

KANSAS FARMER

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TEEN TO TWENTY
GES—\$1.00 A YEAR.

TABLE OF CONTENTS.

PAGE 2—THE STOCK INTEREST.—Facts Worth Considering. Pasturing the Hogs. Two Ways to Look at Sheep. The World's Wool Product. About Our Cattle Industry. About the Boar. Working Farm Horses.

PAGE 3—AGRICULTURAL MATTERS.—Farmers' National Congress. How to Grow Corn. Farmers and Farming in Osborne County.

PAGE 4—IRRIGATION.—Vitrified Earthen Pipes Under Pressure. Certainty vs. Uncertainty.

PAGE 5—FAMILY DOCTOR.—Surgical Emergencies. Answers to Correspondents.... Gossip About Stock.

PAGE 6—THE HOME CIRCLE.—Days of Evil (poem). A Note of Grant's on His Own Illness and Death. Didn't Want It. The Art of Living Simply. Uses of Denims. Kansas Christian Endeavor.

PAGE 7—THE YOUNG FOLKS.—Long Ago (poem). Young Folks' Trip South. Could You Buy Nails This Way? A Cheap Town.

PAGE 8—EDITORIAL.—The Commonwealth at Topeka. Waiting for "Suckers." Serious Suggestions. A Home Insurance Enterprise. Cheap and Good. Moisture and the Soil.

PAGE 9—EDITORIAL.—About Tuberculosis. Weekly Weather-Crop Bulletin. From Stafford County. Publishers' Paragraphs. Horse Markets Reviewed.

PAGE 10—HORTICULTURE.—June Budding of the Peach. Pear Blight. Spraying. Cheap Fence Posts. Peaches and Potash.

PAGE 11—IN THE DAIRY.—Asked and Answered. Something Needed in America. Flavor in Butter.... THE POULTRY YARD.—Natural vs. Artificial Incubation.

PAGE 12—THE APIARY.—Swarming.

PAGE 13—THE VETERINARIAN.... Market Reports.

BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeder's Directory for \$15 per year or \$8.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

HORSES.

PROSPECT STOCK FARM.—Registered, imported and high-grade Clydesdale stallions and mares for sale cheap. Terms to suit purchaser. Thoroughbred Short-horn cattle for sale. Two miles west of Topeka, Sixth street road. H. W. McAfee, Topeka, Kas.

CATTLE.

VALLEY GROVE HERD OF SHORT-HORNS.—For sale, choice young bulls and heifers at reasonable prices. Call on or address Thos. P. Babst, Dover, Kas.

ENGLISH RED POLLED CATTLE AND COTS-wold Sheep.—Young stock for sale, pure-bloods and grades. Your orders solicited. Address L. K. Haseltine, Dorchester, Green Co., Mo.

NEOSHO VALLEY HERD OF SHORT-HORNS.—Imported Buccaneer at head. Registered bulls, heifers and cows at bed-rock prices. D. P. Norton, Council Grove, Kas.

HOLSTEIN-FRIESIANS.—From this herd were furnished some of the winners at the World's Fair. Write for catalogue. M. E. Moore, Cameron, Mo.

H. W. CHENEY, North Topeka, Kas., breeder of HOLSTEIN-FRIESIAN CATTLE. Farm four miles north of town.

CATTLE AND SWINE.

M. H. ALBERTY, Cherokee, Kas., Registered Holstein-Friesian cattle, Poland-China and Duroc-Jersey swine, Rose-comb Brown Leghorns. Stock of all ages and both sexes for sale. Orders booked now for pigs and eggs.

CHOICE Poland-Chinas J. H. TAYLOR, Pearl, Short-horns, Kas.

MIDLAND STOCK FARM.—F. M. Owens, Melvern, Kas., breeder of Galloway and Holstein cattle, Poland-China swine and thoroughbred poultry. Best of strains. Come, send or write.

HEREFORD CATTLE.—Archibald 1st 39258 and L. Cheerful Anxiety 42936 service bulls. One car bulls and one car heifers for sale. Leading families. Also Poland-Chinas. J. F. Waters, Savannah, Mo.

ASHLAND STOCK FARM HERD OF THOR-oughbred Poland-China hogs, Short-horn cattle and Plymouth Rock chickens. Boars in service, Admiral Chip No. 7919 and Abbottsford No. 28351, full brother to second-prize yearling at World's Fair. Individual merit and gilt-edged pedigree my motto. Inspection of herd and correspondence solicited. M. C. Vansell, Muscotah, Atchison Co., Kas.

SWINE.

DIETRICH & GENTRY, Ottawa, Kas. — Choice POLAND-CHINA PIGS. Fancy pedigrees. Silver-Laced and White Wyandotte chickens.

J. F. BISHOP & SONS, LINCOLN, NEB.—We have J. 250 Poland-China pigs for the 1893 trade up to date. Our seven boars are all tops. Sows mostly aged. Pigs tip-top. Write us.

OHIO IMPROVED CHESTER SWINE.—Bred by H. S. Day, Dwight, Kas. Three males, ready for service, for sale.

MAPLE GROVE HERD OF FANCY BRED PO-land-China swine. Also Light Brahmas fowls. Owned by Wm. Plummer & Co., Osage City, Kas. Stock of all ages for sale at reasonable rates.

D. TROTT, Abilene, Kas. — Pedigreed Poland-Chinas and Duroc-Jerseys. Also M. B. Turkeys, Light Brahmas, Plymouth Rock, S. Wyandotte chickens and R. Pekin ducks. Eggs. Of the best. Cheap.

BERKSHIRES.—Wm. B. Sutton & Sons, Rutger Farm, Russell, Kansas. Choice February and March pigs. Young boars ready for service. Young sows bred. Good individuals and choicest breeding.

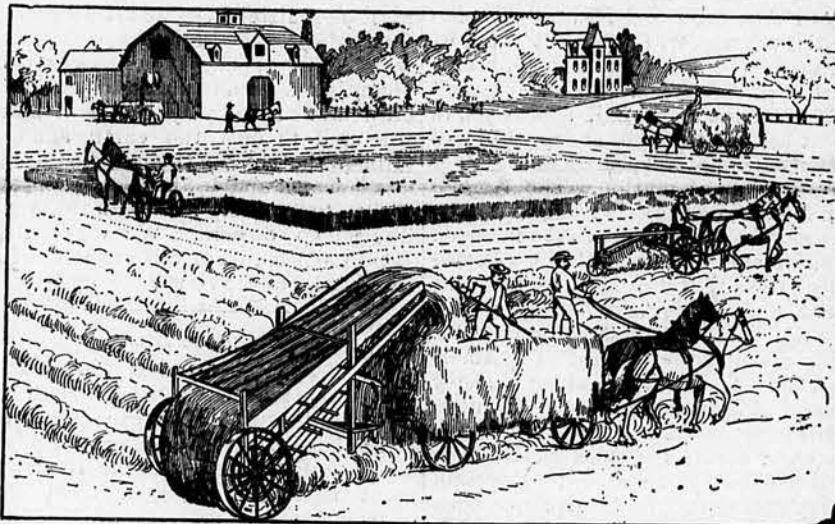
POULTRY.

HARRY T. FORBES—FINE S. C. BROWN LEG-horns. Eggs for sale, safely packed and sent by express to any part of the United States. Address 701 Polk St., Topeka, Kas.

H. H. HAGUE & SON, Walton, Kansas, will sell eggs from the following varieties: Light and Dark Brahmas, Buff and Partridge Cochins, B. P. Rocks, S. C. B. Leghorns, M. B. Turkeys, Embden and Toulouse geese. Chicken eggs, \$1.50 per setting, straight. Geese and turkey eggs, 25 cents each.

RIVERSIDE POULTRY YARDS.—FOR SALE R. M. B. Turkeys, S. L. Wyandottes, B. P. Rocks, S. C. White Leghorns, Pekin ducks, and their eggs in season. I took first and second premiums at the State Poultry show, also at the Central show at Emporia, 1894. Toms, hens and pullets scoring 94 and 95. Lucille Randolph, Emporia, Kas.

BARRED PLYMOUTH ROCKS EX-clusively—Pitkin cockerels mated to Kegley hens. All high-scoring birds. Have bred Plymouth Rocks for twelve years. Eggs, \$1 per 13; \$2 per 30. Satisfaction guaranteed. A few very choice cockerels for sale at \$2 each. Mention KANSAS FARMER. D. B. Cherry, Knoxville, Iowa.



KEYSTONE HAY-LOADER AND RAKE.

(See article, "Quick Haying," in this issue.)

SWINE.

KAW VALLEY HERD FANCY POLAND-CHI-nas. Among the lot are ten Free Trade sows, and Bebout's Tecumseh at head. Inspection invited. Prices reasonable. M. F. Tatman, Rossville, Kansas.

V. B. HOWEY, Box 103, Topeka, Kas., breeder and shipper of thoroughbred Poland-China and English Berkshire swine and Silver-Laced Wyandotte chickens.

TOPEKA HERD OF LARGE BERKSHIRES.—Boars, sows and pigs always on hand. Yearling boar Wide Awake 30039 for exchange for an extra boar or bred sow. H. B. Cowles, Topeka, Kas.

MAINS' HERD OF POLAND-CHINAS.—James J. Mains, Oskaloosa, Kas. Selected from the most noted breeders. I will sell twenty-five of my sows that have been bred to No. 1 boars recently purchased in Ohio. Also a fine lot of fall and winter pigs of both sexes. All at reasonable prices. Describe what you want.

POULTRY.

LIGHT BRAHMAS AND S. L. WYANDOTTES.—Breeding stock scores 90 to 93 points. Eggs, both breeds, \$1.00 per setting. Prize-winning Poland-Chinas. J. F. Thomas, Maple City, Cowley Co., Kas.

A. B. DILLE & SONS, EDGERTON, Kas., breeders A. of choice B. P. Rocks, S. L. Wyandottes, Light Brahmas and M. B. Turkeys. Chicken eggs \$1 to \$2 per 15; turkey eggs \$3 per 11. Satisfaction guaranteed.

\$1.25 FOR FIFTEEN EGGS.—B. P. Rocks, L. Brahmas, S. Wyandottes, S. C. B. Leghorns, B. Minorcas and P. Games. Also Fox hounds. H. P. Hawkins, Pleasant Hill, Mo.

MULBERRY GROVE FARM.—Barred Plymouth Rocks and Black Minorcas. Eggs \$1.50 per thirteen, express prepaid. J. R. Cotton, Stark, Kas.

PURE-BRED LANGSHAN, BARRED PLYM-outh Rock and S. C. B. Leghorn eggs, one dollar per thirteen. Address Robert Crow, Missouri Pacific Railway Agent, Pomona, Kas.

J. T. HARRAH, Pomona, Kas., breeder of pure-bred B. Langshans, B. P. Rocks and S. C. B. Leghorns. Eggs \$1 per thirteen. Young stock for sale after August 15.

Z. TAYLOR, Marion, Kansas.—Single-comb Brown and White Leghorns, Silver Wyandottes, Black Langshans, Barred Plymouth Rocks. Eggs \$1.25 for fifteen. Buff Leghorn eggs \$2 for fifteen. High-scoring birds.

POULTRY.

WHITE GUINEA FOWLS—\$2 each; eggs, \$1 per thirteen. Plymouth Rock Cockerels, \$2 each; eggs, \$1 per thirteen. White Holland Turkeys, \$3 each; eggs, \$2 per thirteen. MARK S. SALISBURY, Independence, Mo.

EUREKA POULTRY YARDS.—L. E. Pixley, Em-poria, Kas., breeder of Plymouth Rocks, S. Wyandottes, Buff Cochins, B. and White Leghorns, B. Langshans, M. B. Turkeys and Pekin ducks. Chicks at all times. Eggs in season.

\$1.00 per setting, eggs from B. Langshans, B. Plymouth Rocks, S. C. Brown or White Leghorns. 6 sets, \$5.00. Prize-winning chickens. 13 other varieties. Send stamp for catalogue.

HARRY E. GAVITT & CO., Topeka, Kas.

Fancy Poultry and Eggs Turkeys, Geese, Ducks and forty varieties of Chickens. Prepaid and expressed. Write us.

J. R. Brabazon Jr. & Co., Delavan, Wis.

SIXTEEN YEARS breeders of P. Rocks exclusively. Birds raised on four farms. Shipped 5,000 eggs into seventeen States and Canada in 1893. Eggs \$1 for 13 or \$2 for 30. Packed safe to ship any distance. A good hatch guaranteed. Send for circular. Joe Cunningham & Co., Loree, Miami Co., Indiana.

Thoroughbred Duroc-Jersey Hogs

Registered stock. Send for 44-page catalogue, prices and history, containing much other useful information to young breeders. Will be sent on receipt of stamp and address. J. M. STONEBRAKER, Panola, Ill.

A. E. STALEY, Ottawa, Kansas.

CHESTER WHITES AND POLAND-CHINAS. Light Brahma eggs, twenty for \$1.

W. S. ATTEBURY, Rossville, Kansas. BREEDER OF Chester Whites Exclusively.

Young stock at all times. Satisfaction guaranteed.

Get up a club for KANSAS FARMER.

SELECT I D OF BERKSHIRES

Of Large English families. Longfellow's Model. Major Lee and other prize-winning sires. First and second aged herds, first and second young herds, sweepstakes boar and sweepstakes sow at Kansas State fair. Pigs, all ages, in pairs and trios.

G. W. BERRY, Berryton, Shawnee Co., Kas.

S. McCULLOUGH, Ottawa, Kansas. Breeder of Pure-bred BERKSHIRE SWINE. Stock for sale at all times. Satisfaction guaranteed. Write for what you want.

T. A. HUBBARD Rome, Kansas, Breeder of POLAND-CHINAS and LARGE ENGLISH BERKSHIRES. Two hundred head. All ages. Fifty boars and forty-five sows ready for buyers.

W. E. GRESHAM, Burrton, Kansas, Breeder of POLAND - CHINAS. Won six prizes, including first blue ribbon west of Mississippi at World's Fair. Stock all ages for sale.

JAMES QUORLO, Kearney, Mo. Large Berkshires, S. C. Brown Leghorns and Bronze Turkeys. On H. & St. Joe, 28 miles northeast of Kansas City.

J. R. KILLOUGH & SONS, Richmond, Kansas, Breeders of POLAND-CHINA SWINE. The very best strains. Nothing but first-class stock will be shipped to any. Come and see us or write.

HILLSDALE HERD

Short-horn cattle and Poland-China hogs, bred by C. C. KEYS, VERDON, NEB. Prince Byron 109513 heads the herd. Stock for sale at all times. Visitors welcome. A fine lot of young male pigs for sale. Farm two miles north of Verdon, Nebraska.

P. A. PEARSON Kinsley, Kansas, Breeder of Poland-China Swine. All ages for sale. Herd headed by Dandy Jim Jr. and Royalty Medium, a son of Free Trade.

R. S. COOK Wichita, Kas., Breeder of Poland - Chinas. Won seven prizes at World's Fair—more than any single breeder west of Ohio.

CIRCLE U HERD POLAND-CHINA SWINE.

W. H. Underwood, Hutchinson, - Kansas. Graceful's Index 9289 S. 27089 O., sire Seidem Seen 2d 23045 O., dam Graceful L. 23768 O. He was the sire of the Kansas World's Fair winners that won first, third and fourth prizes.

RIVERSIDE HERD Poland-China Swine.

For sale sows bred to farrow in March, April and May. Also young stock at reasonable figures at all times. Satisfaction guaranteed. Correspondence as well as inspection invited. J. V. RANDOLPH, [Established 1868.] Emporia, Kas.

Wholesale Prices!

Thos. D. Hubbard, twenty years a wholesale merchant in New York city and Columbus, Ohio, having come to Kansas for his health, will supply at wholesale prices, Barbed Fence Wire, Wire Nails, Galvanized Chicken Fence Netting, Glazed Windows of all sizes for poultry houses, barns and other buildings, and all other requisites for breeders and farmers, free on board cars at St. Louis or at your own depot. For fuller information, address with stamp, THOS. D. HUBBARD, Kimball, Kansas.

200 EGG INCUBATOR ONLY \$10.00 F. M. CURYEA, Box 151, Lincoln, Neb.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

OCTOBER 2—C. C. Keyt, Short-horn cattle and Poland-Chinas, Verdon, Neb.

FACTS WORTH CONSIDERING.

"Keep step with the times," says Colman's Rural World. "Why? Because times change, and with them the modes and methods of doing business. Fashion changes in the habits and customs of the people as much as in dress, and the observant farmer watches the signs of the times and the important changes with as much particularity as he who forges a new horseshoe or manipulates a lady's bonnet. We are declining in wheat and corn culture as we did years past in hemp and flax, and for similar reasons. Smaller farms and higher cultivation; greater diversity and less over-crop culture; the use of manures and more skill in cultivation are becoming the order of the day. So, with our improvements come the general use of stock for high farming, affording an opportunity for getting rid of carrying the crude product to market, and of shipping everything in the shape of matured stock. In this connection we have some thoughts of the horse and his marketable value just now.

"A party who writes a good deal under the nom de plume of 'St. George,' has compiled some interesting statistics regarding the number of horses which have been displaced by electricity and the bicycle. He reasons from his figures that the sudden transformation of travel from the horse to the electric car, and from the buggy to the bicycle, has had a great deal to do in precipitating the financial disaster in this country. It will be surprising to many people to know, he says, that these modifications in travel have thrown out of employment twenty-four horses to every one thousand inhabitants. That is, the number of horses in the United States which have lost jobs on account of the introduction of the electric car and bicycle amounts to more than 1,000,000. It required \$100,000,000 a year to buy oats, corn, hay and bedding for these horses, and \$12,000,000 to shoe them, and \$12,000,000 for harness and repairing harness. It required 200,000 men to groom and drive them, and to feed and hire this army of men required an annual expenditure of \$73,000,000; then there was an outlay of \$30,000,000 a year to keep up the supply of horses.

"The \$100,000,000 worth of oats, corn and hay that have not been consumed has made a surplus, and, consequently a shrinkage in value in these products in the United States to the amount of \$30,000,000. The loss in the sale of buggies, carriages and other vehicles is probably \$5,000,000 a year. He next gives a statement as to the amount of money that has been taken from the circulation on account of this sudden change in the mode of travel, and estimates that this condition of things has been going on for five years. One million horses fed, each a year \$100, \$500,000,000; \$12 for shoeing each horse a year for five years, \$60,000,000; \$12 for each pair of harness a year for five years, \$60,000,000; 200,000 men at \$365 a man for five years, \$365,000,000; \$30,000,000 a year for purchasing horses for five years, \$150,000,000; shrinkage in provender a year, \$30,000,000, for five years, \$150,000,000; shrinkage in the value of horse stock, \$500,000,000. Total, \$1,285,000,000.

"These are enormous figures, and if approximately correct certainly furnish good and sufficient reasons for the great decline which has taken place in the value of common horses, which are those most largely affected. But it must be remembered that it was only a question of two or three years when, with old conditions obtaining, the production would have overtaken consumption, and a drop in prices would have been inevitable. With the restrictions put upon the demand for horses by present conditions, there must be a heavy decrease in the number of horses raised before the business can again become profitable. It is a good time to stop breeding the worn-

out, broken-down mares on the farm, for their progeny is not likely to be worth more in the market than the service fee of a good stallion."

Pasturing the Hogs.

In bulletin 22 of the Utah station, some important considerations are published on the question of pasturing swine. As swine pasturing is rapidly becoming a general way of raising hogs by many farmers, anything on the subject must be of interest and value. The bulletin in question says that swine allowed to graze on good fields will not only find enough nutriment to maintain life, but they will grow and increase in weight. But in depending almost entirely upon pasture for food they must be carried over one winter with the general risks that are met with in such work, for the periods required for fattening hogs on pastures are long. The grass should be supplemented by grain or some fattening food, but if the swine are given all the grain they need they will not eat grass. In hot weather, however, they need exercise if given grain and not grass. Grass seems to take the place of exercise by purging the system of bad matter, and keeping their digestive organs in good working order. Grain, with exercise, or grass with grain, without much exercise, seems to be the conclusion of the bulletin. At least this should be the aim in hot weather, for in winter the fattening process can be hastened by forcing.

Two Ways to Look at Sheep.

"Whenever a farmer comes to look at my Cotswold sheep," said a flock-master the other day, "I can always tell whether he is an American or an Englishman." "How so?" was asked, says *Farm, Stock and Home*. "Because an Englishman will pick out the best formed sheep, one that is deep, broad, with well-developed thigh and shoulder, fine ears, and small, short legs; in short he selects the sheep that will fatten easily, mature early and give a large carcass of mutton. The American farmer, on the other hand, when he has caught a sheep, opens the fleece on the side and examines the wool carefully to see if it is long, fine, lustrous, dense and of uniform strength and quality. The English farmer asks: 'How much do they weigh?' The American farmer asks: 'How much do they shear?' These traits are the result of accustomed methods. In this country the chief aim of the flock-master is to produce heavy fleeces; in England, heavy carcasses. Both have succeeded in a remarkable degree. We have American Merinos that, in proportion to their live weight, will shear far heavier fleeces than any other sheep in the world, and which stand unrivaled for early maturity; but what we want more than all this is a sheep that is good for wool and good for mutton."

The World's Wool Product.

"Few people realize the enormous increase in the wool product of the world," says the *Country Gentleman*. Wool is cheaper now than it ever was before, but it is also true that never in any previous age did so large a proportion of mankind wear woollen clothing as they do at the present time. The treasury department is compiling statistics on the wool product in the various countries, from which we condense some interesting facts. In 1861 the wool product of the United States was 60,264,913 pounds, and consumption 85,339,876 pounds. In 1870 the wool product had grown to 162,000,000 pounds, and consumption to 209,000,000 pounds. In 1892 our wool product was 244,000,000 pounds, and consumption 439,000,000 pounds. This shows an increase in thirty-two years of 387 per cent. in production and 415 per cent. in consumption.

"The report says that in 1891 the number of sheep and lambs in Great Britain was returned at 28,732,558, and in 1893 at 27,280,334. The wool clip in 1890 was placed at 138,000,000 pounds, and in 1892 at 153,000,000. This points to a profitable attempt to improve the breed of animals and the weight and quality of the fleece.

"In 1860 the world's product of wool

was 955,000,000 pounds, in 1880 it was 1,626,000,000 pounds, and in 1889 it was 1,950,000,000 pounds. Europe is decreasing its wool production. North America increased from 110,000,000 pounds in 1860 to 330,000,000 pounds in 1889. The largest increases were in Australia, from 60,000,000 pounds in 1860 to 450,000,000 pounds in 1889; Rio Plata from 43,000,000 in 1860 to 360,000,000 in 1889. These statistics are interesting, for they show what competition American wool-growers have to meet. But it is probably true that the low prices of wool the last year or two have checked the increase of sheep everywhere. It is not alone in this country that large numbers of good sheep have been sent to the butcher instead of being kept for breeding."

About Our Cattle Industry.

The swine breeders have had an inning, and we propose to give the cattlemen a chance to express their views of the present condition and faith in the future of the beef cattle business, as compared with other branches of the animal industry.

These columns are always open to the discussion and inquiry of stockmen, and once again we cordially invite them to utilize the same for their own interest. Times are constantly changing, and every branch of live stock husbandry is not flourishing at the same time. Methods and conditions are constantly changing, hence the imperative need of conferring with one another. Because the cattlemen have been "down at the heel" in recent years, it does not necessarily follow that such adversity will always obtain, but if there ever was a time when the lordly cattleman of yore was subdued it certainly is at the present time. He needs a "bracer," and the FARMER must administer it, so we are preparing something special for the cattlemen, which will appear in a week or two. Meantime we shall be glad to hear from our readers as to why the cattleman, who used to own the earth and the fullness thereof—or thought he did—is now so meek and lowly. He is apparently a "modester" man than the lamb-like sheep owners. We would like also an expression of faith as to the future of the cattle views.

About the Boar.

What about him; what kind of one do we want; when and where shall we buy him; how shall we care for him? If the boar of last season proved himself a prolific breeder, if the improvement that he stamped upon his offspring was generally satisfactory, keep him, together with the sows that gave satisfactory results. If there are not enough of them to suit your requirements, look about in time and carefully select others.

You will find that by his superior age and vigor the improvement next year from the old boar will prove more satisfactory than before. Give him plenty of good room, if pasture cannot be provided, and by soiling provide him with grain food from garden and field, from spring till fall, and give him a liberal ration of grain. Do not believe, as many do, that he must become a shadow, on dish-water diet, to be good next season.

What kind of boar do we want? One of the same line that we have been breeding; but, note all imperfections in the sows he is to be bred to, and write to the breeder to send you a boar that is superior and strong in the weak points of your sows.

When to buy or order? A great error is generally made by waiting until late in the season, either to inquire about or order. Many of the choicest are then sold, and we are then often compelled to take what we can get, often to our sore disappointment.

Where to buy? We believe in patronizing home breeders, where men are deserving of patronage, by reason of their effort in bringing improved stock into our neighborhoods, and often at large expense and risk, for our selection. It will be an encouragement to them to make greater effort for still better results, and greater benefit to all concerned.

The boar taken on the farm when from three to four months of age has



A FRIEND

Speaks through the Boothbay (Me.) Register, of the beneficial results he has received from a regular use of Ayer's Pills. He says: "I was feeling sick and tired and my stomach seemed all out of order. I tried a number of remedies, but none seemed to give me relief until I was induced to try the old reliable Ayer's Pills. I have taken only one box, but I feel like a new man. I think they are the most pleasant and easy to take of anything I ever used, being so finely sugar-coated that even a child will take them. I urge upon all who are in need of a laxative to try Ayer's Pills. They will do good."

For all diseases of the Stomach, Liver, and Bowels, take

AYER'S PILLS

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass.

Every Dose Effective

better chances to develop, and will give better service than if taken at a more mature age. The younger animal can become acquainted with his surroundings and his keeper, and we are more sure of his service and his functions as a breeder, than if he is received just at the time for breeding, and often after a long journey.—*Farm, Stock and Home*.

Working Farm Horses.

"It takes time to break in horses to work without injury after they have been idle most of the winter," correctly observes the *American Cultivator*. "As warm weather increases the perspiration there will be more danger of the collar galling the shoulders. See that the collar is not too loose. This is a frequent cause of sore shoulders. The team should be stopped frequently if it is sweating violently and the collar pushed forward, so as to allow the air to reach the moistened places. It is a good plan to take the collar off while the team is feeding at noon, as this gives the shoulders a chance to get cool. If there are any symptoms of tenderness bathe the affected skin at night with a strong decoction of oak bark. This will harden the surface. Do not bathe it in the morning, as having the hair moist when beginning work does more harm than the oak bark will do good. Do not hurry the work until the team has become thoroughly toughened. It is better to prevent galling than to let the shoulders get sore and then try to cure them."

Primrose Trotting Farm.

The proprietor, C. A. White, Danville, Ind., writes: "I have had great success with the Perfect Impregnator, bought of Specialty Manufacturing Co., Carrollton, Mo."

"Among the Ozarks,"

the Land of Big Red Apples, is an attractive and interesting book, handsomely illustrated with views of south Missouri scenery, including the famous Olden fruit farm of 3,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks, and will prove of great value, not only to fruit-growers, but to every farmer and home-seeker looking for a farm and a home. Mailed free. Address, J. E. LOCKWOOD, Kansas City, Mo.

Perfectly at Home.

The irrigated lands of Idaho possess that peculiar qualification which is perfectly adapted to the raising of apples, apricots, peaches, cherries, pears, plums, grapes, prunes, hops, alfalfa, corn and potatoes, which always find a ready market and bring a good price.

You can't overstock the United States with these commodities.

We'll send our advertising matter on application. A. M. Fuller, city ticket agent, U. P. system, Topeka, Kas., or E. L. Lomax, G. P. & T. A., Omaha, Neb.

Agricultural Matters.

FARMERS' NATIONAL CONGRESS.

The fourteenth annual meeting of this body will be held at Parkersburg, W. Va., October 3-6 next (both dates inclusive). The Congress met in 1893 in Savannah, Ga.; in 1892 in Lincoln Neb.; in 1891 in Sedalia, Mo.; in 1890 in Council Bluffs, Iowa, and in 1889 in Montgomery, Ala.

The Farmers' National Congress is composed of delegates from each State and Territory, appointed by the Governor thereof. Each State and Territory is entitled to as many delegates as it has United States Senators and Congressmen, and each State Bureau of Agriculture is entitled to a delegate. In each of the meetings named above, more than thirty-five States and Territories were represented by duly appointed and properly accredited delegates.

The Farmers' National Congress, while instituted to discuss all economical and social questions affecting the farmer, is strictly non-political. This feature has been strictly observed. So careful is the Congress in this regard that it is one of its unwritten laws and to which all its members are held strictly accountable, that no one shall use his connection, official or other, with the Congress to advance in any way his political fortunes. An office-seeker has never been elected to one of its offices. Because of its strictly non-political character, its safe, conservative course, and its desire to avoid idle notoriety, it is not so well known as some farmers' organizations, but none has greater weight with law-making bodies. The Chicago *Times* recently stated that the Farmers' National Congress had more to do than any other rural agency with the insertion of the item in the postoffice appropriation bill providing for trials of rural free mail delivery. Senators and Congressmen have frequently borne witness to the great weight of this Congress. While Senators and Congressmen have treated with ill-concealed contempt the Alliance and other political organizations of farmers that have demanded sub-treasures and 2 per cent. loans, they have paid respectful attention to the recommendations of the Farmers' National Congress—a body not composed of irresponsible, self-appointed delegates, but of delegates appointed by the Governors of the various States, hence, men of character, standing and influence, and each probably personally acquainted with the Congressman from his district, if not with the Senators from his State.

The greatest recent legislative triumph of the Farmers' National Congress, has relation to rural free mail delivery. At its meeting in Savannah, Ga., last December, the following resolutions were unanimously adopted:

WHEREAS, It has been proved by actual test that free mail delivery can be extended to the villages and the more thickly settled farming communities with but little if any increase in the net expense in the postoffice department; therefore,

Resolved, That we are heartily in favor of rural free mail delivery, and we hereby call upon the Congress of the United States and the postoffice department to extend the free delivery of mail into the country as fast as the same can be done without an onerous increase in the expense of the department.

Resolved, That there should not be any lowering in the present rate of letter postage until mail is delivered at least three times a week throughout all townships having a population of ten or more to the square mile.

These resolutions were adopted unanimously; and the vote was taken standing, to make it more emphatic. It had emphasis enough to overcome the opposition in the House to rural free mail delivery, reinforced by the opposition of Postmaster General Bissell, who, in his first official report, strongly opposed rural free mail delivery. Postmaster General Wanamaker stated in his official report that his experiments had shown that in a short time rural free mail delivery would so increase the mail carried that it would pay for itself in all except the most sparsely settled agricultural regions. It would certainly be of incalculable benefit to farmers intellectually, socially, politically and financially if mail were delivered to them daily; and it would

largely remove the most repellant feature of farm life.

A fine program will be presented to the annual session of the Farmers' National Congress at Parkersburg, W. Va., October 3-6 next. As an evidence of its diversity and national character, it may be stated that California, Georgia, Maine and Texas will contribute formal addresses. Several of the addresses will be by women. One of the most successful fruit-growers of California is a woman, and she will address the Congress; and it is said that she has very decided views about the tariff on fruits, railway charges, and the Chinese exclusion law. An increasing number of the delegates have been bringing their wives, and it is anticipated that there will be several hundred women in attendance, as, in addition to the four hundred regular delegates, there will be three hundred honorary delegates from Ohio, Pennsylvania and West Virginia. Then an increasing number of those highly interested in the progress of agriculture are in attendance from all parts of the country. Every farmer that can do so should attend. For four days he will hear the ideas of the leading agricultural thinkers and workers of the country. It will be a national farmers' institute. The railways and hotels always make two-third rates for these meetings, and the city where the Congress meets has hitherto entertained the delegates, etc., lavishly, providing free excursions and other entertainments, banquets, etc., and decorating the houses and other buildings in honor of the meeting. When the Congress met in Council Bluffs, even the electric light towers were decorated to their summits, the delegates were driven about Omaha and several times banqueted, and at the close of the meeting were taken on an excursion to Denver and through the mountains, and not a cent to pay! Needless to say that when the Congress met in broad, enterprising, hearty Nebraska, or in the hospitable, warm-hearted, generous South, that it was treated with as great consideration and kindness; and there can be no doubt that the pushing, hospitable, hearty people of Parkersburg and West Virginia will do as well as have the other cities honored by the annual meeting of the weightiest agricultural organization of the country. But the Congress does not meet for pleasure, but for business; and the farmer that hears its discussions of highways and railways and waterways, of mail delivery, option trading, taxation, farmers' organizations, etc., will be greatly benefited. The proceedings of the last annual meeting make a volume of more than one hundred pages. The officers are: President, B. F. Clayton, Indianola, Iowa; Vice President, G. M. Ryal, Savannah, Ga.; Secretary, John M. Stahl, Quincy, Ill.; Treasurer, Henry Hayden, Indianola, Iowa; First Assistant Secretary, W. G. Whiddy, Atlanta, Ga.; Second Assistant Secretary, T. J. Appleyard, Sanford, Fla.

How to Grow Corn.

At a recent meeting of the Mills County (Iowa) Farmers' Institute, Mr. D. B. Nims, of the firm of Nims Bros., read the following paper on the above title, which gives the key to much of the success that has attended the efforts of this firm:

"To produce corn at a profit, three things are essential—strong soil, good seed and thorough cultivation. To have the balance on the proper side of the account, we must either produce a large yield or produce it at small cost, and if we can combine the two, there will be a double profit. It has been demonstrated that our virgin soil, even in southwestern Iowa, will not yield paying crops of corn after a term of years unless proper rotation of crops is kept up. To keep up the proper fertility of the soil by applying manures is an endless and expensive business, but to soil rob our farms is less profitable.

"It has been proven that clover sod is as good to produce corn as the virgin soil. Farmers are just awakening to the importance of sowing all small grain fields to clover. It is the only wholesale fertilizer we have discovered. We believe we can keep our land in clover two or three years and then

raise three crops of corn and realize more net profit on three crops of corn than if we had kept raising corn all the years. We are inclined to believe that the yield of corn will be greater if the clover is pastured, instead of being cut for hay. We believe that the importance of clover in a rotation of crops is not half appreciated. Many fields of corn on clover sod gave yields of from fifty to eighty bushels per acre last season.

"As to seed, we think a great deal depends on good seed. When we say good seed, we mean that it must not only grow, but grow strong and even. Seed should be of a variety suited to the locality. It has been proven at the experiment station that the medium early maturing varieties give greater yields than either the early or late varieties and that the yellow dent varieties yield a greater per cent. of corn to the cob than the white sorts. Every corn-grower ought to have a clear conception of what constitutes a model ear of corn. He should have a high ideal, one that embraces the most good qualities in one variety. Earliness, productiveness and large yield of net corn to the cob are essentials.

"To properly cultivate a crop of corn means, first, thoroughly prepare the ground for planting by plowing well and the use of a disc or smoothing harrow until the ground is in fine tilth. The proper cultivation of corn would keep a philosopher busy. We cultivate deep the first time and close to the corn. The second time not quite so deep and a little further off, and the third time plow just as lightly as we can, and make the cultivator scour and cover the remaining weeds. While plowing corn we should study the habits of the corn plant. If we can grow the same number of bushels of corn per acre in three by growing it on clover sod, that we usually grow in five, we have certainly made a great saving. To grow corn most profitably we must grow clover."

Farmers and Farming in Osborne County.

EDITOR KANSAS FARMER:—Some days ago, while in Osborne city, a prominent citizen, speaking to me, said: "The farmers of Osborne county are getting rich." I looked at him with an air of surprise, expecting him to modify the statement. "Well, they are," he continued. "No matter which road you take from Osborne—eastward, westward, northward or southward—you will find that every farmer who came to this country twelve or more years ago, and has stuck to his farm, is getting rich." "No, not millionaires, but worth from \$10,000 to \$15,000 or \$20,000."

I confess to a degree of surprise at such a broad statement, and concluded to satisfy myself by personal inquiry, and for this purpose spent a week among the farmers of Osborne county, visiting them at their homes. Being old friends, I was cordially welcomed. They talked freely about their business and took special pride in relating their experiences in pioneer life; how they had passed through the fiery ordeal, and had in time caught on and got down to business, and finally had achieved a victory of which they were justly proud. Starting with little or no money, fifteen or eighteen years ago, they now have from a half section to a section or more of good land, well improved, practically out of debt and many with money in bank. After my visit among the farmers, I was willing to admit that the remark of the Osborne city gentleman is in the main true. Of course, there are some exceptions, but as a rule the farmers who located in Osborne county, twelve, fifteen or twenty years ago, and have stuck to their farms, are now in easy and independent circumstances.

It is a fact worthy of note that farmers who have made stock-growing and stock-feeding prominent, have been more successful than those who have given prominence to wheat-growing.

Of the dozen or more farmers visited, I give the names of a few only, and of these because they represent the several classes of farmers who have attained success on somewhat different lines of agriculture.

First, as a representative of that class of farmers who make dairying prominent, I give the name of August Zimmerman, who lives twelve miles southeast of Osborne, on Twin creek. In 1878, he, a young man, took his claim, and three years later he married, and, with but little capital, commenced improving his homestead. Some years later he secured another quarter section adjoining his homestead. He made satisfactory progress in improving his farm, but four years ago, chiefly because he failed in fruit-growing, became dissatisfied with the country and exchanged his half section for a farm

of 160 acres in Franklin county, Kas. Before, however, moving his family, he concluded he had made a mistake in the trade he had made, and determined, if possible, to get his Osborne county home back again, which he did at a cost of \$200. "Now," he said to me, "I am improving my farm here, supporting my family, and besides am paying each year \$500 on mortgage which encumbers the Franklin county farm." "Well," I said, "Mr. Zimmerman, how do you manage to do that?" "First," he said, "we grow about everything we eat. We grow our own meat, and turn off from fifty to sixty hogs each year and a number of cattle. We grow all the garden vegetables we need each year—potatoes, cabbage, tomatoes, onions, and every garden plant that grows—plenty for our family of nine children all the summer through and some to sell. We irrigate our garden—have good well and wind power. Second, we milk twenty-three cows, and make cheese, which is worth 10 cents a pound. Third, the revenue from the poultry yard averages about one dollar per day in eggs alone." By this kind of business sense, Mr. Zimmerman will, in a year or two, have paid off the mortgage on his Franklin county farm, and since his home is now clear in Osborne county, he is in a fair way to steer clear of the county poor house.

Second, as a representative of that class of farmers who make alfalfa-growing prominent, along with stock-growing and stock-feeding, I give the name of David Kaser. Mr. Kaser's place is about fourteen miles south of Osborne, on Covert creek. In 1882, he bought a first-class bottom quarter section for \$1,000, paying half in cash, which was the extent of his capital. Mr. Kaser has now 560 acres of good land all paid for and well improved; has sixty acres in alfalfa, yielding six tons per acre at three cuttings; feeds usually 100 head of cattle and more than that number of hogs. Besides having all his property clear, he has a liberal bank account. He says his alfalfa is worth \$5 per ton, and yielding six tons per acre, this makes a gross revenue of \$30 per acre each year. The cost of cutting and stacking the alfalfa being not more than one dollar per ton, there remains a net revenue of \$24 per acre in alfalfa on his farm. "Why," says Mr. Kaser, "my alfalfa land is worth \$300 per acre, and why not? \$24 is 8 per cent. of \$300."

Third, as another representative alfalfa-grower and stock-feeder, and besides pond-builder, I give the name of Jeff Durfee, who located where he now lives in the fall of 1890. For six years he followed buffalo hunting as a business. Since 1876, he has given attention strictly to farming, and in addition, to dam-building and pond-making. He has expended \$500 in the construction of dams for ponds, and says he has had that amount of fun out of it, shooting ducks, catching fish, etc. He is the author of that somewhat expressive saying: "It is better to dam the draws than the country." He has a section of good bottom land, well improved; has fifty-five acres in alfalfa, and corroborates the statement of Mr. Kaser as to its value. Some of his alfalfa was near a foot high, May 1, when prairie grass was just starting. He has thirteen acres of alfalfa used as a hog pasture. He usually has 100 head of hogs in it and still cuts four tons of hay to the acre. Hogs grow and thrive well on alfalfa and make good meat without grain. Hog-buyers sometimes buy them without being grain-fed.

In 1890, a very dry year, Mr. Kaser said that one acre of alfalfa produced more pounds of hay than eighty acres of prairie land—good bottom land, too. I said to him that he might walk up head in the alfalfa class.

Mr. Durfee having all his property clear and a bank account besides, is in a fair way to get along.

Once more: To show what a man may do on a rented farm in Osborne county, there is no better representative than Miles Hudson. Mr. Hudson came to Osborne county in 1882, and rented a farm of 240 acres, only two miles from Osborne. In 1887 he bought 120 acres adjoining the rented farm, and two months ago he bought the farm of 240 acres which he had rented and on which he has lived since 1882. He is just now completing a \$1,000 house, and his farm in other respects is well improved. Mr. Hudson brought with him to Osborne county, in 1882, \$500. He now has 360 acres of good bottom land, worth \$25 per acre. He still owes \$1,500 on the farm, but his stock, horses, cattle and hogs, would more than pay that amount. He has handled and still handles cattle and hogs, and corroborates the experience of others that cattle and hogs are necessary to success in farming. He made his money chiefly on a rented farm.

These four farmers have done no better than hundreds of others and have been selected and their names given because they represent different classes of farmers who have attained success on somewhat different lines of agriculture. M. MOHLER.

Hall's Hair Renewer cures dandruff and scalp affections; also all cases of baldness where the glands which feed the roots of the hair are not closed up.

Irrigation.

VITRIFIED EARTHEN PIPES UNDER PRESSURE.

EDITOR KANSAS FARMER:—In the projection of my plan for an irrigation outfit, a considerable number of new problems presented themselves for solution. Among these none were more prominent or so difficult to settle as the question of what class of piping to use in conveying water from pumps to distributing point or summit. After an extended correspondence with various parties and examining carefully the reports on various sorts of iron and wooden pipe, the suggestion was made by Mr. Ira C. Hubbell, of Kansas City, that possibly vitrified sewer pipe would answer my purpose. He made the statement that the makers would guarantee its ability to stand the pressure required for my use. Accordingly I had a personal interview with the makers referred to, and feeling entirely sceptical about the matter, positively declined to consider it without seeing the proper tests made of its tensile strength. This was duly arranged for, and on the 1st and 2d of this present month I witnessed and took part in the tests. Thinking at this time the results would be of general interest, I furnish them for your readers' interest, and I hope, benefit.

Suitable appliances had been prepared for hydrostatic tests, but the result showed that we had underestimated the strength of the material, and that much stronger apparatus was essential to carry the tests to their full extent. Eight tests were attempted in all, of which six were fifteen-inch inside diameter, the size that I require. The other two were ten and twelve-inch respectively. The gauge used was new, direct from the factory, and, without doubt, reliable. The ten-inch pipe was a single joint of a thickness of about an inch, and burst at a pressure of sixty pounds to the square inch. The twelve-inch was also a single joint with a thickness of about an inch and an eighth, and burst at a pressure of 190 pounds. Of the tests of the fifteen-inch pipe, four were of single joints, two of which were selected for strength and two with a special view of getting as near as possible the weakest that we could select out of several thousand feet that would be classed as perfectly sound pipe, and one was attempted of a piece that would be rejected. The latter was a failure, as in fastening the heads the pipe gave way without any pressure of the water, and presumably because the head rested on the flange instead of in the socket. The two high-class joints burst at pressures respectively of sixty and ninety pounds. The other two trials of this size were made on two joints cemented together with a mixture of two parts Portland cement and one of sand. At the first trial the gasket blew out at a pressure of eighty pounds. A new and better gasket was put in place and the pump worked with the utmost vigor, as the appliances still leaked at the high pressures applied, but the pressure was steady at 140 pounds without any sign of weakness, and by vigorous work at the pump the pressure was carried past the 200 pound mark, the highest the gauge registered, and the pipe remained sound. The two weaker joints selected were burst at pressures of fifty-seven and seventy-five pounds respectively. The thickness of the fifteen-inch pipe was generally an inch and a quarter, but I observed that those that were burst at the lower pressures showed some places where the thickness was less, and in some cases only an inch. To summarize, the tests of the fifteen-inch pipe varied from fifty-seven pounds, the lowest, to 200 pounds, the highest. The material tested is made at Deepwater, Mo.

I concluded that the thickness of material used had considerable effect on the strength, and that a very slight addition made a great difference. As in my case the outside actual pressure at a head of forty-one feet is only about nineteen pounds, I could not help being convinced that this pipe is amply strong with a large margin of safety, and have decided to use it. The cost of this pipe

is about one-fourth that of cast-iron or spiral riveted iron pipe, and about from one-half to two-thirds that of built-up wooden pipe. I cannot give you exact quotations, as I have not got them, and the cost varies with the freight rates. The pipe I will use weighs about seventy pounds to the running foot, so that freights are a considerable part of the expense, as would also be the case in any of the other classes of pipe named and considered. The cost of laying would be about the same in all kinds, but as between cast-iron and this in favor of the sewer pipe. Cast-iron pipe must be jointed with lead, while the sewer pipe is jointed with cement, a much cheaper material and also more cheaply applied. I had been warned by a competent engineer against the use of this class of pipe, but the evidence before me is convincing. The length I shall use of this pipe in my work is 3,430 feet. I shall also use the same kind of pipe for the suction, and such other places in distribution as would otherwise be flumed.

GEO. M. MUNGER.

Eureka, Kas., May 8, 1894.

Certainty Versus Uncertainty.

EDITOR KANSAS FARMER:—With water, there is no such thing as fail. A man with forty acres of good land, which is under a good system of irrigation, is, or should be, perfectly independent. With forty acres in fruits, both large and small, vegetables and garden truck, he can realize more from it than the average farmer can with one hundred and sixty acres, without water. The man that owns one hundred and sixty acres, better sell one-half and use the money to make the other half pay.

For the small farm, nature has provided a water supply that is always ready at his bidding. In almost all parts of Kansas she has a reservoir of water within twenty feet of the place where the farmer wants to use it, and with a good windmill and right kind of pumps, and a place to store the water, he is ready for successful business.

Water for irrigation should never be used fresh from the ground, but should be allowed to stand until it is the same temperature of the air at the time of using the same. It is very injurious to vegetation to put cold water on. Neither should irrigation be done when the sun is shining hot, for there is then great danger of scalding the plants. Use water after sundown or on cloudy days. Follow nature as near as possible. She never irrigates in the hot sun.

A little water can be made to go a good ways if properly handled. Run your supply ditch along the high part of your plat to be watered. Cement this ditch with good Portland or Louisville cement, mixed in the proportion of three bushels of good sand to one of cement. Mix it thoroughly in the dry state, ten or twelve bushels at a time, and use quickly before it sets. Line the bottom and sides five or six inches high with this, and let it dry out before putting the water in. Then run your surface trenches at right angles to the main ditch, twenty-five or thirty feet apart. Cut down a gap or notch in the side of your main ditch to within four or five inches of the bottom to take the water out into the trenches, and cement them well, so the water will not wash them larger. Cut the cross trenches from one to the other of the main trenches, so your plat will resemble the lines on a checker-board, and carry the water to all parts of your grounds. Make a movable bulk-head that will fit in the main ditch. Have it twice as long as the ditch is high, and a piece of one-by-four nailed across near the top, leaving the ends of the strip sticking out from the sides of the board, six inches, so when the bulk-head is put in the ditch and leaned down stream the ends of the strip will rest on sides of ditch and hold it from lying down in the ditch. It will lie at angle of forty-five degrees, and will shut or stop the water at any point so desired in the ditch. Now let the water in and take this bulk-head and commence below two or three of the openings in side of main ditch and put it in and lean it down stream, and the water will run upon it and hold it in

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place, and the water will dam back and flow over the cuts in side of ditch into the trenches. Keep it in place until you have sufficient water in the trenches, and then take up your bulk-head and go farther down the ditch and repeat the operation, and in this way you can regulate the amount of water in each trench.

To irrigate fruit trees, run a trench between each alternate rows, and a shallow trench from this to each tree. Dig the soil away from the body of the tree and make a basin to hold the water next to the tree. And after the water has all seeped away, put the same soil back you took out, to keep the ground from baking. Heavy clay ground should never be surface-irrigated without you after cover with mulching or fine dirt to keep from baking.

To irrigate for potatoes plant them in hills, or, in other words, hoe them the same time you plant. Open the trenches as you want them and then cover the ground all over with old straw or hay, and run the water under this and leave them until time to dry. In this way it takes but very little water and your ground never bakes. Never stir the ground until it is dry enough so it will not stick to the hoe.

Sub-irrigation with pipes, as far as my experience goes, has been a failure, nine times out of ten, for no other reason than it was not properly done. The pipes for sub-irrigation should be laid very near level, and where the surface of the ground is too undulating to lay them level or nearly so, then lay them in short bents and put in a step to lead down to the next level, and so on to the end of your route. The best and most durable pipes to use are "vitrified" or salt-glazed pipes, made in three-foot sections and perforated with small holes on each side a little below the center line, so they will not fill up with dirt. There must be a gate put in at the lower end of each level, made the same as a damper in a stovepipe. Then let in what water you want for the lower bent and then come up to the foot of the next bent and shut the gate and give that level its water, and so on until you reach the supply ditch, and then shut the water off.

JOHN S. SHERMAN.

Baxter Springs, Kas.

The Sultan Buys a Binder.

His Most Gracious Majesty, the Sultan, Abdul Hamid Khan Gazi II., Sultan of the Ottoman Empire, successor to Mohammed, the Prophet, and ruler of the unspeakable Turk, has bought a Deering twine binder for use on his imperial domain. This purchase was the direct result of the World's Fair; and a direct result of this purchase may be the universal adoption of Deering binders in every wheat field of the vast Ottoman empire. A machine that is good enough for the Sultan will, of course, be the one used by every faithful subject.

Hon. A. G. Asdikian, the Sultan's Agricultural Commissioner at the fair, as a member of the famous harvest excursion to North Dakota, watched a thousand acres of wheat on the Elk Valley farm, at Larimore, melt away in a single day before a cavalcade of forty-three Deering binders. He was deeply impressed, and after examining all other makes of machines reported to the Sultan that the Deering binder was the best made in America. His August Majesty thereupon signified that it was his wish to possess one of these machines, and the wires were straightway laden with messages to that effect. As no ordinary adornment was deemed suitable for the royal gaze, the Deering people at once pre-

WATER PIPE.

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pared a binder, embellished with gilt and silver, gorgeous in hand-painted design, and inscribed on its deck cover with a suitable dedication to his Imperial Majesty.

THEN FOLLOWED SOLEMN FORMALITIES.

No correspondence can reach the eyes of his August Majesty, the Sultan, that is not pen written in black ink, on a big square sheet of perfectly white paper of a certain quality and weight, folded in a certain way and enclosed in a certain size and shape of envelope properly addressed.

After the binder was packed and shipped the Sultan was apprised of the shipment by means of the following letter, which religiously complied with all of the formalities just spoken of:

CHICAGO, ILL., December 29, 1893.

To His Most Gracious Majesty, the Sultan, Abdul Hamid Khan Gazi II., Yildiz Palace, Constantinople, Turkey.

YOUR AUGUST MAJESTY:—We wish to express our sincere thanks for the high honor that your Majesty has conferred upon us by ordering the purchase of one of our self-binders for use on your Majesty's domains. We have this day shipped to your Majesty's First Secretary, Sureya Pasha, the machine in question.

We feel highly complimented to learn that your Majesty's Agricultural Representative at the World's Columbian Exposition, Mr. A. G. Asdikian, who has carefully studied throughout the World's Fair all the exhibits of agricultural implements, has come to the conclusion that our self-binders are the best and of the highest grade in the United States, and that he has so reported to your Majesty's Commissioner General, Hakky Bey.

We trust that you will have such success in your harvest as will convince Your Imperial Majesty that your representative here was not mistaken in his judgment.

In behalf of my company I sign myself as Your Majesty's Most Obedient Servant,
WILLIAM DEERING, President.

This was not all. Formal and carefully prepared letters were addressed to "His Excellency, Hakky Bey, Imperial Ottoman Commissioner General to the World's Columbian Exposition," and to "His Excellency, Sureya Pasha, First Secretary to His Imperial Majesty, the Sultan," both being addressed to Yildiz Palace, Constantinople, Turkey.

The present Sultan is energetic and progressive in his ideas and is laboring strenuously to advance his people in every way. His use of the Deering binder on his own farm will probably bring about a great and beneficent revolution in agriculture that will, before long, effect the entire convalescence of a nation that is sometimes spoken of as "the sick man of Europe."

German Baptist Annual Meeting.

The annual meeting of the German Baptist Brethren will be held at Meyersdale, Pa., on the Pittsburg division of the Baltimore & Ohio railroad, commencing May 24th, 1894.

For this occasion the Baltimore & Ohio Southwestern railway will sell excursion tickets to Meyersdale and return from all stations on its system of lines at rate of one first-class fare for the round trip.

Tickets will be sold from May 21st to 26th inclusive, and will be valid for return passage within thirty days from date of sale.

For time of trains, etc., address nearest agent of the B. & O. R. R. Co., or O. P. McCarty, Gen'l Pass. Agent B. & O. S. W. R'y, St. Louis, Mo.; G. B. Warfel, Asst. Gen. Pass. Agent, Cincinnati, O.; R. S. Brown, Div. Pass. Agent, Louisville, Ky.; A. C. Goodrich, Western Pass. Agent, Kansas City, Mo.; Arthur DeArmas, Southern Pass. Agent, New Orleans, La.; H. C. Archer, S. W. Pass. Agent, Dallas, Tex.

The Family Doctor.

Conducted by HENRY W. ROBY, M.D., consulting and operating surgeon, Topeka, Kas., to whom all correspondence relating to this department should be addressed. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

Surgical Emergencies.

(NUMBER 22.)

Farmers and stockmen are always in more or less danger of being hooked by some vicious animal and subjected to great bodily harm. The "mad bull" has tossed more men than the bayonet, while the vicious cow has fatally injured about as many people as the vicious dog. And in the life of the frontiersman, the wounded stag or bison has made a full record of fatalities. The lowering of the mortality list is the best and most plausible excuse that can be made for the barbarous and brutal practice of dehorning domestic animals. It has without a doubt saved some human lives, while it has taken much of the pride and vigor out of the bovine herd.

But, what are you going to do with a man ripped wide open by a vicious bull or cow? Is the serious matter to be discussed here. The life of the victim is to be saved, if possible, while some one else goes out to shoot the bull. As a rule, the horned beast usually strikes his victim somewhere amidships, as the sailor would call it—about the middle portion of the body, where the bony frame offers the least protection to the vital organs within. He is most likely to imitate the Japanese criminal code and perform harri-kari, and thus disembowel his victim. And that brings us face to face with a new problem in surgical emergencies. A man without bowels is no man at all, so that if he is torn open the greatest possible care should be exercised to preserve the bowels from destructive conditions. If they are found protruding, as they will surely do if they get a chance, they should be replaced if possible and kept in place till the surgeon arrives. But if, as often happens, they have been dragged in the dust or over a manure pile, they must be carefully washed with clean warm water and a clean soft cloth or sponge, before they are returned, and then they must be retained in position by clean towels or cloths wrung out of hot water and changed often enough to keep up a good supply of bodily warmth, for a man with his bowels out very rapidly loses his animal heat, which, next to hemorrhage, is most frequently the cause of fatality in such cases. Shock should be overcome by hot applications, and warm blankets, hot drinks, such as coffee, tea, milk, water or toddy, by hot injections into the rectum, by friction over the surface of the body in the direction of the surface blood current, towards the heart. These are the things to be done till the surgeon comes. He will do and direct thereafter.

The other forms of injury inflicted by vicious animals are to be treated by the rules laid down in the preceding chapters for broken bones, sprained or dislocated joints, severe bruises, lacerations, etc. Broken bones are a very common result of a goring encounter.

A few years ago a farmer in Wabaunsee county got into an altercation with a vicious bull and the bull attempted to gore him. Fortunately, the man "took the bull by the horns" and saved his bowels, but got very badly trampled instead. His ankle was turned completely out of joint in the fracas and he was badly bruised all over. A fellow who thought it cute to be known in the neighborhood as "Doc," said he could "do the man up" all right and they need not send for a surgeon, so he bound up the ankle, about as he would chain a bull, so tightly that little or no blood could circulate through the injured member, and when, some days later, I was called, the ankle and foot were found to be in an advanced state of gangrene from "tight lacing," and to save the man I amputated the leg half way to the knee.

While practicing in Chicago, many years ago, I encountered a very curious injury from the trampling of a Texas steer. A herder was driving his herd to Chicago to market, and just out of the city they took fright and stampeded, backwards over the road by which they came. The herder was thrown down amongst the steers and one of them planted its foot squarely in his face and crushed the face bones all down into a heap. They were broken up so fine that they could not be repositied and held together in place, so they were simply taken out below the eyes and the skin and muscles left, and in that condition the man got well, with a face as soft and flabby as his abdomen.

I was at another time called in haste to see a man near the city who had been badly hooked by a cow which he was trying to separate from her young calf. She struck him in the groin and slit him clear up to the ribs. His bowels fell out in a mass on the ground, in a very dusty barn yard. He had been carried into the house and a quilt thrown over him, and in that condition I found him, bloody, dirty, dis-

emboweled. Fortunately, finding plenty of hot water and clean towels in the house, I took in a big job of washing, and after scrubbing and rinsing thoroughly (omitting the wringing and hanging up to dry), I replaced the intestines and sewed up the wound in the abdomen, and the last I heard of the victim he was running a sheep ranch in Australia.

Answers to Correspondents.

(NUMBER 23.)

DR. ROBY:—Four years ago last winter I had a severe attack of la grippe, which left me very weak. It settled in my stomach. I cannot eat much, and what I do eat does not seem to do me much good. My food all sours on my stomach; my stomach has not been free from being sour for four years. My bowels are very constipated and have been ever since I had the gripe. Please answer under the "Family Doctor," in the KANSAS FARMER, and oblige, Thompsonville, Kas. C. G. COOPER.

Try hepar sulphur, 3 x, four times a day.

(NUMBER 24.)

DR. ROBY:—I have a young lady friend that is troubled with an enlarged neck. Can you give me, through the KANSAS FARMER, treatment for the same? It has been growing for about two years; is mostly on the large cords of the neck—are quite badly enlarged, and at times there is a pressure as though something were binding the throat that troubles in breathing. Otherwise she is usually healthy. Any advice would be thankfully received.

Lincoln, Kas. E. A. G.

The case may be lymphatic glands with scrofulous enlargement, or it may be fibrous tumors, or it may be the thyroid glands enlarged, commonly called goitre. And I need to know which it is in order to make an intelligent prescription.

Gossip About Stock.

E. L. Knapp, Maple Hill, reports his pig crop of Poland-Chinas good—a nice lot of little pigs and all doing well, with more coming in from now until June or July. A few young gilts to come in in June and July for sale. A few young boars, old enough for service, yet for sale. No trouble experienced on account of cold weather. Had good sales all winter and spring, both of pigs and cattle. Sold three bulls since April 1; two to George Mueller, of Mulvane, one for himself and one for his neighbor, Sam Butts. One to Ed. Buckman, of Topeka. This is Buckman's second purchase from Maple Hill herd and will be used on Buckman's dairy herd.

A. E. Staley, Ottawa, Kas., writes: "My herds of Chester Whites and Poland-Chinas are in fine condition. Spring pigs doing well. Out of two litters of March Chester White pigs have but three left—all sold. Just received an order to-day for an April pig. Also shipped a Tecumseh Corwin boar this week to Colby, Kas., one that will be a credit to any herd that he may chance to head. Bought a three-year-old sow, Ottawa Maid, bred by Edward Walter, West Chester, Pa., out of Mike W. 3953. Ottawa Maid took sweepstakes at the Franklin county fair two years ago. Moorish Pride 8465 (P.-C.) is for sale; price, \$50. He is a fine breeder and in fine condition; solid black with six white points, heavy bone and short legs, neat head, with drooping ears."

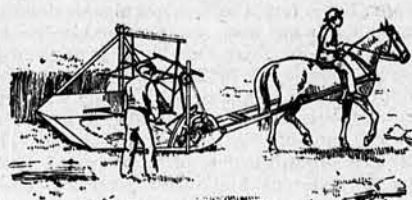
Wm. Plummer & Co., owners of Maple Grove herd of Poland-China swine, write: "In regard to pig crop of 1894, will say it has been very satisfactory so far. Have sixty pigs up to date, with several more sows to hear from—enough to swell the number to one hundred. They are sired by Shaw's Goldust 10258 S., Dandy Prince 29001 O. and Hanna's U. S. 29415 O., and from the looks of the little fellows and the breeding of their dams we think we can furnish our customers something nice this season. Brother Mains says he has a pig purchased in Ohio that ought to be named Joe Dandy. Why, bless your soul, Brother Mains, we recently bought one of Brother Tatman that is more than a "Joe Dandy." No use of going east for pigs. Kansas has better, as proven at the World's Fair. By the way, Brother Tatman is a gentleman to deal with. In poultry we are adding B. Langshans and S. L. Wyandottes. With our first love, the majestic Light Brahmas, we will have about two hundred for this fall's trade. Considering hard times, trade has been good. Thanks to the good old KANSAS FARMER."

A Free Offer to the Sick.

Any person sick or in poor health, who will send a 2-cent postage stamp to The Flower Medical Co., 559 Columbus Ave., Boston, Mass., will receive, postage paid, their work entitled "Dr. R. C. Flower's Great Work in the Sick-Room." This work contains a description of Dr. R. C. Flower's great work in healing the sick—his treatise on sleep, eating, consumption, worry, with numerous recipes and formulas. This work should be in every household; it will relieve the sick and save thousands from getting sick. It will lift the burden of worry and bring sunshine into the darkest life.

A Great Manufacturing Industry.

Wherever machinery is used for harvesting grain and grass the name McCormick is well and favorably known. That others before the late Cyrus Hall McCormick had given thought and experiment to the inventing of a grain-cutting mechanism it would be folly to dispute, but that he was the first to give to the world a practical and successful reaper is a fact so well established that only jealous opposition would presume to undertake its refutation. It was in 1831, near Walnut Grove, Va., that young McCormick, then 23 years of age, announced to the world a realization of his



ORIGINAL M'CORMICK REAPER—1831.

hopes and accompanied the announcement with a practical demonstration by harvesting a field of oats with his newly evolved reaping machine. The underlying principles of that machine are found in every harvesting mechanism to this day. They are, the divider, the reel, the platform and the reciprocating knife. Touching this point regarding the foundation principles of all harvesting machines, "Knight's New Mechanical Dictionary," by Edward H. Knight, A. M., LL. D., says:

"While there have been many valuable improvements in detail, it may be truthfully said that to dispense with Cyrus H. McCormick's invention would be to wipe every reaper out of existence. The original machine of McCormick embraces the following features: The serrated reciprocating blade, operating in fingers or supports to the grain being cut. The platform receiving the cut grain deposited thereon by the reel and from which it was raked to the

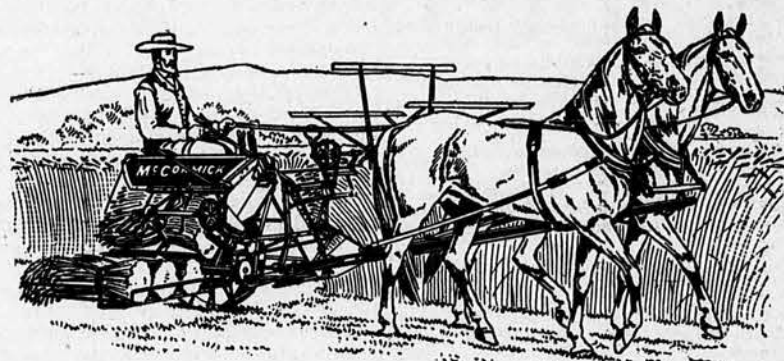
better than those of any other manufacturer, to those who knew their methods of doing business it was not surprising that they promptly signified their willingness to take them into the field tests conducted by the World's Fair management. All manufacturers of harvesting machinery were invited to participate in these trials, but aside from one solitary mower, the McCormick grain and grass-cutters were the only ones present. The medals and diplomas awarded them were, therefore, of the highest value, and to them the greatest honor attaches. In this day and age, when it is so common for manufacturers and dealers to assert that their wares are "the best," it is gratifying to find a concern that is willing to go into the competitive field against the world and prove their claims. To those, however, who have been cognizant of the methods, the policy and the aims of the McCormick Harvesting Machine Co., a course contrary to that pursued by them in relation to the World's Fair field trials could not reasonably have been expected.

Quick Haying.

Haying time is drawing near and farm work always crowds at that time. The corn field resents any neglect and the outcome of the crop is much affected if cultivation is neglected now. On the other hand, grain harvest quickly follows and must also have prompt attention. The result too often is that the grass to be cut passes the proper stage for cutting and the quality of the hay is injured, both for the feeding value for the farmer's own use and for the selling value in the market. A good deal of so-called hay is pretty poor stuff. But supposing it is cut at just the right time and is not cured or handled rightly, the result is the same poor stuff.

It will not do to allow it to lie in the swath exposed to the hot sun till ready to load. It will surely be sunburned on the top while yet green and damp underneath.

As soon as dry on the top it should either be tedded or raked into light, loose windrows for the curing to finish. In the latter



THE MACHINE OF STEEL—1894.

side in gavels ready to bind. A divider to separate the grain to be cut from that left standing."

And in the same line is the report of the Commissioner of Patents, made in 1859, who, in refusing the extension of one of Mr. McCormick's patents on the ground that it was of too much value and importance to the public, said that "not a successful reaping machine could be made without a license from Cyrus H. McCormick."

Again, at the first World's Fair, held in London in 1851, the McCormick reaper was awarded the Grand Council medal, and the Council of Juries said in their report that it was "the type after which all other reaping machines were made." Being first, then, in point of priority, it is not strange that the inventor of the reaper, in whose make-up were combined the rare qualities of the genius and the man of business sagacity, should during his lifetime, have succeeded in keeping McCormick machines first and foremost in point of excellence and popular favor; nor that his successors in the management of the great McCormick business, since the founder's death, in 1884, should have continued to hold this same enviable position. In point of annual product, the works of the McCormick Harvesting Machine Co. are the largest in the world. These works have a capacity for building one complete machine every minute, and that the product of this marvelous expedition is more nearly perfect than any other machinery of its class is readily acknowledged by the expert mechanic and the practical farmer. The popularity of the McCormick binders, reapers and mowers is so great that the company asserts that in the aggregate annual sale of all kinds and makes of grain and grass-cutting machinery, about one-third bear the name McCormick. The action of the McCormick company in relation to the World's Columbian Exposition was highly commendable and has, if possible, given them a firmer hold of the agricultural element of the world. The immense McCormick business has been built up to its present proportions, not less because of the company's honorable dealings with their patrons than for the superiority of their machines, and as they have always claimed these machines were

case it is ready for the quickest loading and is where it will not be injured by the sun.

The "Keystone" Chief Side Delivery Hay Rake can be started as soon as the first grass cut is ready. It moves around the field and can always be kept the same distance behind the mower, or where help is limited, the mower can work until the first cut grass is ready to rake and then the team and driver can be taken from the mower and put onto the rake.

If desired, two or more swaths can be thrown together so that windrows of any size can be made. Or a windrow can be turned after a shower of rain. Whenever a windrow is cured the "Keystone" Hay Loader can be started and a load put on at any speed desired, as quickly as five minutes if desired, or by slow driving, or occasional stopping enough slower for any one person to take care of. We have known a single boy to both drive and load by occasional stopping.

The "Keystone" Hay Loader has an even steady motion which does not thresh the leaves and blossoms from the clover or alfalfa and which does not jerk the machine to pieces. No manure or trash is taken up by the "Keystone." The durability is shown by the fact that the Keystone Loaders that have been in use ten or fifteen years are numerous. As for the draft, we never heard of more than the usual two horses being used on any hay wagon with the "Keystone" Loader.

Can you conceive of any quicker or better way to handle hay? It is easy to cut in the morning and have all in the barn before night and have hay of the best quality. And if the season should happen to be showery, it is the only way that saves anxiety and gives every chance to save the crop.

It will pay you well to send to the Keystone Manufacturing Co., Sterling, Ill., for their free pamphlet, "Quick Haying."

Its either Direct Legislation through the INITIATIVE and the REFERENDUM or another Revolution. Which shall it be? For books, information and plan write W. P. BRUSH, Topeka, Kansas.

See Chicago Sewing Machine Co.'s advertisement in next week's issue.

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.

Days of Evil.

BY MRS. SARAH HARGRAVES.

PART I.

Is't true, dear Lord, that on this ball terrestrial,
Thy righteous kingdom nowhere now is found?
Greed, avarice, and sin too often bestial
Seethe, mark and mar, and everywhere abound.
Pride rears its head, e'en in the courts we call
thy temple;

Envy, bitterness and strife there find a place;
And in the world's wide ranks, too ample,
Injustice rude still shows her ugly face.

Alas, our pained hearts shrink to find too much
of truth

Within this kernel lies, and turn to Thee
For consolation strong, and yet, forsooth,
The day shall dawn, when righteous shall rule
humanity.

"Thy kingdom come," is breathed by million
souls,

And humble though the suppliants be,
And cycling time unceasing rolls,
Though distant seems that glad day, yet
wait we, Lord, on Thee.

Some earnest hearts presage the good is nigh—
The heaven worketh in the ruder mass.
O, burst the bands! Divine One, at the cry
Of surging woes, and let these days of evil
quickly pass.

THY KINGDOM COME.

PART II.

"Thy kingdom come!" O, wondrous words,
What mean we, as we pray them day by day?
Doth aught of their divinest import speak,
Or do we tell them off, as parrots may?
Great Father! help us that we strive with rev-
erend mien,

To comprehend more clearly what Thy Son
hath taught;

Give us an inspiration swift and keen,
Broad, deep and strong; with purpose fraught
To do Thy bidding here, as angels do in heaven

"Thy kingdom come!" That surely meaneth
love!

Love that shall fill all hearts to overflowing
brim,

An ever active fount of the sublimest good,
Leaving no room for slime of serpent grim,
Nor poison's print, nor nauseous breed,
Whereon his hideous progeny delights to feed.

"Thy kingdom come!" That meaneth life;
Life to the lovely plants of paradise
Without a faded leaf, a blighted bloom!
Life to the spirit's fairest fruit of goodliest size
Or frailest vine with tendrils weak that find no
room

Beneath the strife of untoward winds from
changing climes.

"Thy kingdom come!" Yes, love and life;
Light, life and love, commingle in the everlast-
ing Son,

Whose reign shall stretch through farthest space
Till universal homage to His will be done.
Haste, then, O, haste! Approach with quick-
ning pace,

And place Thy heel upon the head of earth's un-
equal foe
Till not a vestige of his force remain, but Thou
art all in all.

A Note of Grant's on His Own Illness and Death.

(McClure's Magazine.)

During the closing days, when General Grant was unable to use his voice, he had constantly at his hand a memorandum pad and a pencil. These he employed to write messages to those about him. In the intervals of writing upon his "Memoirs" he would address upwards of a dozen notes a day to Dr. Douglas. One of the most notable of these communications was written on the 2d of July, the month in which he died. It shows General Grant's full knowledge of what he was facing, and his regard for those about him. It is as follows:

"I ask you not to show this to any one except the physicians you consult with, until the end. Particularly I want it kept from my family. If known to one man the papers will get it, and they (the family) will get it. It would only distress them, almost beyond endurance, to know it, and by reflex action would distress me. I have not changed my mind materially since I wrote you before in the same strain. Now, however, I know that I gain strength some days, but when I do go back it is beyond where I started to improve. I think the chances are very decidedly in favor of your being able to keep me alive until the change of weather toward winter. Of course there are contingencies that might arise at any time that would carry me off suddenly. The most probable of these is choking. Under the circumstances life is not worth the living. I am very thankful ["glad" was first written, but scratched out and "thankful" substituted] to have been spared this long, because it has enabled me to practically complete the work in which I take so much interest. I cannot stir up strength enough to review it, and make additions and subtractions that would suggest themselves to me and are not likely to suggest themselves to any one else. Under the above circumstances I will be the happiest the most pain I can avoid. If there is to be

any extraordinary cure, such as some people believe there is to be, it will develop itself. I would say, therefore, to you and your colleagues, to make me as comfortable as you can. If it is within God's providence that I should go now, I am ready to obey his call without a murmur. I should prefer going now to enduring my present suffering for a single day without hope of recovery. As I have stated, I am thankful for the providential extension of my time to enable me to continue my work. I am further thankful, and in a much greater degree thankful, because it has enabled me to see for myself the happy harmony which so suddenly sprung up between those engaged but a few short years ago in deadly conflict. It has been an inestimable blessing to me to hear the kind expressions towards me in person from all parts of our country, from people of all nationalities, of all religions, and of no religion, of Confederates and of National troops alike, of soldiers' organizations, of mechanical, scientific, religious and other societies, embracing almost every citizen in the land. They have brought joy to my heart if they have not effected a cure. So to you and your colleagues I acknowledge my indebtedness for having brought me through the valley of the shadow of death to enable me to witness these things. U. S. GRANT.
"Mount McGregor, N. Y., July 2, 1885."

Didn't Want It.

Mr. Jimsmith, the lawyer, whose name is a household word in Chicago, recently moved into a beautiful suburban home. He is highly pleased with it in a general way, but so many agents call upon him that he finds it rather a bore. The other day he opened the door to twelve agents before the afternoon was half over, and when he was summoned to the door for the thirteenth time he was mad enough to fight a herd of porcupines. A tall, sad-eyed man, dressed in black, confronted him and started to say something, but Mr. Jimsmith interrupted him:

"You don't need to tell me what you have to sell, because I don't want it; I don't need a burglar-proof clock, nor a bootjack that has a music-box in it, nor a stemwinding can-opener. I don't—"

"My dear sir, you are mis—"

"Oh, you don't need to 'dear sir,' me; it won't work. I tell you I don't want a gate that may be taken from its hinges and used as a folding bed; I have no use for a combined currycomb and mustache cup; I have a full supply of furniture polish, cough medicine and hair restorer; and what's more, my wife doesn't need a recipe for preserving codfish or frying billiard balls."

"Really, sir, this is a most extraordinary—"

"Oh, of course, it's extraordinary, but I don't want it. I suppose it can be used to grate horse-radish and tune the piano, but I tell you that I don't need it. Perhaps it will take the grease spots out of clothing, pare apples and chase dogs out of the yard, but you'll have to go somewhere else to sell it. I am surprised that a man of your age and respectable appearance should go around trying to sell pocket corn-shellers when the whole neighborhood is full of wood that ought to be sawed. What's the use of trying to sell a man a fire-escape when you can make a dollar a day baling hay?"

"I'm not an agent."

"Then what are you?"

"I'm the pastor of the Orthodox Brethren church, and I came over to get acquainted, not knowing that you were running a private madhouse. Good day."—Chicago Tribune.

The Art of Living Simply.

Some two or three years ago a pretty writer resolved to give up the temptations of a big city and betake herself to the upper part of the State, and build there a home. By the savings of a few hundreds of dollars and the assistance of a brother a plot of ground was secured, and a comfortable house of five rooms was built, all on the same floor. As you approached the house a large tree seemed to lean for support against the roof of the piazza, and gave to that out of door place its ample shade. By way of a small square hall the parlor was reached, while opposite was the breakfast-room, with its miniature butler's pantry, quite large enough for a single inmate.

The bed-rooms, although small, were charmingly furnished in old mahogany, and the smaller of the two was the author's sanctum. Three steps down from the dining-room was the kitchen, which had for its contents numerous saucepans, pails, broilers, all the paraphernalia by which a good meal could be served, while the broad windows allowed the sun's rays to flood the floor at all seasons of the year. Stairs and halls were ignominiously discarded, but the windows of the house lent a picturesque charm on all sides. The house itself was quite a distance from the village, and was in a lonely, out of the way spot, yet reached by the trades people in regular rotation each morning.

Miss C—, being the daughter of an

IVORY SOAP

99 1/2 % PURE

DON'T ACCEPT IMITATIONS.

THE PROCTER & GAMBLE CO., CINCINNATI.

army officer, inherited the bravery of her good father, and the loneliness of the situation impressed her not, the only defense of the little castle being two dirks, which hung in close proximity near the bed on which she slept. These weapons, the owner declared, could be effectually used in case of an intruder.

On a table in the breakfast-room a book of debit and credit could be shown to the visitor or friend, if one cared to see this methodical system of housekeeping by which one person could live in a simple and comfortable way for \$150 a year, the proof positive lying in the items which she showed with pride in her daily ledger. In this haven of rest she pursued her literary labors, and reaped the benefit of that quiet and repose which shone as a bright color from her sweet face.—Harper's Bazar.

Uses of Denims.

Very few think of using the old-fashioned blue or brown denims in house furnishing, and yet in many places it is very durable and really pretty. It makes a neat carpet for a bed-room, study or any room where there is not too much wear on the carpet. If blue denim is used, it should first be washed, to take away the slight greenish tinge it has when new. A very dainty carpet can be made of this material by working on it in outline, with white cotton cord, clover leaves scattered here and there, two feet or so apart; or two circles overlapping may be worked instead of clover leaves. Such a carpet makes a very dainty covering for the floor of a girl's room, and being smooth it is very easily swept. Brown denim may be worked in the same way with red or yellow cotton carpet warp.

Denims also make a serviceable rug for the bath-room, which should never be carpeted, by using two pieces of denim of the desired size with a few thicknesses of any old worn-out material between them, and running it across the sewing machine a few times to hold all together. Bind the edge with white tape or turkey-red calico. This rug protects the feet from the cold floor and is not injured by the wet, but can be hung out in the sun to air and dry.

In these luxurious days, when we must have cushions under our feet, the covers of these cushions must be of some smooth material that will not gather up the dust from the carpet. Denim answers very well when the carpet and other appointments of the room are not too rich. Embroider in outline some large, flowing design in white cord upon blue denim, and finish the edges of the cushion with upholsterer's white cotton cord. Such a cushion is pretty covered with Japanese embroidery, so-called. This consists simply of zigzag lines, changing the color of the yarn at almost every turn.

An old, light-colored, cane-seated chair, minus the seat, I saw made quite new and pretty by a coat of varnish and a seat of blue denim. One piece of denim was stretched across the seat and tacked securely. Then a second piece was tacked down on three sides, the space between stuffed with excelsior, and the fourth side tacked, brass-headed tacks being used all around. The seat was then upholstered, or tufted, with stout twine and buttons made of little moles covered with white cotton flannel, woolly side out.

Another place where this material is very useful is in making school bags. Cut a piece of blue denim fourteen by twenty-four inches. On one half work in white cotton, in stem stitch, the initials or monogram of the one for whom it is intended. Double together and sew in the form of a bag. Bind the edges with red tape and use the same, double and stitched together, for handles for the bag. This bag is neat and durable, and can be washed without spoiling its appearance.—Good Housekeeping.

One of the best evidences that Ayer's Hair Vigor is an article of exceptional merit is the fact that the demand for it is constantly increasing. No one who uses this incomparable dressing thinks of trying any other preparation for the hair.

Leasing Oklahoma School Lands.

All persons wanting to lease school land in Oklahoma will be rewarded by sending for a free sample copy of the HOME, FIELD AND FORUM, Guthrie, Okla., the leading agricultural paper of Oklahoma Territory.

Kansas Christian Endeavor.

The seventh annual convention of the Kansas Christian Endeavor societies will be held in Topeka, Thursday, Friday, Saturday and Sunday, May 24, 25, 26 and 27. It is estimated that it will be attended by between 2,000 and 2,500 delegates.

One fare round trip has been named by the railroads as the rate from all points in Kansas, Kansas City and St. Joseph, Mo. Good from May 23 to 29, inclusive. Children under 12 years will be sold tickets at one-half of this rate. From many places excursion trains will be run, and from others special cars will be attached to regular trains. For information regarding trains and cars, write to the Secretary, L. L. Roby, Topeka.

Especially prominent will be given to Junior work (several Juniors having places on the program during the Junior period), to denominational rallies, committee conferences and district rallies.

Speakers and singers of national reputation have accepted invitations to be present and occupy prominent places on the program. Many will speak who have delighted audiences of international conventions. In a measure this will be bringing to Kansas a national convention. Among the prominent speakers from out of this State will be Rev. J. F. Cowan, of Pittsburgh, Pa.; the National President, Rev. F. E. Clark, of Boston; National Secretary Baer; Mr. Thomas Wainwright, of Illinois; Bishop John H. Vincent; Rev. T. B. Penfield, Secretary for Young People's Work of the Presbyterian Board, New York city. Others are invited and will probably come. In addition to these, about one hundred and twenty of the best speakers and leaders in the State will have places on the program. They will represent fifteen denominations and all parts of the State.

Every Christian Endeavor society in the State is entitled to send delegates, whether they are enrolled with the State union or not. Each society should have somebody at the convention to represent it and to receive part of the great good which all present will be partakers of.

For credential blanks write to the Secretary. He will also be glad to send you a complete program, showing the times of the sessions, together with subjects and names of speakers.

It will be the largest convention of any kind ever held in Kansas.

Drs. Thornton & Minor,

Bunker building, Kansas City, Mo., the well-known specialists in the treatment of all rectal troubles, have established a principle in connection with their ever-increasing clientele that is well calculated to inspire confidence in their integrity and ability to perform to the last degree that which they promise when assuming to cure their patients, and that is, they decline to accept a fee until they have clearly demonstrated that a cure has been accomplished. Thousands testify to the efficiency of their treatment. Another specialty of theirs is diseases of women, and of the skin. Beware of quacks. Ask for their circulars, giving testimonials of leading business men and high officials—they contain special information for the afflicted. Address,

DRS. THORNTON & MINOR,
Bunker Building, Kansas City, Mo.

WRITE FOR FREE SAMPLES Best Tea and Mocha Coffee on earth. The best is none too good for you. WESTERN TEA AND COFFEE CO., 88 South Water St., Chicago, Ill. People appreciating best goods, write at once.

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FITS CURED

(From U. S. Journal of Medicine.)

Prof. W. H. Peeke, who makes a specialty of Epilepsy, has without doubt treated and cured more cases than any living Physician; his success is astonishing. We have heard of cases of 20 years' standing cured by him. He publishes a valuable work on this disease which he sends with a large bottle of his absolute cure, free to any sufferer who may send their P.O. and Express address. We advise anyone wishing a cure to address, Prof. W. H. PEEKE, F. D., 4 Cedar St., New York.

The Young Folks.

Long Ago.

I once knew all the birds that came
And nestled in our orchard trees;
For every flower I had a name—
My friends were woodchucks, toads and bees.
I knew where thrived, in yonder glen,
What plant would soothe a stone-bruised toe—
Oh, I was very learned then,
But that was very long ago.

I knew the spot upon the hill
Where checkerberries could be found;
I knew the rushes near the mill,
Where pickerel lay that weighed a pound;
I knew the wood, the very trees,
Where lived the poaching, saucy crow,
And all the woods and crows knew me,
But that was very long ago.

And, pining for the joys of youth,
I tread the old familiar spot,
Only to learn this solemn truth:
I have forgotten, I am forgot.
Yet here's this youngest at my knee
Knows all the things I used to know;
To think I once was wise as he—
But that was very long ago.

I know it's folly to complain
Of whatso'er the fates decree,
Yet, were not wishes all in vain,
I tell you what my wish would be:
I'd wish to be a boy again,
Back to the friends I used to know,
For I was, oh, so happy then—
But that was very long ago.—Eugene Field.

YOUNG FOLKS' TRIP SOUTH.

The Kansas City, Fort Scott & Memphis railway passes through as "new" a country in southern Missouri as can be found anywhere in the great State of Kansas. The wood-covered hills along the route present a pleasing contrast to the treeless rolling prairies of the West. While, perhaps, the soil is not so rich as Kansas possesses, the evidences to be seen on either side indicate that for fruit-growing southern Missouri will in the future take a leading position. The great number of new peach and apple orchards between Springfield and the Arkansas line tell of the faith the new settlers have in the fruit possibilities of their locality.

Just across the Arkansas State line is located Mammoth Springs, one of the prettiest spots to be found in the United States. To be sure, it cannot boast the palatial hotels so common at Saratoga and other famous springs, nor do the fashionable folks of this country make it a rule to rusticate at this point; yet the spring is there, just the same, and while it may not cure all the ills flesh is heir to, including corns and hay fever, which are the extremes of all human suffering, it does furnish a volume of the purest crystal water sufficient to turn the wheels of two immense manufacturing enterprises, which would be considered very desirable concerns to be located in the most enterprising city of the country. These two already there are the Mammoth Springs cotton manufacturing establishment and a large flouring mill, which grinds many thousand bushels of Kansas wheat every year. "Young Folks" not being well equipped for gathering statistics, when visiting this place in April last, cannot tell the number of thousands of bushels of wheat used in the one mill, nor the amount of cotton goods prepared for the market in the other.

No doubt all have seen a little bubbling spring and watched it with pleasure as it sent up its few gallons of sparkling water every minute, but at Mammoth Springs, as the name indicates, a huge volume of water pours out from the hill, enough to form a stream as large as the Kansas river; and to a Kansan, who by law is bound to be enthusiastic on the subject of water, it presents a sight well worth the time and trouble of "stopping over" to see. From Mammoth Springs southward one travels through a country very different from anything to be seen in Kansas. Instead of wheat and oat fields, the cotton plants and corn fields are the objects of the Southern farmer's care, and the further south one gets the greater is the proportion of cotton over corn observed. Approaching the vicinity of the Mississippi river, and for fifty miles before the river is reached, one has a continuous view of marshy land covered with big trees, which have stood in the slimy water for so many months of every year that they have fever sores on their lower limbs, and their ankles and knee joints are unevenly swollen until they present as knobby an appearance as the head of a good old Irish gentleman after he has attended a Donnybrook fair where black-thorn sticks had been used to a considerable extent.

As the train proceeds it seems to be getting further away from civilization and into a boundless swampy forest, when suddenly ahead of us appears the great Mississippi and the big bridge over which we go to reach the beautiful city of Memphis, just on the other side of the river.

This bridge, the dimensions of which can be learned by consulting a railroad map, is the last one over the Mississippi south of St. Louis, and from Memphis to the mouth of the river, a distance of nearly nine hundred miles, no civil engineer and architect, backed by the necessary millions of dollars,

have yet undertaken to span this largest river of the world (South America barred). As we slowly move over the water, all eyes are watching both up and down the river to get the magnificent views here presented. Then, too, there are always plenty of voluntary informers who are desirous of communicating to the stranger from the North the history of the place and to recount the incidents which have made history for the city of Memphis. One points out the very spot where the steamer Sultana was blown to atoms in 1858 and where nearly 2,000 United States soldiers lost their lives by the fatal explosion. The fact that it occurred some seven miles further up the river does not hinder the wise one from pointing to a place just below the bridge as being the exact location.

The city itself is beautifully located on a bluff on the left bank of the Mississippi, and commands a very pretty view of the river and the Arkansas forests beyond. Our young people were soon circulating among the sixty thousand or more citizens of Memphis and trying to see and learn everything that is different from the Northern cities of Kansas and Missouri. Of course, the cotton mills and compress were among the first places visited. A lengthy description of these would not be very interesting reading, but to stand near the huge hydraulic presses and see large bales of cotton, which seemed solidly bound in huge packages of many hundred pounds in weight, squeezed until they were reduced to half their former size, would be fascinating to young people from anywhere.

The people of the city are the same in appearance, generally, as you see in Northern States, but the streets leading to the wharves and cotton storage houses are usually filled with a line of vehicles not seen in the North. Each one consists of a mule, a two-wheeled truck, a negro and a bale of cotton. If the mule happens to be a large one and the colored gentleman not so lazy as the average, there will be two bales on the truck. But, what gave our young folks the most pleasure in Memphis, was the beautiful park in the center of the city, which is largely inhabited by gray and brown squirrels, rabbits, pigeons and other ferocious animals of the same sort. If a harmless-looking Northerner sits on one of the pleasantly located benches in the park, he will be at once interviewed by a half dozen or more large brown squirrels, who ask as plainly as squirrels can for something to eat. A bunch of peanuts is obtained, and for half an hour a perfect picnic can be enjoyed. The squirrels are so gentle they will eat the nuts from the hand held out to them, or will perch on the back of the seat or even on one's shoulder, and enjoy the feast with no appearance of fear. These squirrels are a peculiar feature of the city of Memphis, and they and their fathers and mothers to the seventeenth or more generation (looking backwards) have inhabited the trees of this park and have been protected by the police of the city, who, acting under a city ordinance, permit only them to "walk on the grass" and other such anarchistic and unlawful acts against the peace and dignity of the great State of Tennessee. The cotton presses, the wharves, the city generally and the pretty squirrels having been interviewed, our party of young people again started southward.

Could You Buy Nails This Way?

An old farmer came to town last week and told a merchant he wanted some nails. The merchant told him he would sell him forty pounds of twenty-pennies to the dollar, thirty-five pounds of twelve-pennies to the dollar and thirty pounds of ten-pennies to the dollar. The farmer told the merchant he would take a dollar's worth of the three kinds, and wanted twice as many tens as twelves, and twice as many twelves

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as twenties. The merchant figured all over two sheets of paper and then failed to work the sum. He then said to the farmer: "If you will work the sum I will give you the old nails." So the farmer took the pencil, solved the problem for the merchant, weighed up the nails, threw them on his back and went home laughing.—Jackson Herald.

A Cheap Town.

The city of Fort Payne, Ala., sold under the hammer the other day for \$60,000. The sale included 30,000 acres of mineral lands, 2,000 town lots and a number of costly manufacturing establishments, as furnaces, rolling mills, factories, hotels, etc. Fort Payne is a "boom town," in which millions of money were invested, mostly by New England capitalists. It came to the front in 1889, was eagerly taken up by the Eastern people, and after costing some \$5,000,000 in one way and another, collapsed completely, to the great disappointment of its enterprising projectors, and to the much greater disappointment of its unlucky investors.—Pittsburg.

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The Kansas Irrigation Commission will meet at the rooms of the State Board of Agriculture, in Topeka, at 3 o'clock p. m., on Tuesday, May 22.

Jenny Lind muskmelon is recommended very highly by Prof. Waugh, horticulturist of the Oklahoma Experiment Station. It is not too late to try a few this year.

The semi-annual meeting of the Missouri State Horticultural Society will be held at Harrisonville, Mo., June 5, 6 and 7. A fruit show will be a feature of the meeting.

An irrigation convention is to-day in progress at Meade, in Meade county. The editor of the KANSAS FARMER is in attendance, as he expects to be at a similar convention at Dodge City, on the 26th inst.

If our subscribers who are about to renew their subscriptions will notice our advertisement of "Picturesque America" in this issue, they no doubt will desire to take advantage of our offer. Send for our supplement containing our various clubbing propositions.

Readers should remember that the special offer to send the KANSAS FARMER to new trial subscribers for 50 cents from now to January 1, 1895, is still open, and that the person who sends in the subscription is authorized to keep 25 cents of the money. See the neighbors and get us a big list of trial subscribers.

By noticing the label on your paper you can easily tell whether your subscription needs renewing. If it does, it is a "sure sign" that you ought to enclose, in a letter to us, a dollar bill—a nice, large "flat" dollar bill issued by the United States. It is just as good for our use as a gold dollar or a silver dollar, and its investment in this manner will repay you "an hundred fold."

Prof. Magruder has gotten permission from the Board of Regents of the Oklahoma Experiment Station to distribute five hundred quart packages of cow peas to farmers in the Strip counties. The results obtained from the distribution in Oklahoma last year warranted this second distribution and it is hoped as much good will result from it. The peas will be sent free through the mail to any farmer in the Strip who applies for them and will promise to make a report of the trial.

Some of the commercial reporters affect to detect a slight improvement in the general business of the country. But the statistics of bank clearings continue to show a decrease, that in New York still leading and amounting to 42 per cent. compared with last year's. The decrease in the entire country was 34.2 per cent. A part of this is accounted for in the tremendous decline in prices. Indeed the decrease outside of New York was only 22.6 per cent., which is scarcely greater than the decline in prices.

THE COMMONWEAL AT TOPEKA.

There arrived in Topeka, on last Friday, over the Missouri Pacific railroad, a detachment of the "Commonweal army," under command of United States Marshal Neeley, but still recognizing the authority of its own elected commander, "General" John Sherman Sanders. Topeka did not know exactly how she would feel in the actual personal presence of 451 men who had taken for their own use a train of cars at Pueblo, Colorado, and had defied all opposition, building track around obstructions and replacing track torn up to impede their progress. Topeka would doubtless have thought she would excrete those who, in public print, had already been called "hoboes." Further, they had been arrested and were held as "Uncle Sam's" prisoners, on charge of having interfered with the transmission of the mails. On hearing of their arrival all sorts of expressions were indulged. One man said "they ought every one to be shot," and another, an able lawyer, tendered them his services free of charge.

The arrival of the train was greeted by a great crowd. The men were dusty but in good spirits, only they said they were hungry. It was then near 2 o'clock and they had eaten nothing since 3 in the morning, when the good people of Hoisington, in Barton county, had called them up to partake of their hospitality. The men were hungry, and as soon as Topeka saw that here were 451 fellow citizens, convicted of no offense, herded in cars by Winchester and hungry, her feelings were suddenly transformed. True, there were many sympathizers along the side of the train speaking words of cheer to the men; but when it was known that the men were hungry Topeka forgot her condemnation of the acts with which they were charged, cared not whether they were guilty or innocent, and became interested in their present relief, and incidentally in their cause. A big man in shirt sleeves passed up a plug of tobacco to a car window and declined to take it back when offered, saying, "pass it on to the boys. I wish I had some more with me." Mayor Harrison's humanity asserted itself and he demanded of the Marshal that the men be furnished something to eat. Soon the State Journal sent down a wagon load of eatables. A sick man was in one car and a kind-hearted woman in the neighborhood brought her dishpan full of bread and butter to be distributed in that car. Other citizens sent down loads of provisions, so that before the Marshal—apparently overweighted with the honors of his little brief authority—got his crackers and cheese to his prisoners they had taken the edge off their appetites.

The effect of the personal presence of these men was marvelous. Here were 451 American citizens, honest-faced, hard-handed, intelligent, sober, out of work. People thought as never before whether these men could get employment, and the involuntary answer came in the form of an inquiry: "What on earth can we do with them if they shall be dumped upon this community?" The papers declared that Topeka has her hands full now of as many unemployed as she can take care of. Again, it was remembered that every Republican paper in the land has declared and proven to its satisfaction that the stagnation, depression and distress result directly from the threatened legislation of the Democratic majority in Congress; that every Democratic paper has asserted and proven to its satisfaction that the trouble is the direct result of the Republican legislation of the last quarter of a century, and that the Populist papers are equally sure that the combined policies of the two great parties are but manifesting their inevitable results. All agree that the trouble and the remedy are to be sought at Washington. In the absence of the men who have set out to personally seek the remedy at the national capital, the majority of people find it easy to denounce the scheme as absurd and revolutionary, and to demand the suppression of the movement. But in the personal presence of the men, in view of their orderly and dignified behavior, the absence of drunkenness and rowdiness, and in con-

tact with their arguments, it is not improbable that half of Topeka secretly believes the men are more than half right.

It is this magical effect of the presence of the men, the admiration challenged by their voluntary submission to discipline, the spontaneous response to their needs—it is these, added to the universal unrest which make the seriousness of the present situation. If the movement were only that of a few thousand cranks it would be insignificant. It is to be hoped that the cause of it will disappear before it amounts to universal disorder.

WAITING FOR "SUCKERS."

It is generally supposed that the support of Wall street is necessary to the success of any considerable undertaking in this country, and it is not unusual for people to credit that center with the investment of its own funds. A more correct supposition is that it is a center of schemers and promoters. True, the banks of Wall street become the depository for a large proportion of the surplus capital of the country and experience has shown what proportion of this may be invested by its custodians, and what kind of enterprises may be "promoted" with profit to the promoters. European money centers are similarly managed. These promoters are expecting a "harvest" as soon as the revival of industries begins. Speaking of the situation, Henry Clews, in his last Saturday's circular, says: "In Europe and here, promoters are hungry after their long starvation, and bankers and great speculators are eager for opportunities to make up for the losses and the dull times under which they have been suffering. These classes are waiting for indications of the arrival of the biting mood among the fish of which they are anglers, and they may be expected to be soon seen throwing out their lines. This at least we augur from present symptoms; and the starting time is likely to date from the passing of the tariff bill, or its near prospect."

It would be refreshing if the author of the above quoted statements would inform a waiting public in what part of the world he expects the "suckers" first to appear.

SERIOUS SUGGESTIONS.

The Coxey movement appears to have found friends as well as foes at and near Washington. There is also manifested some anxiety as to sudden turns which may develop in the unrest which has given rise to the Commonwealth movement. The following letter was sent to Gen. Coxey:

"DEAR SIR:—I feel greatly honored in being retained as one of your counsel in cases now before the courts, and take the liberty of suggesting that I have a fine grove of fifty (50) acres adjoining Hyattsville, abounding in fish, game, firewood, grateful shade and mineral waters, which I place at the disposal of the Army of the Commonwealth—so long as you, General, shall remain in command—this condition is predicated upon my apprehension that we are on the eve of great events; and your peaceful and patriotic disposition, if stormy spirits should arise, would guarantee conservative measures."

"Even if Robespierre, Danton and Marat should reappear, the Marquis de La Fayette would, I am satisfied, survive in you to promote the Commonwealth, rather than wholesale destruction. Very respectfully, your obedient servant,
J. W. ROGERS.
Washington, May 3, 1894."

The suggestion that the country may be on the eve of great events, voices an apprehension which is nearly universal. The fact that the movement to Washington is bringing out some leaders of marked ability, and is receiving a sympathy almost universal—two points not to be lightly passed over—has suggested to a great many people that there is liable to arise the opportunity for a man of towering organizing ability and ambition, and with it the man possessing these qualities. Should the "unrest" develop into serious disorder, violent commotions, great insecurity to life and property, as well as industry, the opportunity and possibly the welcome for a Napoleon Bonaparte may be rapidly developed.

Wheat has touched the lowest point in England ever recorded there. *Mark Lane Express* says: "Unless a change takes place wheat-growing will be abandoned in this country."

A HOME INSURANCE ENTERPRISE.

On account of unwarranted and malicious newspaper attacks recently made on the Kansas Mutual Life Association, of Topeka, an official and expert examination of the affairs of the company has been made by Hon. S. H. Snider, State Superintendent of Insurance, D. R. Hitt, an expert insurance lawyer, and Messrs. Good & Fellows, expert accountants.

The findings of this official and expert examination has resulted most favorably for the company and given them the best kind of an advertisement, and a showing that must be highly gratifying to the policy-holders as well as to the company. If other Kansas institutions can make equally good showing, the State is to be congratulated, and similar institutions are sure to multiply and it will not be necessary for our people to send so much money out of the State for insurance.

The business transactions and securities of the Kansas Mutual Life Association are clearly shown to be all right in every particular and Kansans need feel no hesitation in giving this institution their most hearty and cordial patronage.

CHEAP AND GOOD.

We present on another page, from the pen of Mr. Geo. M. Munger, of Eureka, Greenwood county, a clear and explicit account of some important experiments in the line of determining the cheapest, most durable and best materials to use in the construction of his extensive irrigation plant. It is well known, to all who have given attention to the subject, that, to make irrigation practicable, it is necessary that an abundant supply of water shall be delivered at small cost. An important element in the cost of water is the first cost of the plant by which it is delivered. Another equally important element is the durability of the plant.

Mr. Munger is constructing a plant which is to cost, according to preliminary estimates, \$15,000. In making his plans he found it necessary to use a large amount of pipe for conveying water from his source of supply—an artificial lake of 160 acres—to his pumps, and from his pumps to the highest point of the land where it is to be used. Iron pipes would have been good, but since he required about twelve-inch pipes the cost would have been great. Wooden pipes are less durable but, while cheaper, too expensive to be very attractive. Mr. Munger is himself an engineer and, as is to be expected, is skeptical about untried materials. He therefore demanded the thorough tests described in his letter. The strength proven by salt-glazed earthen pipes is surprising, and with the overcoming of such minor difficulties as are to be expected, will be introduced a new era in the construction of irrigation machinery—an era of cheapness and excellence combined.

MOISTURE AND THE SOIL.

Readers of the KANSAS FARMER have had before them several valuable papers on the behavior of water in the soil, from the pen of Mr. H. R. Hilton, who is an enthusiastic investigator of this subject. He is continuing his experimental work, and on last Friday evening invited a number of gentlemen to witness some interesting phenomena which he exhibited, with no other appliances than those found in an ordinary kitchen outfit, supplemented with perhaps 50 cents' worth of glass tubes.

The experiments were performed upon various soils, from pure river sand to the finest clay. By having samples of these in large glass tubes, open at either end, and adding water either at the top by pouring or at the bottom by standing the tube in a dish of water, the circulation of the water through the soil was readily observed. As might be expected, water poured upon clean sand ran through rapidly. Placed in a saucer of water the sand was seen to lift water to a less height than clay or finer soil. A little fine dust placed above the sand greatly retarded the descent of the water. Loam and liquid manure also made sand and sandy soil much more retentive of moisture.

The editor hopes that Mr. Hilton

will presently prepare a discussion of the results of his recent experiments, showing some of his conclusions as to the special treatment suited to some typical varieties of soil in order to best conserve the moisture.

So simple and inexpensive is the apparatus necessary to investigate any soil in this respect that not unlikely progressive farmers will imitate Mr. Hilton's primitive laboratory and examine the soils with which they have to deal, thereby obtaining much valuable information, as to the treatment by cultivation and manuring necessary to produce the best results. Such manipulations will be very easy for those farmers who have taken the course at the Agricultural college, and should not be too difficult for any man whose dexterity is equal to the preparation of bread and butter.

ABOUT TUBERCULOSIS.

Dr. Salmon, Chief of the Bureau of Animal Industry in the Agricultural Department, recently said that there had not been any pleuro-pneumonia among cattle in the United States for more than two years, but that tuberculosis is to be found everywhere, more or less.

"It is not confined to any one locality," said Dr. Salmon, "nor is there an unusual prevalence of the disease. It has existed from time immemorial, but it can be lessened, and can probably be eradicated by adopting proper measures. It is a disease of the lungs among cattle and contagious, being communicated by germs. It is most prevalent in dairy cattle which are raised and kept under conditions where contagion can be easily communicated. The disease is more apt to spread among cattle kept in stables than among those in a pasture or on a ranch. It is not epidemic, nor do I find that one locality is more seriously affected than another, nor that there has been any special increase. But public attention has been directed to it more of late than before.

"We can do nothing but educate the people as to the nature of the disease, how to detect it and how to treat it. We are just getting some reports ready for publication which will be distributed among the agricultural communities, like other reports from the department, upon application.

"I suppose tuberculosis can be cured, but it takes so long and is so expensive that the cattle are not worth it, and the best way is to slaughter the animal as soon as the disease is discovered. If it is in its early stages the beef will not be affected, but if it is far advanced the beef should not be sent to market. But the danger of communication of the disease by the meat is not to be compared with that from the use of milk of diseased cattle. Germs are easily destroyed by cooking but the milk is taken raw.

"We have made one very important experiment. We took a sample of milk delivered in the ordinary way to one of the employees of this bureau by his regular milkman, who, I may say, has one of the best farms and herds around Washington. With that milk we inoculated some guinea pigs, which died of a very malignant type of tuberculosis within two months. We are now experimenting with other samples, but have not reached any results. We are going to make an inspection of the herd from which this milk came. This milk would have a very serious effect, and as the disease is so prevalent I would recommend the public to heat their milk to 160° or 170° Fahr. before using it, in order to kill the germs. This is better than boiling it, for boiling affects the taste of milk and makes it less nutritious.

"The disease can be detected by the use of a new agent, known as tuberculin—substance produced by the growth of tubercular bacilli. When this is injected under the skin it causes a rise of temperature if the animal is diseased. If it is not diseased there is no perceptible effect. Farmers and dairymen who use this instantly kill the cattle they find to be diseased, in order to save the rest of their herd and protect the public. The Department of Agriculture supplies tuberculin to State boards of health and local authorities,

but we cannot, of course, send it to individuals. It can, however, be purchased in the market."

The Weather Bureau of the United States Department of Agriculture has recently issued a circular of information, by Mr. Alexander McAdie, upon "Protection from Lightning." It is designed to give valuable information to the people in regard to the character of lightning flashes, the danger to be apprehended from this source, and the best methods of protection. In this connection it offers many practical suggestions and gives some valuable instructions regarding the erection and use of lightning-rods.

Farmers' Bulletin No. 16 of the United States Department of Agriculture, prepared by Dr. Allen, Assistant Director of the office of experiment stations, discusses the value of leguminous plants for green manuring as compared with the results to be obtained by the use of these plants for feeding stock. His comparisons are strongly in favor of the latter, provided all manure is carefully saved by the farmer. His closing remark on the subject is as follows: Grow more leguminous crops. They furnish the cheapest food for stock and the cheapest manure for the soil. They do this because they obtain from the air a substance necessary for plants and animals alike, which costs in the form of fertilizers and feeding stuffs from 15 to 25 cents a pound.

Henry Boynton writes to the KANSAS FARMER from Augusta, Maine, and says: "I lived in Kansas from 1856 to 1860, when all was new, and I, too, was new. I admired Kansas. I suppose you have all grown very rich, prosperous and stout since those 'Free State' and 'Border Ruffian' early days of our politics, poverty and promise, when Jim Lane was our Moses and T. Dwight Thacher made a very good Aaron, to teach us through the columns of the *Lawrence Republican*. I hope T. D. T. is still shining like unto a prairie sunflower." Mr. Boynton will, with Kansans generally, regret that a few months ago T. Dwight Thacher joined the great majority. As to his observations about our wealth, etc., he will, if he comes to Kansas, find us doing business at the old stand and averaging well with the rest of mankind.

Weekly Weather-Crop Bulletin.

Issued by the United States Department of Agriculture, in co-operation with the Kansas State Board of Agriculture, for the week ending May 14, 1894, T. B. Jennings, observer:

In general the State has been well watered. An excess of rain has occurred in the extreme northwestern counties, from Kiowa and Pawnee northeastward through Marshall, Nemaha and Brown, and in the extreme southeastern counties. Light scattered showers in the western counties extending northeast through Graham and Phillips.

The temperature has been above the normal in all parts of the State, while much sunshine has prevailed generally.

A good growing week. In the southeastern counties the weather, though decidedly favorable to vegetable growth, has been too wet for work. In the western counties, south of the two northern tiers, and in Graham and Phillips, the want of rain is being felt. Wheat, rye, barley, oats and grass have made a fine growth. Corn is all planted, mostly up, a good stand, of fine color, and is being generally cultivated. Fruits generally are promising well, but in Ottawa apples and cherries are falling badly. Home-grown strawberries are in market in the extreme south. Chinch bugs are appearing in large numbers as far north as Cloud and west into Stafford; in Coffey much damage is being done, locally, by the bugs in the wheat fields.

A few rainfall reports from different parts of the State are given to show the distribution: Independence, 1.73 inches; Altoona, 1.20; Fort Scott, 0.96; Burlington, 0.70; Olathe, 0.58; Topeka, 0.37; Horton, 1.12; Washington, 0.80; Concordia, 0.96; Minneapolis, 1.32; McPherson, 1.46; Macksville, 1.85; Kiowa, 0.25; Dodge City, 0.20; Lakin, 0.25; Leoti, 0.03; Utoia, 0; Morland, 0; Phillipsburg, 0; Allison, 1.10; Colby, 0.21.

The crown of ex-Empress Eugenia of France, has been purchased by one of the Mrs. Vanderbilts for the sum of \$300,000.

From Stafford County.

EDITOR KANSAS FARMER:—We had a very dry winter and a late spring. The dry, windy weather of March and the first half of April blew out lots of our wheat. There is fully one-half of the acreage that was sown last fall that is planted in corn now, and what is left does not any more than cover the ground at present time. Oats are not more than half a stand on account of late freeze. Farmers are all done planting corn, and there is the largest acreage planted that has ever been planted here. The corn is about all up and we have a good stand. The late rains have put the ground in good fix for corn, and it is growing nicely.

We have some chinch bugs in our wheat now, and should it turn dry again we have enough to clean our wheat up. We had an over-production on that line last year and our export trade has not been very heavy this spring.

Several of our farmers tried Prof. Snow's remedy last year and are ready to pronounce him a humbug on general principles, but I think that the failure was caused on account of our dry climate. When we have a dry spell here it gets so dry that we do not have even a dew for weeks at a time, and the air gets so dry that it kills the germs of the chinch bug disease before it gets a chance to infect the other bugs. I would like to call the Professor's attention to this matter and he might be able to explain the cause of the failure. There are several of our farmers that call him a hoax, and say that he is just working for that appropriation from the State.

Feed is scarce in these parts and the last year's wheat is nearly all gone, not more than 10 per cent. in farmers' hands. Corn is scarce and is worth 40 cents per bushel. Wheat, 40 cents. Oats, none on the market. Fat hogs about all gone—worth 4 cents. Fat cattle all gone; stock cattle were turned out on grass last week. Grass is growing finely.

I see some farmer giving a receipt for killing prairie dogs. I can give them a cheap one and one that will not fail. In the year 1877 I had about three acres on my place that was covered with dog holes, and the dogs would cut down any crop that I would sow. I tried poison and tried filling the holes up, but it did not do any good. Finally I went back of a restaurant and loaded up all the old tin cans that I could find, and when I went home I built a fire and melted off one end of all the cans. Then I took the spade and started for the dog town. I planted the can in the dog's hole with the open end down and pushed it in as far as I could with the spade and filled the dirt in, and that was the last I ever saw of Mr. Dog. He would run in the can and would try to dig out and stay there till he would smother. I dug out some of them a week or so afterward and found the gentleman lying in the can, dead.

We are glad to see Mr. C. Wood Davis show up the Rice county farmer on paper. We all knew that he was off his base on raising wheat.

We are anxious to see those photographs of the men that run the FARMER, for we feel personally acquainted with them through the FARMER. S. W. M. Stafford, Kas., May 7, 1894.

[Chancellor Snow has no personal interest in or benefit from the appropriations made for carrying on his work. He is paid a salary for his work as Chancellor of the State university, and this salary is made neither more nor less on account of the work he does in trying to find a remedy for the chinch bugs. The honesty of his motives are above reproach, and he has given to the public an explanation of the effect of dry weather upon the chinch bug disease, which is similar to that suggested by our correspondent. It is very desirable that a method be found of applying the disease so as to be effective in dry weather. Let us not pass judgment hastily upon those who are trying to help the farmers.—EDITOR KANSAS FARMER.]

Publishers' Paragraphs.

All who are interested in the prices and prospects of wool, whether they have any to sell or not, will do well to write a postal card to Silberman Brothers, Chicago, asking for their wool circular.

CHEAP OKLAHOMA LANDS.—There never was such a general demand for cheap agricultural lands as now. Our advertisers, Hogan, Paine & Russell, are a reliable firm that our readers may safely do business with, as the firm is known to us as the right sort of real estate people.

HARVESTING MACHINERY.—The old-time and extensive agricultural implement house of Kingman & Co., Kansas City, Mo., are offering some very special bargains on harvesting machinery which will pay our readers to investigate. Look up their advertisement and offer which only appears a short time.

A DEATH DISTRIBUTOR.—Bug-infested potato vines can be covered most quickly and thoroughly by the Aspinwall Paris Green Sprinkler, recently put out by the

Aspinwall Manufacturing Co., of Jackson, Mich. In fact, it is the only up to date method of performing this very necessary labor. It is a one-horse sprinkling cart, designed for the double purpose of destroying the potato bug by a Paris green bath and preventing blight by an application of the Bordeaux mixture.

"Seedtime and Harvest" is the name of a new book just published by S. S. King, of Kansas City, Kas. It is a graphic presentation of what the author terms "Pictures from official records, wherein are seen labor, agriculture and trade sowing the seeds in order that railroads, banks and factories may reap the harvest." By mail, 25 cents.

The W. S. Dickey Clay Manufacturing Co., of Kansas City, is one of the large concerns and is presided over by such talent and enterprise as prompts the company to keep fully up with the times. This company is furnishing the clay pipes which are being used for suction and discharge pipes on the power pumps of Mr. Munger's irrigation plant. It was this company which furnished the pipe for the experiments described in Mr. Munger's paper on the "Irrigation" page of this paper. For any information about earthen pipes of any kind to be used for any purpose, write to W. S. Dickey, Kansas City.

The Pecos river flows through southeastern New Mexico, having its rise in the mountains about Santa Fe. It is reputed to always have a copious supply of water, and this is being utilized for irrigation in the vicinity of Eddy. The canals, reservoirs, etc., which have been completed are doing good service and the products of the soil are, as usual under irrigation, surprising to everybody but irrigators. The latitude, the lay of the land and the quality of the soil, with the control of moisture assured by irrigation, are said to be peculiarly adapted to the production of fruits, as well as vegetables, field crops, and especially alfalfa, so that the advantages for settlers appear to be nearly universal. For information address the Pecos Irrigation and Improvement Co., Eddy, N. M.

Readers of the excellent paper on "Pumping Machinery for Irrigation," by Ira C. Hubbell, which appeared in last week's KANSAS FARMER, will be interested to know that Mr. Hubbell is manager for the great house of Fairbanks, Morse & Co., Kansas City, whose advertisement graces the columns of the FARMER. That Mr. Hubbell is informed as to machinery will not be doubted by any who have read his paper. It will be well for all who contemplate the purchase of any kind of irrigation machinery to consult Mr. Hubbell about it either by letter or in person. It may be interesting to know that Fairbanks, Morse & Co. are furnishing the pumping machinery for Mr. Geo. M. Munger's fine irrigation plant. Write them for catalogues and information and don't be afraid to ask hard questions.

SICKLES' HARNESS.—A novel and very unique trade-mark will be noted in this issue. It not only stamps the fine styles of harness which bear this mark with the brand of authenticity, but it reflects the principal name in the firm manufacturing them, viz.: the J. B. Sickles Saddlery Co., St. Louis, in a manner all will understand. At the same time it will impress every one with the fact that this line of goods is the best obtainable, and they are the product of the oldest firm in this line of business west of the Allegheny mountains, and are guaranteed by them. The prices are low for the quality of the goods, and buyers who wish to have a good harness for a fair price should see this line at their dealers, always being sure to note the trade-mark of the pair of "Sickles" stamped on the leather, without which, none are genuine.

A Means Out of the Difficulty.

Any strain or bending of the back for any length of time leaves it in a weakened condition. A means out of the difficulty is always handy and cheap. Do as was done by Mr. Herman Schwaygel, Aberdeen, S. D., who says that for several years he suffered with a chronic stitch in the back, and was given up by doctors. Two bottles of St. Jacobs Oil cured him. Also Mr. John Lucas, Elmora, Ind., says that for several years he suffered with pains in the back, and one bottle of St. Jacobs Oil cured him.

Horse Markets Reviewed.

KANSAS CITY.

W. S. Tough & Son, managers of the Kansas City stock yards horse and mule department, report the market as being particularly active. To the surprise of every one there were more nice horses with quality and finish and a greater number of buyers than at any time during the past season. Notwithstanding this, prices are unchanged, if anything a little weaker, except on the extra nice ones. The Southern trade continues strong on nice topky drivers. Heavy draft horses are suffering somewhat.

Mule market fairly active. Some considerable demand for good miners. Prices about steady at quotations.

Horticulture.

June Budding of the Peach.

EDITOR KANSAS FARMER:—I write you to know how June budding is done. I set a lot of young peach trees out last April, about three inches high, and cultivated them well in the nursery row. They grew about two feet high last season, size of your little finger in diameter. Will I have to cut the trees back this spring in order to get buds—I mean the trees I take buds from—and how will I treat the trees in the nursery row from now till budding time in June? And please state treatment after budding.

I am boarding at the Cedar Park house. Mr. Blood takes your paper. I am very much pleased with it.

I do August budding but never practiced June budding. I am a practical horticulturist for forty years. S. HUEY.
Manhattan, Kas.

Referred to Prof. S. C. Mason, who replies:

"In reply to the above inquiry, I will say that the season of spring budding in Kansas is much earlier than June, just when the stocks are pushing into open leaf. The scions or 'sticks' to furnish buds should be taken while the trees are dormant and stored in a cool cellar to hold them back, so that they will not be started at time of budding. After the bud is set a portion of the top of the stock may be cut away to give the bud more strength, and finally headed down to a stub to which the sprout may be supported till strong enough to sustain itself."

Pear Blight.

EDITOR KANSAS FARMER:—My pear orchard is threatened with destruction by the blight. Can you or any of your numerous correspondents name a remedy that has been tried and proven successful? I want facts, not theories, as I haven't time for experiments. The disease won't wait.

My Damson plums have dropped just before ripening for the past two years. Last year sprayed with London purple and Paris green, but didn't save them. Can you name a remedy? A reply will greatly oblige. A SUBSCRIBER.
Anthony, Kas.

The above was referred to Prof. S. C. Mason, who says:

"Replying to the above, I will say, that the blight of pear trees has been proved to be due to bacteria working in the sap, as it can be propagated by 'cultures' and the disease communicated to healthy trees by inoculation. No effective remedy or preventive has yet been discovered, though many so-called *sure cures* for pear blight have been offered.

"The most valuable treatment is to prune away completely all blighted parts, cutting some distance below where the blight can be discerned in the bark. The knife should be frequently dipped in a weak solution of carbolic acid, about one part to 1,000, that the germs may not be conveyed to healthy wood. Sometimes, in severe cases, even the whole top will need to be cut away and a strong sprout from the base of the trunk allowed to make the new tree. We have an Early Harvest tree with a handsome top in bloom this spring which was blighted to within a foot of the ground four years ago. If the disease gets into the crown pruning is of no use and the tree must go."

Spraying.

EDITOR KANSAS FARMER:—There are some orchardists in doubt as to the benefits of spraying with insecticides, and a very few claiming to have used this method for the suppression of insects, have decided against its being beneficial. But generally it has proven sufficiently helpful in saving the product to cause its continuance. In proof of this I offer the following:

Thirty-nine county Vice Presidents of the State Horticultural Society, representing as many counties, reported to the Secretary's office during January, 1894, for the preceding three years, as follows: Twenty-eight reported results satisfactory or beneficial; three partially successful; four doubtful; four not successful. Some of those reporting "doubtful" give it as their opinion that inefficiency of spraying outfit and inexperience in management was the cause of unsatisfactory results.

There is only one of the Wellhouse sprayers in this locality, and it is owned and used exclusively by only five stockholders. Four of these have re-

ported successful work and one a failure. This last stockholder sold out his interest two years ago, and the present holder is well pleased with its work and benefits to his orchard from the use of insecticide solutions.

This sprayer is undoubtedly the best adapted to orchard spraying of any now in use, and its simplicity and working capacity fits it for general use. That some instances of failure will occur in the application of any new method of culture, is not surprising. But such can generally be traced to inefficiency of the spraying outfit and a lack of thorough attention to requirements in using the mixtures, and because of this there is no good reason for discouragement, even to persons who have failed. G. C. BRACKETT.
Lawrence, Kas.

Cheap Fence Posts.

EDITOR KANSAS FARMER:—The best and cheapest way to get fence posts in Kansas is to grow them on the farm. "But," says a large number of people, "it will take so long for them to grow. I would rather buy them and not be put to so much trouble," etc. Did you ever notice that the man who did not like to do this or that because it was too much trouble or took a few years to accomplish, had a rather poor kind of home? How long will it take to grow trees large enough for fence posts? A man who deals in theories will tell you 2,500 catalpa or locust trees can be grown on one acre, large enough for fence posts, in eight years. Such a man is mistaken, for they will not grow large enough in that time. But plant the trees eight feet apart each way, cultivate three or four times during summer for three or four years, and it will be an easy matter to grow trees in eight years that will make fine posts. Ten years will make them better. It is no more trouble to grow a tree that will be worth something when grown than to grow cottonwood, Russian mulberry, maple, and many others I might name that have been planted by the tens of thousands in the State.

Eight or nine years ago there was a craze in the West to plant timber—it would make the owner a fortune in ten years. The advice then given was to plant the young trees four feet apart each way. The foundation principle was wrong. They should not be planted closer than eight feet. I would rather plant eight by twelve feet, and cultivate for four or five years, and the trees will make three or four times as many posts to the acre as trees set four feet apart each way. Planted and treated as above, the hardy catalpa, in my judgment, is by far the best tree for Kansas. It will thrive in all kinds of seasons, but should have room and some cultivation to make the best results. There are trees near Topeka, ten years old from seed, that will make three or four posts to the tree, while on adjoining ground trees planted four feet apart each way will not average one post per tree. These are facts, and if any one will take the trouble before planting to make proper inquiries, there need be no more mistakes made in planting trees to grow for fence posts.

The best size for planting is trees one or two years old. They will be from eighteen to twenty-four inches high, and should be well supplied with roots. I plant by having the ground in fair condition, then go over the ground with a lister or plow, making the rows eight feet apart; set the trees in the furrow, eight or ten feet apart in the row; throw just enough dirt against the tree to hold it in shape; afterwards go over the entire ground with a cultivator, throwing plenty of dirt around the newly-set tree. Crops of corn or potatoes can be grown for three or four years. It will do the trees good and in that way it would cost nothing to cultivate them in the spring. I planted a large number of trees too close. The result is I will have to wait three or four years yet before I can cut very many posts, while if my advice had been from *some one who knew*, I would now have thousands of trees plenty large enough for posts.

The three best trees for such planting are catalpa, black locust and Osage orange. The first and last will stand all kinds of Kansas weather. However, to



DR. R. A. GUNN.

EDITOR MEDICAL TRIBUNE AND DEAN OF THE U. S. MEDICAL COLLEGE, NEW YORK.

Dr. Gunn's name is a household word throughout America. His book, entitled "The Family Physician," has been used as a standard book of reference for years. Dr. Gunn has made a specialty of curing people. He uses such means as he knows and has found out by experience will cure them. As a result he is a great and constant advocate of probably the leading standard remedy of this age. In speaking about it he said:

"I tried this remedy over ten years ago in a bad case of Bright's disease and the patient got well. I tried it in other cases with equally good results, and then wrote to the proprietors and they sent me the formula according to which it is made. I have used it in many cases since then and the results have been all I could desire. I have seen patients recover from Bright's disease, gravel and inflammation of the bladder after taking Warner's Safe Cure, even when all other remedies had failed."

Dr. Gunn was asked if he would refer to some person who had been cured by it. He refused to give names, but said he had any number of cases, and mentioned one.

It was that of a lady. Speaking concerning it he said:

"She had been suffering from Bright's disease for some time. She became *en-cetite*, and about the fourth month she suddenly became blind, had convulsions, and finally went into an uremic coma. Several physicians who saw her said she could not live, and in this view I fully concurred. As she could still swallow I said that as a last resort they might try Warner's Safe Cure. They did so, and to the surprise of every one, she recovered. She has since given birth to a living child and is perfectly well."

Dr. Gunn said that he knows many physicians who prescribe Warner's Safe Cure regularly, and for the reason that they find their patients, both male and female, are benefited by it. It is, of course, well known that this great remedy is the standard preparation in America, not only for all kidney and liver and female complaints, but as a pure spring medicine and blood purifier. No cure ever known to the world has had such endorsement as it has, and it stands, as it deserves to stand, wholly upon its merit.

make them a success, the cultivator should be used. GEO. W. TINCHER.
Topeka, Kas.

Peaches and Potash.

EDITOR KANSAS FARMER:—Mr. Smith, who has been detailed by the Agricultural Department for a number of years to investigate the cause of the so-called "yellows" in peach trees and to advise a remedy, has, after years of practical work, given up in despair. That the disease is accompanied by multitudes of bacterial forms is evident, but that any of these organisms is the direct cause of the disease has not been proved. No remedy has yet been found for a tree really attacked by the yellows, and the axe and the fine saw seem the only means for checking it. But in all the peach-growing districts there are thousands of unhealthy, yellow-looking trees that some have assumed to have the disease. But their condition is really due to the ravages of the root aphid or to the exhaustion of the soil of elements needed for the successful growth of the trees.

It is well known that all fruit trees are large users of potash, and when, by their continued growth, they have drawn heavily upon the supply, already scanty in these light soils, the trees suffer from the lack, and the careless observer at once says, "yellows," while really the trouble is starvation. Now, it is also well known that trees and plants of any kind when in the weakened growth are more readily attacked by insects. And when the millions of root aphid begin to feed upon the roots

of the already weakened tree and it gets yellow and dies, the folks who cannot diagnose a disease correctly, say it is a dead case of "yellows." Now, while a liberal use of potash may not check a genuine case of yellows, it is certain that heavy dressings of kainit or muriate of potash will bring into thrifty growth thousands of yellow, sickly trees that are only being starved, and will put them in a condition to resist the insect attacks, or even to resist the real disease.

That soil conditions have a good deal to do with the peach yellows is evident. Several years ago, when at the University of Illinois, Prof. Burrill showed me a tree which he had brought from New Jersey, with all the evidences of an advanced stage of yellows. I saw it in the autumn, after it had been one summer planted in the rich, black prairie soil. It had started a staunch and healthy growth, instead of the wiry twigs on it when it came, and was evidently growing out of it. Prof. B. showed me a lot of healthy peach trees which he said he had vainly tried to inoculate from the diseased tree. But the disease would not go on in his soil. Of course, I know it is an old story that potash will cure a diseased tree, but I am more and more convinced that there would be less of yellows if kainit was freely used upon peach orchards. It may not cure a diseased tree, but a plentiful supply of potash will keep the trees in such robust health that disease will have little chance at them.

W. F. MASSEY.

In the Dairy.

Conducted by A. E. JONES, of Oakland Dairy Farm. Address all communications Topeka, Kas.

Asked and Answered.

EDITOR KANSAS FARMER:—(1) Would you please answer through your paper the best way to pack butter in the country, during warm weather, when we have no markets for immediate sale? (2) Also, we have a cow that has been an easy milker all along, but now one of her teats is almost closed and is very hard to milk, and retains most of the milk. Do you know any remedy to make it milk easier? By answering the above you will greatly oblige.

Cleo, Okla.

JAS. KEENAN.

(1) It is quite a knack to properly pack butter in large packages, and the work needs to be carefully done, and, in fact, where such an end is in view, the operation of churning and working should be looked after from the start. It must be borne in mind that to preserve the keeping qualities of butter, it is absolutely necessary that all the buttermilk should be removed. This can only be done by washing the butter while yet in the grain, and if any milk is left in the butter, it is best to put away in a cool place and re-work in the morning. Salt should be added with the first working at the rate of one ounce to the pound. Before putting the butter in the tub, it (the tub) should be filled with water in order to remove the taste of the wood, and then thoroughly soaked in saturated brine, so that the wood will not draw the salt from the butter which comes in contact with it. If it does, the butter thus deprived of salt will turn white, have a sickish flavor, and soon turn rancid. It is a good idea to not only sprinkle a thin layer of salt over the bottom of the package, but to rub the moist inner sides with dairy salt, and thus make sure that there is salt enough in contact with the wood to prevent its absorbing the salt from the butter. Press the butter gently into the package, that the grain may not be injured, and in such a way as to leave no space filled with air, for the air will surely mingle with the surrounding butter and injure its flavor. A good way is to begin the pressure at the center and work carefully toward the circumference, so that all air may escape at the sides. In this way, perfect solidity of the mass is secured, and it is left in the best condition for keeping, so far as the packing is concerned. When a package is filled, a piece of thin muslin, cut to fit the tub and completely cover the butter, should be wet in cold water and carefully placed over the top, having the edges pressed down close to the sides of the tub. Then the cloth should be completely covered with a thin layer of salt; and if the salt is moistened so as to form a thick paste that will become air-tight when it dries, it will do much to keep the top of the butter clean and sweet—for the more nearly air-tight the package is when completed, the better will be the preservation of the contents. Then put on the cover and seal the whole as tightly as possible. Remove the package to a cool, sweet place, not above the temperature of 60° and set so that no moisture or odors will be absorbed from the ground.

Much butter is spoiled by keeping, because of neglecting the temperature, and setting the bottom of the tub directly on the cellar bottom. If kept at a temperature above 60° butter will surely go "off flavor," and wood will as surely draw moisture from the ground; if in contact with it, and become sour and musty, sooner or later affecting the flavor of the butter within the package. Nothing is to be lost, but all is to be gained by paying attention to these little things.

(2) The best remedy for an obstructed teat is to procure a silver milking tube and insert in the passage, at each milking. This will carry off the milk, and unless the case is very obstinate, a cure will be effected. Bear in mind, where the milking cannot be done in the usual way, some such method must be resorted to or that portion of the cow's udder will become caked and eventually ruined. It is well to bathe the part affected in hot water just before milking time.

Something Needed in America.

In his most interesting pamphlet on "The Dairy Industry of Denmark," Prof. C. C. Georgeson, of the Kansas Agricultural college, tells of a class of dairy officers appointed and paid by the Danish government. These officers are called "konsulenter," or advisers. There are three such officers in the cattle-breeding departments, each having a district assigned to him. Many of the leading local breeding and dairy societies have special advisers of their own. Their business is to answer questions and give advice on all knotty points that the farmer does not feel competent to decide himself. They are supposed to be expert in all questions pertaining to cattle-breeding. They are familiar with the history and breeding of all the herds, and even individual animals, in their respective districts; and many of them are also veterinarians. They do excellent service in advising the plain farmer as to the selection of a breeding bull, or in almost any proposed line of improvement. In addition to this they lecture at the gatherings of the farmers in their respective districts, thus serving as public teachers, and in a hundred ways are of assistance in the improvement of the dairy stock.

Flavor in Butter.

The point I wish to emphasize is the necessity of aiming for higher flavor in butter by dairymen. Then the question arises, "How can this be done?" The ideal of flavor in butter is subject to several conditions—the food the cow eats, the water she drinks, environment of the cow, environment of the milk and cream before churning the latter, and handling the cream and churning. But "environment of the cow" towers high above all the others in point of effect in causing off flavor in butter. There are several things which it is impossible to accomplish in this world, and one of them is to make butter that will scale high on flavor from cream produced from cows kept in the condition we find them kept in winter on 75 per cent. of the farms in the dairy districts. And another well nigh impossible thing to accomplish is to arouse the average farmer to a realizing sense of his opportunities and get him to steer out of the old ruts and forsake the notions and ways perpetuated in practice through many generations.

It matters not how carefully milk is handled, if the cow which produced it is covered with filth from lying in her own ordure. It matters not how careful the milker, the milk obtained under such circumstances will produce butter off in flavor. It is impossible to prevent contamination under such circumstances. The best that can be done with cows that are stabled, by adopting the most approved methods of building tie-up floors and tying the animals, is hardly sufficient to insure immunity from flavor of the barn.

I am conversant with the management of scores of the farmers and dairymen of Maine, and from testimony of those observant of such matters in other parts of the country I am led to believe that the same holds true in all other sections, and such observation leads to the belief that not over 10 per cent. of the cows throughout the country are kept in condition, in the particular I have named, so their butter product will not be off four to eight points, on the basis of judging above.

A far greater advance has been made among dairymen in the matter of feeding and compounding rations for dairy stock than there has in the method of stabling the cows. Our methods of handling the milk and cream seem to be almost perfect, but the dairyman on this point of cleanliness and environment of the cow is "way off." He is yet in the bonds of iniquity and the gall of bitterness, so to speak.—L. F. Abbott, in *Farm and Fireside*.

Sufferers from physical and nervous debility find great relief in the use of Ayer's Sarsaparilla. Far better than any stimulant, its effect is not transient and superficial, but deep and permanent. It builds up the system by purifying and enriching the blood.

Get up a club for KANSAS FARMER.

The Poultry Yard.

Natural vs. Artificial Hatching.

Paper read before the Salem (Indiana) Farmers' Club, by Mrs. W. W. Stevens.

"Nature doeth all things well." "Stick close to nature's heart," and like aphorisms lose their point when it comes to incubation. The natural mode of propagating the members of the feathered tribe was for the female to build her nest in a spot as secure from natural foes as possible, and in it deposit a limited number of eggs. After a certain length of time she became broody and proceeded to sit very patiently upon her eggs the allotted time, when, if wind and weather had been favorable, she was rewarded by bringing forth her brood, which usually was quite small. This is all that is desired, perhaps, in wild birds, but falls far short of what we consider the duty of our domestic fowls.

As the country grows older and more wealthy, what once were considered luxuries are now thought to be almost absolute necessities. Caterers and cooks would not now think of trying to get even a simple meal without plenty of eggs, and a spread of any pretensions whatever requires not only a large quantity of them, but fowls as well. Natural incubation was the only means for years that we had with which to supply this demand, and it was quite inadequate, and the only reason that incubators did not come into use sooner was that the patient wife and daughters of the farmer were content to let well enough alone and did not demand them. But by and by some stingy man seeing that his women folks were making too much money off the poultry took it in charge himself, or perhaps it was a large-souled benevolent one, intent on the welfare of his family and posterity, but in either case pottering with a cross old "biddy" was too slow for a man, and true to his instinct, he went to work to get a machine to help him. At first the idea seemed to be very chimerical, but it gradually took form, and we now have incubators of almost all sizes, shapes and colors.

This idea of artificial hatching is not new by any means. In the excavations at Pompeii were found incubators that were made and in use prior to the year 79, and there are evidences that the Egyptians, from time immemorial, practiced artificial incubation. China has also been in the lead, in fact, disputing the palm with Egypt of the discovery of the methods. I find upon investigation that there were two methods at least practiced by those who raised fowls in large numbers. One practice was to pack eggs in bamboo baskets and cover them with heated wheat, and then hang the baskets over a charcoal fire, which is covered with ashes. The wheat is removed once in two or three days for two or three hours to allow the eggs to cool, when it is again heated and replaced. It requires constant watching to keep the heat near 103°, and the operator needs skill in building fires, as well as experience and patience. In another district the baskets are plastered with mud to keep them from burning, each one having a tile bottom and a close-fitting straw cover. A number of these are placed around the walls of a long shed of bamboo, plastered with mud and thatched with straw. A fire is built under each basket, and it is the duty of the attendant to keep the heat uniform, which he does by his feelings, as they have no thermometers. After four days eggs

are tested and all unfertile ones are removed. At the end of two weeks they are again taken out of the baskets and placed upon shelves in the center of the room, covered over with cotton and a blanket, and there remain until hatched out. It is nothing uncommon for them to hatch five thousand ducklings at one time.

I have looked in vain to find something about turning eggs and the amount of moisture, but find neither. Is it possible that this matter of turning eggs twice per day is all unnecessary? I have been of the opinion for two or three years that there were more chicks lost from too much rather than too little moisture, and in my experiments have had best hatches when no moisture at all was used. Old "biddy" knows a few things yet, and she never sits over a pool of water nor does she surround eggs with steam. If let alone she goes to the hay loft or under the barn floor, where it is as dry as dust, and there makes better hatches than where one puts her on an inverted sod and sprinkles the eggs two or three times per week, as some "scientific writer" recommends. It may be that an excretion from the hen's body closes the pores of the egg and checks evaporation, and not being able to do this in artificial incubation, we may have to supply moisture in moderate quantities.

Now no one thinks of going into the poultry business without a full complement of incubators, if either eggs or fowls in numbers are the aim. The broiler business has assumed immense proportions, and in the East, where they know a good thing when they see it and have the money to pay for it, entire towns and communities are devoted to the raising of early broilers, and it is all due to artificial incubators that this is possible. Hens do not go to sitting early enough, nor in large enough numbers, to get out any number of chickens, and they are so unreliable early in the spring.

I have been trying my hand at artificial incubation for several years, and with several kinds of incubators, and while I have never done anything startling with them yet, have done better on an average than when hens were depended on. The only thing against incubators is that one carries all their eggs in one basket, and if anything happens all are lost. The first and most necessary thing to insure success is close attention to the work. I think this is of more importance really than the machine. It makes no difference how much dealers may say about thermostatic bars and self-regulators, there has never been a machine yet made that will run alone, and the more machinery there is to the regulator the harder it has been for me to regulate them. After a machine has been selected, the operator—I say the operator, for it should not have many tampering with it—should become familiar with all its workings before trusting too many eggs in it.

Recommends It to His Neighbors.

SPRINGVALE, Pratt Co., Kas., April 3, 1894.
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The Apiary.

Edited by REV. E. T. ABBOTT, St. Joseph, Mo., to whom all communications relating to this department should be addressed. Inclose a stamp if you desire a reply by letter. We invite questions and communications from any of the readers of KANSAS FARMER who may be interested in bee culture.

SWARMING.

Swarming is the result of an impulse or desire for increase which is implanted in all animals. Writers sometimes talk of developing a non-swarming race of bees. This will never be done until bees cease to be bees; and, in my opinion, it is not desirable. Swarming bees are always honey-gathering bees. This being true, it is hard to see how the desire to swarm could be eliminated without destroying at the same time the disposition to store large quantities of honey.

While it is not desirable to eliminate the impulse or desire to swarm, it is very necessary, at times, to control it. Farmers are very apt to let their bees go to the opposite extreme of non-swarming and swarm too much. Parties frequently say to the writer: "My bees did splendidly last season. I got five swarms from one colony." This is all very well if one wants bees and is disposed to go the trouble of feeding up the five colonies so they will go through the winter. For if they are not fed, about four out of the five swarms are sure to be so small and weak that they will die before spring for want of stores. Frequently some of them are so small that they cannot be saved even by feeding. Then, where bees swarm so often, all of the colonies are apt to be so small that they will not store any surplus honey. As bees are kept mostly for the surplus honey they produce, it is very important that they be so managed that they produce the largest amount of honey with the smallest amount of increase. This is especially true where one has all the bees he can care for and has no sale for swarms. It will not pay to let the swarms go to the woods, as is the custom with some, for it is the old bees and queen that go out with the first swarm, and they are also the ones that do the honey-gathering.

Instead, then, of trying to prevent swarming entirely, or letting the bees swarm themselves to death, the thing to do is to regulate the swarming and so manipulate the colony that the impulse to "multiply and replenish the earth" will result in securing a large quantity of surplus honey for home consumption or the market.

The things that a farmer can do to regulate swarming before the swarm issues, are: First, give the bees plenty of room as fast as they need it for storing surplus honey. Keep the hive shaded during the hot part of the day, so the bees will not be too warm, and give them plenty of ventilation by keeping the entrance wide open. One needs at least two surplus arrangements for each hive, and they should be put on one at a time. The sections should always have starters put in them, if full sheets are not used. I prefer starters. When the sections in the first surplus arrangement are about half full of comb and honey, it should be lifted up and the empty one put under it. Of course this one should be filled with sections containing starters the same as the first one. If the second super is put on at the right time, the bees will fill the two about as quick as they would one. This is about all that can be done to regulate swarming up to the time the swarm makes its appearance. Until this takes place, it is only necessary to watch the bees so as to be on hand when, or soon after, the swarm issues. Any boy or girl can be trained to do the watching.

It will be seen from what I have already said, that I believe in letting the bees swarm without any fussing at them. There is no use for the ordinary farmer to try to prevent bees from swarming by dividing them, so I shall say nothing about this.

If one can be on hand when the swarm issues and catch the queen, the process of hiving a swarm is a very simple one. I want to say just here, however, that I think it will pay every one who has only a few colonies of bees to secure one of

Alley's drone traps for each hive. They will cost 50 cents per hive, but they will last a lifetime, and will destroy the possibility of swarms going to the woods, as well as catch the queen when the swarm issues, and save a great deal of watching before this event takes place. They may be had of any dealer in bee supplies, and any one can manipulate them, as full instructions go with each trap.

But to return to the swarm. If you have caught the queen as she came out from the old hive, proceed as follows: Cage her, or if in a drone trap, this will do, and lay the cage or trap down in front of the hive from which the swarm issued. Remain quiet until all of the bees are out of the hive and in the air. I might say in passing, for the benefit of those who do not know, that the queen is not the first bee to issue from the hive when swarming begins. The bees begin business, and when a part of them, sometimes most of them, are out of the hive, she will follow. She is almost sure to shoot out and fall upon the ground before she takes wing, and one who is accustomed to bees can see her very easily and catch her. She should be caught by the wings, so as to avoid injuring her. She will not sting, so there need not be any fears on that ground.

Having caught the queen and placed her in front of the old hive, now pick it up and carry it to some other part of the yard, and place a new hive in the exact spot where the old hive stood. Of course, you should get your new hives all ready before swarming begins. The man who has to run to his neighbor's to borrow a hive, or hunt up an old box or nail-keg to put the bees in after a swarm issues, will never make a success of keeping bees, and he would better sell out at once.

If any bees have died during the winter, one or two old combs should be put in the center of the hive; the more the better. If no old combs are at hand, then a part or all of the frames should be filled with foundation. Half sheets of foundation in each frame will do very well. Having placed the new hive thus prepared on the old stand, the work of hiving the swarm is about completed. All that is necessary is to wait until the bees miss their queen, and they will soon be back to the old stand in search of her. They will come back many times without clustering at all, but if they do not, they will not remain away long after they find they have no queen. When they begin to return, wait a few moments until the bees are part in the hive and then hold the cage or trap near the entrance and let the queen out on the alighting-board and she will run in, and your work is about done. All you have to do further is to go to the hive from which the swarm issued and remove the surplus arrangement and place it on the new hive. If you have time, it may be more convenient to do this before the swarm returns. The old colony will need no further attention for some time. Should you not have a drone trap or catch the queen, the process will be a little more complicated.

If you fail to catch the queen, pay no attention to the swarm until the bees are all in the air. If you have a fountain pump of any kind, or will take a pail of water and sprinkle them, the swarm will light more quickly. A great many people have an idea that by making a noise they can cause the bees to light. It is very doubtful if this has any influence upon the swarm at all. In fact, bees seldom go to the woods without having selected the place be-

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Stubblefield
April 8/94

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fore the swarm issues. In that case, they are very apt to rise high up in the air and make for the woods at once, and it is the next thing to impossible to stop them. Sometimes, however, they will leave after they have settled, if they are left too long before they are hived.

After the bees have settled, a "swarming-box" will be found very convenient. It is made as follows: Take a box about twelve inches square, open at the top, and bore it full of half-inch holes on all four sides, leaving the bottom without any holes. The box should be made of very thin lumber so that it will be light. Drive two staples in one side of the box, leaving them to extend out so that a pole can be inserted. It is well to have poles of different lengths, as they can be utilized to reach the bees whether they light low or high.

After the cluster is formed, elevate the box and place it directly under the cluster. By giving the box a quick motion upward against the limb, the cluster may be made to drop into it. Or, if the cluster is so situated that the limb cannot be jarred with the box in this way, a quick stroke from an axe, or with another pole long enough to reach the limb, will generally loosen the cluster and cause it to fall. Hold the box perfectly still for a few moments until the bees have all settled upon and in it. Lower it to the ground carefully and remove the pole, when you will have the bees in such shape that you can carry them to any part of the yard. Carry the box to the new hive, which has been previously prepared and located as suggested above. Turn the box upside down directly in front of the hive and give it a few sharp, quick strokes with the hand, when the bees will drop down in front of the hive. It is well to have your smoker lighted and ready for use before commencing work with the bees, so that if they show any disposition to be cross you can give them a smoking at once.

After the swarm is dumped down in front of the hive, do not smoke them any until the bees begin to go into the hive, as by so doing you might cause them to rise up in the air and go back to the limb. After most of the bees are in, if the rest are disposed to cluster on the outside of the hive, they may be driven in by the use of the smoker. By watching carefully one can see the queen as she makes her way to the hive after the bees are dumped down in front of it, and he can then be sure that she enters the hive. After the queen is in there is no danger but what the rest of the bees will go in all

right. Even should there be a few of the bees left on the limb, they will soon go back to their home if they have no queen with them.

When the bees are in the hive, all of the instructions given above will apply just the same as if the queen had been caged at the start.

If bees are handled carefully when they swarm, and nothing is done to irritate them, they very seldom show any disposition to be cross. If they do a few puffs of smoke will generally quiet them.

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The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one dollar. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, DR. S. C. ORR, Manhattan, Kas.

BRUISED SHOULDER.—I have a mare that galled her shoulder, and then it commenced to swell at the bottom and form a lump. I blistered it and it went away till I put her to work, then it came back again. What can I do for it?
St. George, Kas. E. A. U.

Answer.—If the shoulder swells when put to work the chances are that a deep abscess is forming and a callous growing around it. If so it will require an operation by some one who understands the anatomy of the part. Better consult a veterinarian.

FISTULOUS ACESS.—I have a colt, one year old, that has a sore just back of its front legs, under its chest; it started when the colt was only two months old. It first swelled, then broke, and has discharged pus ever since. What will cure it?
H. P. N. Denmark, Kas.

Answer.—There is a fistulous pipe in the sore which must be probed to the bottom and then opened, if not too deep. When opened, cover the diseased surface with powdered blue vitriol or, if it cannot be opened, inject the pipe to the bottom twice a day, for five days, with a saturated solution of the same. When the pipe is destroyed it will heal readily.

INDIGESTION.—I have a twelve-year-old mare that was taken with a shivering fit; she would turn up her nose at first as though nauseated. She seems better at times and eats well; but at other times her appetite is not so good. She is getting poor in flesh and there seems to be a soreness about her flanks and under her belly; she walks stiff and keeps her nose near the ground. What can I do for her?
E. E. L. Agra, Kas.

Answer.—Your mare suffers from indigestion, probably from worms. Give her one and a half pints of raw linseed oil and 1 ounce of turpentine, mixed, it should be given on an empty stomach. After the oil has operated a tablespoonful of the following powder should be given, in bran or oats, twice a day: Powdered charcoal, bi-carbonate of soda, gentian root and muriate of ammonia, of each 4 ounces, mixed. The oil and turpentine should be repeated again at the end of one week. Feed moderately on grain and let the mare run on green grass as much as possible for a few weeks.

SICK COW.—I have a cow, six years old, that was bred last July and has not been in heat since. She gave milk all winter but did not gain in flesh, although she had plenty of grain and good rye pasture. About March she began to grow worse and lost in her milk. She chews her cud some but does not have much appetite. She breathes hard, as if she had a lump in her throat; she has had the scours the last three or four weeks but her coat is smooth and glossy.
J. W. K. New Chillicothe, Kas.

Answer.—Your cow is quite probably affected with tuberculosis, which, in its present stage, can only be determined by an examination by a competent veterinarian in person, which I advise you to have done. But in case you cannot have such examination, and desire to try treatment, you can give the following powder in heaping tablespoonful doses, twice a day: Nitrate of potash, muriate of ammonia, licorice root, gentian, fenugreek and blood

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root, of each 4 ounces, mixed. The cow's milk should not be used, as should the disease prove to be tuberculosis, it is transmissible to the human family through the milk.

MARKET REPORTS.

LIVE STOCK MARKETS.

Kansas City.

CATTLE—Receipts, 3,000 cattle; 68 calves. Top prices on dressed beef \$4 10, the same as a week ago. The range of prices on this class was from \$3 15 to \$4 10. Texas steers, \$2 80 for mixed to \$3 80 for fed; cows, \$1 75 to \$3 00; bulls, \$2 10 to \$2 90; calves, \$3 10 to \$5 25; heifers, \$2 25 to \$3 90; stockers and feeders, natives, \$3 40 to \$3 75, N. M., \$2 50.
HOGS—Receipts, 3,500. Top price was \$4 90 which is 20 cents lower than a week ago. Pigs and lights \$4 30 to \$4 75; heavy hogs \$4 70 to \$4 90.
SHEEP—Receipts, 1,500. Muttons \$3 25 to \$3 73. Market over-stocked with spring lambs.

Chicago.

CATTLE—Receipts, 16,000. Market slow and steady. Beef steers, \$3 00 to \$4 35; stockers and feeders, \$2 35 to \$3 80; bulls, \$1 65 to \$2 25; cows, \$1 50 to \$3 80.
HOGS—Receipts, 30,000. Mixed, \$4 80 to \$5 15; heavy, \$4 75 to \$5 10; light weights, \$4 80 to \$5 15.
SHEEP—Receipts, 10,000. Natives, \$2 00 to \$4 75; lambs, per cwt., \$4 00 to \$5 15.

St. Louis.

CATTLE—Receipts, 1,200. Natives steady. Texans steady. Native steers, common to best, \$3 00 to \$4 00. Some fed Texans at \$3 75.
HOGS—Receipts, 4,500. Top, \$5 10; bulk, \$5 00 to \$5 05.
SHEEP—Receipts, 1,000. Market steady. Natives, clipped, \$2 20 to \$4 10.

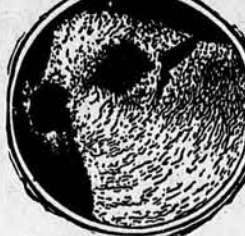
GRAIN AND PRODUCE MARKETS.

Kansas City.

In store: Wheat, 317,738 bushels; corn, 7,411 bushels; oats, 13,892 bushels, and rye, 10,006 bushels.
WHEAT—Receipts for forty-eight hours, 36,000 bushels; last year, 342,000 bushels. There was a bad break in the market and demand light. The fact that we are still out of line with other markets and receipts increasing makes buyers both backward and bearish. By sample on track on the basis of the Mississippi river, local 6c per bushel less: No. 2 hard, 4 cars 59 and 60 pounds at 55½c, 1 car 59 pounds at 55c, 1 car choice 61 pounds at 56c; No. 3 hard, 2 cars 53 pounds at 55c, 3 cars 57 to 58 pounds at 54½c, 3 cars at 51½c, 1 car at 52c; rejected, 45 to 47c; No. 2 red, 3 cars choice 60 pounds at 55c, No. 3 red, 3 cars 58 and 59 pounds at 54c, 1 car choice 57½ pounds at 55c; No. 4 red, 1 car 50c, 1 car 44½c and 1 car 45½c.
CORN—Receipts for forty-eight hours, 47,400 bushels; last year, 43,800 bushels. Mixed firm and white a little higher. By sample on track: No. 2 mixed, 36 to 36½c; No. 3 mixed, 35½ to 36c; No. 2 white, 38½ to 39½c; No. 3 white, 38 to 38½c. Sales, No. 2 mixed, 10 cars at 36½c, 5 cars at 36c, 3 cars Memphis at 42½c; No. 2 white, 2 cars at 38½c, 1 car 38½c, 5 cars at 39c, 5 cars special at 39½c.
OATS—Receipts for forty-eight hours, 11,000 bushels; last year, 21,000 bushels. Demand very good and market firmer both for white and mixed. By sample on track: No. 2 mixed, 36½ to 37c, as to quality and billing; No. 3 mixed, 35½ to 36½c; No. 4 mixed, 34 to 34½c; No. 2 white, 37 to 37½c; No. 3 white, 36 to 36½c; No. 4 white, 34½ to 35c. Sales: No. 3 mixed, 2 cars at 36½c.
MILLET—Demand good and prices steady. Per 100 pounds, German 70 to 80c, common, 55 to 70c.
BRAN—Slow sale and weak. Bulk at 55c and sacked at 60c per cwt.
FLAXSEED—Market firm at old prices, at \$1 20 per bushel upon the basis of pure.
HAY—Receipts for forty-eight hours, 120 tons. Market steady and the best grades sell well, but low grades dull. Fancy prairie, \$7 00; choice, \$8 00 to \$9 00; low grades, \$3 50 to \$5 50; timothy, choice, \$9 00; No. 1, \$8 00; No. 2, \$7 00 to \$7 50; choice clover, mixed, \$8 00 to \$8 50.
BUTTER—Market quiet for everything and the low grades are weak as well as dull. Creamery highest grade separator, 16c per pound; finest gathered cream, 15c; fine fresh, good flavor, 15c; fair to good, 13c. Dairies—Fancy farm, 11 to 12c; fair to good lines, 8c. Country store-packed—Fancy 11c; fresh and sweet packing, 8c. Roll—Fancy, 11c; choice, 10c; fair to good, 8c.
EGGS—Slow but steady. Fresh, 7½c.
CHEESE—Missouri and Kansas, full cream, 10c.

POULTRY—Receipts unusually light and movement slow at weak figures. Hens sold at old prices and there are no turkeys here to meet a light demand. We quote: Hens, per pound, 5c; roosters, old and young, 15c each; broilers, per pound, 18c; turkeys, hens, per pound, 7c; gobblers, 6c; ducks, full-feathered, 5½c per pound; geese, full-feathered, per pound, 6c; piglets, s, per dozen, \$1 25; veal, choice 80 to 100 pounds, per pound, 4½ to 5c.
POTATOES—Old stock firm and offerings fair. New goods are selling a little more freely. Colorado red, per bushel, \$5 00 to \$5 50; Colorado white, \$5 00 to \$5 50; Northern, choice, 75c to 85c; Northern, fair, 75c; Idaho, 75 to 85c; native, choice, 75 to 80c; native, good, 60 to 70c; native, common, 50c. Potatoes, sweet, 81.
STRAWBERRIES—The receipts yesterday were very heavy, and as there was no market the stock had to be carried over, when it sold at a low price. When the berries reached here yesterday they were soft and leaky and keeping

WOOL



REFERENCES:
Metropolitan National Bank,
Chicago, and this Paper.

DOES WOOL GROWING PAY?

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SUMMERS, MORRISON & CO.,
Commission Merchants, 174 So. Water Street, Chicago,

them over night did not improve their quality. Sales were made at a range of \$1 50 to \$2 25, with most going at \$1 75. The berry train yesterday was delayed, and it was 10 o'clock before they got uptown. Under the influence of a light run the price was advanced and \$2 00 to \$2 25 was the average figure, with a few crates doing a little better and a few poor ones going at less.

FRUITS—Jobbing prices: Apples, fancy stand, per barrel, \$5 00 to \$6 00; choice, \$4 00 to \$5 00.
DRIED FRUITS—Sun-dried—Apples, choice, per pound, 6c; good, 5c; poor, 4c. Peaches, peeled halves, 7c; unpeeled halves, 6c; unpeeled quarters, new, 4½c.

VEGETABLES—Jobbing prices: Beans, navy, California, per bushel, \$2 00 to \$2 15; country, \$2 00 to \$2 10; bests, per bushel, 50 to 60c; cabbage, per 100 pounds, \$2 25; celery, California, 75c to \$1 00 per bunch; onions, Northern, per bushel, 80c.
EARLY VEGETABLES—Asparagus, 10 to 12c per dozen; cabbage, California, per pound, 1½c; cucumbers, per dozen, 90 to \$1 00; beans, per bushel, \$1 75 to \$2; beets, per dozen bunches, 60 to 65c; egg plant, per dozen, \$1 00 to \$1 15; kale, per bushel, 65c; new potatoes, 1 per barrel, \$4 75; pieplant, per dozen, 20 to 30c; peas, per bushel box, \$1 75 to \$2; radishes, per dozen bunches, 10 to 15c; spinach, per barrel, \$2 50 to 30c, per bushel, 75 to 80c; tomatoes, Florida, 8 basket crate, \$3 25. New onions \$4 00 per barrel.

BROOMCORN—Harled, green, 30 to 34c per pound; green, self-working, 24 to 28c; red-tipped, do., 24 to 28c; common do., 14 to 22c; crooked, half price. Dwarf, 20 to 34c.
GROUND LINED CAKE—We quote car lots sacked at \$25 per ton; 2,000 pounds at \$26; 1,000 at \$27; less quantities \$1 50 per 100 pounds.

WOOL—Market steady but dull. We quote: Missouri and similar—Fine, 10 to 12c; fine medium, 11 to 13c; medium, 14 to 16c; combing, 14 to 16c; coarse, 12 to 14c. Kansas, Nebraska and Indian Territory—Fine, 8 to 10c; fine medium, 9 to 12c; medium, 10 to 13c; combing, 12 to 14c; coarse, 9 to 10c. Colorado—Fine, 7 to 10c; fine medium, 8 to 11c; medium, 10 to 12c; coarse and carpet, 9 to 10c; extremely heavy and sandy, 5 to 7c.

Chicago.

The following table shows the range of prices for active "futures" in the Chicago speculative market for the speculative grades of the commodities. This speculative market is an index of all prices and market tendencies:

	High- est.	Low- est.	Closed May 7.	Closed May 14.
WHEAT—May.....	55½	56½	57½	58½
July.....	57½	57½	58½	57½
Sept.....	59½	58½	59½	58½
CORN—May.....	35½	35½	37½	38½
July.....	38½	38½	39½	38½
Sept.....	39½	38½	40½	39½
OATS—May.....	33½	33½	34½	33½
July.....	29½	29½	30	29½
Sept.....	25½	25½	25½	25½
PORK—May.....	12 20	12 20	12 35	12 20
July.....	12 27½	12 20	12 45	12 27½
LARD—May.....	7 45	7 40	7 50	7 45
July.....	7 07½	7 00	7 12½	7 07½
S. RIBS—May.....	6 35	6 35	6 47½	6 35
July.....	6 35	6 30	6 37½	6 35

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lying along and owned by the Yazoo & Mississippi
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Official Receipts, 1893.....	1,746,828	1,948,373	569,517	35,097	99,755
Slaughtered in Kansas City.....	956,792	1,427,763	372,385		
Sold to feeders.....	249,017	10,125	71,284		
Sold to shippers.....	360,237	510,469	15,900		
Total sold in Kansas City.....	1,566,046	1,948,357	458,869	22,522	

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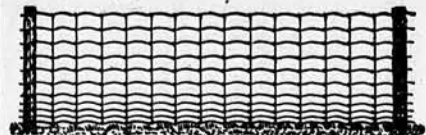

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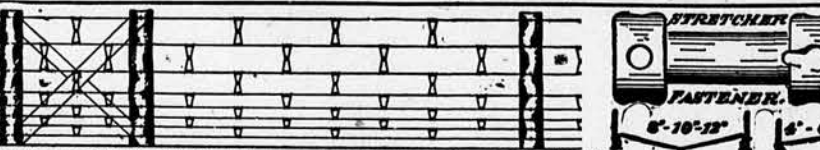
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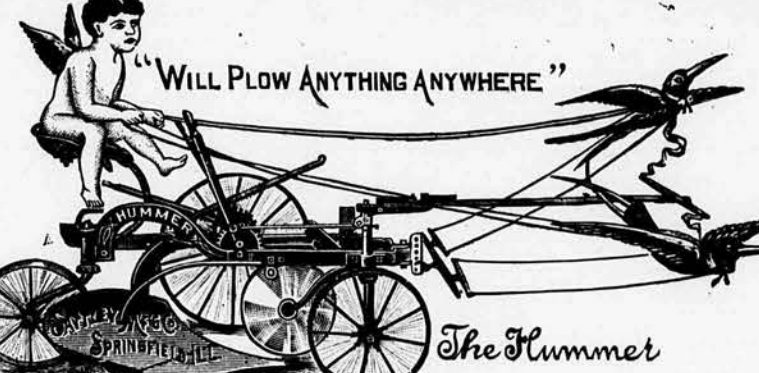
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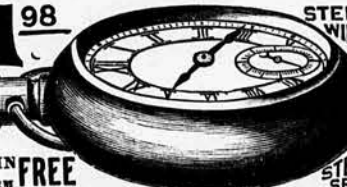
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Special:—All orders received for this column from subscribers, for a limited time, will be accepted at one-half the above rate, cash with order. It will pay. Try it!

WHITE PLYMOUTH ROCKS EXCLUSIVELY. Eggs fifteen for \$1. Mrs. W. P. Popenoe, Ber-
yton, Shawnee Co., Kas.

TO EXCHANGE.—Flouring mill, seventy-five barrels capacity per day, nearly new and in good location. Clear. Will trade for land or merchandise. John G. Howard & Co., Topeka, Kas.

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LAND CHEAP ENOUGH.—Northeast quarter section 17, township 26, range 8, Butler county, Kansas. Two dollars and ninety-eight cents an acre buys it, house, well and all. Title good. H. Boynton, Augusta, Maine.

WANTED, TO TRADE.—Three hundred and twenty acres clear land in Greeley county, Kansas, for a threshing outfit. Address Charles W. Grimes, Constant, Kas.

STOCKS OF MERCHANDISE.—\$18,000 clothing and gent's furnishing goods; \$3,500 stock hardware; \$3,000 general merchandise; \$3,000 groceries; \$1,800 hardware; \$1,500 millinery stock; \$500 millinery; \$700 stock groceries; \$1,400 books and stationery. Want land and part cash. See us for bargains. John G. Howard & Co., Topeka, Kas.

HIGH-SCORING BARRED PLYMOUTH ROCK eggs—Fifteen \$1; thirty \$1.50. Good hatch guaranteed. Also one milch cow; imported Holstein; record ten gallons per day; will sell reasonable. Address Lucy Ziller, Hlawatha, Kas.

RENTERS.—To man who will buy teams, etc., will rent farm. V. Hiner, Macksville, Kas.

BRONZE SWEET POTATO.—New variety, hardy, B productive, sweet, and the best late keeper. Plants 50 cents per 100; \$4 per 1,000 by express; 10 cents per 100 postage, if by mail. J. S. Gaylord, Muscotah, Atchison Co., Kas.

\$25 REWARD.—Strayed, March 1, one light gray gelding, 6 years old, branded 2 with 7 above (or quarter circle 2) on left shoulder, weight 1,100 pounds, shod and has plain harness marks. Also one iron-gray gelding, 5 years old, no brand, weight 1,050 pounds, shod and harness marked. A. J. Parsons, Pond Creek, L. county, Oklahoma.

FOR SALE OR TRADE.—160 acres of land in Comanche county, Kansas. Barred Plymouth Rocks exclusively; fifteen eggs \$1; thirty \$1.50. Thos. Francis, Severance, Kas.

RED KAFFIR CORN.—For sale at \$1.65 per 100 pounds; sack, 20 cents. D. P. Norton, Council Grove, Kas.

STALLION AND JACK FOR SALE.—An imported St. Percheron, sure foal-getter. A No. 1 black jack, good performer. Must be sold to close out a company. Write at once if you want a bargain. Address L. C. Clark, Secretary, Granada, Nemaha Co., Kas.

BULBS AND PLANTS.—Cabbages, tomato, celery and strawberry plants, \$2 per 1,000. Egg plants, 3 cents each. Cauliflower, 75 cents per 100. Pepper plants, \$1.50 per 100. Greenhouse plants, \$3 for 100; thirty for \$1. Canna and gladiolus bulbs, \$2 per 100; 50 cents for fifteen, Dahlias, 50 cents for twelve. Tuberoses, 25 cents per twelve. May price list free. Bonner Springs Nurseries, Bonner Springs, Kas.

FREE SEEDS.—Choice muskmelon seed sent free to any KANSAS FARMER subscriber who will divide with his neighbors next spring. Send postage stamp to defray cost of mailing, to Clarence Skinner, Topeka, Kas.

JERSEY BULL.—Baron Coomassie 32488 A. J. C. C. Three years old. Color solid dark fawn with black tongue and switch. One of the finest animals in the State. For sale by C. F. Armstrong, proprietor of the Clyde Creamery, Clyde, Kas.

CHOICE HEREFORD BULLS FOR SALE.—Eight to thirty months old. Wilton stock. Fine condition, registered and all right. Also a few fine heifers, 1 and 2 years old. Six miles north of Harveyville in Osage county. J. Q. Cowee, Grand Haven, Kas.

FOR SALE.—Two Short-horn bulls, sired by Imp. Thistletoe, ready for service; fit to head a first-class herd. Also S. C. Leghorn eggs at \$1 per 15. Address Peter Sim, Wakarusa, Kas.

WANTED.—Sale bills, horse bills, catalogues and other printing. A specialty at the Mail job printing rooms, 900 North Kansas Ave., North Topeka.

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GALLOWAY BULLS FOR SALE.—I have some fine young Galloway Bulls for sale cheap; also Scotch Collie pups. Come and see them, or address, F. R. Hinton, Snokomo, Wabunsee Co., Kas.

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THE STRAY LIST.

FOR WEEK ENDING MAY 2, 1894.

Sumner county—Chas. Sadler, clerk. **COW AND CALF.**—Taken up by John W. Sudarth, in Wellington tp., P. O. Wellington, April 19, 1894, one dark brown cow, weight about 600 pounds, with young calf; valued at \$15.

Pawnee county—James F. Whitney, clerk. **HORSE.**—Taken up by William Arnold, in Grant tp., P. O. Rozel, April 5, 1894, one iron-gray horse, 14½ hands high, scar on back; valued at \$25. **MARE.**—By same, one iron-gray mare, 14 hands high, harness marks; valued at \$25.

Cherokee county—P. M. Humphrey, clerk. **HORSE.**—Taken up by Edward Humphries, in Mineral tp., April 21, 1894, one bay horse, about 9 years old, four feet eight inches high, branded J. E. on left hip, marked in right ear; valued at \$8.

FOR WEEK ENDING MAY 9, 1894.

Ford county—J. H. Leidigh, clerk. **2 STEERS.**—Taken up by Dora Shusty, in Wheatland tp., P. O. Spearville, March 30, 1894, one red steer, belly and tip of tail white, branded I. C. on left side, 5 years old; also one spotted steer, branded U on left side, left ear cropped, 4 years old; valued at \$50.

Shawnee county—Chas. T. McCabe, clerk. **PONY.**—Taken up by G. W. Selover, in Topeka tp., December 22, 1893, one bay pony, 9 years old, no marks or brands; valued at \$5.50.

Cherokee county—P. M. Humphrey, clerk. **MARE.**—Taken up by A. A. Kenworthy, in Shawnee tp., P. O. Crestline, one iron-gray mare, 5 years old, white in face, fifteen hands high; valued at \$35. **MULE.**—By same, one small mouse-colored mule, 2 years old; valued at \$15.

Harper county—Wm. Duffy, clerk. **MARE.**—Taken up by James C. Crossman, in Stohrville tp., April 9, 1894, one roan mare, 4 years old, salt in left ear, both hind feet white; valued at \$15. **MULE.**—Taken up by C. A. Cliff, in Stohrville tp., P. O. Bluff City, April 11, 1894, one male mule, 10 years old, dun, black stripes down each shoulder; valued at \$30.

Phillips county—I. D. Thornton, clerk. **COLT.**—Taken up by P. W. Hill, in Freedom tp., P. O. Phillipsburg, April 10, 1894, one three-year-old medium size roan colt, no marks or brands visible; valued at \$22.

Crawford county—Peter McDonnell, clerk. **FILLY.**—Taken up by Wm. H. Braden, P. O. Pittsburg, April 23, 1894, one dark brown filly, a little white on each foot; valued at \$12.

FOR WEEK ENDING MAY 16, 1894.

Cowley county—J. B. Fishback, clerk. **MARE.**—Taken up by C. D. Soule, in Vernon tp., March 26, 1894, one brown mare, 3 years old, a little white on left hind foot, weight about 700 pounds; valued at \$15.

Wyandotte county—Chas. E. Bruce, clerk. **MARE.**—Taken up by John Nelson, in Wyandotte tp., P. O. address Twenty-sixth and Central avenue, Kansas City, April 24, 1894, one sorrel mare, 6 years old, fourteen hands high, white star in face and right hind foot white; valued at \$30.

Harper county—Wm. Duffy, clerk. **HORSE.**—Taken up by E. Davis, in Anthony tp., April 16, 1894, one bay horse, 10 years old, branded "J. O." on left hip, one glass eye; valued at \$12. **HORSE.**—By same, one bay horse, 6 years old, no marks or brands; valued at \$12.

MARE.—By same, one iron-gray mare, 10 years old, heavy mane and tail, branded M on left hip; valued at \$12.

Rush county—W. P. Hayes, clerk. **COLT.**—Taken up by P. Magerkurth, in Big Timber tp., May 1, 1894, one dark bay two-year-old horse colt, one white hind foot, star in forehead, rope around neck; valued at \$30.

COW.—Taken up by David Zink, in Big Timber tp. (near Liebenenthal), April 19, 1894, one dark red cow with white spots on hips and face, horns droop and turn in, a little lame in right hind leg; valued at \$15.

Anderson county—J. T. Studebaker, clerk. **FIVE HEIFERS.**—Taken up by John Bidwell, in Lone Elm tp., four red heifers, dehorned, small, 2 years old; also one red heifer with horns, some white in face, 2 years old.

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Brookdale Herd of Red Polled Cattle.

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