ago to make in eighteen months.

And this is a good time to learn, and to practice a score of other practical lessons, which you will never learn when the products of the farm are extravagantly high. Thousands of families are made unhappy by recklessly contracting debts when times are flush, for matters of mere show, which add little or nothing to the comfort, convenience or respectability of the family. Then accept of the present time as the most favorable opportunity to seek practical wisdom, and to instill into your family those true lessons of economy, and to learn from whence true contentment comes. — *Iowa State Register.*

### Publishers' Paragraphs.

We are in receipt of the catalogue of the Blymyer Iron Works Co., manufacturers of the celebrated Victor, Niles and Great Western cane mills, Cook evaporators, etc. Parties in want of sorghum or sugar machinery, will do well to write for a copy of the catalogue.

The Bird City News earnestly remarks "that northwestern Kansas can boast of as good crop prospects as any part of the habitable globe, and it is time that the fact should be made known to the outside world." The KANSAS FARMER cordially helps to spread the news.

The management of this paper desire to still further greatly improve this paper and will greatly appreciate the efforts of our readers to secure new subscribers. In view of the prosperous outlook every one can secure one or more new subscribers this month. Please do so before you forget it and then watch for good results.

The Southwestern Business Journal, published by the Southwestern Business college, Wichita, Kansas, is a monthly journal in the interests of practical education, especially regarding all classes of business matters. It only costs 50 cents per year and we advise young men and ladies to send for it. A sample copy will be mailed free.

Attica, Harper county, Kansas, is in a flourishing way as they are building a large sugar mill and expect to have a paper mill soon. They now have the government sorghum cane experiment station and a creamery that in eleven months bought 1,051,232 pounds of milk at 80 cents per hundred pounds. Farmers ought to prosper in that vicinity.

Our old advertiser, Dr. Root, at 183 Pearl St., New York, is out with the startling statement that there are 95,000 epileptics in the United States and that his business is very large, requiring sixty-five employees. During the past three years he is credited with having given away 68,267 bottles of "Elepizone," his famous remedy. He gives a free sample bottle to any one afflicted.

Everything is reported blooming in Barber county. They have recently built a new creamery and are now building a large sugar factory, capable of using 250 tons of sorghum daily. They are building gypsum works for the manufacture of cement and plaster. We are informed that improved farms can be secured cheaper there than they can be made in Oklahoma on free land, and the soil is better.

W. B. Wilhelm & Co., wool commission merchants, St. Louis, report that their sales are giving unusual satisfaction and that the KANSAS FARMER tow line means business. We are glad to know that our reliable advertisers are prosperous, as well as our constant subscribers. The writer never met an old-time subscriber anywhere but that he was universally one of the most prosperous and successful farmers of the neighborhood.

The Western Wool Commission Co., St. Louis, in their weekly *Wool Reporter* give increased sales over last year, large inquiry by Western mills and that St. Louis prices are fully 2 cents per pound better than Eastern markets. They advise growers to ship early as there is no prospect of a "boom" in the market. They quote Kansas and Nebraska wools as follows: Medium, 20 and 22; coarse, 18 and 19; low, 15 and 17; light fine, 19 and 20; heavy fine, 14 and 15. They send their weekly *Wool Reporter* free to all applicants.

### Weather-Crop Bulletin

of the Kansas Weather service, in co-operation with the United States Signal Service, for the week ending Saturday, May 11, 1899:

**Precipitation**—The excess this week covers generally the central counties east of Logan, Wichita and Kearney. In the southern and western tier no rain fell, and but little in the northern. The largest excess occurs in Lincoln and Ellsworth, in Lane extending across into Trego and around Hutchinson in Reno, where two inches and upwards fell. An inch and a half in Ness, Rush, Lyon, Osage and northern part of Coffey, the rainfall diminishing thence to the East line of the State. On the 6th some hail fell in Edwards, Pawnee and Reno, on the 8th in Cloud, Dickinson and Pottawatomie and on the 9th in Haskell, the hail stones in this last measuring as high as nine inches in circumference and weighing, after

the storm, from two to two and three-quarter ounces. In Pottawatomie on the 8th two belts of very heavy rain about eight miles apart occurred in the evening, each belt about one and one-half miles in width, the belts running parallel and towards the northeast.

**Temperature and Sunshine.**—In the northern, northeastern, southeastern and southwestern counties the temperature has ranged slightly below the normal, in the eastern and central about normal, while in the southern, western and northwestern it has been above. In the counties of the eastern division the amount of sunshine has ranged from an average to a deficiency, while over the rest of the State an excess is reported.

**Winds.**—A strong southerly wind on 4th, 5th and 6th is reported from all sections of the State. The self-registering apparatus at the Central Station showed an hourly movement on the 4th after 9 a. m. from sixteen to twenty-six miles per hour, on the 5th from twenty-three to thirty-nine and on the 6th from thirty to fifty. After 7 a. m. of the 6th it went above forty per hour and staid at and above those figures until 1 a. m. of the 7th.

**Results.**—The strong wind of the 6th influenced vegetation more than all other elements combined. Although its relative humidity ranged from 72 to 80 per cent. of saturation, it blighted many of the leaves of fruit trees and grape vines by abstracting their moisture so much more rapidly than it could be restored by the circulation. The leaves curled up, the edges and tips turned black as though touched by fire or frost, and crumble when taken hold of. The fine, loose, Kansas soil was drifted in many plowed fields like snow, thus clearing out the crop in some parts of a field and effectually covering it in other parts. In the southern counties where some wheat was in bloom, in many instances the bloom has been knocked off and the heads beaten around until they present a very dilapidated appearance. The rains in the central and western counties were timely and beneficial; and the same applies to the absence of rain in the southern, where an opportunity for work was needed. Cotton planting has commenced in the southern tier where strawberries are ripe and cherries turning red. Clover is beginning to bloom in Coffey and will soon be cut for hay. Outside of the wind the weather has been very beneficial, and all crops, generally, have made rapid growth.

T. B. JENNINGS,  
Signal Corps, Assistant Director.

### Patents.

The following list is reported through the official records for the week ending May 7, 1899, by Higdon & Higdon, Patent Lawyers, office rooms 55 and 56 Hall Building, Kansas City, Mo., and room 20 St. Cloud Building, Washington, D. C. By applying to them at either office a printed copy of any patent here named can be obtained for 25 cents.

### MISSOURI.

Car coupling.—Horace F. Foster, Milo.  
Conduit yoke for cable ways.—John B. Johnson, St. Louis.  
Torsion spring for vehicles.—Charles N. Waterhouse, St. Louis.  
Paint distributor.—Charles L. Burdick, Kansas City.  
Machine for making ice.—G. W. Mitchell, Bowling Green.  
Combined printing and addressing machinery.—Stephen D. Carpenter, Carthage.

### KANSAS.

Ironing device.—Caldwell Hayes, Oskaloosa.  
Water-heating apparatus.—George Light, Narka.  
Gravel screen.—John D. Loughram, Neosho Falls.  
Device for marking bricks.—Alvah O. Morgan, Burlingame.

### NEW ADVERTISEMENTS.

Ewell, E. R. .... Wanted.  
Hires, C. E. .... Root Beer.  
Kern, H. H. .... Nursery Stock.  
Lewis, P. C. .... For Spraying Trees.  
Meade & Bomar. .... Texas.  
Lawrence, E. H. .... Wanted.  
P. P. Mast & Co. .... Hay Rakes.  
Pond's Business Col- lege. .... Wanted.

### Bulls for Sale.

Fifteen choice Short-horn bulls, from 8 to 20 months old; also a number of choice heifers. Will sell at reasonable prices on terms to suit purchasers. Address T. P. Babst, Dover, Shawnee Co., Kas.

## The Home Circle.

### To Correspondents.

The matter for the Home Circle is selected Wednesday of the week before the paper is printed. Manuscript received after that, almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

### Rest.

Silence, sleeping on a waste of ocean;  
Sundown, westward traileth a red streak;  
One white sea bird, poised with scarce a motion,  
Challenges the stillness with a shriek;  
Challenges the stillness, upward wheeling,  
Where some rocky peak containeth her rude  
nest,  
While the shadows o'er the water they come  
stealing,  
As they whisper to the silence: "There is  
rest!"

Down where the broad Zambesi river  
Glides away into some shadowy lagoon,  
Lies the antelope, and hears the leaflets quiver,  
Shaken by the sultry breath of noon;  
Sees the water ripple in its flowing,  
Feeds the atmosphere with fragrance all op-  
press'd,  
Dreams his dreams, but the sweetest is the  
knowing  
That above him and around him there is rest.

Centuries have faded into shadow;  
Earth is fertile with the dust of man's decay;  
Pilgrims all men were to some bright El  
Dorado,  
But they wearied and they fainted by the  
way,  
Some were sick with the surfeit of pleas-  
ure;  
Some were bowed beneath a care encum-  
bered breast,  
But, in turn, they all trod life's stately meas-  
ure,  
And all paused betimes to wonder: "Is there  
rest?"

Look, O man! to that limitless hereafter,  
When thy anguish shall be lifted from its  
dust;  
When thy weeping shall be melted into  
laughter,  
And thy love shall be severed from its lust;  
When thy soul shall be sanctified with seeing  
The ultimate dim Thule of the Blest,  
And the passion haunted fever of thy being  
Shall be drifted in a universe of rest!

—Percy Somers Payne.

Father, I do not ask  
That thou wilt choose some other task  
And make it mine. I pray  
But this: Let every day  
Be molded still  
By thy own hand; my will  
Be only thine, however deep  
I have to bend thy hand to keep.  
Let me not simply do but be content,  
Sure that the little crosses each are sent,  
And no mistake can ever be  
With thine own hand to choose for me.

—George K. Klinge.

### AMONG THE ALPS.

In former years our little American colony in Schaffhausen numbered in all six souls, and, to use an excusable bull, two of these Americans were Belgians, having resided in New York some years. Now there is not even a shadow of a colony here, and beautiful as the towers about the environs are, they are quite abandoned by our countrymen. The average traveler arrives at Schaffhausen, is immediately rushed into an omnibus, driven over to Neuhausen, sees the falls of the Rhine, and then away again. Not so your correspondent, for I quietly settled down at the Hotel de la Poste, a quiet hostelry in the city itself, slipped into my smoking jacket and slippers, and was soon chatting with mine host, Buehman, just as if the seventeen years since I last rested here were yesterday.

"Ah!" said my genial host, "you are just in time, Herr Elson. To-morrow evening the castle, the old Munoth, is to be the scene of a reception, given by the Stadts-rath to the singing societies of Canton Appenzell, and I will see that you are specially invited." And invited I was, and the following evening found me seated at the round table within the esplanade of the castle, while the Appenzellers made merry music about me. Then dancing was in order, and although I am not a dancer myself, I will try to describe a peculiar dance they call "La Francaise," which appeared very pretty to me as I sat and looked on. The sets were formed as for our ordinary German at home, but after a few bars of music by the orchestra, I saw it was to be quite different. Everybody is the pink of politeness. "Mademoiselle, may I have the honor?" the hat is raised, the lady courtesies very low, and in fact more quiet politeness is displayed than one meets at a similar Parisian gathering.

At length all is ready. After the customary salute, the music falls into a veritable minuet, as stately almost as the one of the French Louis. Follow it with me, dear

reader, in fancy, at least. The old minuet of our ancestors, forward and salute, the gentleman holding the lady's hand with a quite indescribable grace as high as the shoulder, then across and back again; but while I am gazing dreamily on this scene, what do I hear? Why, to be sure, one of Strauss' ravishing waltzes, and presto! the whole is changed from the sober to the gay, and I see nothing but the rosy, healthy faces turning about, while the tails of the gentlemen's dress coats stand at an angle of forty-five degrees, so fast do those South German and Swiss waltz. And so the dance ends.

But I have promised, gentle reader, to take you into the country, so let us take this train for a short ride into Germany (for you must remember Schaffhausen lies on the German side of the Rhine) and we soon come to the village of Krotzingen, on the extreme southern edge of the Black Forest. It is justly called the Black Forest, for the tall pines and cedars grow close together, making night of noon under their shadows. Taking a carriage, or, more proper, a sort of light cart, I directed my driver to strike by the most unfrequented road into the forest. In fifteen minutes we were in a solitude so still that it was oppressive. Not a sound save that peculiar swaying noise of the pines that only a Bret Harte can describe, and an occasional cry of a bird very similar to our catbird; otherwise, all is majestically still.

I order the driver to halt, and while he is opening the little hamper and spreading our frugal luncheon, I take my compass and make a little inroad into the woods. I hear a brook trickling over the rocks, and as I approach, a frightened hare scampers through the bush. Poor creature! I am as much startled as he, for my head is full of such stories as the "Iron Ring," and I half look to meet one of the old robber chiefs and his band that a couple of centuries ago made this forest a dangerous place, and whose spirits, some of the more ignorant peasants believe, are still to be met with by the belated traveler. But hark! I hear my guide calling, so back I go to luncheon. The wise fellow has put our bottle of Macon into the brook to cool, and we sit down together in the best of fellowship to our little luncheon in the Black Forest. At length all is finished and we drive along, and by a circuitous route reach the village of Staufen. It is a more populous place than I expected to find here. It has its own little hotel, called "The Wild Man," and adjoining is a brewery, a little row of stores and, in fact, is quite a city in the woods.

But we plunge into the woods again and presently come to a party of woodchoppers, their axes ringing merrily, but only against such trees as the Herr Forstmeister has given permission to be cut, and still farther along I hear the dripping of water on a mill wheel, and here we enter the little village of Untermunsterthal, a veritable Black Forest dorf. I knock at the doorpost of a house, for the door stands open, and a man with a heavy pair of sabots appears, and I ask permission to come in and see his house. He is naturally surprised that any one should want to see his house, but accords me permission and I enter. Against the wall stands a large porcelain stove, at least eight feet high, while just outside is his pile of brush and wood for the winter. His cattle shed is just to the rear, and his chamber above, reached by a short ladder. The odor of the cattle pervades everything, so I make my adieus and we are soon on our way to Neukirch, where I take the train back again to Schaffhausen, which I reach not a bit fatigued with my beautiful journey.—George H. Elson, in Boston Transcript

### Food for an Infant.

In regard to the quantity of food suitable for an infant, there are a great many very erroneous notions which should be corrected. The stomach of a child under 4 months old will hold, in its natural condition, only about a small wineglassful. Of course by stretching—for it is very elastic—it can be made to hold several times that quantity, but, when so distended, it presses upon the other organs, pushes them out of place and causes pain. When this fact is known, the folly of allowing the child to feed from a bottle containing half a pint or more of food will at once appear evident. When the stomach is distended, vomiting is

often the measure of relief. In distention, when the superfluous food is not thrown off, the baby is fretful and cries with pain. It is overloading the stomach which frequently excites colic. Mothers seldom recognize the fact, however, and, as a rule, interpreting the little one's cries as an evidence of hunger, go on giving it more food and making matters worse. Permanent distention of the stomach is not infrequently the consequence of overfeeding, the organ, which is elastic, losing its power of contracting to its original size. When such a condition exists, the sufferer wastes away even when the proper food is given in correct quantity.—Boston Herald.

### House-Cleaning.

In the spring the housewife's fancy turns to thoughts of cleaning house, and until this work is accomplished she takes very little rest. As the spring cleaning is usually the general cleansing of the year, every nook and corner is sure to be visited, and all thoroughly cleared out and put in order. Although there is sure to be some confusion during this work, yet a good deal may be avoided by cleaning one room at a time, being sure to keep at it until it is finished before beginning on another. This usually confines the confusion to two rooms, the one cleaning and one to which the furniture of the first is moved.

Begin by removing from the room to be cleaned all the small ornaments and articles of furniture, then the large pieces of furniture, pictures and mirrors. Take down the curtains, dust thoroughly, and if of washable material, send to the laundry. If they cannot be washed, and are not much soiled, the dusting will be sufficient. If the floor is carpeted, sweep this as clean as possible, with a tack-lifter remove the tacks, fold together carefully, so as to raise as little dust as you can, and take out into the air, where it should be well beaten. Where carpet lining or newspapers have been used, the dust on these may be easily removed by carrying them out into the air, leaving very little dust on the floor. Where straw is used under carpets, after removing this the dust under it can be swept up by sprinkling the floor with water. After taking up the dust, wipe the floor over with a damp mop, not wet enough to wash it, but just enough to take up the superfluous dust, so the base boards around the room may be washed without being smeared by the cloth coming in contact with the dusty floor. Wash the paint with a soft, white flannel cloth, warm water and some good soap. If light colored or white, whitening in the water will improve its appearance. If very much soiled, and one is not particular about the gloss, ammonia in the water will cleanse it perfectly, but will remove the polish. Wash the windows in ammonia water and the floor also. When the floor is dry, and the carpet well shaken, put down the latter, replace the pictures, furniture and curtains, after wiping them over thoroughly. Rub the furniture, if dark, with some good furniture polish or warm linseed oil, using only a little oil and a good deal of rubbing. Test the cords, nails and screw eyes of pictures, mirrors, etc., and be sure they are strong enough to stand the weight of the article another year. Cold tea is the best thing with which to clean grained wood. Never use ammonia for this work. Unsightly grease spots can be removed from wall paper by using blotting paper and a warm iron. Take a piece of blotting paper, double it, hold it on the spot of grease, then press on this a warm iron. Remove the paper, and if the spot is not all out, use a clean piece, and so continue until the stain has disappeared. Common brown meat paper, folded two or three ply, is good when the other is not convenient. Spirits of camphor will remove white spots from furniture, as also will alcohol; but if the article is varnished this also will come off, so, unless you wish to re-varnish, alcohol should not be used on varnished furniture. We do not know what effect spirits of camphor will have on this same kind of furniture, but the effect of the alcohol we have learned from experience.—Exchange.

Never had a preparation a more appropriate name than Ayer's Hair Vigor. When the capillary glands become enfeebled by disease, age, or neglect, this dressing imparts renewed life to the scalp, so that the hair assumes much of its youthful fullness and beauty.

### A Work of Art.

"It is a mistaken idea that you must not wash your face," says one of the most beautiful women in New York. "I give my face and neck a thorough scrubbing every night with warm water and soap, in order that it may be thoroughly dry. I rub it with chamolis skin after wiping with the towel. Then I use some softening agent, a little glycerine and water, or a bath of milk is as good as anything. After applying it I rub off as much as I can with a soft linen, otherwise your skin will have a greasy look. Then I thoroughly brush my teeth and my hair.

"In the morning my face will be as fresh and smooth as can be. I do not wash it again. I rub it lightly with chamolis skin and apply a little soft, fine powder. When I dress in the afternoon I use the powder again, and besides I take a little of this," lifting a tiny vial of pink fluid. "This is a preparation made in Turkey from genuine rose leaves and is quite harmless. I wet a bit of linen and then use this upon it.

"If you use it without any water you get too warm a tint. I get where I have a good light upon my face, and touch my cheeks, lips and chin very carefully. Then I tip my ears and nostrils with a bit of pink, likewise my finger ends and the palms of my hands. Then I take a tiny bit of powder upon my chamolis skin and tone down the edges of my pink tinting, and I defy any one to detect the traces of art.

"I use perfumes for my eyebrows, a little for my hair, keep my breath sweet, my clothes free from odor, and then I exert myself to be just as pleasant as I can to everybody.

"I get all the information I can, so that I may be entertaining," she said in conclusion; "and now, having told you and your readers all about it, I leave you to decide whether or not I am purely or not a work of art."—New York Journal.

### Influence of a Good Woman.

And still we respect and admire a gentleman, and we take off our hats and worship a gentlewoman. Still we like to kiss the hand of a poor and innocent girl and listen to the low, soft voice and refined thoughts of an educated and delicate woman. Isn't the moonlight brighter, the night air purer, the world better worth living in when we leave the presence of a good woman than when the swinging door of a saloon closes behind us and a burst of fetid atmosphere follows us into the street? No man ever yet reformed unless under some such influence, and I don't believe any man ever felt such influences without a sense of his own unworthiness and a momentary resolution to cut his low acquaintances and habits. I am not saying that he did it.

There's nothing so weak in the world as a man's resolution to reform. But you can always tell when a man has been spending an evening with a charming, refined woman. You sometimes, you know, meet a man coming down the street about 11 o'clock. He is walking with a firm tread, his head up in the air. He may be humbugging something; he is proud of himself; he has a dignity about him that you can see in the dark. He has been there and can't help showing it.

### How the Arabs Make Tea.

The mistress of the tent, placing a large kettle on the fire, wiped it carefully with a horse's tail, filled it with water, and threw in some coarse tea and a little salt. When this was near the point of boiling she tossed the tea about with a brass ladle until the liquor became very brown, and then it was poured off into another vessel. Cleansing the kettle as before, the woman set it again on the fire in order to fry a paste of meal and fresh butter. Upon this the tea and some thick cream was then poured, the ladle put in requisition again, and after a time the whole taken off the fire and set aside to cool. Half-pint wooden mugs were handed around and the tea ladled into them, this tea forming meat and drink and satisfying both hunger and thirst. However made, tea is a blessed invention for the weary traveler.—Eastern Travels.

The production of evaporated apples in this country in 1888 is estimated at 300,000 50-pound boxes. About 88,000 boxes were exported.

# The Young Folks.

## The Song of the Atom.

Swinging slowly to and fro,  
Backward, forward, high or low,  
Moving fast or moving slow,  
Sing the atoms as they go,  
"Come in line, my brothers, all,  
Let us make the earth a ball."

So they cross each others' path,  
Backward, forward, all in line,  
Then they change to straight across,  
Meeting squarely as they pass,  
Then they settle into place,  
As they build a world in space,  
Moving fast or moving slow,  
Sing the atoms as they go,  
When they form the crystal flower,  
In the great world's natal hour.

"Change the measure swift, my brothers,  
We must now give room for others;"  
So they face and turn about,  
Moving in and marching out,  
Weaving measures fast or slow,  
Sing the atoms as they go;  
Waiting each its time and motion,  
As it reaches forth in ocean,  
Little hands that touch the treasure,  
That the water without measure,  
Holds within its strong embrace,  
Of each element a trace  
Which the crystal once had known,  
When on that celestial morn  
The great universe was born.

Weaving in and weaving out,  
Changing, moving all about,  
Up and down across the screen,  
Move the atoms in between  
All the lines that one can think,  
When the crystal once did shrink  
Into form, in time more brief,  
Thus the atoms make the leaf.

Now we have another sight,  
Atoms dance from left to right,  
Backward, forward as before,  
When they built the world of yore,  
But they dance in rapid measure,  
As they seize the floating treasure  
That the air holds in its grasp,  
Not so firm as ocean's clasp,  
And the atoms now so free,  
Move and glide in liberty;  
Backward, forward, up and down,  
Lengthwise, crosswise, round and round,  
Moving each way as they will,  
Swiftly rushing, slowly flowing,  
Swinging, dancing, leaping, glowing,  
Till the measure is complete,  
And we stand upon our feet.  
Thus the atoms make the man;  
Thus they fill creation's plan.

Rolling on and drawing out  
From the form that eye doth see,  
Rising, swaying, cloudlike motion,  
In the vast eternity;  
Weaving, swaying, rising, floating,  
Without haste and without resting,  
Rolling onward through elysian,  
Thus the atoms, to my vision,  
Move in triumph as they go,  
Soaring high or sinking low,  
When the paths of life are trod,  
And the spirit goes to God.

Thus the atom tells the story,  
How it travels worlds of glory,  
How in crystal, leaf or soul,  
Always moving to its goal,  
Never resting, never hastening,  
Till the worlds are changed to soul.

Then in glow of life eternal,  
Moving on in forms supernal,  
Dwelling in the spirit ever,  
Rising upward, moving onward,  
Thus the atom goes forever  
In the vast eternity.

-Sideral Evolution.

## ABOVE THE CLOUDS.

### Nature and Man in the Heart of the Himalaya Mountains.

DARJEELING, March 6.—In the heart of the Himalayas, in the midst of mountains whose perpetual snows glisten like diamonds under the rays of the tropical sun, with oceans of clouds below me, 7,000 feet above the jungle where the tiger hides and almost within the sound of the guns of the English troops who are fighting on the borders of Thibet, I write this letter for my American readers. From my window I can see the snow on Kanchanjanga, 28,000 feet above the sea, and upon a Thibetan pony I galloped this morning twelve miles higher up the mountain to Tiger Hill and saw the sun gild the snowy summit of Mount Everest, which is full 1,000 feet higher. The top of Mount Everest is, of all the world, the nearest towards heaven. Fugiyama, the sacred, snow-capped mountain of Japan, is not half as high as Mount Everest, and, if my memory serves me, the snows of Mount Blanc are at least 10,000 feet lower. Go to the top of Mount Blanc, ascend in a balloon straight upward for two miles, and you have about reached the altitude of this highest of the Himalaya mountains. It dwarfs everything in the Andes and the Alps, and it is a fitting king to this noblest range of mountains. Himlilaya means the abode of snow, and thousands of the peaks are crowned with eternal frost. If you could, by rubbing the miracle lamp of nature, have her genii construct a mountain range from New

York to Denver, Col., and make this range as wide as the distance between New York and Washington, extending it at points to double that width, you would have a base somewhat like that of the Himalayas. On this base must be built two high ranges of mountains, with vast valleys between them, making a double wall between the north and the south. You must, throughout this distance, have the mean elevation of your hills about as high as Mount Blanc, and forty of them must extend more than one mile higher. Every one of these forty will kiss the sky above any summit of the Andes, and in many of these vast valleys you could drop the whole Alps range, and at a distance of ten miles from the place they fall there would be no perceptible change in the face of nature. Talk about the glaciers of Switzerland! There are glaciers in the Himalayas which are from thirty to sixty miles in length, and there is one thirty-three miles long which is flanked on either side by two giant peaks over 27,000 feet high. \* \* \*

The plains of India send up moisture to the Himalayas, which gives them 1,000 clouds where the Alps have one, and here you see clouds of all kinds and shapes chasing each other over the hills below you. You can see them crawling up the steep sides of the valleys and climbing to your very feet, when they envelop you, and for ten minutes the mist is so thick that you cannot see the horse on which you are riding. A moment later the cloud has passed, and it floats onward toward the snow above. At times there are clouds above and below you. You see ghostly masses of vapor resting in little hollows in the sides of the mountains as though they had squatted down there for a sleet. At times they take the form of men or beasts, and in single file seem to chase one another through the air. In the morning the sun glides them so that they are masses of fire, and at night the amorous moon throws her bright, tropical rays around them. The cloud effects and the snow effects of the Himalaya mountains are indescribably grand. They are different from anything I have seen in travels of hundreds of miles through the Alps, and they are in many respects more interesting. From where I write the mountains form a semi-circle about me, and there are twelve mighty peaks of snow, each of which are more than 20,000 feet high. As for mountains of two miles and more in height, I can see dozens of them. I am in the very midst of the Himalayas, and at what the world says is the best point to view them.

Man here is fully as interesting as nature, and we have servants and guides who are more like the people of Thibet than India. There is no seclusion of women here and great strapping girls dressed in the gaudiest of colors go about with flat plates of gold hanging to their ears, each of which is as big as a trade dollar. They have gold on their ankles and bracelets of silver running all the way from their wrists to their elbows. Their complexions, originally as yellow as those of the Chinamen, are bronzed by the crisp mountain air until they have now the rich copper of the American Indian. Both men and women look not unlike our Indians. They have the same high cheek bones, the same semi-flat noses, and long, straight, black hair. If you will take the prettiest squaw you have ever seen you may have a fair type of the average belle of the mountains. She wears two pounds of jewelry to the ounce of the squaw, however, and her eyes are brighter, and she is far more intelligent. She works just as hard and the woman of the Himalayas does much of the work of the mountains. I see women digging in the fields, working on the roads, and carrying immense baskets, each of which holds from two to three bushels, full of dirt and produce on their back. Just above the hotel the road is being repaired and a side of the mountain is being cut away. The dirt is carried for about a quarter of a mile and used in filling up a hole in the hillside. It is all done by women. Two women are digging down the dirt with pick-axes and a half dozen are shoveling this into the baskets of the girls who carry it from one place to the other. These baskets rest on the back and shoulders of the girl and they are held there by a wide strap which comes from the basket around and over the girl's forehead. They stand with the baskets on their backs while

they are loaded and one of the women who is doing the shoveling has a baby a year old tied tight to her back and it bobs up and down as she throws the dirt from the ground into the basket. These girls carry easily 160 pounds, and I was told that one had carried a cottage piano a distance of twelve miles up the mountain upon her back. This is hard to believe, but after seeing the mighty shoulders, the well-knit frames, and the great calves and ankles of the strongest of them I can believe it.

The men are fully as strong as the women. They are not so tall as the American Indian and they are very fierce looking. Each wears a great scimeter-like knife in his belt and they are just like the Thibetans whom I saw in Peking. They are notorious as wife-beaters, and the woman of the Himalayas has, as a rule, a very hard time. Many of the men wear ear-rings, and the women, both before and after marriage, carry their fortunes upon their persons. They wear strings of coins of the size of 50 and 10 cents of silver pieces in rows about their necks, so that often the whole front of a woman's bust is covered with them, and the poorest girl has her ear-rings of gold and anklets of silver. It looks strange to see a woman whose whole waist is covered with ruyees and who has enough jewelry upon her to keep her for at least three years breaking stone upon the roads, and I have, during the past week, seen at least 1,000 bare feet and half-bare calves around which were silver and gold bands which would not form unhandsome ornaments for our American girls. Many of them are fond of stone jewelry and a great many turquoise are brought from Thibet and sold here. One of these girls carried my trunk for a 5 cent consideration upon her back from the station to the hotel, and I see them plodding up the mountains with great baskets of wood upon their backs, two of which would form a good load for a mule.

They work all day for what would be the price of a drink in America, and their mountain huts would be considered hard lines for the establishment of an American pig. Little, low huts thatched with straw, and not much bigger than store boxes. They do most of their cooking out-of-doors, sleep upon the floor, eat with their fingers, and worship Buddha in a half-civilized sort of way. Some of them use the prayer wheel, and this seems to be the only invention they have. The prayer wheel consists of a metal box about as big around as one which holds boot-blacking, and about twice as deep. Through it a wire is stuck and this is fastened into a handle a foot long. Inside the box there is a roll of prayers written in Thibetan characters, and the worshiper rattles off prayers at the rate of 100 a minute by giving the handle a twist and setting the box to rolling. Each roll records a prayer. Every prayer does away with one or more sins, and puts a brick in the pavement which leads towards heaven.

I wish I could give you this ride up through the clouds from Calcutta to Darjeeling. The trip to the foot of the Himalayas takes a half a day and the whole of a night, and the remainder of the journey is like a carriage drive fifty miles up the mountain. You are pulled by steam and a dainty little engine not more than ten feet long hauls open cars no higher above the road than a street car, over a 2 foot narrow gauge in and out among the trees in corkscrew curves up the mountains. You rise at the rate of sixteen feet a minute and go more than 1,000 feet upward every hour. The train winds in and out like a snake, and the cars are so small that they look like the links of a chain. Now the engine and the tail of the train seem to touch. There are a dozen horseshoe curves every mile and you may figure eight in climbing the hills three times during the journey. As you rise you see the little road in terraces on the hills below, and you now shoot under a hill and come out in a loop and cross your own track by a bridge overhead. The Y system of going up one hill to rise to a higher is used and there are a number of double Y's which elevate you from one plain to another. You skirt precipices covered with green, down which you can look for 1,000 feet, and float out on the side of the mountain over valleys which fade away into the broad plains of Bengal. This railroad was built along a wagon road which led up to Darjeeling, and the speed made upon it is so slow that you can see as well as though you were riding in a carriage. There are many villages on the way and the train stops and gives you time to pick flowers and ferns.

In rising you pass through the torrid, the temperate and land at last in the frigid

# \$93 Sewing Machine Free!

We want one person in every village, town and township, to keep in their homes a line of our AIT SAMPLES; to those who will keep and simply show these samples to those who call, we will send, free, the very best Sewing Machine manufactured in the world, with all the attachments. This machine is made after the SINGER patents, which have expired. Before the patents run out, this style machine, with the attachments, was sold for \$93; it now sells for \$20. Reader, it may seem to you the most WONDERFUL THING ON EARTH, but you can secure one of these machines ABSOLUTELY FREE, provided your application comes in first, from your locality, and if you will keep in your home and show to those who call, a set of our elegant and unequalled art samples. We do not ask you to show these samples for more than two months, and then they become your own property. The art samples are sent to you ABSOLUTELY FREE of cost. How can we do all this?—easily enough! We often get as much as \$2,000 or \$3,000 in trade from even a small place, after our art samples have remained where they could be seen for a month or two. We need one person in each locality, all over the country, and take this means of securing them at once. Those who write to us at once, will secure, FREE, the very best Sewing Machine manufactured, and the finest general assortment of works of high art ever shown together in America. All particulars FREE by return mail. Write at once; a postal card on which to write to us will cost you but one cent, and after you know all, should you conclude to go no further, why no harm is done. Wonderful as it seems, you need no capital—all is free. Address at once, TRUE & CO., AUGUSTA, MAINE.

zone. At the bottom is the jungle into which you dash out of rice fields and which, with its thick bamboo, its banyan trees, and its interwoven masses of foliage, forms the home of the tiger. As you go through you can almost see the bright eyes of this noble Bengal beast shining out of the darkness, and the old residents of India, who are with you, will tell you stories of the tiger hunts they have had and of accidents that have happened to lone travelers. They will tell you that the tiger is only found where lives the deer and the wild hog; that if he once has a taste of human blood he is satisfied with no other. A single one of these tigers is known to have killed 108 people in three years, and another killed eighty persons per annum. One of the agents of the Indian forest department tells me that about 2,000 tigers are killed in India every year, and in 1882, 895 men were killed by tigers. The English government gives a reward for tiger killing, and during that year \$7,000 was paid for the killing of 1,700 tigers. \* \* \*

As you go up the Himalayas this jungle gives way to huge forest trees but the branches have long roots and creepers shooting from them down to the ground and the trees are often from 100 to 200 feet high. These trees are clothed with a luxuriant growth of mosses and ferns and you see many varieties of orchids fastened to trunks and hanging to their branches. As you go up you note the tree fern, a tall, round trunk from ten to twenty feet high with fern leaves jutting out from its top like those of a palm. The under bush becomes more sparse and as you rise the color of the moss on the trees changes from green to silver. This hangs from the branches in clusters, clings to their limbs like a coat, and makes them look at a distance like a forest of green dusted with silver. As you near Darjeeling you find many of the hard woods of our American mountains; the rose begins to bloom and there are tea plantations by the hundreds of acres. \* \* \*

I note some curious anomalies here in these old Himalayas. Many of the rude huts, which are of the same style as they have been for a thousand years or more, are roofed with galvanized iron and the sides of some of them are sheathed over with square pieces of tin. This tin comes from Philadelphia oil cans and some of the mountain huts are lighted by the Standard Oil company's oil. Calico from England is coming into use among the natives and many of the idols upon being inverted are found to have sunken into their brass bottoms the trade marks of the Birmingham manufacturers.—Frank G. Carpenter, in Kansas City Journal.

## 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.

## SPECIAL SUMMER TERM

CAMPBELL UNIVERSITY,  
HOLTON, KANSAS.  
Six weeks, beginning June 11. Many specialties. 25 Instructors. 60 Classes. Send for circulars. Address E. J. HOENSHEL, Holton, Kas.

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

**YOUR NAME** on 50 FANCY & HIDDEN NAME CARDS. Outfit and 100 Pictures, all 10c. Game of Authors, Sc. Dominoes, Sc. Box of Paints, Sc. The lot, 20c. GLOBE CARD CO., Centerbrook, Conn.

**SAMPLE BOOK** of Hidden Name Cards for 1899 with Agents' outfit and 30 Lovely Photographs—all 4 cents, stamps. BUCKEYE CARD CO., Laceyville, Ohio.

**INSECTS NAMED** by Eberhart's Key. Only one published. Arranged like a key to insects. Illustrated, 25c. How to Collect and Mount Insects (Illustrated), 8 cents. POPULAR PUBL. CO., Chicago, Illinois.

**ANY PERSON CAN PLAY THE PIANO AND ORGAN WITHOUT A TEACHER**, by using Soper's Instantaneous Guide to the Keys. Price \$1.00. No previous knowledge of music whatever required. Send for book of testimonials free. Address The Dorcas Magazine, 19 Park Place, New York.

# KANSAS FARMER.

ESTABLISHED IN 1888.

A TWENTY-PAGE WEEKLY,  
Published Every Thursday by the  
**KANSAS FARMER COMPANY.**

OFFICE:

KANSAS FARMER BUILDING,  
Corner Fifth and Jackson Sts.

S. J. CRAWFORD, - - - - - PRESIDENT.  
J. B. McAFEE, - - - - - VICE PRESIDENT.  
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.

Display advertising, 15 cents per line, agate, (fourteen lines to the inch).  
Special reading notices, 25 cents per line.  
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 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.

Electros 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.

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

Every advertiser will receive a copy of the paper free during the publication of the advertisement.

Address all orders,

**KANSAS FARMER CO.,**  
Topeka, Kas.

Complaints about dry weather in Indiana and Illinois grow more numerous and serious every day.

When correspondents desire us to return manuscripts whether used or not, they should inclose postage.

Extensive forest fires in Michigan, Wisconsin and Minnesota destroyed vast quantities of logs and timber, with some houses and grain last week.

Our latest reports show wheat, oats and corn in very good condition in all parts of the State. We hear no complaints at all, on any account, so far as crops are concerned.

The *Kansas Medical Journal* is a late venture in journalism. It is to be published monthly at Topeka by the Kansas State Medical Association. The first number is a very good one. The subscription price is \$2 a year. Address *Kansas Medical Journal*, 606 Kansas avenue, Topeka, Kas.

Dr. Buck, the new silk commissioner, requests us to remind our readers that he is prepared to furnish silk worm eggs to persons wanting to raise cocoons, and he will supply all orders for instruction in the methods of handling eggs and worms. The Doctor proposes to push things at the station. Address Silk Commissioner, Peabody, Kas.

We are in receipt of a circular letter—a slip containing a communication to the *North Star*, signed by Ira Richardson, Lemond, Steele county, Minn., in which the writer says he has been farming in Minnesota thirty years, that the last ten years or so he has harvested his wheat without binding, that he has saved money by it, and that he is strongly impelled to write a book on the subject "so that others might know how to save \$50 a year in handling grain on each quarter section and be independent of the twine trust." We suppose Mr. Richardson wants our opinion of his temptation to write a book, and he shall have it freely. Let the book alone, for it will cost you more than it will yield in profit. If you have anything to say on this subject that will benefit farmers, the columns of the *KANSAS FARMER* are open to you without charge.

## STATE DOCUMENTS FOR FARMERS.

A sensible and pertinent letter appears on our 6th page this week under the head—"A Complaint." The correspondent treats a subject that has been referred to frequently in these columns. Last fall and winter we devoted a good deal of space in several issues to this matter and tried to impress upon the Legislature the importance of a change by which farmers would not only receive the documents they are entitled to, but that the documents should contain more matter devoted to Kansas agriculture and less to advertisements of particular localities. It is rank injustice to maintain an agricultural department at great expense and the farmers get no good of it, and that is practically the situation in this State. It costs about \$35,000 a year to pay the running expenses of the State Board of Agriculture, and the Secretary in an article which we print this week, headed "County Agricultural Societies," says that it is only four years since the board began to do anything more at their annual meetings than to elect officers and adjourn.

As to the publications of the board, what they contain, and who gets them. The Biennial report is a large and valuable book well gotten up, well printed and bound, a really handsome and desirable book of between 800 and 900 pages. Of these 20,000 copies were printed, at an expense of \$40,000 each edition. Then, two quarterly reports are issued every year covering the months October to March inclusive, and monthly reports for the rest of the year. Of these 10,000 of the quarterlies each edition and 5,000 of the monthlies each edition are published at an expense of about \$10,000 a year.

As to the matter contained in the reports. The Fifth Biennial report, covering the years 1885 and 1886, contains 841 pages, of which 683 are filled with statistical matter relating to the State and the several counties, with maps. Then follow a few pages giving proceedings of the board at their two annual meetings; an article on public schools of Kansas, another on our public lands, one on our railroads, one on geology, on chinch bugs, experimental tree planting on the college farm, meteorology, soil, sugar and natural gas, report of State Veterinarian, vegetation in western Kansas, fish culture, with a table of fairs, and a postal guide. It will be seen that of this large and costly volume sent out as a report of the State Board of Agriculture, only a few pages, not to exceed twenty-five, are devoted to subjects directly connected with practical agriculture. The last report covering 1887 and 1888 contains 804 pages made up of similar matter and in about the same proportions as its immediate predecessor, except that it has Prof. Cowgill's sugar report. The quarterly reports usually occupy from 50 to 125 pages made up of statistical matter relating to population and farm products, with a few papers on subjects more or less directly related to agriculture. The monthly reports are quite small, a few pages only, giving crop and weather conditions chiefly.

As to the distribution. The law provides that members of the Legislature shall receive part, every newspaper in the States gets one copy each, State and county officers, members and officers of the State Board of Agriculture, etc. The last Legislature in appropriating money to pay for the Sixth Biennial report, provided that every Senator should receive 100 copies of the report and every member of the House should receive sixty copies. That disposed of 12,160 copies, a good deal more than one-half of the entire edition. To whom

do the members and Senators distribute the books? There are very few lawyers without these valuable books; nearly if not quite all bankers in the State have them; all real estate dealers and money lenders have them, many of the merchants, and some of the physicians and clergymen have them. Very few of them get into the hands of farmers, probably not more than one in ten, the other nine being among professional men and traders.

The quarterly and monthly reports are not so much sought for by any class of people except real estate men, general traders and persons who care to preserve official crop and weather records. These are much more useful to farmers in the matter of farming, than the large biennials, and of these the farmers do not get near all. If they did, the number printed is too small to supply more than about one in thirty-five or forty.

This matter needs attention. Farmers ought to get the benefit of what the board does, otherwise there is no excuse for the board's existence. But the board cannot make the needed change. It can be done only by the Legislature. Let the subject be presented to every candidate for member of the Legislature in future until the needed change is effected.

Concerning the crop reports which appear in the *KANSAS FARMER*, we have to say that our object is to collect reliable reports, and our correspondents are nearly all practical farmers actually engaged in farming. We have not always been able to secure the services of farmers for reporters because we were not personally acquainted with them and had no satisfactory means of ascertaining fitness. In such cases we usually apply to some county officer, always intending to secure accurate reports. Occasionally we are deceived and get an incompetent or unreliable reporter, but he is dropped as soon as we discover him.

## The Business Situation.

The usual prominent characteristic of the business situation last week, says R. G. Dunn & Co., was that the usual consistency of commercial action is lacking. Transactions and results for some branches of business are highly satisfactory and for others much the reverse. Many iron works are closing for example, but many are doing remarkably well. Many woolen mills are idle, but others are working full time, but with fair profits. The approaching transition from one crop year to another, the present change of administration, the changes in the inter-State law and the rapid development of manufactures at the South are producing effects which can not be fully measured.

Iron production has begun to decline, the output weekly of anthracite and bituminous May 1 being only 133,714 tons, a decrease of 4,320 tons weekly since April 1. But the announcement by the Thomas Iron company that it will supply No. 1 foundry at \$16.50 at tide water, and Grey forge at \$15, or lower if necessary to meet Southern competition, is expected to accelerate the reduction of output. The largest Virginia concern has reduced its price \$1.50 in return, and Alabama iron has previously been selling here at \$16. Prices are lower at Pittsburg also, but there is a better feeling in finished bar iron there and at Philadelphia and the demand for plate, pipe, sheet and structural iron continues satisfactory.

Cotton is unsettled. The wool market goes lower while waiting adequate news and the average of 104 qualities on May 1 was 24.3 cents, against 24.8 cents on April 1. The future depends upon the state of the dry goods market, which is

not encouraging. The cotton manufacture is active and healthy. The trade in drugs and chemicals has become quite active with collections excellent, but dye stuffs are dull.

A speculative movement in bread stuffs has developed again, apparently based on the theory that although the coming crop may be very large, there will be enough actual scarcity in July before new wheat comes forward freely to enable traders to unload.

Wheat has advanced 1 cent; corn 1 1/2 and oats 1 1/2, with an advance of 15 cents per 100 pounds in hogs and lard. Oil had declined 3 1/2 cents and cotton 1-16, with sales of 678,000 bales here for the week.

In spite of some speculative advances the general average of prices for commodities is a little slower than it was May 2. The stock market ends at exactly the average of a week ago, the default in St. Louis being the more prominent because of recent weakness. Large exports of gold which began a week ago and the absorption of \$4,000,000 by the treasury since May 3, also have some effect. A sharp demand for money at Cleveland causes slight stringency. The outlook in the Northwest is regarded much more confidently since the recent rains. Everywhere the prospects are encouraging, with the season more advanced than usual, and the acreage in wheat considerably increased.

The business failures number 227 as compared with 214 last week, and 213 the week previous. For the corresponding week of last year the figures were 209.

The late order of the Kansas Live Stock Sanitary Commission for the protection of our cattle against Texas fever, is now in force, and the Kansas City stock yards company are governing themselves accordingly. They have constructed several tracks and chutes to be used exclusively in unloading cattle capable of communicating the fever and all cattle coming from south of the thirty-seventh parallel will be inspected by Kansas inspectors at Argentine and Armourdale before being unloaded. Those infected with the disease will be placed in the Armourdale yards on the west bank of the Kaw, which were built two years ago for that purpose, while only absolutely healthy cattle will be admitted to the main yards on the east bank of the river. This order holds good until December 1. The stock yards company has always exercised due care to prevent the spread of Texas fever among cattle at the Kansas City stock yards, and the new order will impose no additional regulations from those that have hitherto been enforced.

The *Chicago News*, last week, presented its readers with an exact reprint of the *Gazette of the United States*, which was printed and published in New York city the week that numbered among its important events the inauguration of President Washington April 30, 1789. The *Gazette* was about the size of the cover of the *KANSAS FARMER*. It devoted a few inches space to a description of the inaugural ceremonies, not as much as is now given to a game of base ball or a dog fight. The difference between the newspaper of that day and of this is almost as striking as the contrast between an old fashioned market wagon and a modern railway locomotive. The *Gazette* was a weekly paper, and was not more than one-tenth part as large as the average metropolitan daily of the present.

In Greeley county the highest temperature in April last was 87 deg. on the 25th, the lowest 34 deg. on the 29th, with an aggregate rainfall 1.64 inches.

### "SOME LESSONS OF A STRIKE."

Under the above heading, *Farm Stock and Home*, (Minneapolis, Minn.) has an article commenting on results of the recent strike of the street car drivers in St. Paul. The strike revealed a condition at once suggestive and distressing, our contemporary says. It gives a fair approximation of the number of unemployed laborers in the cities, and discloses an amount of deprivation and suffering that is truly appalling. In multitude of cases the strikers have asked of those who had taken their places: "Why do you go to work for this corporation, and so aid it to crowd your fellow laborers into deeper poverty?" Almost invariably the most pathetic of all answers would be returned: "We are hungry!" What a cruel sarcasm it is to ask a starving man to make sacrifices for the sake of humanity or brotherhood! One man who was asked to desert his car and not make himself the ally of a soulless corporation, said: "I am sorry it is so, boys, but I can't help it. Since New Years I have had no work; my wife and babies have nearly starved; my scanty household stuff is mortgaged for \$10 and is likely to be sold; I must earn a little money if possible." This is the burden of innumerable pilgrims the strike has voiced, and thus is it revealed that poverty and hunger have become the foes of organized labor in its struggles with organized capital!

After some further remarks (in which we fully concur) concerning the unequal contest between wealth and poverty, an excellent neighbor draws a conclusion which we believe to be wholly unwarranted, and to which we desire to call attention.

What a commentary is this on the idiotic theory that a governmental protection to certain industries insures good wages to the nation's workers, and lifts the wage question above the influence of supply and demand. The beneficiaries of our present system of protection are, of course, more in love with it now than ever before, for they see what a vast army of unemployed it has created, and they know that means low wages, without any corresponding reduction in the price of their products. The myriads of unemployed laborers in the land furnish an object lesson concerning our present economic system which will require a deal of money to make the people unlearn in 1892.

The "idiotic theory" is purely an imaginary theory. There is no such theory, no person or party advocates anything like it. The two great political parties of the United States advocate the laying of tariff duties on foreign goods imported, and if there is any party here, great or small, which opposes legislation of that character, we do not know it. The only difference between the parties on this subject relates to the distribution of duties upon different classes of articles. All parties favor the practice in one form or another, and no party demands that duties be limited to such commodities as we do not produce in this country—coffee, tea, spices, etc. They all concur in the propriety of leaving that class of goods on the free list, levying duties on such articles only as compete with like articles which we produce among ourselves. This is protection. One party calls it "incidental," the other party calls it special and express. One party would lay duties for revenue only, while the other would raise a like amount of revenue, but so adjust the duties that they would separate to afford protection to our own workers against unequal competition of foreign workers in the same lines of labor. A revenue tariff affords "incidental" protection, its supporters say, while a protective tariff is laid with special reference to its protective feature.

If our Minnesota contemporary will compare the House bill with the Senate bill as introduced in the two houses of congress during the legislation of 1888,

it will see that with the exception of wool and sugar, there is very little difference between the bills. The House bill put wool on the free list and made a light reduction of the sugar duty; the Senate bill slightly modified the old law as to wool, increasing rather than diminishing the duties, and cut down sugar duties one-half. The protective duties of existing laws on manufactured goods generally, excepting sugar, were not materially changed in either of the bills. But nobody authorized to speak for a party great or small, advocated the "idiotic theory" suggested by the *Farm Stock and Home*, that "governmental protection to certain industries insures good wages to the nation's workers and lifts the wage question above the influence of the law of supply and demand." Nobody believes that wages can be placed outside of the influence of the law of supply and demand, and nobody says so. What tariff people believe is, that by the laying of duties on particular articles of foreign production, American workers in similar lines are protected against the competition of their foreign competitors; but they do not argue that a tariff does or can put our workers above or outside of the influence of the law of supply and demand. High duties on competing articles give our people more work to do if the tax is high enough to retain importation of those articles; but if the duties are no higher than to cover the difference between the price of labor in the competing countries, then the tariff does not restrain importation, it does not save work for our people, it only protects them in some measure against a ruinous competition of labor. The subject of a protective tariff is not to nullify a natural law, but to secure to our own people as much as possible of the work required in supplying our own wants, and to save to them as much as possible of the earnings of their labor.

The most serious defect in our protective system is found in the looseness of our naturalization law. We ought not to receive any persons from foreign countries who do not intend to become citizens with us, nor should we permit the incoming of paupers, criminals or troublesome people of any class. Persons coming for pleasure or on errands of business, excepted, of course. Welcome all good people who would do as we do and be part of us, then treat ourselves as well as we treat people in other countries. Let us pay our own workers rather than those of other nations.

#### Down the Twine Combine.

From all quarters we get encouraging reports from farmers and associations concerning their determination to use no binding twine unless it can be obtained at reasonable prices. The agricultural press is almost unanimously at work in the fight. All we have to do is to let the combine keep its twine; that will soon settle the whole business. They value it very highly; let them have all of it so that they may enjoy all the good there is in it.

The *Breeders' Guide* puts the situation thus: "There is one way and only one way the farmers can head off this nefarious scheme. It is by refusing to purchase twine. The only reliance the binder twine companies have is the belief that farmers have used binders so long that they cannot be induced under any circumstances to return to the old style. Here you can disabuse their minds in a very short time. It is not so much in the injustice of the increased price of twine as it is the pernicious effect upon yourselves in the future that demands that you abstain from using twine this year. If they compel you to pay 25 cents a pound this year, it will

be expected by these buzzards that you will pay 30 next year. If you refuse to buy twine at all this year you effectually squelch one trust and you will be the first persons that ever did it outside of a court room. Why should you not? At the very farthest you will not have to bind the old way more than six days. What does six days' fight amount to when you are certain to win the day? There never was a dropper, self rake nor hand rake that placed the grain in as nice shape to handle as does the binder. Don't pay any attention to the trust, but persistently refuse to buy twine at any price. Of course twine dealers will hold out a while in the hope you will come around all right, but you must stick firmly to your position and refuse to buy at all. Drive right into the field with your binder and it will drop the sheaves just as you want them and you can bind them up just as easy as you ever did. You can shock them just as well and you can wear a grim smile as you thresh your wheat in knowing that you downed the trust. Of course the work is harder for the time, but you farmers can effectually do in two weeks what other men have failed to do in twice as many years, you can down a trust. It is to be hoped that you will do this and teach the leechy corporations a lesson."

#### Inquiries Answered.

**TWINE.**—We are asked about jute and cotton binding twine. Jute twine is used by some farmers; a great deal of it was used in the first years of the binding twine industry, but the sisal superseded it largely. Jute is now being manufactured in this country, and we expect the quantity will be greatly increased, for jute is easily grown in our Southern States. The law duty on the foreign article may interfere with the home product, but the next Congress will revise the tariff and a little effort will secure protective duties. Cotton twine is under experiment now. The finest of the fibre will probably be an obstacle. Hemp and jute will take the lead. If any of our readers have had experience with the different kinds of binding twine, so as to be able to speak advisedly of their comparative merits, we would be pleased to hear from them soon.

**TARNISHED PLANT BUG.**—I desire to know what it is that has destroyed all my apple buds just before bursting into bloom. The destroyer is in looks a cross between the chinch bug and potato beetle. Noticed them first about one week ago while pruning; seemed to be one on every bud and would swarm from the tree when shaken, but early in the morning they will drop to the ground dormant when molested. I have been a resident of this county for nineteen years and my fruit has never suffered even a partial destruction from anything of this nature before. They sap the life out of all buds just before time to burst. If some of the scientific bug or insect readers of the *FARMER* will give a remedy they will oblige.

—This inquiry was referred to Prof. A. Popenoe at the Agricultural college, and the following is his answer:

The insect referred to by your correspondent is without doubt the wide spread and destructive "tarnished plant bug," known to the entomologist under the name of *Lygus pratensis* or *lineolaris*. It is a true bug, and in no wise related to the potato beetle but is, like the chinch bug, a feeder upon the juices of plants, which it sucks through a slender, hollow, needle-like beak which the observer will note arising from the lower side of the head, and when at rest extending backward along the under side of the insect's body between the bases of the legs. This bug is at least double-brooded in our State, the last brood maturing in late summer and passing the winter in any convenient shelter, in grass clumps, and indeed in all such places as are tenanted at that season by the chinch bug and other ill-odored pests. In spring, when these adult bugs that have wintered over, are awakened by the sun's warmth, being doubtless quite hungry after their fast of several months, they fly to the swelling buds of orchard trees without distinction, as well as to other plants, and feed upon the juices. Often the blighted appearance of the shoot after an attack by these insects is so marked

as to suggest a possible poisonous effect of their punctures, though this hypothesis has not so far been substantiated. Eggs are laid upon the shoots and buds where the old bugs feed, and from these eggs hatch the numerous and active young, which lack only size to make them individually equal to older bugs in destructiveness. They feed on the same plants and in the same manner with their elders, and by summer are themselves parents. Besides their responsibility for the so-called blighting of early growth and of flower buds, especially those of the pear, these insects are causes of woe to the horticulturist in other fields. They flock to the strawberry beds and attack the rapidly-swelling green fruit, rob it of its juices, the results of their attack being familiar to the strawberry-grower as a hard green knot on the side of the otherwise ripe berry, rendering it to a degree unmarketable. Many plants of the kitchen garden are attacked by them, and the grower of celery will find them especially fond of the succulent growth of his choicest variety. As the tarnished plant bug is so general a feeder, its extinction is an impossibility, but with a knowledge of its habits and places of concealment much may be done at least to reduce the numbers of the pest to the minimum. As a first effort toward this end we should rake up the dead leaves in the orchard and burn or compost this and other vegetable rubbish that would otherwise harbor the egg-laden female during the winter. Their partiality for succulent early growth may be made to lead to the destruction of those that have wintered safely. They will fly to such growth in crowds, and so congregated they may be destroyed with comparative ease by the use of a garden spraying engine, throwing kerosene emulsion diluted in water. As another means of reducing their numbers, we may act on the hint furnished by their sluggishness in the cool of early morning, and shake them from the tree branches into a sheet spread to receive them, or better, into a cotton "bug catcher" made upon a light frame, and looking somewhat like an inverted open umbrella. These methods are all more or less tedious and only partly successful, of course, but there is no royal road to horticultural success.

#### The Spring Palace.

The *KANSAS FARMER* acknowledges the receipt of a neatly executed card of invitation to attend the opening of the Spring Palace at Fort Worth, Texas, the 29th inst. The Spring Palace is thus described: At Fort Worth is a magnificent structure built entirely of the products of Texas. It is a picture of Texas, made from the products and showing the material resources of Texas. The dome of this marvelous beauty will be covered entirely with wheat. The towers are each made of some separate product of the state; one of corn; another of cotton; one of oats; one of shells of the ocean, and thus every leading product will be presented. On the lower floors of the building will be arranged in family groups, minerals, grains, grasses, fruits and vegetables. The upper floors or galleries will be devoted to the work of the women of Texas, and to flowers, birds, historical and archaeological exhibits together with pictures of farming, stock-growing, domestic life and history. This grand and glorious object lesson will show the world in a day's study, a glance as it were, what Texas is, and what she has to offer to capital and emigration. The world-renowned Elgin Watch Factory band, of over sixty pieces, led by the composer, Hecker, will furnish the orchestral music, and three daily concerts will be given of an hour and a half each. These concerts will be surpassed by nothing which can be produced on this continent. The Presidents of the United States and Mexico have been invited by special commissions, and are expected to meet and shake hands in the Spring Palace.

An unusually large number of storms were reported last week, and some of them were very destructive, more especially one in each of the States of Pennsylvania and Kansas, and one in Dakota.

Last week was unusually warm in some parts of the country. At Chicago the Signal Service thermometer registered 88 deg. on each of three days, the 7th, 8th and 9th days of the month.

## Horticulture.

### Care of Vines and Summer Pruning.

If all the rotten grapes of last season lying on the ground are covered so deeply at the first plowing that the after cultivation will not reach them, the danger of rot will be greatly lessened.

There is a great diversity in modes of summer pruning the vines, and in what many call by that name we see only Vandalism, that is, to permit a free growth until after mid-summer, and then to go through the vineyard with a scythe or corn-knife, cutting and slashing as if they were trimming a hedge.

What we, here in Missouri, consider the proper method, is to have vines so pruned as to have two, three, or four canes start pretty well down on the vine, from spurs headed back for that purpose. These we let grow without any disturbance except to pinch the ends of the shoots when they have reached the top of the trellis or stake. Then let them run into laterals as strong as they please.

And now for the fruiting branches, which we begin on as soon as there are two joints formed beyond the outside branch. We pinch the point off, and if there are too many bunches, pinch back to two or three eyes from the second bunch, taking the third bunch off. Two bunches are, as a rule, better than three or four.

It will be but a few weeks until the outside bud will have started out, and often both will make several joints of growth, from three to four inches; then pinch them again. This will form a canopy of leaves over the fruit, and will develop it better than if the cane had been left to grow without checking. There will be plenty of leaves to carry on the fruit and at the same time put more vigor and force into it. This being done, all the surplus vigor will go into the canes destined for the next year's fruiting.

If a man is growing fine grapes for sale let him try the thinning process on a few vines; that is, leaving only two bunches on each bearing branch, and if these should not be nice ones, let him take off but one (the best) and then see if these will not command more money than if the whole crop had been left on. It is a fact that few realize to what size some bunches will attain if properly thinned. If extra fine bunches are desired for exhibition, select the largest bunches when the berries are well formed, and with a small pair of pointed scissors, carefully clip out every alternate berry. It will surprise those who have never tried this, and it will afford no little gratification.

I once exhibited a bunch of Concord grapes that weighed over one pound, and which had berries an inch in diameter. The President of the society came to me and asked seriously whether it really was a Concord, and the committee thought that I was putting a joke upon them. This was nearly thirty years ago, when that famous grape was not so well known as now. This thinning has another great advantage in case we wish to bag them, as it takes so many less bags.

As to girdling the vines there are various opinions as to its effect; some saying that the fruit is inferior, others that it improves it. For my part I have observed little difference, but that it will mature the fruit earlier by a week or ten days, there is no doubt.

Where a large part of the vine is to be cut away at the next pruning the girdle may be made at the base, and it will save so many rings being cut out.

I intend trying wire of a certain size, tightly wound once around the vine,

cross the points, then with a pair of pincers fastened by a twist.

Training to single stakes I see recommended as a preventive against rot, as the fruit is then more protected by the foliage. This may have some effect, but is not a certain remedy.

It will be well to keep a sharp lookout for the little blue beetle, which eats the blossom buds of the coming grape, and which, if there are many, will considerably damage the crop. They seldom entirely destroy a bunch, but disfigure it greatly. A cup or basin to hold under the bunch when catching them will be a great help, as they will drop from the fruit before the thumb and finger can pinch them, and when they do fall to the ground it is hard to find them, for they "play possum" and lie still. Now is the time to get the vine under control for the season's growth. Aside from the main canes that are to grow for fruiting the next summer, all shoots should be rubbed off as they start out. If this is done when they are yet quite small it does not affect the vines in the least, but when they have made considerable growth and are then removed, it gives the vines a slight check. At the same time it is well to remember what has been mentioned before that it will pay to reduce the amount of fruit by pinching off the small bunches of blossom; two large bunches that will weigh as much as three ordinary ones are of more value and do not tax the vine so much.

Cultivation should be begun, early, but not so deeply as to injure the roots. It has been argued that cutting the roots does not injure the vines, but is on the contrary a benefit. This is unsound logic to me. If root pruning is advisable, let it be done with a sharp spade, which leaves the roots in their place instead of straining them out of place and tearing, rather than cutting them off. An article recently came under my notice which stated that a part of a vineyard laid down in blue grass was free from rot whilst the cultivated portion of the vineyard had rotted badly. This plan I would advise our readers not to try. "I have been there," and know whereof I speak. The results of such treatment will be to speedily enlighten them as to its evils.—S. Miller, in *Orchard and Garden*.

### Thumb Pruning.

Heavy or branch pruning should always be performed when the trees are in a dormant state, unless they are growing too vigorously and some check is to be given. The more feeble the trees are, and the greater the amount of lopping, the more serious will be the check on them. For strong growers, a very moderate amount of cutting away after the leaves have expanded, will do but little or no harm. Thumb pruning, or rubbing off supernumerary shoots just as they are starting, or have not grown more than an inch or two, may be adopted without detriment. At the present date, young trees, or those which have been recently transplanted, have generally commenced growth, and the young shoots which have already opened their leaves, may be rubbed off wherever there are likely to be too many or to make too dense and brushy a head. A little labor and some judgment applied now, in giving the heads of the young trees a symmetrical shape, will assist much in securing handsome forms, requiring but little subsequent care.

The pruning and rubbing must be varied with the present shape and natural growth of the tree. An apple tree having usually too dense a growth of shoots, like the Northern Spy, requires more thinning than a tree of looser growth, like the Tompkins King.

A tree of spreading growth, like the Rhode Island Greening, should have the central shoots more encouraged than the outside ones, which incline to spread or droop, and which if not properly attended to will bend nearly to the ground when loaded with apples. Orchardists may adopt it as a rule, that when fruit is much diminished in size by crowded limbs and crowded specimens, a positive loss occurs to the tree and to the profits in market; the tree becoming exhausted and the price diminished by the inferior quality of the fruit. Orchards which are kept in a vigorous condition by top-dressing the land, and by not allowing the trees to overbear, are more likely to become annual than biennial bearers when receiving the opposite treatment or neglect.

In bringing young fruit trees into proper shape while young, the amount of pruning which they may require will vary greatly with the kind of trees. Compact or symmetrically growing cherry trees, like the Morella among sour varieties, or the Downer or Black Tartarian of the heart cherry trees, will need but little pruning. The peach, on the contrary, needs a great deal of shortening-in of the branches to prevent their constant lengthening, the tendency to which, if not checked, causes the trees to become too spreading, the branches ultimately resembling long bare poles with tufts of leaves and twigs only at the extremities. Intermediate between cherry and peach trees are apples and pears. Some of these, like the Early Strawberry and the Northern Spy, grow upright and compact, and only need occasionally some interior thinning; while others, like the Roxbury Russet, spread too much, and require bringing into a more rounded form by reducing the outer or drooping limbs. The Baldwin keeps its shape with little care; and so does the Bartlett and Seckel pear. By observing these various peculiarities of growth in the young trees, a handsome, uniform orchard may be secured, instead of one made up of crooked limbs and straggling heads, and a general appearance of neglect.

Thumb pruning may be profitably applied to the grape vine early in the season, when needless shoots are just starting out, which if cut off after being allowed full growth with broad foliage, would give a serious check to the vine by removal. The same treatment will be proper in pinching off the ends of such shoots as are to remain, to stop their growth, instead of the more detrimental practice of cutting off large portions of the shoots and leaves after they have made a long growth, and which when blindly and freely done have sometimes ruined whole vineyards.—*American Cultivator*.

### Roses.

There is, perhaps, no class of roses so well adapted to the wants of the amateur as the Hybrid Teas, all of which, by covering with six inches of straw, leaves or earth, put around the stem and over the roots late in the fall, prove perfectly hardy in the Northern States. They are all constant bloomers, all double, all fragrant, all large, and include all shades from deep crimson to white.

These comprise some of the finest and most showy roses in cultivation, among which are American Beauty, light crimson, very large, and having the most delightful fragrance of all the class; Dinsmore, scarlet crimson; Ball of Snow, pure white, very large; Lady Mary Fitzwilliam, rosy blush; Pierre Guillott, very dark crimson; M'le Julie Weidman, deep rose, very large. Tea

## "Try Ayer's Pills"

For Rheumatism, Neuralgia, and Gout. Stephen Lansing, of Yonkers, N. Y., says: "Recommended as a cure for chronic Costiveness, Ayer's Pills have relieved me from that trouble and also from Gout. If every victim of this disease would heed only three words of mine, I could banish Gout from the land. These words would be—'Try Ayer's Pills.'"

"By the use of Ayer's Pills alone, I cured myself permanently of rheumatism which had troubled me several months. These Pills are at once harmless and effectual, and, I believe, would prove a specific in all cases of incipient

### Rheumatism.

No medicine could have served me in better stead."—C. C. Rock, Corner, Avoyelles Parish, La.

C. F. Hopkins, Nevada City, writes: "I have used Ayer's Pills for sixteen years, and I think they are the best Pills in the world. We keep a box of them in the house all the time. They have cured me of sick headache and neuralgia. Since taking Ayer's Pills, I have been free from these complaints."

"I have derived great benefit from Ayer's Pills. Five years ago I was taken so ill with rheumatism that I was unable to do any work. I took three boxes of Ayer's Pills and was entirely cured. Since that time I am never without a box of these pills."—Peter Christensen, Sherwood, Wis.

### Ayer's Cathartic Pills,

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass.  
Sold by all Dealers in Medicine.

roses include a far greater range of color than Hybrid Teas, and have a delightful tea fragrance peculiar to the class. They are best adapted to that part of the country where the thermometer never falls below 20 deg. below zero.

I do not know why the term monthly is applied to roses or other plants that bloom perpetually. So far as I can perceive, there is no particular time during any month in which flowers, roses especially, bloom that can be called the blooming time. On the contrary, as a well-grown plant, under good cultivation, it is rarely without bloom. In the Tea class we have not only the different shades of crimson, rose, flesh and white, but also cream, sulphur, copper color, orange and scarlet. This class, though giving smaller roses, affords a much greater profusion of bloom, and is much easier propagated. There are a few of this class quite as hardy as Hybrid Teas in the latitude of Kentucky. Of these Hermosa pink, very fine; Malmaison, cream white; Catherine Mermet, salmon pink, very large; Queen of the Bourbons, blush, very sweet; Sanguinea, deep red, small, but very profuse, are among the best. Among Hybrid Perpetual roses, a misnomer, are very desirable specimens, where very hardy varieties are wanted. They really bloom but once during summer in our climate. However, so far as the individual flower is concerned, they are the finest of all roses. Many of them are immense in size, and possess delightful fragrance. Among them is the famous Jaquemot.

Like nearly all other plants, roses delight in deep mellow soil and good drainage. Well-rotted cow or horse manure is the best fertilizer. For producing fine effect it is best to plant them in beds. Hybrid Perpetuals, twenty inches apart; Hybrid Teas, sixteen inches; Teas, twelve inches. Prune out all the dead and blind wood. Cut all the young shoots back to five buds before the leaves appear. Frequent hoeing will be found of the greatest benefit during the entire summer.—Mrs. J. T. P., in *American Cultivator*.



**CHEST PAINS**  
**COUGHS, COLDS**

Chest Pains, Coughs and Colds, Weak Lungs, Backache, Kidney Pains, Rheumatism, and all Muscular Pains, relieved in one minute by the **Cuticura Anti-Pain Plaster**. The first instantaneous pain-killing strengthening plaster. 25 cts.; 5 for \$1. At druggists, or of PORTER DRUG AND CHEMICAL CO., BOSTON.

## The Poultry Yard.

### Practical Talks on Poultry.

What hens to keep and what to kill off is one of the important questions that arises in the minds of the farmers as winter approaches. In the first place do away with all the superfluous cockerels. They are a nuisance, and worry the laying hens out of many eggs by their constant fighting and picking. It is well, perhaps, to winter one active, well-developed and healthy cockerel to every fifteen hens, to be used for breeding purposes in the early spring. A selection of the best hens and pullets should be made right away, and the culls sold or marketed for what they will bring. Old hens and cocks will sell for more money during the holidays than in the spring, when young, early-hatched chickens are in the market. Besides, considerable food is saved by killing off the surplus stock late in the fall.

The question of how to feed poultry in the winter is also very important. My advice to inexperienced fanciers is to feed the poultry but twice a day, early in the morning and just before nightfall. When a flock of hens is housed and has no out-door exercise it should not be fed so abundantly as when out-of-doors, where the birds can scratch off their fat, as it were. I believe in occupying a hen's time constantly during her winter confinement, and for that reason I have this summer placed a cellar, with a dirt floor, under all my houses, so that the hens will be at work scratching all the time.

The morning meal should consist of a hot mush, corn meal or leavings from the table warmed, followed by a "dessert" of grains, cracked corn, buckwheat, wheat, scattered in the leaves on the board floor, and in the dirt and ashes in the cellar. It is well to store up all the celery leaves, turnip tops and refuse cabbage heads obtainable, and feed abundantly each day. In the evening, give the hens their "fill" of whole corn, cracked corn or wheat; in fact, any grain that takes some hours to digest, thereby giving the birds something warm in their crops during the most of the night. With this bill of fare, plenty of warm water and a snug house, the hens should lay many eggs in the sharpest weather. If a hen has all this feed and attention and does not lay, then the birds are being overfed. Of course, it is impossible to write down any explicit rules regarding the quantity of this or that stuff to feed. With general outline, the farmer must regulate his judgment as best suits his poultry.

Every farmer who has a nice flock of thoroughbred hens ought to interest himself in the county poultry show, and aid in making it a success, by his presence, and by taking along some of his best specimens for exhibition. Birds intended for exhibition should be separated by themselves and fed on "exhibition" diet. The hens should have plenty of sunflower seeds to improve the gloss of their plumage, and plenty of other extras of a like nature. The day the birds are to be shipped, take each specimen and wash its comb and wattles in kerosene or ammonia to improve the color, and also to prevent easy freezing. Go over the entire body with a damp cloth, which will give the coat of feathers an improved look, taking care not to rumple or break a feather in the operation. A single loss of a feather, or other artificial "doctoring," when discovered, will disqualify an entry at sight. Thoroughly wash the hen's legs, first in kerosene and then in water, and lest the bird might have some lurking disease, give it a

parting dose of some rousp medicine or stimulant.

Another thing that adds much to your exhibit is a neat exhibition box or cage. The box should be large and roomy and be prettily painted and arranged. It will please the visitors, and will be a credit to the hens and yourself.

Right here I want to speak a word on the shipping of dressed poultry to the city markets. If the stock is not fat and plump, do not rush them to market, but keep them for a later trade. It must be borne in mind that at this season of the year the buyers have a very large supply to pick from, and will naturally select the best and neglect the inferior. It pays, too, to ship dressed poultry in a neat, tidy box. The air of freshness and cleanliness surrounding a nice, clean parcel of poultry is sure to draw the attention of an intended purchaser, and makes quite a difference in the profits to the shipper.

Care should be taken at this time to lay up all the dust and gravel that will be needed during the winter. Green food should be provided in abundance. Keep an eye on the stray knot-holes and cracks in the house, and above all things provide dry, well ventilated quarters for your fowls. All this advice and these suggestions are offered, and yet I venture the remark that many a poor hen will go without green food, proper care and fit quarters, because its procrastinating owner failed to observe that old proverb: "A stitch in time saves nine."—Marie, in American Cultivator.

### The Poultry Blaze.

EDITOR KANSAS FARMER:—So many persons undertake the poultry business with the intention of running it a short time and expect to better their financial condition immediately. Such persons always fail. Don't engage in poultry-raising to see how much you can make in one or two years, but enter into it to stay. Be determined to succeed. Entertain good thoughts about purchasing fine eggs. Get them direct from the owner of high-scoring birds at rates that will justify the owner to run the poultry business successfully. If there is anything that tires a breeder of first-class poultry it is to ask him to give his fine eggs or fowls away, after he has worked hard for years to improve his flock.

Yearly numbers of chickens are swept away by the cholera and other diseases so common among the fowl family. This ought to be discouraged, especially by the owners, who so often encourage disease by allowing the poultry yards to get filthy. It is a common thing in most localities to clean the poultry house twice a year, and such a time as they have. Cornstalks, straw, hay, cobs and all trash that has accumulated in six months has to be dug or chopped out, as the case may be, and one's patience is sorely tried in arranging the house so that the birds will be comfortable for a brief time. It would be much better if these poultry-raisers would clean their poultry houses once or twice each week, thereby saving money, for we all know, if we stop to consider the matter, that chickens will not do well when their houses and yards are neglected. Water troughs should be constantly kept pure by whitewashing inside or keeping old iron and a piece of lime in them. Many fowls do not get enough gravel and shells, therefore eat their own eggs, and that is loss to the owner. All these little things must be attended to if we prosper in the poultry business. Improve your poultry by purchasing good fowls or eggs each year. By good I mean pure-breds. I kept a flock of the scrubs till I was disgusted, and now I'm happy as I have near 200 fine single-

comb Brown Leghorns. They are the best layers that I ever kept, and a healthier breed cannot be found. They mature early and hunt much of their food, and in fact are the most profitable fowl that I ever raised. Their meat is very sweet, more so than the larger breeds, and their eggs are of a very fine flavor. I found that raising broilers did not pay me as well as raising poultry for eggs alone. I keep mongrels to do the setting and the Leghorns can fill the egg baskets. I hope I'll not see my friends with long faces this year, telling that they had no luck with their chickens and most of them died with the cholera. Strangle the cholera before it strangles your fowls. It is in your power to save your flock if you study the wants of your birds. My chickens never have the cholera. "An ounce of prevention is better than a pound of cure."

BELLE L. SPROUL.

### Culture of the Castor Oil Bean.

The soil best suited to the castor oil plant is a light, rich sandy loam, although any dry, fertile soil will produce good crops. In the South the seed is planted in rows six feet apart. Three or four seeds are usually planted, since the cut-worms sometimes ravage the young plants. When the plants are six inches high they are thinned to one plant, the cultivation being precisely similar to that of Indian corn. The seeds begin to ripen from the 1st to the 20th of August, according to latitude, and will continue to ripen (in the North) until the plants are killed by frost. Before the ripening of the seeds a yard for spreading the pods must be prepared. This is generally selected on a knoll, or other hard, dry spot. The ground is cleared and beaten perfectly hard and smooth, and if declining slightly to the sun so much the better. The first ripenings should stand until the pods on the spikes begin to crack. Later the spikes may be cut as soon as two or three beans begin to open. They are carried to the drying yard and spread thinly. The heat causes the beans to pop out of the pods. In warm weather two or three days will suffice. When all are out the heads are raked off and the seed cleaned through a fanning mill with a suitable screen and then spread on a floor or other suitable place, safe from rain, being turned occasionally until dry. When the plantation is sufficiently extensive it is better that drying houses be prepared for the pods, and also moderate kilns for drying the beans, for thus much loss is obviated.

**BEECHAM'S PILLS**  
ACT LIKE MAGIC  
ON A WEAK STOMACH.  
25cts. a BOX  
OF ALL DRUGGISTS.

in drying, from weather and also from mould in the packages in which the beans are packed. But in dry regions this is not necessary.

As to castor oil bean seed it can probably be obtained of prominent seedsmen in the South and Southwest. It can be bought in this city for planting at \$5 per bushel. As to prices, they fluctuate greatly in different seasons, according to demand and supply. The seed is marketable all over the world, but we are unable to say where the best market is located.—Witness.

Sam Jones, the revivalist, says that one of the greatest recommendations a man can have is that he will "stand without hitching." This comes very near telling the truth, if it is a homely expression and rather figurative. Whatever it may mean when applied to men, this phrase when applied to horses means a good deal.

Moran, the great artist, despaired when he saw the Great Shoshone Falls—it was so far beyond his pencil's cunning. So there are wonderful dreams of beauty in the tempestuous loveliness of the grand "American Alps" in Colorado, which are at once the aspiration and the despair of painter and poet. Splendid beyond comparison is the superb scenery along the South Park Division of the Union Pacific in Colorado.



**MANLY PURITY AND BEAUTY**

CUTICURA REMEDIES CURE SKIN AND BLOOD DISEASES FROM PIMPLES TO SCROFULA

NO PEN CAN DO JUSTICE TO THE EXTENT IN which the CUTICURA REMEDIES are held by the thousands upon thousands whose lives have been made happy by the cure of agonizing, humiliating, itching, scaly, and pimply diseases of the skin, scalp and blood, with loss of hair.

CUTICURA, the great Skin Cure, and CUTICURA SOAP, an exquisite Skin Beautifier, prepared from it, externally, and CUTICURA RESOLVENT, the new Blood Purifier, internally, are a positive cure for every form of skin and blood disease, from pimples to scrofula.

Sold everywhere. Price, CUTICURA, 50c.; SOAP, 25c.; 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.

Rheumatism, Kidney Pains and Weakness speedily cured by CUTICURA ANTI-PAIN PLASTER, the only pain-killing plaster.

## Dr. WHITTIER

10 West Ninth St., KANSAS CITY, MO.

ORIGINAL Dr. Whittier in Kansas City. OLDEST Dr. Whittier in Missouri, and ONLY Dr. Whittier in Kansas City who has practiced medicine over 15 years. CURES Syphilis, Scrofula, Rheumatism, Gout, Eczema, etc., causing ulcers, eruptions, pain in bones, swelling of joints, enlarged glands, mucous patches in mouth, falling hair, and many other symptoms. All poison thoroughly and permanently eradicated from the system by purely Vegetable Treatment. Spermatorrhoea, Impotency, Nervous Debility, etc., resulting from youthful indiscretion, excesses in mature years, and other causes, inducing some of the following symptoms, as dizziness, confusion of ideas, defective memory, aversion to society, blotches, emissions, exhaustion, Varicocele, etc., are permanently cured. URINARY, KIDNEY and BLADDER troubles, Weak Back, Incontinence, Gonorrhoea, Gleet, Stricture, etc., are quickly and perfectly cured. Consult the OLDEST DR. WHITTIER in person or by letter first. No promises made that age, integrity and experience do not justify. Medicines sent anywhere by mail or express, secure from observation. Consultation free and invited. Office hours, 9 to 5, 7 to 8; Sunday, 10 to 12. NO FEE UNTIL CURED, from responsible persons. NEW BOOK free. Address, H. J. WHITTIER, M. D., 10 W. Ninth St., Kansas City, Mo.

### Special Club List.

AGENTS WANTED. (Only \$2.75.)

**EARTH SEA AND SKY**

or Marvels of the Universe, a graphic description of the wonderful things in nature; thrilling adventures on Land and Sea—renowned discoveries of great explorers. Published in English and German. 462 pages. 329 illustrations. A Great Book to Sell. Illustrated circulars and extra terms to agents FREE. FORSHEE & McMAKIN, Cincinnati, O.

**THE DORCAS MAGAZINE**

is full of useful information on Woman's Handwork: Knitting, Crochet-work, Embroidery, Art Needlework, and other household topics of practical character. Every lady should subscribe for it. Price, 50 cts. a Year. The Dorcas Magazine, 19 Park Place, New York.

A SAVING OF 25 TO 50 PER CENT

Prices given below are for both Papers.

The KANSAS FARMER, one year, and the Breeder's Gazette—both.....	\$8.00
Kansas Democrat (Topeka).....	1.50
Swine Breeder's Journal.....	2.00
Weekly Capital-Commonwealth.....	1.75
Weekly Kansas City Times.....	1.75
Popular Gardener and Fruit-Grower.....	2.00
Kansas State Journal (Topeka).....	1.80
National Horse Breeder.....	1.80
Ladies' Home Companion.....	1.25
The Home Magazine.....	1.25

**The Veterinarian.**

[This department of the KANSAS FARMER is in charge of Dr. F. H. Armstrong, V. S., Topeka, a graduate of Toronto Veterinary college, who will answer all inquiries addressed to the KANSAS FARMER concerning diseases or accidents to horses and cattle. For this there is no charge. Persons wishing to address him privately by mail on professional business will please enclose one dollar, to insure attention. Address F. H. Armstrong, V. S., No. 114 Fifth St. West, Topeka, Kas.]

Chas. Averill, Lane, Kas.—The paralysis may be the result of an injury to the nervous system, or again, more probable that of a reflex action from distant organs, as disordered digestion from an impacted stomach, constipation, etc. Give plenty of soft feed. Give about 4 ounces of castor oil. Repeat in about three days. Give 10 drops of fluid extract of nux vomica twice a day for a couple of weeks. If she gets over it she will do to breed again.

Herbert Shumeray, Auburn, Kas.—Poultice the legs and heels for two days with a warm flaxseed poultice. Change daily. On removing it, wash clean with castile soap and water. Dress daily with following ointment: Oxide of zinc, 2 drachms; tincture of iodine, 1/2 drachm; lard, 2 ounces. Mix, make ointment. Turn her out to grass. Give following powders once a day in soft feed: Nitrate of potash, 3 ounces; arsenic, 40 grains; powdered nux vomica, 4 drachms. Mix, make 8 powders. Repeat if necessary.

L. R. Christy, Meriden, Kas.—Look carefully for a spavin to account for the hitching in motion. The last trouble is independant of the former and would indicate too high feeding, and not regular exercise. Bathe the swollen parts with hot water two or three times a day. Bathe half hour at a time. Keep abscess cleaned with daily washing. Put animal out on grass. Feed warm bran mash. Give one of following powders in soft feed night and morning: Nitrate of potash, 4 ounces; powdered colchicum seeds, 6 drachms. Make 12 powders. Give animal run at pasture a couple of weeks.

H. M. Anderson, Lincoln, Kas.—The paralysis may be due to injury to brain or spinal cord. But with your animal it is a reflex irritation depending upon a disordered digestion, arising from constipation, engorgement on dry feed, no exercise. Give following purgative: sulphate of magnesia, 1 pound; powdered aloes barbadoes, 2 drachms; powdered ginger, 4 drachms; water, 1 quart. Give as a drench. Feed on soft feed. The medicinal agent most effectual in paralysis is nux vomica, and this in chronic cases, is best combined with iron or quinine. Powdered nux vomica, 1 ounce; sulphate of iron, 1 ounce; ginger, 2 ounces. Mix, make 8 powders. Give one daily in feed or in drench. Give food that is nourishing and easy of digestion. Do not let animal lie too long in one position, turn him over. The chances are not the best for his recovery.

FISTULOUS WITHERS.—The term "wind fistulas" is not appropriate. It is not filled with wind, but filled with serum or pus. From the length of time it has been running you will probably have difficulty in getting a speedy cure. Apply following blister to swellings: Powdered contharidas, 1 drachm; lard, 1 ounce. Mix, make ointment; rub it in. In twenty-four hours keep greased. If any soft spot appears have it lanced, and see that your incisions are made at lowest point so that good drainage can be had. Cauterize the surface with strong solution of sulphate of copper every three days for two or three applications, after which keep parts clean and use following dressing: Chloride of zinc, 1 drachm; water 1 pint. Call in a good veterinary surgeon and have him lance it and remove some of the cartilagenous growth. It will be two or three months before you will get a cure.

**System.**

One of the most potent things in expediting work and in avoiding waste is system; and while we say that some people are naturally more systematic than others, to be systematic or disorderly is nearly altogether a matter of choice. The person who has long been slovenly in his methods will find effort necessary to his becoming systematic—no small effort, indeed. Yet he may become systematic when he tries. My advice to him is not to attempt too much at the beginning. "Heaven is not reached at a single bound." If we undertake too much at once we are certain to become discouraged and to fail. If you have been unsystematic, make a beginning of your reform by putting the axe in its place every time you have used it. When you have learned to do this, endeavor to put the spade, shovel, rake, hoe, fork, hammer, plow, basket, etc., etc., in its proper place every time you are done with it. You will find that you have succeeded in a shorter time than you anticipated. Almost before you are aware of it, to put everything in its place will have become habitual with you. This is the first step, and a long one, in the systematic performance of your work. You can not work systematically so long as your implements of work are in disorder.

The fact that systematic men do so much work with so little effort is largely due to their keeping their implements of labor in order, whether those implements be axe and plow or pen and ink. It is frequently remarked of men who have accomplished an unusual amount of work that they were systematic; in fact, any reasonable person must acknowledge that without system his performance would have been impossible. We may rest assured that these people did not allow the materials with which they had to do their work to remain in a state of disorder. They did not spend valuable time hunting for that which was to be fashioned or that with which it was to be shaped. "Order is heaven's first law." It is also the first law of the life that is the most pleasing in the sight of heaven.

On the farm where there is not system implements must be hunted for as often as they are in their proper places. The spade, the scythe, the hoe, the saw, are to be had only after a half hour's search; and very likely while one workman has been hunting the tool he needed others have been kept idle. More, when the tool is found it is found to be in a condition unfit for good work. Mark this down: Implements that are not kept in their proper places will not, can not, be kept in condition for good work. The axe thrown on the wood-pile is found with a gap in its edge; the spade or hoe or shovel thrown on the ground is rusted; the plow hid in the weeds is driven over and broken; the fork lying in a fence corner is broken by an animal that injures itself on the tines. The man not systematic enough to keep his implements in place always has implements in bad condition. They are rusted, dull and broken. On the other hand, the systematic man expends some time in putting tools in their places; but by so doing he gains much more time, otherwise used in searching for the tools. And his tools are in good order. They have not rusted on the ground or been broken by the animals or vehicles. He gets at work at once, and with tools capable of the most and best work.

It is perhaps easier for a man to bring order out of confusion among the implements of his work than to systemize his methods of work; yet the latter is easily possible. It is apparant to any one who has well considered the matter that lack of system is due to lack of

thought. Before any man can work systematically he must sit down and think hard about his work. He must consider what is to be done, and with what it is to be done; and then plan his work accordingly. This done he is to consider how the plans can best be executed. Let a man do all this, and it is easy when once it has been practiced somewhat, and there will be system in and through his work. He will not take five steps where four would have sufficed. Work is done at the proper time; and when work is done at the proper time it has the greatest effect. Work is done with the most economical means by the least laborious methods. More is accomplished.

I once noticed a neighbor doing his evening "chores." He walked from the house to the corn crib, passing the barn on his way. Then he went to the barn for the basket he had forgotten, filled the basket with corn at the crib, and gave it to the horses at the barn. He set the basket down at the barn and walked back to the pig pen just beyond the crib for the bucket he had left there at noon. The slop bucket was in a lean-to shed against the barn, and he carried a bucket of slop to the pigs, setting the bucket down at the pen. Then he came to the barn for the basket and went to the crib for corn.

Manifestly there was no system in his work. He had not thought about and planned it beforehand. If he had done so he would have got the basket at the barn on his way to the crib; would have found the slop bucket at the slop barrel; would have carried the bucket of slop in one hand and the empty basket in the other; would have given the pigs their corn immediately after slopping them; and would have returned with the basket of corn for the horses in one hand and the slop bucket in the other, leaving it at the barrel. One trip from the barn to the crib, instead of four, would have been made. This fairly illustrates the difference between system and no system in work. I have seen a man who utilizes his sled in summer for hauling plows, harrows, etc., from one field to another (a good plan, I must say) haul the plow to a field, and return sled empty when convenient. Then haul the harrow to the field and instead of returning with the plow would bring back the sled empty. The plow is longer exposed to the weather and very likely to be needed elsewhere before the field is harrowed and an extra trip must be made for it.

In the feeding of farm stock there is much waste through lack of system; but I have space to notice this only briefly. I will not accuse us falsely when I say that a majority of us feed our animals without any system whatever. We pay no attention to the composition of foods. Convenience, and not economy, determines our selection of foods. It may not be pleasant for us to accuse ourselves of our faults; but unless we do so we can not make any improvement. As long as we feed our farm animals blindly, haphazard, we will find profits small or non est; if we introduce system we will find the work less and the profits more certain and much larger.—J. M. S., in National Stockman and Farmer.

**Topeka Weather Report.**

For week ending Saturday, May 11, 1889:

Date.	Thermometer.			Rainfall.
	Max.	Min.		
May 5.....	80.7	56.1	..	
" 6.....	82.8	55.6	..	
" 7.....	81.6	58.5	..	.61
" 8.....	87.4	68.5	..	
" 9.....	78.8	67.0	..	
" 10.....	77.0	61.5	..	.69
" 11.....	72.5	56.4	..	.31

To know that a horse is entirely safe when left on the street or in the road is one of the greatest satisfactions combined with the handling of horses.

**THE MARKETS.**

(MAY 11.)

**New York.**  
WHEAT—No. 2 red, in store, 82c.  
CORN—44c elevator.

**Chicago.**  
WHEAT—No. 2, red, 85a85 1/2c.  
CORN—34 1/2a34 3/4c.  
CATTLE—Beef cattle \$3 50a4 25.  
HOGS—\$1 55a4 75.  
SHEEP—\$4 00a5 00.

**St. Louis.**  
CATTLE—Beef cattle \$3 90a4 50.  
HOGS—\$1 55a4 65.  
SHEEP—\$3 00a4 50.

**Kansas City.**  
WHEAT—No. 2 red, 89c bid.  
CORN—29ca29 1/4.  
CATTLE—Beef steers, \$3 35a4 00.  
HOGS—\$4 25a4 50.

**The "Eli" Once More.**

The Burlington Route (Hannibal & St. Joseph R. R.) once more leads all its competitors, in restoring the fast train service between Kansas City and Chicago. The train so well known a year ago as the "Eli" and so deservedly popular with the traveling public, has once more been put on. It is a solid vestibule train with sleepers, free chair cars and coaches, and makes the through run between the two cities in about fourteen hours. Leaving Kansas City in the evening the passenger takes supper on the dining car and arrives in Chicago for breakfast, and vice versa on his return. This is a great saving of time, and the Burlington's action in restoring this service meets with the hearty approval of all business men and the public generally.

The Burlington's new St. Louis line increases in popularity every day, and now holds a high place in public favor. The Burlington runs on this line through Pullman Sleeping Cars of the latest improved design, and Reclining Chair Cars, seats in the latter being free of charge.

We should also strongly advise any one going to Omaha, St. Paul, Minneapolis or the Northwest to take the daily forenoon train on the K. C., St. J. & C. B. R. R., which has a through Pullman Buffet Sleeping Car from Kansas City to St. Paul and Minneapolis and free Chair Car to Omaha, or take the evening train from Kansas City, which has a through Sleeper and Chair Car to Omaha.

All of the above trains are in every way models of comfort and convenience. A. C. DAWES, General Pass. & Ticket Agent, St. Joseph, Mo.

Use the surest remedy for catarrh—Dr. Sage's.

**IMPORTANT TO HORSE OWNERS**



The Great French Veterinary Remedy for Past Twenty Years.

Recommended and Used by the Best Veterinary Surgeons of this country.

**COMBAULT'S CAUSTIC BALSAM.**

Prepared exclusively by J. R. COMBAULT, ex-Veterinary Surgeon to French Government Stud. (Paris) Supersedes all Caustery or Firing. Impossible to Produce any Scar or Blemish. For Curb Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, all Skin Diseases or Parasites, Thrust, Diphtheria, Pinkeye, all Lameness from Spavin, Ringbone and other Bony Tumors. Removes all Bunches or Blemishes from Horses and Cattle.

A Safe, Speedy and Positive Cure. It has been tried as a Human Remedy for Rheumatism, Sprains, &c., &c., with very satisfactory results.

**WE GUARANTEE** that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin cure mixture ever made. Every bottle of CAUSTIC BALSAM sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, &c. Address LAWRENCE, WILLIAMS & CO., Cleveland, O.

**HIRES**



25c. HIRES' IMPROVED 25c. ROOT BEER! IN LIQUID NO BOILING EASILY MADE THIS PACKAGE MAKES FIVE GALLONS. MAKES FIVE GALLONS DELICIOUS AND SPARKLING.

**ROOT BEER**

The most APPETIZING and WHOLESOME TEMPERANCE DRINK in the world. TRY IT. Ask your Druggist or Grocer for it. C. E. HIRES, PHILADELPHIA

Pasturing Farm Land.

A Westmoreland Co., Pa., correspondent of the National Stockman discusses the subject thus:

We claim that when land is worth more than \$20 per acre it will not pay to pasture it, unless in has value for mineral or some other consideration. There are mountain bottoms, hillsides and strips of wet or broken lands that may be bought for from \$5 to \$20 per acre that ought to be employed in pasturage. And by liming them say forty bushels to the acre they will generally catch in timothy or blue grass. When it can be done it is best to break the surface of the soil with a shovel plow after the lime is scattered, and before the seeds are sown. Even rough, rocky places can be brought into profitable pastures in this way. If sprouts and bushes are cropped off with the bramble scythe they will gradually disappear. They kill the quickest when cut in July and August.

A farmer with pastures has greatly the advantage over one that has narrow limits of ground, though the pastures may be a mile or two remote from the farm lands. But to pasture down the farming fields is in my opinion agricultural suicide, if the land is worth from \$50 to \$100 per acre; and if it is not worth that much there is something wrong with the soil, or the farmer, or perhaps both.

A farmer with from sixty to ninety acres of good land wants to keep fifteen to twenty cows, a dozen of young cattle, fifty or sixty hogs and pigs, a span or two of horses, three or four colts, twelve to fifty sheep and 150 poultry, or the same equivalent in some of the lines of stock. How is he going to do it if he pastures his fields as a means of subsistence for his stock? If it can be successfully done, we confess right here that there is some very important light on farming we have never received.

Yet all this and even more can be done on the farm if properly managed. We said above good land. By this we mean land that will produce from three to three and one-half tons of hay and 140 or 160 bushels of corn ears to the acre, or its equivalent in other crops in a fair season. We repeat that if good land does not produce to this extent there is something wrong with the farmer.

We have in our mind just now a farmer who twelve years ago owned a middling hilly farm of almost eighty acres of farm land. He had farmed for twenty-five years, and it had grown so poor by the pasturage system that at that date he could not sustain his family, and borrowed money from his neighbor to pay taxes and meet his current expenses until his incumbrance amounted to \$1,500—fully one-half what his farm could be sold for for agricultural purposes. His sons were getting discouraged and wanted to leave home, his wife was fretting about the gloomy prospects, and he himself was seeking solace in the "cup." A friend advised him and prevailed on him to increase his debt in the purchase of 1,000 bushels of lime. He pleaded that it was scarce to be had, high and of poor quality; but finally consented to try 300 bushels. It cost him 10 cents, and three miles to haul. He scraped up some old cow yards and made a large pile of compost as he was directed. It was something new—a decisive struggle—and he and his boys went at it with a will. He plowed a little field of six acres which had no vegetation on it except a little "sink-field." Thirteen sheep which were being pastured on it were in bad condition. He top-dressed the field with the compost and worked it well in the soil, sowed it in wheat, cut 180 shocks and threshed 140 bushels. Then there was the day of rejoicing. His wife remarked, "We have not had so much wheat at once since we were married."

He went and bought another thousand bushels of lime, scraped up his manure, and bought some in the town when he could, and persevered until he had 8,000 bushels on, most of which had been shipped sixty miles. His lime is paid for, his debt is canceled, buildings improved, he has enlarged his barn again, again and again, and carries twenty head of first-class cows, eight head of horses and colts, and hogs and poultry in proportion. In 1887 he cut 125 tons of hay, had 400 bushels of wheat, 2,000 bushels corn ears and 600 bushels oats. He has excellent orchards, sold \$200 worth of ap-

ples, about the same of peaches and about the same of cabbag.

We made a rough estimate of his products for 1887, and it amounted to over \$4,000. He is well fitted up with fences and machinery, and has lately added about thirty-seven acres of land to his farm, at about \$127 per acre, and is now pouring lime on it. He is on a square footing with the world, and a clever, congenial fellow, and an advocate of prohibition.

To return to our subject, it is proper for me here to explain that he cannot be induced to pasture his farm land. He struck off a sharp hillside for pasture, and he paid \$100 a year rent for the field he lately bought for several years to run his cows on in alternate spells with his home pasture. But he depends mostly on in-doors feeding, and sells from ten to thirty tons of hay every year.

Now, although this has certainly been a success, and many of your readers will think it wonderful, yet it might have been nearly doubled if the knowledge, skill and experience had been had twelve years ago that that farmer and his sons, wife and daughters have now. We say wife and daughters because—heaven bless them—they are as indispensable to successful farming as the rays of the sun.

A Secret

of good health is found in the regular movement of the bowels and perfect action of the Liver. These organs were intended by nature to remove from the system all impurities. If you are constipated, you offer a "standing invitation" to a whole family of diseases and irregularities which will surely be "accepted," and you will have guests unwelcome and determined. All these unhappy conditions may be averted by the timely use of Dr. Pierce's Pleasant Purgative Pellets. Powerful for the effectual regulation of the bowels and Liver, establishing a healthy action of the entire wonderful organism with which we are created.

With ordinary methods of field culture, probably less than one-half the kernels sown produce mature plants.

I will mail a valuable present to any minister, teacher or friend of education on receipt of address. THOS. J. BRYANT, St. Joseph, Mo.

No facts are better established than that apples to bear good fruit should not be crowded, and in planting, the space should be estimated for the trees at maturity, instead of the small tree in hand.

Consumption Surely Cured.

To the Editor:—Please inform your readers that I have a positive remedy for Consumption. 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., N. Y.

TO MONTANA, OREGON AND WASHINGTON.

If you are going West, bear in mind the following facts: The Northern Pacific railroad owns and operates 987 miles, or 57 per cent. of the entire railroad mileage of Montana; spans the Territory with its main line from east to west; is the short line to Helena; the only Pullman and dining car line to Butte, and is the only line that reaches Miles City, Billings, Bozeman, Missoula, the Yellowstone National Park and, in fact, nine-tenths of the cities and points of interest in the Territory.

The Northern Pacific owns and operates 621 miles, or 52 miles, or 56 per cent. of the railroad mileage of Washington, its main line extending from the Idaho line via Spokane Falls, Cheney, Sprague, Yakima and Ellensburg, through the center of the Territory to Tacoma and Seattle, and from Tacoma to Portland. No other transcontinental through rail line reaches any portion of Washington Territory. Ten days stop over privileges are given on Northern Pacific second-class tickets at Spokane Falls and all points west, thus affording intending settlers an excellent opportunity to see the entire Territory without incurring the expense of paying local fares from point to point.

The Northern Pacific is the shortest route from St. Paul to Tacoma by 207 miles; to Seattle by 177 miles, and to Portland by 324 miles—time correspondingly shorter, varying from one to two days, according to destination. No other line from St. Paul or Minneapolis runs through passenger cars of any kind into Idaho, Oregon or Washington.

In addition to being the only rail line to Spokane Falls, Tacoma and Seattle, the Northern Pacific reaches all the principal points in northern Minnesota and Dakota, Montana, Idaho, Oregon and Washington. Bear in mind

that the Northern Pacific and Shasta line is the famous scenic route to all points in California.

Send for illustrated pamphlets, maps and books giving you valuable information in reference to the country traversed by this great line from St. Paul, Minneapolis, Duluth and Ashland to Portland, Oregon, and Tacoma and Seattle, Washington Territory, and enclose stamps for the new 1889 Rand-McNally County Map of Washington Territory, printed in colors.

Address your nearest ticket agent, or CHAS. S. FEE, General Passenger and Ticket Agent, St. Paul, Minn.

SHAWNEE NURSERY & FRUIT FARM.

J. F. OECIL, Prop'r, North Topeka, Kas. Fruit and Ornamental Trees, Vines, Plants and Shrubs. Cherry Trees and Small Fruit Plants a specialty.

STAYMAN'S No. 1 Strawberry. Large and fine. Produced at the rate of 30,000 quarts per acre. Price, \$2.00 per dozen; \$10.00 per 100. The earliest and best Black JEWEL Grape known. Equal to the Delaware in quality. Price, \$1.50 each. Send for testimonials. STAYMAN & BLACK, Leavenworth, Kas.

KANSAS HOME NURSERY

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 23, Lawrence, Kas.

Hart Pioneer Nurseries FORT SCOTT, KAS.

Established 1865. 460 Acres. Full line of Nursery Stock. Forest Seedlings for Timber Claims and Apple Trees for Commercial Orchards a specialty. Large Premium for planting forest trees in spring of 1889. Treatise on cost and profit of apple orchard, free on application. Good salesmen wanted.

10,000 BUSHELS SWEET POTATO SEED

All the leading varieties, including the new and popular variety, Red Jersey, grown only by us. Send for price list of vegetable seeds. Address M. H. SMITH & SON, Market Gardeners and Seed-Growers, Muscatine, Iowa.

Bulbs!

12 Large White Double TUBEROSE, 3 CANNAS—Mixed Colors, 3 GLADIOLA—Mixed Colors, By mail, postpaid, for 50 cents. Order early. H. M. HOFFMAN, (Rosemeade, DeSoto road), Leavenworth, Kas.

Lee's Summit Nurseries

APPLE TREES TWO AND THREE YEARS old, of most excellent quality, offered at low rates by 1,000 or by the carload. Also Peach, Plum, Grapes, etc., etc. J. A. BLAIR & SON, Proprietors, Lee's Summit, Jackson Co., Mo.

Mount Hope Nurseries

Established twenty years in Kansas. Reliable resident Agents wanted in every town. The most complete stock of Trees, Vines and Shrubs, Ornamental, Shade and Evergreen Trees ever offered in the West. Understand this is grown here. Dealers and planters can depend on it. Orders packed and shipped on short notice. Let all who want nursery stock correspond with us. State your wants. Catalogues free. A. C. GRIESA & BRO., Lawrence, Kas.

500,000 Sweet Potato Plants

For sale. Eight best kinds. Inquire of N. H. PIXLEY, Wamego, Kas.

Red Cedars! Hardy Catalpas!

FOREST TREE SEEDLINGS—all kinds, Fruit Trees and Plants, Mammoth Dewberry; Black Walnuts, \$1 per barrel. Lowest prices, largest stock! Write for free Price Lists. Address GEO. C. HANFORD, (Successor to Bailey & Hanford), Makanda, Jackson Co., Ill.

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-foot, 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

LONDON PURPLE



Can SAVE YOUR CROPS from Potato Bugs, Canker Worms, and most insects.

"LONDON PURPLE" Will SAVE YOUR MONEY. It is one-half the price, and does three times the work of the usual poisons.

"LONDON PURPLE" Is SAFE TO USE—its color shows where it has been applied. Be sure to get

"LONDON PURPLE" and not spurious imitations. Send for circular and opinions—free.

The New York Herald says: "London Purple" is preferable to White Arsenic or Paris Green, as it is not so liable to burn the leaves, and its color enables one to distinguish readily between poisoned and non-poisoned trees."

HEMINGWAY'S LONDON PURPLE CO. Ltd 90 Water St., NEW YORK. 60 Mark Lane, LONDON.

GRAPE VINES

My specialty for 32 years. Over 100 best new and old kinds: Empire State, Diamond, Jewel, Eaton, Moyer, Niagara, Witt, Woodruff Red, Moore's Early, Nectar, Brighton, Pocklington, Delaware, Catawba, Elvira, Ives, etc. Nice, medium 1 year Concord, \$10 per 1000. Also, Strawberries, Raspberries, Blackberries, Gooseberries and Currants. Best Plants, Low Prices. Catalogues free. GEO. W. CAMPBELL, Delaware, O.

SPRAYING FRUIT TREES

to destroy injurious insects is recommended by all experienced horticulturists and by this system only can perfect fruit be secured. For full directions and outfit for hand or horse power, address FIELD FORCE PUMP CO. Lockport, N. Y.

PLANTS AND TREES SEEDS ROSES PLANTS

GRAPE VINES, FRUIT and ORNAMENTAL TREES CHOICEST OLD. RAREST NEW.

Among the latter we introduce the CRAWFORD STRAWBERRY. YOU WANT IT! It combines more good qualities than any other. If you want PURE TESTED SEED or anything for ORCHARD, GARDEN, LAWN or PARK, send for our VALUABLE FREE CATALOGUE containing about 140 pages with hundreds of illustrations. IT'S A BEAUTY! ORDER DIRECT. Get the best at honest prices, and save all commissions. Thirty-fifth year; 24 greenhouses, 700 acres. THE STORRS & HARRISON CO., Painesville, Lake Co., O.

HEAR YE! HIGLEY'S ILLUSTRATED SEED & PLANT CATALOGUE FOR 1889

Containing more new and valuable Vegetable, Field and Flower SEEDS and NEW PLANTS than any catalogue published in the country, will be sent after January 15th, FREE, to any one sending their name. Address HENRY O. HIGLEY, Cedar Rapids, Iowa. Mention this paper.

### The Busy Bee.

The United States Honey-Producers' Exchange.

The above association was organized under the auspices of the New York State Bee-Keepers' Association, in convention at Utica, N. Y., January 17, 18, and 19, 1888. Its object is to furnish to its members prompt and reliable information as to the honey crop throughout the United States. Six or more reporters are appointed in every honey-producing State, who forward their reports to the Secretary on the 1st day of May, June, July, August and September. The Secretary compiles these reports from each State (separately), and on the 10th of the month forwards to each member of the Exchange the reports from the whole United States. These statistics embrace the increased or diminished number of swarms going into winter quarters, loss in winter and spring, condition of bees at beginning of season, proportion of full crop of honey gathered, both white and dark, comb and extracted, the quantity of honey in the different markets remaining unsold, with price, etc.

The advantage of this information is too apparent to require any elaboration here. We would only say, that if you know the honey crop the market is yours, and you can secure prices in keeping with the amount of honey which you know is on the market. The Exchange has met with great favor among bee-keepers, several members present at Syracuse (December 11-13), and others from abroad, among whom are many of the largest honey-producers in the United States, stated that the information furnished by the reports during the past season had been worth many dollars to them in the disposal of their honey, while other prominent bee-keepers pronounced it the best thing that ever came from an association of beemen. Feeling assured that you will wish to reap your share of the benefits of these statistics, we extend a cordial invitation to you to join the Exchange by forwarding your membership fee to the Secretary, G. H. Knickerbocker, Pine Plains, N. Y., which will entitle you to the reports for one year; and also, if you can attend its meetings, to all the advantages of membership in the New York State Bee-Keepers' Association, without further expense. The fee is \$1 per year, but it is hoped that enough bee-keepers will join so that the dollar will cover the cost of two years' reports, in which case you will receive the same for that length of time. Three or four hundred new members are yet needed to bring about this result. Each member will also receive, with the report sent out May 10, a list giving the names and address of all the members and reporters. These statistics will not be furnished to the journals for publication, but will be sent to members only. We could not meet our expenses were we to make public our reports.

The Exchange has the indorsement and support of such well-known men as Dr. Miller, Dadant, Grimm, Manum, Crane, Cushman, Vandervort, Mason, Tinker, Pond, Cary, Root, Hetherington, Cook, Martin, Barber, Isham, Doolittle, Clark, Aspinwall, Van Deusen, Heddon, Taylor, Hilton, Cutting, Valentine, Demaree, Shuck, Foster, Secor, Wilkins, Muth-Rasmussen, and others equally well known.

P. H. ELWOOD, Pres.  
I. L. SCOFIELD, Vice Pres.  
C. G. DICKINSON, Treas.  
G. H. KNICKERBOCKER, Sec.

FOR A DISORDERED LIVER try BROWN'S PILLS

CHICAGO.

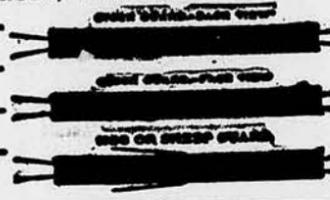
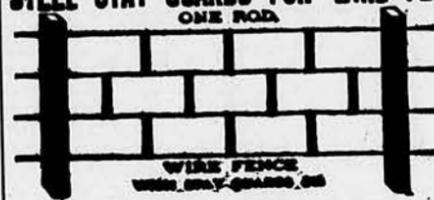
KANSAS CITY.

ST. LOUIS.

## THE JAMES H. CAMPBELL CO. Live Stock Commission Merchants, FOR THE SALE OF CATTLE, HOGS AND SHEEP.

Rooms 23 and 24, Exchange Building, } Unequaled facilities for handling consignments of Stock in either of the above cities. Correspondence invited. Market reports furnished free. Refer to Publishers KANSAS FARMER.

STEEL STAY GUARDS FOR WIRE FENCES, MANUFACTURED BY THE WIRE FENCE IMPROVEMENT COMPANY, 325 Dearborn St., Chicago.



CAN be attached easily to Smooth or Barbed Wire Fences, by any one. Recommended STRONGLY by Farmers, Breeders, and Agricultural Journals. Will not RUST. Fence Wires, Made of Fine, Spring Steel, Japanned Jet Black, are 1 1/2 inches long, and 1/4 inch wide; flexible, light, very strong, and cheap. With smooth No. 8 wire, will make a CHEAP fence, easy to see, impossible to break, and lasting a lifetime. "Stock" Guards are for fences with wires 5/8 to 1 inch apart. "Hog" or Sheep Guards for use on wires 2 to 3 inches apart. Stock Guards, \$15; Hog Guards, \$17 per 100. Discount to dealers. If not for sale in your town, write us.

Testing the vitality of oats designed for seed should be a common practice.

### Honey-moon.

"Say, Perkins, old boy, why don't we see you at the club any more? Has your mother-in-law shut you down?" "No, Brown; the fact of the matter is, my home is so happy now that there is no inducement for me to leave it. You look incredulous, but it's a positive fact. You see, my wife used to suffer so much from functional derangements common to her sex, that her spirits and her temper were greatly affected. It was not her fault, of course, but it made home unpleasant all the same. But now, since she has begun to take Dr. Pierce's Favorite Prescription, she has been so well and so happy that we are re-having our honey-moon all over again."

It requires but little patience and tact to teach any horse to stand quietly without being fastened, and owners of horses are foolish if they do not add this "accomplishment" to every horse they have.

### Fearless Threshing Machine.

We call the attention of farmers and threshermen to the advertisement of the celebrated Fearless Threshing Machine, elsewhere in this paper. Unparalleled honors have been bestowed upon this machine, at fairs and exhibitions, State, National and International; and, if universal victory at trials is evidence of superiority, then most assuredly was an ex-President of the New York State Agricultural Society correct, in saying of the Harder Machines, "they are the best ever made." And, as equally good and reliable testimony has been borne times without number, persons desiring to purchase will do well to consult the manufacturer of the Fearless, Minard Harder, Cobleskill, N. Y.

The itching of the scalp, falling of the hair, resulting in baldness, are often caused by dandruff, which may be cured by using Hall's Hair Renewer.

**ST. JACOBS OIL**  
TRADE MARK  
**THE GREAT REMEDY FOR PAIN**  
IT CONQUERS PAIN.  
Relieves and cures HEADACHE, RHEUMATISM, Toothache, Sprains, NEURALGIA, BRUISES, Solatica, Lumbago, Burns and Scalds.  
At Druggists and Dealers.  
THE CHARLES A. VOGELER CO., Baltimore, Md.

**Tutt's Pills**  
Is an invaluable remedy for  
**SICK HEADACHE, TORPID LIVER, DYSPEPSIA, PILES, MALARIA, COSTIVENESS, AND ALL BILIOUS DISEASES.**  
Sold Everywhere.

**F. M. LAIL, MARSHALL, Mo.,**  
Breeder of the very best  
**POLAND-CHINA HOGS.**  
Pigs from ten first-class boars for the season's trade.

**MAPLE GROVE HERD**  
WM. PLUMMER, breeder and shipper of **POLAND-CHINA SWINE** and Light Brahma Fowls of the best strains. 25 choice sows bred to three first-class boars for the season's trade. Young stock for sale, and eggs in season. Farm three and a half miles southwest of Osage City.  
WM. PLUMMER, Osage City, Kas.

**MAINS' Herd of Pure-bred POLAND-CHINA HOGS**, of as fashionable strains as can be had. All recorded in the Ohio Poland-China Record. Fall pigs of both sexes and spring sows bred and to breed for sale. A large selected herd of sows (most of which were bought in Ohio) new bred for season of 1889 to No. 1 boars of as good royal breeding as there is in the country.  
Address **JAMES MAINS, Oskaloosa, Jefferson Co., Kas.**

**HIGHLAND HERD POLAND-CHINAS**  
Deltich & Gentry, Ottawa, Kas.  
Such strains as Corwins, Give or Take, Hoosier Tom, Duchess, Riverside Beauty, Lady Maid, I. X. L. and others represented. 75 pigs from 6 boars. Orders booked now for spring pigs. Correspondence answered promptly. Mention KANSAS FARMER.

**JACKVILLE HERD OF POLAND-CHINAS**  
J. S. RISK, Prop'r, WESTON, MO.  

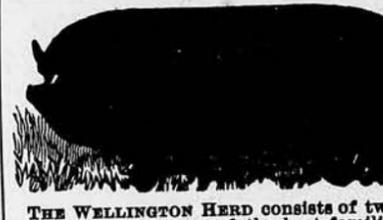

I have a fine lot of early pigs farrowed January and March. I can furnish very choice pigs not akin. Pigs sired by six different boars. Write for prices or call and see stock.

**Rome Park Stock Farm**  
T. A. HUBBARD,  
Rome, Sumner Co., Kansas.

  
Show yard of Poland-Chinas and Large English Berkshires. I am breeding the best and leading strains, including Gracefuls, U. S., Black Bess, I. X. L., Corwins, Sallies, Bella Donnas, Duchess, Dukes and Champions. The best of blood, with extra size and individual merit. Write or come and see me. Two hundred pigs for sale. Am using thirteen extra good boars.

**SELECT HERD OF LARGE BERKSHIRES**  
Of the Royal Duchess, Sallie, Hillside Belle, Charmer, Stumpy, Fashion, Queen Betsy, and other families of fine, large, fleshy qualities, with such top breeding as British Champion, Longfellow and Sovereign Duke, and the noted young show boar PEARL, 1885 at head of herd, the property of G. W. BERRY, Berryton, Shawnee Co., Kas. Located on the K., N. & D. B. R., nine miles southeast of Topeka. Farm adjoins station. Write for prices and free catalogue. Orders taken now for spring pigs from show sows.

**The Echo Herd.**  
  
For Registered Prize-winning **BERKSHIRE SWINE AND SOUTHDOWN SHEEP** or money refunded. Come and see or address **J. M. & F. A. SCOTT, Huntsville, Randolph Co., Mo.** Mention Kansas Farmer.]

**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 4889, and has no superior in size and quality nor in strain of Berkshire blood. Also Plymouth Rock Chickens. Your patronage solicited. Write.  
**M. B. KEAGY, Lock Box 784, Wellington, Kas.**

**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.**

**Ohio Improved Chesters**  
WARRANTED CHOLERA PROOF. EXPRESS PREPAID. WING 1ST PRIZES IN U. S. & FOREIGN CONTESTS. 2 WEIGHED 2803 LBS. SEND FOR DESCRIPTION & PRICE OF THESE FAMOUS HOGS. ALSO FOWLS.  
**L. E. SILVER CO. CLEVELAND, O.**  
(This Company sold 973 head for breeding purposes in 1887. Send for facts and mention this paper.)

**I CURE FITS!**  
When I say cure I do not mean merely to stop them for a time and then have them return again. I mean a radical cure. I have made the disease of FITS, EPILEPSY or FALLING SICKNESS a life-long study. I warrant my remedy to cure the worst cases. Because others have failed is no reason for not now receiving a cure. Send at once for a treatise and a Free Bottle of my infallible remedy. Give Express and Post Office.  
**H. G. ROOT, M. C., 183 Pearl St. New York.**



The Imported **CLYDE** Stallion  
**"KNIGHT OF HARRIS" 995 (2211)**  
 Will make the season at Prospect Farm, three miles west of Topeka. \$20 to insure. H. W. McAFEE.

**M. W. DUNHAM'S OAKLAWN FARM.**

**3,000 PERCHERON FRENCH COACH HORSES, IMPORTED.**

STOCK ON HAND:  
**300 STALLIONS** of serviceable age.  
**150 COLTS** superior individuals, with choice pedigrees.

**200 IMPORTED BROOD MARES** (80 in foal by brilliant, the most famous living sire).  
**ALL STOCK SOLD FULLY GUARANTEED.**  
 Best Quality. Prices Reasonable.  
 Terms Easy. Don't Buy without inspecting this Greatest and Most Successful Breeding Establishment of America.

Address, for 250-page catalogue, free,  
**M. W. DUNHAM, WAYNE, ILLINOIS.**  
 35 miles west of Chicago on C. & N.-W. Ry. between Turner Junction and Elgin.

**Walnut Grove Stock Farm**



Western Headquarters for **ENGLISH SHIRE** Stallions and Mares and **HEREFORD** Cattle. These animals have been selected with the greatest care by ourselves from the most noted stud-herds, both in England and this country. Any one wishing first-class animals should give us a call.  
 Terms favorable and prices low. Will trade for steers.  
 Farm two and a half miles northeast of town and 100 miles west of Topeka on Santa Fe railroad.  
 Write for particulars to **MAKIN BROS.,** Florence, Marion Co., Kas.

**MORGAN HORSES** Western Headquarters for Stallions of high breeding, and Grade Fillies.  
 Da. A. W. HINMAN, Dundee, Ill.

**SHANNON HILL STOCK FARM.**



**GLICK & DEVIN, Atchison, Kansas,**  
 Breed and have for sale Bates and Bates-topped **SHORT-HORNS.**  
 Waterloo, Kirklevington, Filbert, Cragg, Princess, Gwynne, Lady Jane, and other fashionable families. The grand Bates bulls Imp. 8th Duke of Kirklevington No. 41798 and Waterloo Duke of Shannon Hill No. 89879 at head of herd. Choice young bulls for sale now. Correspondence and inspection of herd solicited, as we have just what you want and at fair prices.  
 Address **LUTHER DEVIN, Manager,** Atchison, Kansas.

**Holstein-Friesian Cattle.**

I have a choice herd of these justly-celebrated cattle of all ages. Also some nice grades, for sale at reasonable prices. Personal inspection invited. Call on or address **JNO. D. PRYOR,** Winfield, Cowley Co., Kas.  
 In writing to advertisers, please mention the **KANSAS FARMER.**

**E. Bennett & Son,**

**TOPEKA, - KANSAS,**  
 The Leading Western Importers of  
**CLYDESDALE, PERCHERON, CLEVELAND BAY**  
 —AND—  
**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.**

**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.

**EVANS-SNIDER-BUEL CO.,**

(INCORPORATED)  
 SUCCESSOR TO HUNTER, EVANS & CO.  
**CAPITAL STOCK, - - - \$200,000.**

**KANSAS CITY STOCK YARDS, KANSAS CITY, MO.** 17 YEARS' ACTIVE EXPERIENCE in Live Stock Commission Business, Market Reports regular and special, and all other information incident to the business, will be furnished FREE by each house.  
 Each Office in charge of a member of the company. **UNION STOCK YARDS, CHICAGO, ILL.** Correspondence always has prompt attention.

**DIRECTORS** { A. G. EVANS, President. M. P. BUEL, Vice President. C. A. SNIDER, Treasurer. A. T. ATWATER, Secretary. F. W. PLATO, JR. IRE T. PRYOR. } **NATIONAL STOCK YARDS, ST. CLAIR CO., ILL.**

**LIVE STOCK COMMISSION MERCHANTS.**

**The Kansas City Stock Yards.**

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 East is due to the location at these yards of eight packing houses, with an aggregate daily capacity of 3,300 cattle and 27,300 hogs, and the regular attendance of sharp, competitive buyers for the packing houses of Omaha, Chicago, St. Louis, Indianapolis, Cincinnati, New York and Boston.  
 All the sixteen roads running into Kansas City have direct connection with the yards, affording the best accommodation 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 there is 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.

**Kansas City Stock Yards Co. Horse and Mule Market.**

**FRANK E. SHORT, FRANK E. SHORT & CO., Managers. CAPT. W. S. TOUGH.**  
 This company has established in connection with the yards an extensive Horse and Mule Market known as the **KANSAS CITY STOCK YARDS COMPANY HORSE AND MULE MARKET.** Have always on hand a large stock of all grades of Horses and Mules, which are bought and sold on commission or in carload lots in connection with the Sales Market are large feed stables and pens, where all stock will receive the best of care. Special attention given to receiving and forwarding. The facilities for handling this kind of stock are unsurpassed at any stable in this country. Consignments are solicited with the guarantee that prompt settlements will be made when stock is sold.  
**C. F. MORSE, General Manager. E. E. RICHARDSON, Treasurer and Secretary. H. P. CHILD, Superintendent.**

**30 HORSES** CHAMPION PRIZE-WINNING STUD OF THE WEST. **70 PRIZES**  
**RIX & GOODENOUGH,**  
 TOPEKA, KANSAS,

IMPORTERS AND BREEDERS OF PERCHERONS, CLYDES, SHIRES AND CLEVELAND BAYS.

GOOD HORSES, LONG TIME, LOW INTEREST, MODERATE PRICES. No other firm in America sells to stock companies under the same perfected system that we do, which insures to companies square dealing, successful breeders and absolute success. Illustrated catalogue free.  
 Farm and Stables—Two miles east of Highland Park, TOPEKA, KANSAS.

**Champion Gold Medal Stud.**

**250 CLEVELAND BAYS AND ENGLISH SHIRES!**

Of the highest breeding and most popular strains We carry a large stock of young, vigorous stallions and mares at all seasons, imported young and matured on our farms, thus fully acclimated, and sure breeders. Prices low and terms easy.  
**150 HOLSTEIN-FRIESIANS** at exceptionally low prices. Grand opportunity to secure foundation stock at low figures. Send for Illustrated Descriptive Pamphlet. Mention this paper  
**GEO. E. BROWN & CO., AURORA, ILL.**

**HANCOCK COUNTY IMPORTING COMPANY, WARSAW, ILLINOIS.**  
 IMPORTERS AND BREEDERS OF

**Percheron and English Shire HORSES.**



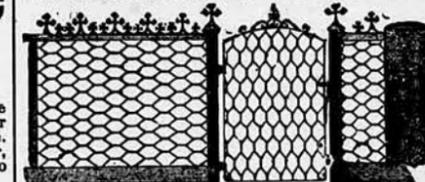
We have a choice collection of Registered horses on hand, from two to five years old, unsurpassed for quality and breeding. Our importation this year numbers thirty head, making in all fifty head, which we now offer to the trade. We have a large lot of two and three-year-old stallions, imported last year, which are now fully acclimated. Customers will find it to their interest to call and examine our stock before purchasing. Prices low. Terms to suit.  
**WARSAW** is four miles south of Keokuk and forty miles south of Burlington, Iowa.

**IMPORTERS AND BREEDERS OF ENGLISH SHIRE AND SUFFOLK PUNCH HORSES**



**RED POLLED CATTLE.**  
 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, terms easy, and horses recorded in respective stud books and guaranteed.  
**SEXTON, WARREN & OFFORD, Maple Hill, Kansas.**

**SEDGWICK STEEL WIRE FENCE**



Best Fences and Gates for all purposes. Free Catalogue giving full particulars and prices. Ask Hardware Dealers, or address, mentioning this paper, **SEDGWICK BROS. Richmond, Ind.**

**- CANCER! -**

The only institution in the world where Cancers and Malignant Tumors are permanently removed without using knife, ligature or caustics, and in all cases a permanent Cure is Guaranteed. Consultation free. Call or address **KOEHLER CANCER HOSPITAL CO.,** 1490 Grand Ave., Kansas City, Mo.

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

**SECRETS OF LIFE FREE.**

A Private Adviser for those contemplating marriage and for men suffering from Private, Nervous or Chronic Diseases. Send 6c. for sealed copy. Consult the old Doctor confidentially.  
**L. R. WILLIAMS, M. D.,** 68 Randolph St., Chicago.

**RUPTURE--RUPTURE**

A new and sure method for the relief and cure of rupture. Every case guaranteed. Recommended by leading physicians and hundreds of patients from all parts of the Union as far superior to all other methods of treatment. Patient is made comfortable and strengthened for work at once, and an early and permanent cure assured. No operation, pain or hindrance. Send 10 cents in stamps for 64-page pamphlet on Rupture and its Treatment, with numerous statements from physicians and patients.  
**DR. D. L. SNEDIKER,** 511 Commercial St., Emporia, Kas.

**FAT FOLKS**  
 using "Anti-Constipation Pills" lose 15 lbs. a month. They cause no sickness, contain no poison and never fail. Particulars (sealed) 6c. Wilcox Specific Co., Philadelphia, Pa.

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 complete description of said strays, the day on which they were taken up, their appraisement, 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.

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 an stray, must immediately advertise the same by posting three written notices in as many places in the township giving a correct description of each 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 appraisement.

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 2, 1889.

Coffey county—H. B. Cheney, clerk.

HORSE—Taken up by Sarah A. Moyer, in Pleasant tp., one sorrel horse, blaze face, brand on left shoulder, black spot on left hip, left hind foot white; valued at \$25.

Johnson county—W. M. Adams, clerk.

MARE—Taken up by D. B. Johnson, in Shawnee tp., April 16, 1889, one bay mare, 14½ hands high, star in forehead, both hind feet white, shod all around; valued at \$25.

FOR WEEK ENDING MAY 9, 1889.

Phillips county—S. J. Hartman, clerk.

PONY—Taken up by J. M. Henry, P. O. Rushville, April 6, 1889, one dark bay mare pony, 13 hands high, brand on left hip; valued at \$25.

Cherokee county—J. C. Atkinson, clerk.

MARE—Taken up by O. R. Harris, in Garden tp., P. O. Lowell, April 27, 1889, one light bay mare about 3 years old, 13½ hands high, no marks or brands.

Finney county—O. V. Folsom, clerk.

PONY—Taken up by J. C. Fugate, in Garden City tp., April 24, 1889, one black pony mare, 4 feet 10 inches high, a barred Spanish brand low on left shoulder; valued at \$20.

Brown county—N. E. Chapman, clerk.

COLT—Taken up by John A. Simmons, in Walnut tp., April 13, 1889, one iron-gray horse colt, 2 years old, three white feet and white strip in face, branded B on one shoulder; valued at \$20.

Osborne county—I. Grecian, clerk.

2 MARES—Taken up by A. H. Cooper, in Natoma tp., P. O. Tapley, April 7, 1889, two mares, supposed to be 3 years old, one black and the other bay; valued at \$75.

Wichita county—H. H. Platt, clerk.

PONY—Taken up by O. F. Rowland, in Edwards tp., P. O. Coronado, February 13, 1889, one bay-rosan pony, white stripe in face, no marks or brands.

FOR WEEK ENDING MAY 16, 1889.

Greenwood county—J. W. Kenner, clerk.

PONY—Taken up by J. S. Masters, in Madison tp., May 3, 1889, one dun mare pony, white face, Mexican brand on left shoulder, X on right thigh and X on left hip; valued at \$25.

Sherman county—O. H. Smith, clerk.

MARE—Taken up by J. E. Erwin, in Iowata tp., April 11, 1889, one brown mare, 10 years old, left fore foot white, star in face, branded N on left shoulder.

COLT—Taken up by same, one bay mare colt, 1 year old, four white feet, star in forehead; value of both, \$40.

Shawnee county—D. N. Burdge, clerk.

HORSE—Taken up by A. M. Casperson, P. O. Tecumseh, April 27, 1889, one dark bay horse, 6 or 7 years old, five feet high, right fore and left hind foot

white, white star in forehead, white spot on left eye, black mane and tail, slightly lame; valued at \$25.

Thomas county—James M. Summers, clerk.

MULE—Taken up by C. F. Hanscom, in Hale tp., April 16, 1889, one brown mule, fourteen hands high, small saddle mark on back; valued at \$30.

Montgomery county—G. W. Fulmer, clerk.

MARE—Taken up by John Blake, in Caney tp., May 1, 1889, one sorrel mare, 6 years old, white left hind foot, small ring on left shoulder, had a bell on when taken up; valued at \$18.

Too Late to Classify.

WANTED—All those farmer boys who are thinking of attending a business college this fall, to know that we will deduct your rail road fare both ways to and from Topeka to any distance not exceeding 150 miles, from the cost of the fall scholarship if you go to our school. All the finest educators and best business men say we keep the best school for a business education in the State. Pond's Business College, Topeka, Kas.

BEES, HIVES, ETC., PLYMOUTH ROCK EGGS, very cheap. St. Joseph Apiary, St. Joseph, Mo.

LOUISVILLE, New Orleans & Texas RAILWAY. (MISSISSIPPI VALLEY ROUTE.)

The Popular Line BETWEEN MEMPHIS, GREENVILLE, VICKSBURG, BATON ROUGE, and NEW ORLEANS,

TRAVERSING A MAGNIFICENT AND EVEN PICTURESQUE COUNTRY. THE Rice and Sugar Plantations and great massive Sugar Houses and Refineries south of Baton Rouge are especially interesting, and never fail to please the observant passenger.

BETWEEN Memphis and Vicksburg the line passes through some of the finest Cotton Plantations in the Yazoo-Mississippi Delta, the most fertile section of agricultural country on earth.

THE EQUIPMENT and Physical Condition of the Line are first-class in every particular, permitting a high rate of speed and insuring the comfort and safety of passengers.

TOURIST TICKETS

At reduced Round-Trip Rates are on sale at Ticket Offices of connecting lines to Baton Rouge, New Orleans and principal points in Florida.

MAGNIFICENT PULLMAN BUFFET SLEEPING CARS BETWEEN NEW ORLEANS AND MEMPHIS WITHOUT CHANGE.

Passengers should purchase Tickets via this Line. It is emphatically the Most Attractive Route in the South to-day.

For Time Tables, Map Folders, and Price of tickets, address R. B. MAURY, Jr., Gen'l Trav. Pass'r Agt., Memphis, Tenn.

or, P. R. ROGERS, Ass't Gen. Pass'r Agt. Gen'l Pass'r Agent. J. M. EDWARDS, Vice Pres't and Gen'l Man'gr, Memphis, Tenn.

FAVORITE ROUTE EAST.

The Ohio & Mississippi Railway and its connections offer the only direct through Sleeping Car Route from St. Louis to Washington, D. C., having both a morning and evening fast train service, and running Pullman Buffet Sleeping Cars through without change.

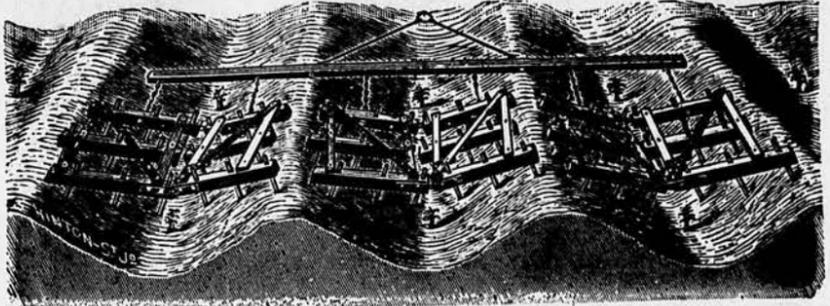
The only direct through car line to Baltimore, Philadelphia and New York via Washington. Train leaving St. Louis, Union Depot, at 8:00 a. m. daily, has Pullman Parlor Cars to Cincinnati; connects direct in Union Depot with Through Pullman Buffet Sleeping Car Lines of the Baltimore & Ohio Railroad for Washington, Baltimore, etc.

This train also connects in Union Depot, Cincinnati, with Express Train on the Chesapeake and Ohio Route, carrying Through Sleeper for Washington. Train leaving St. Louis, Union Depot, at 8:55 p. m. daily, has Through Pullman Buffet Sleeping Cars from St. Louis via Cincinnati and the Baltimore & Ohio Railroad to Washington and Baltimore. At Baltimore, Pullman Parlor Cars are attached to both trains from St. Louis, which then run solid through to New York.

Our agents in St. Louis are prepared to furnish locations in Palace Cars through to New York City, and will take pleasure in reserving the same upon application.

Call on agents of connecting lines west, or the following named representatives of this Company, for additional information concerning the route: A. J. LYTLE, General Western Passenger Agent, 101 and 103 N. Fourth St., St. Louis, Mo.

A. C. GOODRICH, Western Passenger Agent, P. O. Box 264, Kansas City, Mo. J. W. MOORE, Passenger Agent, P. O. Box 556, St. Joseph, Mo.



The Perfect Lister Harrow.

A common-sense all-purpose implement. Ask your dealer for it. Prices on application. Manufactured by A. B. CLIPPINGER & BRO., Centralia, Kansas.



AN ENTIRELY NEW DEVICE.

An Automatic or Self-Regulating Stock Waterer. Can be attached to barrel, tank or pond. Keeps on hand a constant and regular supply of water. One tank or trough especially for hogs. For detailed description send for circular. Correspondence solicited. Agents wanted. Territory for sale. Manufactured by PERRY & HART, P. O. Box 391, Abilene, Kansas.

IT CAN BE DONE! Butter and Cheese Factories

Built, furnished, equipped and put in operation on easy terms in any town in the United States by giving

Davis & Rankin

Sixty days' notice. Work completed and in operation before a dollar is asked. Experienced men furnished with each factory to operate all machinery. OVER 2,000 NOW IN OPERATION. Cost of complete factories range from \$2,000 to \$8,000, according to the style of building and grade of machinery. Controllers of new patent machineries. Also, old styles at a very low price. 240 to 254 WEST LAKE ST., CHICAGO, ILL.

EVERY FARMER

Who is obliged to borrow, should do so on the best possible terms. Write direct to the lender and save Agent's Commissions. Money always ready when papers are signed. NO DELAYS! NO EXTRAS!

Russell & Metcalf, Lawrence, Kas.

WEED-CUTTERS, TO ATTACH TO CULTIVATORS, FOR thorough cleaning and surface cultivation. No Cultivator complete without SET OF FOUR, \$5.00, or free on conditions. You want them. Write for circular. G. HAUSCHILD, BOX 406, TOPEKA, KAS.

UNION PACIFIC THE OVERLAND ROUTE Tickets ON SALE TO ALL PRINCIPAL POINTS EAST, WEST, NORTH and SOUTH —AT— TOPEKA, KANSAS. J. F. GWIN, Depot Agent. F. A. LEWIS, City Ticket Agent, 525 Kansas Avenue.

BINDER TWINE Best Qualities —AT— LOWEST MARKET PRICES! HAY CAPS —AND— Stack Covers. COVERS FOR Harvesting Machines. GEO. B. CARPENTER & CO., 208 SOUTH WATER STREET, CHICAGO.

JUDICIOUS AND PERSISTENT Advertising has always proven successful. Before placing any Newspaper Advertising consult LORD & THOMAS, ADVERTISING AGENTS, 46 to 48 Randolph Street, CHICAGO.

SALESMEN We wish a few men to sell our goods by sample to the wholesale and retail trade. Largest manufacture in our line. Enclose 2-cent stamp. Wages \$3 Per Day. Permanent position. No postals answered. Money advanced for wages, advertising, etc. Centennial Manufacturing Co., Cincinnati, Ohio. LADIES' Best, prompt, efficient. Try the original and only genuine Woman's Solution. One and seven testimonies, 2 steps. Price by mail, \$1.00. Warranted. Dr. CATZ, Box 686, BOSTON, MASS.

### WELL DRILLS

FOR ALL PURPOSES.



Send 20 cts. for mailing catalogues with full particulars.

F. C. Austin Mfg. Co  
Carpenter St. and Carroll Ave., Chicago, Ill.

### 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.

### THE ROSS

Celebrated ENSILAGE AND Fodder Cutters



Send for our Illustrated Catalogue and Treatise on Ensilage and Silos. E. W. ROSS & CO., SPRINGFIELD, O., OR THE KEYSTONE IMP. CO., General Southwestern Agents, KANSAS, MO.

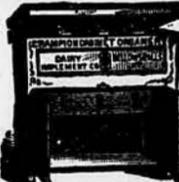
### Well Drills

FOR EVERY PURPOSE SOLD ON TRIAL.



Investment small, profits large. Send 20c. for mailing large Illustrated Catalogue with full particulars. Manufactured by GOULDS & AUSTIN, 167 & 169 LAKE ST. CHICAGO, ILLINOIS.

### Champion Creamery



FOR CONVENIENCE OF handling Milk and Cream with best results, leads the van. Has double skimming attachment. Drawing milk or cream first as desired. No fear of sediment. Butter made from it was awarded the GOLD Medal at Indiana State Fair, 1888, and St. Louis (Mo.) Fair, '88. It has taken the FIRST PREMIUM at nearly every State Fair where exhibited. WE FURNISH EVERYTHING USED IN BUTTER FACTORIES OR DAIRIES. Send for illustrated circulars. Agents wanted in every county and town. DAIRY IMPLEMENT CO., Bellows Falls, Vt.

### DECATUR TANK HEATER

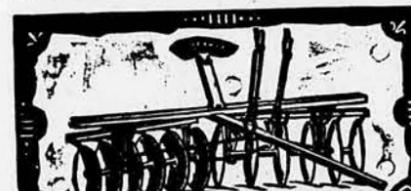
A successful device for application to stock tanks. Prevents formation of ice; heats water to temperature healthful for cattle; requires little fuel and attention; applied or removed without cutting or otherwise detaching tank. Saves its price within a short period of use. Its merits alone commend it. Live Agents wanted for unassigned territory.

### HAY PRESSES!

The Eclipse Double-Acting Continuous Press SIMPLE—STRONG—DURABLE.

The best for either Hay or Straw. We cheerfully mail to applicants complete descriptive circulars of above goods.

FAIRBANKS, MORSE & CO., Lake and La Salle Streets, CHICAGO.



### KEYSTONE DISC HARROW

Anti-friction Ball Bearings. Make less Draft. Double Levers. Move Disc Gangs independently. Disc Gangs Flexible. Seeder Attachment a Great Success. ADDRESS: KEYSTONE MFG CO. STERLING, ILL.

### FRUIT EVAPORATOR

THE ZIMMERMAN THE Standard Machine. Different sizes and prices. Illustrated Catalogue free. THE ZIMMERMAN MACHINE CO. Cincinnati, O.

### THE COOLEY CREAMER

The first invented, never yet equalled, and the only one that uses the patented submerged process. Which gives it its great value over all others. Where there are no agents will sell one at wholesale price. Send for circular. JOHN BOYD, Mfr., 199 Lake Street, CHICAGO. Please mention this paper.



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. ALWAYS BUY THE BEST. Good AGENTS WANTED. CHALLENGE WIND MILL & FEED MILL CO., BATAVIA, KANE CO., ILL.

### The Perkins Windmill.



PERKINS WINDMILL & AX CO. NISHAWAKA, IND.

### The Best is the Cheapest.



### COMPRESSED AIR, WIND MILL AND POWER PUMPS.

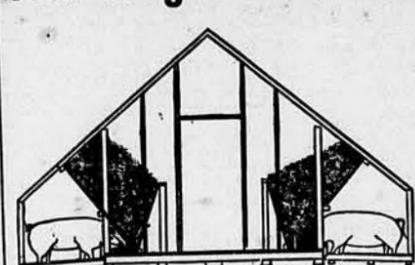
Simplest and Best Method for Raising Water to any Height. Runs in the lightest winds. Works in the heaviest gales. Does not get out of order. Noiseless in operation. Needs no oiling or other attention oftener than four times a year. No wearing parts exposed to the weather. No tower required, as Wind Mill can be located in the best exposure (on barn or hill) at any distance from water supply. Pumps five times more water than any other wind mills. Adapted to any size well. Recommended by distinguished engineers. The strongest and best pump made for farms, mines, railway service, drainage and irrigation. Send for catalogue. Hartford Compressed Air Pump Co., Bound Brook, N. J.

### DUTTON GRINDER



PERFECT MOWING MACHINE KNIFE GRINDER. Can be carried into the field and attached to Mowing Machine Wheel. New Descriptive Catalogue Free. HIGGANUM MANUF'G. CORPORATION, Successors to R. H. ALLEN & CO., 189 Water St., N. Y. Main Office, HIGGANUM, CONNECTICUT.

### The Hog Sanitarium



[Patented Oct. 9, 1888, by a practical feeder.] For Saving Feed and Work and Protecting Hogs from Disease.

A Granary and Automatic Feeder Combined, to be erected in the Feed Yard. Will store 900 bushels of corn; feed 150 head of hogs. Any farmer can build it. For feeding laxative and nitrogenous food, such as Bran, Ground Rye, Ground Oil Cake, Shorts, etc., with Corn, shelled or ground, dry, and without waste; also for feeding salt at all times, thoroughly mixed through the feed. Warranted, when properly used, to save at least 20 per cent. of the feed as usually fed. Not by the direct saving alone, but mostly by reason of increased thrift and rapid and even fattening. Will require for construction about 2,000 feet of lumber and 8,000 shingles for feeder of regulation size. Can be built of less capacity and added to at any time to suit the farmer's needs.

The use of this feeder with a proper supply of nitrogenous and laxative food with corn, will in two weeks' time place the most unthrifty hogs in good condition, if not already infected with cholera. It is the greatest safeguard against cholera. Sanitarium hogs eat regularly and often; never overeat. No mud or filth to consume; all work and waste practically dispensed with. The use of shelled corn or meal in the Sanitarium is not half the trouble it is to feed ear corn. Keeps the yard free from litter; gives all hogs in the yard the same chance to thrive, all having equal access to feeder. When you see your corn trampled in the mud and filth you feel like kicking yourself. When you witness hogs eating from the Sanitarium in a muddy time you smile; so do the hogs. You do not hesitate to provide for the comfort of other farm animals; why neglect the hog? He brings a quicker and better return for money invested than any other animal. Protect his health and feed him properly and he will be more remunerative to you. I furnish Permit with full instructions about building and operating Sanitarium on one quarter section or less tract of land, for \$10.00. To introduce it, I will furnish same to first applicant in a township for 25 cents (in stamps), which merely covers cost of papers, etc., and require building to be erected within sixty days from date of permit. Application can be made direct to me by mail, and in all cases must be accompanied with description of land on which you wish to build (section, town, range and quarter). Above special proposition will be withdrawn July 1, 1889. Agents with good references wanted in every county—stockmen preferred. Circulars on application. Any party building the Sanitarium, or adopting or using any feature or plan of its construction without first obtaining a Permit or Farm Right, will be subject to prosecution for infringement, and will be proceeded against accordingly.

E. M. CRUMMER, Patentee and Owner, BELLEVILLE, KAS.

### TEXAS TEXAS TEXAS

We have elegant FARMING LANDS close to markets; close to churches and schools. Rich soil and good water. At from \$4 to \$8 per acre. Small cash payment; long time on balance, 8 per cent interest. Adjoining land made last year 25 bushels of wheat to the acre. Bargains for colonists. Situated along the Ft. Worth & Denver Railroad in Northwest Texas. Address MEADE & BOMAR, Ft. Worth, Texas.

SAFE INVESTMENT FARRAND & VOTEY ORGANS DETROIT MICH

LIFE AND ENDOWMENT POLICIES are purchased by RHODES & CO., Enclose stamp with full particulars. Auburn, N. Y.

CLARK'S CUTAWAY HARROW ENTIRELY NEW. 10,000 in ACTUAL USE. SUPERSEDES THE PLOW! BEATS THE WORLD! GROUND MADE INTO A PERFECT SEED BED. Has a SEEDING ATTACHMENT for SOWING ALL KINDS OF GRAIN. Send for New Circular with full description, FREE. HIGGANUM MFG. CO. HIGGANUM, CONN. 189 and 191 Water Street, NEW YORK.

BUGKEYE HAY RAKES No RATCHETS or COG WHEELS to Get out of Order PRACTICALLY A Self-Dump Rake HIGH WHEELS with Tires bolted on. TEETH are long and adjustable. Made of Crucible Steel with Oil Temper. Has a Lock Lever and Swinging Cleaner-Bar. We make both the COIL and DROP TOOTH. We also manufacture Buckeye Grain Drills, Buckeye Cider Mills, Buckeye Riding and Walking Cultivators, Buckeye Seeders, Lubin Pulverizer and Clod Crushers. Branch Houses: Philadelphia, Pa.; Peoria, Ill.; St. Paul, Minn.; Kansas City Mo.; and San Francisco, Cal. Send for Circular to either of the above firms or to P. P. MAST & CO., Springfield, O. NOT EXCELLED BY ANY RAKE IN THE MARKET.

Say Mister give me a plug of JOLLY TAR PLUG TOBACCO. No MONKEYING



but give me the genuine JOLLY TAR PLUG I've chewed it and when I find a good thing I hang on to it. JOLLY TAR CAN'T be beat.

FULL LEATHER TOP. DIRECT TO CONSUMER SAVING 25 TO 30. \$85. PIONEER BUGGY COLUMBUS

TWO-CENT COLUMN.

"For Sale," "Wanted," "For Exchange," and small advertisements for short time, will be charged two cents per word for each insertion.

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.

SWEET POTATO PLANTS.—Now ready. Carefully packed to go any distance. Correspondence solicited. Address B. R. Wescot, Eureka, Kas.

SWEET POTATO PLANTS.—All of the leading varieties at bed-rock prices. Rates given on application. S. Cox, Box 64, Lawrence, Kas.

SWEET POTATO, CABBAGE & TOMATO PLANTS.—at \$1.50 per 1,000. Transplanted tomato and peppers at \$2 per 1,000. S. S. Mountz, Belle Plaine, Kas.

HOLSTEIN BULL CALVES AT LOW PRICES. If taken soon. Echo, Aegle, Aaggie and Netherland families. M. S. Babcock, Nortonville, Kas.

FOR SALE.—Eggs of W. F. B. Spanish, \$2.50 per setting; P. Rocks, \$1; Pekin ducks, \$2. Each seventh order free. Eggs after May 1 half price. Mrs. Viola W. Griblin, Virgil, Kas.

RED CEDARS A SPECIALTY. G. W. Tischer, Topeka, Kas.

SHORT-HORNS.—For sale cheap, a number of choice thoroughbred bulls, cows and heifers. Address or call on W. W. Waimire, Carbondale, Kas.

PURE PEKIN DUCK EGGS.—Seventy-five cents per thousand. Would like to exchange for pure Plymouth Rock and Bronze turkey eggs. Mrs. Vina Beeson, Fall River, Kas.

SEED CORN. J. G. PEPPARD, 1220 Union Ave., KANSAS CITY, MO.

SHORT-HORNS AND JERSEYS.—Males and females, of any age, for sale by John T. Voss, Girard, Kas.

POULTRYMEN!—The Fancier's Review, Box K, Chatham, N. Y., a 16-page poultry journal, 25 cents year. Three sample numbers 10 cents.

WATER GRIST MILL.—Dwelling and ten acres of land to lease or trade for Kansas property. B. N. Turk, Holton, Kas.

FOR SALE.—A few colonies of pure Italian bees at \$5.50 each, and a few colonies of Carabolan and Italian mixed at \$5.50 each. J. B. Kline's Apiary, Topeka, Kas.

WYANDOTTE EGGS.—F. J. Ewell, Bird Nest, Kas.

PLANTS! PLANTS!—Cabbage and tomato plants, from open ground, now ready, \$1.50 per 1,000; celery plants, sweet potato plants, \$2 per 1,000; egg plants, potted, \$2 per 100; pepper plants, \$1 per 100; sage plants, \$1 per 100; tobacco, \$2 per 1,000 by express; celeriac, \$3 per 100; geraniums, \$5 per 100; moonflowers, strong, 10 to 15 cents each, \$1 per 10; cactus, 10 cents each; 20 cactus, \$1; 15 geraniums, \$1; 20 assorted flowering plants, \$1. Plants by mail. Bonner Springs Nurseries, Bonner Springs, Kas.

WANTED.—To buy a thoroughbred bull, Short-horn preferred, 1 to 2 years old. E. E. Lawrence, County Clerk, Jetmore, Hodgeman Co., Kas.

2,000,000 SWEET POTATO PLANTS. All kinds. Prices on application. F. Barteldes & Co., Lawrence, Kas.

FRESH SOFT MAPLE AND ELM SEED.—Prices on application. F. Barteldes & Co., Lawrence, Kas.

WANTED.—Gentle horse for light work two months for keeping. Good care. Address "F," KANSAS FARMER'S office.

SWEET POTATO PLANTS. All leading varieties, from choice, select stock. Per 1,000, \$3; in 5,000 lots, \$1.75 per 1,000; 10,000 lots, \$1.50 per 1,000; 20,000 lots, \$1.25 per 1,000. C. F. PRIMM BROS., Augusta, Kas.

EXTRA EARLY SEED CORN.—Orders filled at once at prices given in this column March 7, until further notice. W. I. F. Horden, Seedsman, Box 1, Hartford, Kas.

WANTED.—To exchange, some beautiful building lots in Breatwood addition, just west of city, on street car line, with all kinds of bearing fruits for immediate family use, for some good rich, clear Kansas land, unimproved, in Pawnee county preferred, but will consider offer from any locality. No agent's commission. Write direct to me, giving numbers, description and real valuations. M. A. Pond, Topeka, Kas.

SEED CORN.—Do you want seed corn that will mature before the hot winds? Address Trumbull, Reynolds & Allen, Kansas City, Mo.

WANTED.—To negotiate with parties interested in starting a cheese factory or separator creamery. Have some means and fourteen years experience as butter and cheese-maker. Address J. L. Abless, 1026 New Jersey St., Lawrence, Kas.

SEED-SOWERS.—FOR HAND OR POWER seed-sowers, address Trumbull, Reynolds & Allen, Kansas City, Mo.

GARDEN TOOLS.—A full line of Planet Jr. hand and horse tools. Send for pamphlet. Trumbull, Reynolds & Allen, Kansas City, Mo.

Am always in the market to buy or sell J. G. PEPPARD, 1220 Union Ave., Kansas City, Mo.

WE ARE HEADQUARTERS.—For Clovers, Millet, Grass Seeds, Kaffir Corn, Sorghum Seed and EVERYTHING IN SEED LINE. Send for catalogue. Trumbull, Reynolds & Allen, Kansas City, Mo.

2,000,000 HEDGE PLANTS.—125,000 two and three-year-old apples, 500,000 Russian mulberries, catalpas, etc. A full line of nursery stock. Babcock & Stone, North Topeka.

TREES. Deciduous and Evergreen, for Ornament, Hedges, Screens and Timber. Large variety, lowest prices. TREE SEEDS. Nearly 100 varieties. Fresh, sound and cheap. Catalogues free. GEO. PINNEY, Evergreen, Door Co., Wis.

BLAKE'S TABLES

WEATHER PREDICTIONS FOR 1889.

According to Mathematical Calculations, based on Astronomical Laws, is ready for mailing.

Price 50 cents per copy, or three copies for \$1.00.

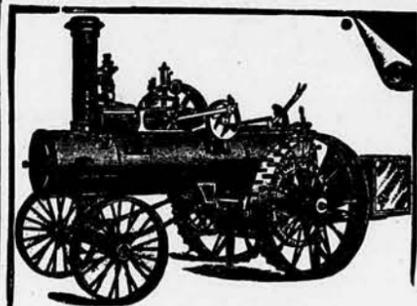
These tables give the maximum, minimum and mean temperature, in degrees Fahrenheit, for each month in the year, for most of the Northern States and part of the Southern States, each State being calculated separately. The amount of rainfall has been calculated for each State, most of the Territories, and for Quebec, Ontario and Manitoba, for each month in the year, and the results stated in inches; and most of the large States have been subdivided into from two to six parts. General predictions are also given for England and Europe. The predicted degrees of temperature and inches of rainfall will prove to be so nearly correct that they will clearly indicate which parts of the country will be the warmest and which the coldest, which the wettest and which the driest for each month. We have compiled all the records for the past fifty years, and show in inches what the average rainfall has been in each of said subdivisions. Also what the normal temperature has been. We have also calculated the weather for all civilized countries, to know what the crops will be in all parts of the world, from which we have inserted a table showing what the probable price will be in Chicago for wheat, corn, oats and cotton for each month in 1889.

The best evidence of the correctness of these predictions is our past record, which shows a verification of 88 per cent, for the past fourteen years; and the constantly increasing demand from all parts of the civilized world for our weather predictions. The floods, drouths and temperatures for 1889 will be at greater extremes than anything which has occurred since 1816.

For two new yearly subscriptions to the KANSAS FARMER, I will send the above book as a premium. Address C. C. BLAKE, Topeka, Kansas.

HAAFF'S HORN-KILLER.

TRADE MARK. "THE HORNS MUST GO." The only sure thing to step the embryo horn on the calf. "The Great Dehorner" gives you one-fourth more of a better horn preventive than any one else for one fourth less of your money. No one can compete with "Haaff's Horn-Killer." Price 75 cents per bottle; enough for more than 60 calves. Full directions with each bottle. Special rates to one agent for each town or county for "Haaff's Horn-Killer," "Haaff's Dehorning Tools," "Haaff's Sure Spavin Cure." Address H. H. HAAFF, Box 193, Chicago, Ill.



ADVANCE THRESHERS AND ENGINES

Manufactured by the ADVANCE THRESHER CO., Factory and Main office, Battle Creek, Mich. Write for full information to the factory, or to KANSAS CITY, MO.



FEARLESS

This Threshing-machine received the highest award of any at the Centennial Exhibition; the two last Gold Medals given by the New York State Agricultural Society; and has been selected from all others, and illustrated and described in that great work "Appleton's Encyclopedia of Applied Mechanics." Catalogue sent free. Address, MINARD HARDER, Cobleskill, Schoharie Co., N. Y. Also straw-preserving Rye-threshers, Clover-hulers, Fodder-cutters, Feed-mills, Fanning-mills and Saw-machines; all of the best in market. The Fearless Horse-powers are the most economical and best Powers built for the running of Enalage-cutters and Cotton-gins, and for general farm and plantation use.

SEEDS

J. C. PEPPARD, 1220 UNION AVENUE, (One block from Union Depot) KANSAS CITY, MO. MILLET A SPECIALTY. Red, White, Alfalfa & Alype Clovers. Timothy, Blue Grass, Orchard Grass, Red Top, Onion Seeds, Tree Seeds, Cane Seed, Etc.

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.

W. B. WILHELM & CO., WOOL Commission Merchants.

All goods sold on day of arrival, unless otherwise instructed. Account sales and checks mailed promptly.

WOOL HIDES, FURS, SHEEP PELTS, ETC. CONSIGNMENTS SOLICITED. W. B. WILHELM & CO., Formerly HAGEY & WILHELM, Wool Commission Merchants. 4 and 6 North Commercial St., ST. LOUIS, MO. References:—Boatmen's Saving Bank, Dunn's Mercantile Agency, Bradstreet's Mercantile Agency.

H. GIVEN HAGEY, FOUNT P. HAGEY, FOREST HAGEY, BEN M. HAGEY, TROS. J. HAGEY, LEWIS W. HAGEY.

HAGEY BROTHERS, Successors to HAGEY & WILHELM,

WOOL Commission Merchants, 220 N. Commercial St., ST. LOUIS, MO. General Agents for Cooper's Sheep Dip. References:—Boatmen's Bank, DUNN'S Mercantile Agency, Bradstreet's Mercantile Agency. Full returns guaranteed inside of six days.

WOOL! WESTERN WOOL COMMISSION CO. ST. LOUIS, MO.

Consignments of Wool Solicited. Cash returns made within six days after receipt of wool. Liberal Advances made on Consignments. References:—Dunn's and Bradstreet's Agencies and Local Banks. Send for Circular and Price Current.

Webster Dehorning Chute.



The best device in the world for the purpose of catching and holding cattle to dehorn. Warranted to give entire satisfaction. Agents wanted in every county not occupied—experienced Dehorners preferred.

If you want Dehorning by as good a hand as the best, done the easiest possible way. SATISFACTION OR NO CHARGE, write to E. P. C. Webster, Marysville Kansas. Write for Illustrated Circular. [Always mention the KANSAS FARMER when writing.] E. P. C. WEBSTER, Marysville, Kansas.

Public Sale of Jersey Cattle!

LINCOLN, NEBRASKA, MAY 22, 1889. 35--COWS AND HEIFERS--35

Just in milk or soon to be so. Breeding bulls, and calves of both sexes. Thirty per cent of the above are registered in the A. J. C. C. The balance are unregistered but THOROUGH BRED with several grades. All are rich in the blood of the best outter families, to-wit: the Roters, Champion of America, LeBrocq's Prize, Duke 76 and Stoke Fogis 3d. We would modestly intimate to those in any way interested in this breed of cattle that we believe this to be the largest and best collection of Jerseys ever offered at public sale in the West, and are without an exception splendid individuals in every particular. TERMS—Cash, or 2001 bankable paper; three, six and eight months time at 10 per cent. For particulars and catalogue address

F. M. WOODS, Auctioneer. ORVILLE COMPTON, BENNETT, NEB.

Important Auction Sale!

FIFTY HOLSTEIN-FRIESIAN CATTLE, Tuesday, May 21, 1889, AT THE CHECKERED BARN, LINCOLN, NEBRASKA.

At which time and place I will offer at positive sale, without reserve, to the highest bidder, about fifty head of Holstein-Friesian Cattle, fifteen of which are bulls, balance cows and heifers. The majority of the cows are giving a good flow of milk. About one-third of the offering are high-grades, from three-quarters to thirty-one thirty-seconds, just the kind for good dairy cows for those who desire large milkers without paying the price of registered stock for them. These cattle will be sold on the usual terms, but where the cash is not paid a good bankable note will be required. Catalogues on application.

MARTIN P. VAN OSTERHOUT, COL. F. M. WOODS, Auctioneer. ORANGE CITY, IOWA.