

# KANSAS FARMER

ESTABLISHED 1863.  
VOL. XXXI, No. 50.

TOPEKA, KANSAS, WEDNESDAY, DECEMBER 13, 1893.

SIXTEEN TO TWENTY  
PAGES—\$1.00 A YEAR.

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## SWINE.

**V. B. HOWEY**, Box 106, Topeka, Kas., breeder and shipper of thoroughbred Poland-China and English Berkshire swine and Silver-Laced Wyandotte chickens.

**MAINS' HERD OF POLAND-CHINAS.**—James Mains, Oskaloosa, Jefferson Co., Kas. Selected from the most noted prize-winning strains in the country. Fancy stock of all ages for sale.

**ASHLAND STOCK FARM HERD OF THOROUGHbred 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 Worlds Fair. Individual merit and gilt-edged pedigree my motto. Inspection of herd and correspondence solicited. M. C. Vansell, Muscotah, Atchison Co., Kas.

**KAW VALLEY POLAND-CHINA SWINE CO.**—Pigs from four grand boars, inferior to none. Address M. F. Tatman, Rossville, Kas., or the Company, at Lawrence, Kas.

**CHAMPION HERD POLAND-CHINAS.**—All sold except a few fall pigs and am now booking orders for spring pigs, of which I have a fine lot on hand. B. S. Cook, Wichita, Kas.

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**M. H. ALBERTY**, Cherokee, Kas., Registered Holstein-Friesian cattle. Choice lot of bull calves from choice cows and sired by the noted bull, Lord Clifden's Kloster No. 17033.

**J. H. TAYLOR**, Pearl, Dickinson Co., Kas.—Short-horn cattle and Poland-China swine.

**MIDLAND ST. CK 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.

## POULTRY.

**EUREKA POULTRY YARDS.**—Young stock for sale cheap to make room for winter quarters. Write for prices. L. E. Pixley, Emporia, Kas.

**PURE-BRED LANGSHAN AND BARRED PLYMOUTH ROCK EGGS**, one dollar per thirteen. Address Robert Crow, Missouri Pacific Railway Agent, Pomona, Kas.

**CHOICE S. C. BROWN LEGHORN COCKERELS** \$2 each this month. Evergreen fruit farm for sale. It is a beautiful farm. Stamp for reply. Belle L. Sprull, Frankfort Marshall Co., Kas.

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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.

## W. E. GRESHAM

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

## R. S. COOK

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

## NATIONAL HERD

(Established 1845.) **REGISTERED POLAND-CHINAS**

AS PRODUCED AND BRED BY **A. C. MOORE & SONS, CANTON, ILL.,** Have taken more and larger premiums than any other firm on any breed. 500 pigs for this season's trade. Send for photo card and prices, or come and see them. We are also breeders of pure-bred Percheron horses.

## WALNUT GROVE STOCK FARM.

## POLAND-CHINA SWINE.

For sale, aged and young stock at reasonable prices. The stock is select bred, of best strains and good individuals. Call or write for catalogue. Let me know what you want, and the matter shall have prompt and satisfactory attention. **W. B. McCOY, Valley Falls, Kas.**

## SHORT-HORN CATTLE

Poland-China Swine, Buff Cochins Fowls. Inspection invited. **L. A. KNAPP, Maple Hill, Kansas.**

## For \$9.50

I will sell direct to farmers a Feed Grinder that can be attached to any windmill, grinding for stock or farm use. This is a good mill and a big bargain. Send for circulars. **L. P. ALLEN, Rock Island, Ill.**

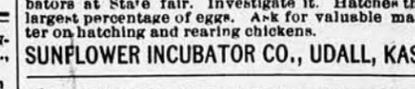
## Strawberries -- Wanted:

To let berry-growers know that our new Robinson strawberry is the ideal for market purposes. Is large, strong, staminate, firm as Captain Jack. 700,777 plants of other well-known varieties for sale. Send for price list. **B. F. SMITH, Box 6, Lawrence, Kas.**

## Sunflower Incubator

THE LATEST, BEST, CHEAPEST. Took first premium over four of the leading incubators at State fair. Investigate it. Hatches the largest percentage of eggs. Ask for valuable matter on hatching and rearing chickens.

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**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.

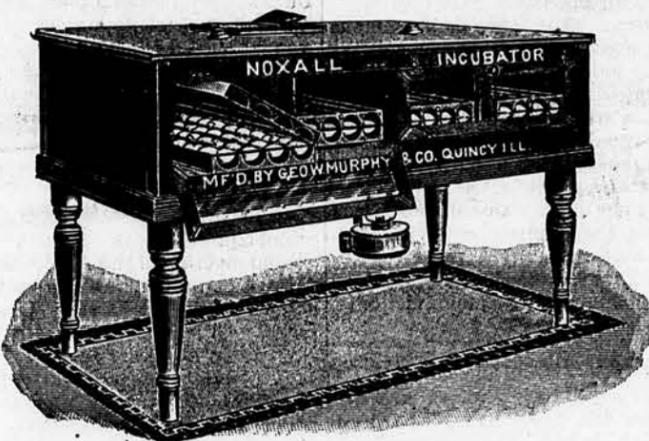
**PLEASANT PRAIRIE HERD.**—COLTHAR & LEONARD, Pawnee City, Neb., breeders of **POLAND-CHINA SWINE.** THIRD ANNUAL SALE October 18, 1893.

**F. M. WOODS**, Live Stock Auctioneer, Lincoln, Neb. Refer to the best breeders in the West, for whom I do business. Prices reasonable and correspondence solicited.

**S. A. SAWYER, FINE STOCK AUCTIONEER.**—S. Manhattan, Riley Co., Kas. Have thirteen different sets of stud books and herd books of cattle and hogs. Complete catalogues. Retained by the City Stock Yards, Denver, Colo., to make all their large combination sales of horses and cattle. Have sold for nearly every importer and noted breeder of cattle in America. Auction sales of fine horses a specialty. Large acquaintance in California, New Mexico, Texas and Wyoming Territory, where I have made numerous public sales.

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THE NOXALL INCUBATOR.

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

**MAPLE GROVE HERD.**—Of fancy bred Poland-China swine. Also Light Brahms fowls. Owned by Wm. Plummer & Co., Osage City, Kas. Stock of all ages for sale at reasonable rates.

**TOPEKA HERD OF LARGE BERKSHIRES.**—Young boars ready to use. Choice weanling pigs. Mature sows bred. **H. B. COWLES, Topeka, Kas.**

**J. F. BISHOP & SONS, LINCOLN, NEB.**—We have 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.

**BERKSHIRES.**—Wm. B. Sutton & Sons, Rutger Farm, Russell, Kansas. Choice February and March pigs. Young boars ready for service. Young sows due to farrow in August, September and October. Good individuals and choicest breeding.

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**A. E. STALEY**, Ottawa, Kansas. **CHESTER WHITES AND POLAND-CHINAS.** Light Brahms. Satisfactory guaranteed. Write for what you want.

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**JAMES QUORLO**, Kearney, Mo. **Large Berkshires,**

**S. C. Brown Leghorns and Bronze Turkeys.** On H. & St. Joe, 38 miles northeast of Kansas City.

## SELECT HERD 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.**

## POULTRY.

**H. H. HAGUE**, Walton, Kas., offers some choice birds, either sex, from twenty varieties land and water fowls, very cheap if taken soon. A fine lot of M. B. turkeys, from \$2 to \$3 each. Stamp for reply.

**ZACHARY TAYLOR**, Marlton, Kas.—Cheap, White and Brown Leghorns, Knapp, Munker and McClave strains. Barred Plymouth Rocks, Felch and Munger strains. Silver-Laced Wyandottes, Paragon strain. Cocks, \$1 to \$2. Cockerels, 75 cents to \$1.50. Hens, 75 cents to \$1. Pullets, 50 cents to \$1. In writing mention this paper.

## MISCELLANEOUS.

**F. M. WOODS**, Live Stock Auctioneer, Lincoln, Neb. Refer to the best breeders in the West, for whom I do business. Prices reasonable and correspondence solicited.

**S. A. SAWYER, FINE STOCK AUCTIONEER.**—S. Manhattan, Riley Co., Kas. Have thirteen different sets of stud books and herd books of cattle and hogs. Complete catalogues. Retained by the City Stock Yards, Denver, Colo., to make all their large combination sales of horses and cattle. Have sold for nearly every importer and noted breeder of cattle in America. Auction sales of fine horses a specialty. Large acquaintance in California, New Mexico, Texas and Wyoming Territory, where I have made numerous public sales.

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## BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeders' Directory for \$15 per year or \$5.00 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. F. Babst, Dover, Kas.

**HEREFORD CATTLE.**—Beau Real at head of herd. Young stock of both sexes for sale, of high individual merit and fashionable breeding. Correspondence as well as inspection invited. **C. S. CROSS, EMPORIA, KAS.**

**ENGLISH RED POLLED CATTLE AND COTTS** 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-FRIESIAN CATTLE.**—Are undoubtedly the most profitable for the general farmer and the dairyman. I have them for sale as good as the best at very low prices. Farm four miles north of town. Buyers will be met at train. **H. W. Cheney, North Topeka, Kas.**

## SWINE.

**HICKORY HERD** of Poland-Chinas. Our 100 pigs for this year are of fine quality. They are highly bred and of outstanding individual merit. Orders booked now at reasonable prices. **T. J. Berensford & Son, Ceresco, Neb.**

**PRINCETON HERD POLAND-CHINA SWINE.**—A choice lot of pigs for sale. Write your wants, and if I can fill them I will tell you so and guarantee animals as represented. A fine lot of bred gilts now for sale at reasonable prices. **H. Davison & Sons, Princeton, Kas.**

**D. THOTT**, Abilene, Kas.—Pedigreed Poland-Chinas and Duroc-Jerseys. Of the best. Cheap.



## Agricultural Matters.

### PLANT LIFE ON THE FARM--GERMINATION OF THE SEED.

BY PROF. C. C. GEORGESON.

In all our farm operations we deal with the forces of nature. These forces are subject to inexorable laws which we are unable to change in the least degree. The better we understand these laws the better we are able to work in harmony with them and the more successful will be the results of our labors. We prepare the soil and put the seed in the ground, but the seed grows in accordance with fixed laws over which we have no control. We can influence the results by an intelligent understanding of the conditions under which the laws operate and then shape the conditions as far as it lies in our power, to be in harmony with these laws, but we can go no further.

To illustrate, we pulverize the soil because we know from experience that by so doing we improve the conditions essential to the growth of a good crop. In their search for food the roots of the plant can ramify better and reach deeper in a loose soil than they can in a hard one, other things being equal. The law of growth impels the roots to reach out for food in all directions, and we work in harmony with this law when we cause the conditions to be favorable to the end nature has in view. In like manner, when we place plant food within easy reach of the roots we facilitate the development of the plant, because we work in unison with nature's aims. It is, therefore, an essential part of the farmer's business to have a comprehensive knowledge of nature's laws, especially those which deal with plant growth, and it may be profitable for us to give a brief and general study to the ways in which plants grow. The plant is a living organism. It has the power, under favorable conditions, to increase in size up to a certain stage and to provide for its reproduction by the formation of seed, or other organs, in which life is temporarily inherent. What life is, or how the spark of life is imparted to the plant, or why it should grow as it does, we do not know and cannot explain. We only know the results of life as manifested in the phenomenon of growth.

The seed is a convenient starting point in the study of the plant. It contains within itself all the elements necessary for the development of a plant, and when placed under the required conditions as to warmth and moisture, the inherent life shows itself in growth. All seeds are alike in their essential properties and organization. All seeds have two seed-coats, or coverings, which surround them. All seeds contain a germ, or embryo plant, from which the plant is developed. Most seeds, also, contain a store of nourishment on which the young plant lives until it is able to draw nourishment for itself from the medium in which it grows. This is the case with all agricultural plants. If we carefully examine a grain of corn or a grain of wheat we find near one end a small pointed body which, though enveloped by the surrounding tissue, is entirely distinct from it. This is the germ, which, when the grain is placed under favorable conditions to growth, elongates and gradually takes shape as a corn plant or wheat plant, as the case may be. The cellular tissue which surrounds the germ consists mostly of starch, with some gluten or protein. These substances are drawn upon by the young plantlet for its increase in size, and before they become exhausted roots have been formed which enable the plant to draw nourishment from the soil, and leaves appear which elaborate this nourishment and adapt it for growth. This is true of the seed of all agricultural plants. But, structurally, seeds may differ widely. All flowering plants are divided into three classes, on the basis of the structure of the seed, namely, as regards the number of seed leaves with which the embryo is provided. The seed leaves are technically called cotyledons. One large

class of plants, including all our grains and grasses, has but one cotyledon and is therefore called monocotyledonous. Another large class of plants, which includes our beans, peas, clovers, buckwheat, etc., has two seed leaves and is called dicotyledonous, and the third class, which is comparatively small, has several seed leaves and is called polycotyledonous. This class is represented by the pines. Sometimes the nourishment designed by nature to support the plantlets is stored in the cotyledons, and these then appear thick and fleshy, as in the case of peas and beans. We have all noticed that after the seed coat is removed a pea or a bean readily separates into two halves and appear to be united only by a slender cord attached to one side. The two halves are the two seed leaves, or cotyledons, swollen and fleshy from the store of nourishment they contain. Closer examination reveals, further, that enclosed between the cotyledons we find a very minute body snugly enclosed. In many seeds it is a mere point, so small that the naked eye can scarcely see it. In other cases it is readily discernible. This small body is the embryo bud through which growth takes place and which is technically called the plumule.

The conditions which are necessary to the germination of seed of any kind are moisture and a given amount of warmth. The necessary warmth for most of our agricultural plants is between 50° and 60° Fahrenheit, though some seeds will germinate at a much lower temperature, and tropical plants, as a rule, require a much higher temperature. Light is not necessary for germination, and it may even prove unfavorable. Now, when seed is placed in moist soil of the necessary temperature, let us see what happens. The seed coats slowly absorb moisture from the soil; this moisture penetrates through the cellular tissue of the seed, causing it to swell, frequently bursting the seed coats. The warmth and moisture stimulate the whole embryo. The substance in its cells becomes dissolved and circulation starts. In connection with this chemical changes take place in a portion of the nourishment stored up for the plantlet. These changes cause the starch to become soluble and available as food for the plant. One end of the embryo, the root end, or radicle, elongates downwards, burying itself deeper and deeper in the moist soil, while the young stem begins growth in the opposite direction, reaching upward into the air and light. In some plants also the radicle elongates upward, lifting the cotyledons clear out of the ground, as in the case of beans. In other cases the cotyledons remain buried in the soil, as is illustrated in the pea. The portion of the plantlet which reaches above ground and becomes exposed to the light turns green from the formation in its cells of a coloring substance called chlorophyll, or leaf green. This material is essential for the elaboration of the nourishment absorbed by the roots, and until the first leaves are formed the plantlet must be sustained on the nourishment stored in the seed. Simultaneously the root extends downward and subdivides, or branches, according to the nature of the plant. The plant is now ready to sustain itself from the nourishment it finds in the soil.

How this nourishment is absorbed and the elements of which it consists will be discussed in future papers.

#### Where Can Irrigation Pumps, etc., be Had?

EDITOR KANSAS FARMER:—The reports and editorials on the subject of irrigation that are published in the KANSAS FARMER, from time to time, are of deep interest to those of your subscribers who own farms in the western part of the State, and I happen to be one of that number. My farm is located in the Medicine valley, in Barber county, and I doubt if there is a more productive soil in the United States than much of the land in that county. Big crops are produced every year when there is sufficient rainfall, but, unfortunately, there are too many seasons when the rainfall is insufficient. Now, if there is any means whereby we can get a sufficient supply by irriga-

tion to carry us through the dry seasons we are all right.

I think that region is nearly all underlaid with a supply of water sufficient for irrigation if we can get the pumps and apparatus for utilizing it, at not too great an expense. We would like to know where and at what cost.

Cannot the editor of the FARMER solicit direct information from those farmers who have pumping apparatus in successful operation, as to the kind of pumps used, the best power to do the pumping, size of tanks to hold the water, how they are located and how the water is distributed to the growing crops, what is the depth and size of their wells, what is the cost of their outfits, of whom they can be obtained, and for what crops is it applicable? Practical information of this kind is what is most needed. E. P. MILLER. New York, December 4, 1893.

#### Beet Sugar in California.

The summary of the season's work in the production of beet sugar at Chino, Cal., shows that this branch of the sugar industry has come to the Pacific coast to stay:

About 4,000 acres of beets were raised, and from them were harvested and delivered to the factory 44,684 tons of beets, for which were paid \$174,812.94. The percentage of sugar in the beets raised did not go as high as last year, but it showed a higher average than the European farmers ever produced. The yield, however, was remarkably good, making the profits of the farmer more than satisfactory. The delivering of and payment for beets by months, was as follows:

	Pounds.	Amount.
July.....	2,023,300	\$4,150.18
August.....	24,115,510	51,764.18
September.....	28,878,370	57,649.17
October.....	31,513,330	57,680.58
November.....	2,307,440	3,599.83
Totals.....	89,838,450	\$173,812.94

The work of growing and delivering these beets was divided among about 170 farmers. Besides this, there were shipped from Anaheim and worked in the Chino factory 7,302 tons, so that in round numbers there were delivered to the factory 52,000 tons of beets. This gave employment to a great many men. Besides the 170 smaller farmers, a Mr. Gird alone paid out through the harvest in wages on the beet crop as follows:

July.....	\$2,256.33
August.....	4,589.97
September.....	3,539.50
October.....	3,550.00
Total.....	\$13,885.80

The manufacturing campaign in the sugar factory commenced on July 31, and from that time to November 4, when the last sugar was shipped, steam was never shut off. Grinding beets was kept up constantly, day and night, during the whole campaign, except on Sundays, when twelve hours were taken to clean up and repair. It is a remarkable fact that with all this powerful machinery at work constantly and ever at high tension, but one small break occurred, delaying work but a few hours. The factory reached a capacity of over 700 tons of beets a day, with a daily output of nearly 250,000 pounds of raw sugar. This made a daily shipment of a trainload of the product. The entire output of the factory for the season, if loaded on cars standing in line, would make 750 standard carloads, a solid train about five miles in length. The pay-roll of the men employed in the factory itself amounted to \$10,000 monthly.

#### Mothers, Save Your Children!

and read what a mother says of Stekete's Pin Worm Destroyer. Mrs. R. J. Ellis, of Hood River, Ore. "Mr. Stekete: Please find 25 cents for a package of your Pin Worm Destroyer. It has cured our little boy of having fits. We tried three different doctors and none of them could help him. Your medicine has been worth thousands of dollars to us; we will not be without it. One trial of this medicine will convince any one that it cannot be praised too highly." This advertisement will appear but a few times; as it is only 25 cents I cannot afford to advertise it. Each bottle ought to sell for \$1. If your druggist has it not for sale, then send 25 cents in United States postage and I will send by mail. Take nothing else. Cut this out and take it to your druggist. Address Geo. G. Stekete, Grand Rapids, Mich.

Get up a Club for KANSAS FARMER.

## Anæmia

is depleted blood. The blood lacks richness and the cheeks lack color. The whole system lacks the nourishment of

## Scott's Emulsion

the Cream of Cod-liver Oil. This nourishing, palatable food restores a healthy color, enriches the blood and tones up the whole system. Physicians, the world over, endorse it.

Don't be deceived by Substitutes!

Prepared by Scott & Bowne, N. Y. All druggists.

ECONOMICAL People keep leather new with Vacuum Leather Oil; 25c, and your money back if you want it.

Patent lambskin-with-wool-on swob and book—How to Take Care of Leather—both free at the store.

Vacuum Oil Company, Rochester, N. Y.

#### Hard Times Made Easy.

TO THE EDITOR:—You are probably aware that millions of America's men are tobacco-spitting and puffing billions of dollars away. The total value of tobacco consumed is appalling; all this can be saved. The nerve nicotizing and destroying effects of using tobacco, in any form, upon the physical and mental organization is simply terrible. One of Chicago's great newspapers, the *Inter Ocean*, devoted an entire eight-page, illustrated in eight colors, supplement to tell all about No-To-Bac, the only reliable and absolutely guaranteed tobacco habit cure in all the world. As a remedial agent in destroying the desire for tobacco, building up the nervous system, making pure, rich blood and increasing the weight, strength and vitality of the user, No-To-Bac performs miracles. If the readers of your paper are interested in learning all about the injurious effects of tobacco, and how it can be easily, economically and permanently cured, write us; we will send them a copy as long as they last. Address the Chicago office, 45 Randolph street, or the main office and laboratory, Indiana Mineral Springs, Ind. Respectfully yours,

A. L. THOMAS, President Sterling Remedy Co., Makers of No-To-Bac.

#### Farmers, Attention!

A \$20,000 stock of World's Fair furniture has been sent to me for slaughter. I can, and will, sell you blankets, sheets, pillow cases, iron and wooden beds and bedding at less than half original cost. Chamber suits way down. All furniture as good as new. Come and see me. J. H. DENNIS, Under Hamilton Hall, Topeka.

#### Florida.

"Beauties of the East Coast" is the title of a magnificently illustrated book giving desirable information relative to the famous winter resorts of Florida. It is the most attractive description of Florida resorts and scenery ever published. Copies of the book may be had by calling at the Grand Junction ticket office, Kansas City, or will be mailed free. Address J. E. Lockwood, General Passenger Agent Memphis Route, Kansas City, Mo.

#### Memphis Route! Half-Rate Holiday Excursions.

On December 23, 24, 25, 30, 31 and January 1 the Kansas City, Ft. Scott & Memphis railroad company will sell round-trip tickets between all stations on its lines at rate of one fare, with minimum rate of 50 cents, return limited to January 3. On December 19, 20 and 21 this company will also sell excursion tickets at one fare to points in Florida, Tennessee, Mississippi, Alabama, Georgia and the Carolinas, with limit of thirty days for return. On dates last named and for the special accommodation of sportsmen and home-seekers, round-trip tickets at one fare (with thirty-day return limit) will be sold to points in Missouri and Arkansas east of Springfield, from Lamar and stations north and west, including the Clinton division north of and including Clinton. J. E. Lockwood, General Passenger and Ticket Agent, Kansas City.

## The Farmer's Forum.

This department is devoted to the discussion of economic questions and to the interests of the Alliance, Grange and kindred organizations.

### Where the Profits Go.

Levy Mayer arrived home last night from London. He brought a budget of exceedingly interesting news. He finds there still prevails in financial circles dullness and apathy. He met several leading bankers and financiers, and through them learned that money was never more plenty. England receives annually from the United States by way of dividends and interest \$500,000,000; and from other sources the total annual income from investments is \$2,000,000,000. For three years the English people, for lack of confidence, have made no substantial investments outside their own country. The result is a vast accumulation of unemployed capital seeking safe investment opportunities. In the last three years they have lost in South American and Australian investment \$1,000,000,000; they have lost least in the United States, but except for speculative purposes they have no further use for American railroad stocks, except that of two or three trunk lines.

They are looking anxiously forward to the repeal of the Sherman act. During this year English people have sold in this country on account of uncertain silver legislation nearly \$100,000,000 worth of their best railroad securities, owing to a fear that interest and dividends may be paid in silver. But with the silver bugaboos out of the way, there are unlimited amounts of English money awaiting investment in first-class American securities.

This condition, including all its ramifications, has led to the preliminary steps for the organization of a new banking institution with three main offices in Paris, London and New York, and possibly a branch in Chicago. The institution is backed by strong English and French bankers.

For many years there has existed in this country great difficulty on the part of merchants and others to secure sufficient fire insurance in responsible companies. Mr. Mayer was consulted as to the formation of what is to be known as the International Lloyds, to be operated after the style of the original Lloyds. It will have offices in New York and London and representatives in Chicago.

It is understood certain local enterprises, old and new, for which Mr. Mayer is counsel, received his attention in London, and among them is a proposed consolidation of certain stock yards and packing industries. It is said one part of his mission was to amalgamate the various members of the International Packing Company with the Chicago Packing and Provision Company. Such a combination if effected would make perhaps the strongest individual corporation of its kind in the United States. He was asked about the matter, but declined to discuss it on the ground of professional propriety.—*Chicago Tribune, October 9.*

### A Word to Tariff Makers.

The mistake that extreme protectionists make is that of ignoring the changes that are gradually being wrought by the action of protection. To maintain a rate of duty at a figure that compels our home consumer to pay an undue royalty to a home manufacturer, is quite as grave an error as to reduce the rate to a point which will permit the foreign maker to drive our own out of business. The patriotic aspect of the protection dogma does not contemplate the enrichment of the master, but the employment, at living wages, of the man. There should be no trace of partisanship in the matter; and, in fact, there is none when business men—not politicians—discuss it.

We do not believe that the country would immediately proceed to go to the dogs if all tariff protection were removed at once; but we do think that it would be a grievous blunder. No one of intelligence wishes to see this done, nor is there the slightest danger of it. Our industries are to-day in a condition of nervous fright, resembling

that of a boy who expects to be taken to the dentist's—suffering more, perhaps, in anticipation than would be possible during the operation. When Congress meets it should at once take up the tariff question, and in the prompt manner that it dealt with the silver bill dispose of it and let the agony be over. We are quite sure the Senate will not try to block proceedings this time.

Whatever is done should be done at once, the new laws, if any, to take effect not less than six months after the bill passes. Less time would badly cripple our domestic manufacturers and merchants and be unfair to their correspondents abroad. Remove this uncertainty—this gloomy waiting—and the wheels of industry will soon resume their merry hum.—*Blue and Gray for December.*

### How Much Do We Owe?

Several attempts have been made to estimate the actual interest-bearing debt against the industries of the people of the United States. When the returns of the census of 1890 shall have been fully tabulated, official information of a reasonably definite sort will be available. To avoid waiting for this tabulation, Mr. W. F. Kendrick, of Denver, Colorado, has compiled from several official sources estimates of the details of the indebtedness which, when added, give a sum which is so great as to be bewildering. Extracts from Mr. Kendrick's tables are given below:

National debt of the United States (U. S. census, 1890)	\$891,960,104 00
State and municipal debt (U. S. census, 1890)	1,135,210,412 00
Railway bonds on 171,886 miles railway, 1892 (Poor's Manual 1893)	5,468,611,204 00
The average farm and home debt shown by tabulation of partial returns from counties distributed throughout the Union, is \$1,288 for farm and \$394 for homes. If this average holds good for the United States, there is an existing debt in force, on the farms and homes of the United States occupied by owner (R. B. Porter, Sept. 11th census, in <i>North American Review</i> , Vol. 153, page 618) of...	2,560,000,000 00
Mortgaged indebtedness of business realty, street railways, manufacturing and business enterprises (estimated from partial reports 11th census)	5,000,000,000 00
Loans from 3,773 national banks (statistical abstracts of the United States)	2,153,769,906 00
Loans from 5,579 State, saving, stock and private banks and trust companies (statistical abstracts of the United States)	2,201,764,292 00
Total	19,346,815,848 00
Annual interest at 6 per cent	\$1,160,778,950 88
Population of U. S., July 1, 1892, 65,520,000	
Above debt, per capita	\$295 27
Annual interest, per capita	17 71
Total gold in United States, in coin and bullion, per capita, August, 1893	9 01
Total silver in United States, in coin and bullion, per capita, August, 1893	9 18
Total gold in the world in coin and bullion, per capita, August, 1892	2 51
Total silver in the world in coin and bullion, per capita, August, 1892	2 58
CENSUS BULLETIN, JUNE 4, 1892	
Population, 1890, 62,222,250	
Total assessed valuation United States, 1890	\$21,651,585,465 00
Assessed valuation, per capita	394 04
Taken as 25 per cent of asking valuation.	

The New York *Sun* aptly illustrates the gospel of hate, as follows: "I hate the Irish," said an Englishman. "I hate the Jews," said an anti-Semite. "I hate the Germans," said a Frenchman. "I hate the Turks," said a Russian. "I hate the blacks," said a white man. "I hate the New Yorkers," said a Chicago babler. "I hate the Chinese," said a Californian. "I hate men," said a silly young woman. "I hate the Choctaws," said a Cherokee. "I hate the French-Canadians," said an English-Canadian. "I hate the bears," said a Wall street bull. "I hate the Catholics," said a Protestant. "I hate the Senegambians," said an Ashantee. "I hate the Yalensians," said a Princetonian. "I hate old toadstools," said a young toad. "I hate foreigners," said a native. "I hate Kansans," said a Nebraskan. "I hate the Devil," said an infernal imp. "I hate the grocer on the opposite corner," said the grocer on the other corner. "I hate fat men," said a living skeleton. "I hate the cobblers," said a shoemaker. "I hate the newspapers," said a fellow who was buying one of them. "I hate old women," said a blackguard.

We tell all these haters, excepting the infernal imp, that they are in the wrong. "Brethren, let us love one another," hating only the devil, his imps, his imitators and his backers or abettors and all their works.

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**WE WILL SELL YOUR** Grain, Hay, Dressed Hogs, Lambs, Veal, Wool, Butter, Eggs, Poultry, Fruit, Vegetables, Hides, Pelts, Furs and all kinds of Produce on the Chicago market for you on commission, to best advantage.

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**FARMERS & MANFRS. COMMERCIAL LEAGUE,**  
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New Subscribers, 25 cents for one year.

John M. Stahl & A. S. Core,  
Editors & Proprietors,  
QUINCY, ILL.

### Agricultural Paper Fakirs.

There are fakirs in every line of business, and their temporary success often seems to prove the correctness of P. T. Barnum's famous assertion as to the satisfaction with which people—some people—pay to be humbugged. The fakirs in the line of making agricultural papers are well described in an editorial in the *Live Stock Indicator*, which for its importance at this season of the year we reproduce, as follows:

"It may seem that the advice we venture to give to our readers may not be entirely disinterested, and yet we will presume sufficiently on their confidence to make the suggestion now in our mind. For the next few weeks there will be a class of 'cheap John' agricultural papers forced in every possible way upon the farmers. They will be sandwiched with his local weekly, folded in his county paper, furnished free by his implement dealer, and go hand in hand to his house by the kind offices of his religious journal. Many of these papers are printed purely and simply as the medium of some firm or special line of business. The editorial work is done by some cheap clerk who does not know a peanut from a cow pea, and whose mistakes afford a great deal of amusement to a well-informed farmer. There is a two-fold object in forcing these papers on the public at a mere nominal price, first to advertise their goods at the expense of others not in their line; and, second, by giving the farmer a paper free to exclude papers with competing advertisements, and thus by narrowing his mind, make him a victim of their greed to be fleeced at will. The suggestion we make to our readers is, that whatever paper or papers they may choose for the next year's reading, let them be papers that give them valuable information and not the mere common-place things connected with agriculture; papers that are edited with thought, that show evidence of care and study and thorough acquaintance with farm life and its conditions. It is not possible to throw away any money on this class of newspapers. There is not one published in the West that is not worth to every farmer who carefully reads and studies it many times its subscription price. Every editor and business manager of a genuine agricultural paper rejoices in the widest possible diffusion of first class agricultural papers. There is not the slightest room for jealousy or rivalry between men of this class. They know that if the farmer once gets in the habit of reading an agricultural paper that is carefully and honestly edited, and published by men who are in thorough sympathy with farmers and have wide experience in farm work, he will be ready to take one or more in addition. It is the farmer that takes one good farm paper that takes two or three, while the man who takes the cheap John paper, edited with the scissors and paste-pot, has so low an opinion of agricultural papers that he will not subscribe for any unless they seem to come to him as a free gift.

"Modern improvements in the appliances for publishing agricultural papers have so cheapened them that one, two or a half dozen of the best are within the reach of every man who is farming for dear life and who really desires information. Papers that are practically given away are not merely worthless in themselves, but absolutely worse than worthless, for the reason that they convey utterly false conceptions as to the character and mission of a truly agricultural paper."

The Nebraska *Farmer* well says that this should be made a year for sending nothing but well-fatted cattle, hogs and sheep to market. We have plenty of good feeding material on hand, and if sent to market on the backs of well-fatted heaves, porkers or muttons it will in that way bring the very best prices to be obtained for it. Poorly fed stuff always goes to market at a loss, leaving the farmer's grain also to be sent to market at a price below the cost of production, as like as not. Western stockmen should be the best feeders in the world.

### Gossip About Stock.

T. T. Perry, Girard, Kas., would buy a few Cashmere goats of any of our readers that may have any for sale.

J. D. Ziller, Hiawatha, writes that parties wanting fine Poland-Chinas at half price should confer with him now. He will also sell the noted boar, Gold Coin, sired by Tecumseh Chip, as he can use him no longer.

The Kansas Improved Stock Breeders' Association expects to hold a rousing and important convention at Topeka during January. Every Kansas breeder who can possibly be present should do so. Detailed announcements will appear later.

L. A. Knapp, of Maple Hill, breeder of Short-horn cattle, writes: "Inquiries are coming with encouraging frequency. Have some fine young bulls on hand and never was in better fix with young females. Also have a few fine young Poland-China boars still on hand. Come and see me, gentlemen."

By oversight last week the new advertisement of H. H. Hague, of Walton, was left out. Mr. Hague writes that his advertisement had sold most of his fine hogs and sheep, so that he desired his whole space to be given to poultry advertisement. His young stock of pigs and sheep will be ready for sale in March and April.

The third annual meeting of the Dorset Horn Sheep Breeders' Association of America, will be held at the Fifth Avenue hotel, New York, N. Y., December 28, 1893, at 10 a. m. At the annual banquet Dorset lamb will be served, furnished by Mr. F. H. Turkington, of Connecticut. After dinner addresses will be delivered by Wm. E. Kimsey, Indiana, subject, "Our Lady Members;" Col. J. L. Henderson, Pennsylvania, "Are Dorsets Dog-Proof?" J. M. Ham, New York, "The Dorset as a Mutton Lamb." M. A. Cooper, Secretary.

J. F. Bishop & Sons' sale of top Poland-Chinas at Lincoln, Neb., December 6, was in all respects a good and satisfactory one. It brought together a number of the best of Iowa, Kansas and Nebraska breeders. All were pleased with the stock put into the sale ring. It wore the stamp of good breeding and common sense treatment. It was put up in breeding condition. The one hundred head sold brought \$3,802, making an average of \$38. There was no cheap corn-made pork in the sale for the purpose of creating fancy or fictitious prices. Many of the sows were bred and they were in the pink of condition for bringing satisfactory results to buyers. The KANSAS FARMER is glad to know that a prominent breeder has had the courage to "take the bull by the horns" in this matter of public sales and has put his stock in condition for future usefulness regardless of immediate results to himself.

### The Greatest of All.

They are right in it, and no mistake. We mean the Homes and Hearths Co., New York, whose word puzzle advertisement appears elsewhere in this issue. They give every one a chance in a fair and square competition, and every one who fails to take "a hand in the dance" will miss it.

### Do You Study Politics?

Whoever studies political questions should read all sides. The official State paper, the *Topeka Advocate*, is still at the head of the reform movement, and is giving its readers a more reliable report of the situation in Congress than any other Western paper. It receives its information in the shape of editorial correspondence.

One dollar a year or 25 cents for a trial subscription. Address,  
ADVOCATE PUBLISHING CO.,  
Topeka, Kas.

### Initiative and Referendum Lectures

On direct legislation. For information and history, as well as plan for State organization, write to

W. P. BRUSH, Topeka, Kas.

## The Horse.

### Some Kansas Sires.

Although I have read your paper carefully, I have not yet seen anything showing what the Kansas sires have done this year. After consulting the books of records it dawned upon me that it would be a difficult matter for any one to make a complete and correct compilation of that kind. Several 2:30 performers, which I know were bred in this State, are not so recorded in the "Year Book" or "Register," and if I were not personally familiar with the facts I could find nothing to show where they were bred. Therefore, it seems that every paper must depend somewhat on its readers for information, especially before the "Year Book" is issued.

For one, I am anxious to know what the home horses have done and am willing to give what information I possess about any of them. If your readers would send to you at the close of the season, the performances of their horses, or horses well known by them, I am sure it would assist you, and the matter would be interesting to a majority of your readers. Believing this, I have compiled a list, as accurate as present statistics will permit, of the new performers of some of the horses with which I am familiar.

Black Captain and Boniface each have one. Joe You See, foaled in 1885, now owned by Shupe & Chittenden, Peabody, Kas., I believe, has two. Aladdin, who has required nineteen years to get a start, is now represented by two. MacCullamore, whose death was caused by the administering of wrong medicine, has Nat. Brown's mare only.

Among sires owned in Kansas, Almont Pilot continues successful. Since Sealskin Wilkes has died, it is probably consoling to Mr. Smith to know that he still owns at least one good one. Ashland Wilkes has four new ones, and two have reduced their records. M-rlice Wilkes is the only one with a tin-cup record. Besides these, Della Sherman took a record of 2:27½, but the record will not let her into the 2:25 list for pacers. It is a singular fact that all those following the name of Ashland Wilkes, in the following list, were bred on the Toler stock farm, at Wichita.

Coriander's list is still growing, but I surmise that Fergus McGregor's achievements, with Pansy included, is more pleasing to Mr. Lee. Mr. Kittsmiller moved to Wichita last spring, and his developed sire, Eilerslie Wilkes, now has three. The number in brackets following breeder's name indicates total number in list.

Following is the compilation:

#### KANSAS BRED.

Aladdin 2:25, by Hambletonian 10, dam by Iron Duke; bred by R. I. Lee, Topeka (2)—Brown Al (p) 2:24½; Pearl P. (3) 2:27½.

Black Captain 2:20¾, by Mazepa, dam by Robt. Bonner; bred by J. E. Aiken, Portis (1)—Capt. Payne, ch. h., 2:20.

Boniface 2:22½, by Altorf, dam by Greever's Mambrino Chief; bred by George W. Greever, Tonganoxie (1)—Reno 2:23¾.

Joe You See 7:05, by Joe Young, dam by Antar; bred by R. P. Smith, Nickerson (2)—Lady Russett (2) 2:30; Lydia (3) 2:30.

MacCullamore, by Robert McGregor—Mary (3) 2:20¼.

#### KANSAS OWNED.

Almont Pilot, by Almont 33; owned by E. A. Smith, Lawrence (8)—Almont Star 2:20¼; Eli Almont 2:22½; Rienzi Almont 2:28.

Ashland Wilkes 2:17¾, by Red Wilkes; owned by H. G. Toler, Wichita (11)—Maxey B. (8) (p) 2:23½; Mertice Wilkes 2:29¾; Phyllis (3) 2:29¾; Wilkecho (3) 2:30; Bert Oliver 2:25¼—2:19¼; Myron McHenry 2:27¼—2:23¼.

Coriander 2:29¾, by Iron Duke; owned by R. I. Lee, Topeka (9)—Becky Sharp 2:23½; Jack Cade 2:26½; Pilgrim 2:24¼; Comrade 2:27½—2:27.

Eilerslie Wilkes 2:22½, by George Wilkes; owned by A. A. Kittsmiller, Wichita (2)—Bismuth 2:22¼; Lady Wilkes 2:30; Mountain Pink, (p) 2:23½.

Fergus McGregor, by Robert McGregor; bred and owned by R. I. Lee, Topeka (9)—Fergustine (p. 2:20¾) 2:27½; Greenwood 2:30; Pansy McGregor (1) 2:23¾; McDuff 2:29¼—2:26¼.—Kansas Correspondence in Western Breeder.

### Horse Notes.

Figures showing the winnings of different stables of trotting horses that were campaigned this year, and the individual winnings of certain prominent horses, were compiled and recently published by that valuable journal, *Kentucky Stock Farm*. These show that Nancy Hanks, in her exhibitions, no race having been trotted by her, won \$17,500. A good trotter is never outclassed. If he gets too fast to find races open to him, the people will pay their money just to look at him.

"To estimate the height a colt will grow to," says *Western Resources*, "take a colt at any time between six weeks and one year,

put him on a level surface, so that he will stand naturally, then measure the distance from the hair of the hoof to the knee joint, and for every inch, or fraction thereof, he measures, he will be a hand high when matured. If he measures fifteen inches he will grow to be fifteen hands high; if fifteen and a half inches, he will be fifteen and a half hands high, and so on."

The Northwestern Breeders' Association met at Chicago last week. The association is devoted to the breeding of trotters and pacers. Secretary Allen, in presenting the annual report of the Board of Stewards, referred to the influence of the association through its liberal purses in developing the trotting interests of the West. The last season was one of the best of the history of the association. The total receipts were \$39,907.66 and the expenses \$36,000. Treasurer McKinney has a balance on hand of over \$3,000. United States Senator John L. Mitchell, President of the association, and the old officers were re-elected.

### Horse Markets Reviewed.

#### KANSAS CITY.

There are a great many small horses of fair grade coming into market now, and not enough choice heavy horses for the demand. The trade in such as were here was pretty active at what seem very low prices, yet they were fully steady with late values.

The range of prices is:

Extra draft, 1,500 lbs.	\$110	@150
Good draft, 1,300 lbs.	80	@110
Extra drivers.	110	@200
Good drivers.	75	@110
Saddle, good to extra.	75	@175
Southern mares and geldings.	35	@75
Western range, unbroken.	20	@50
Western ponies.	12½	@20

Mules continue to sell well, with prices maintained about as follows:

14½ hands, 4 to 7 years.	\$40	@50
14½ hands, 4 to 7 years.	45	@55
15 hands, 4 to 7 years, extra.	50	@120
15 hands, 4 to 7 years, good.	70	@85
15½ hands, 4 to 7 years, extra.	80	@100
15½ hands, 4 to 7 years, good.	90	@95
16 to 16½ hands, good to extra.	100	@150

### A Horseman Who Excels.

In every line of trade there is some man who stands out pre-eminent for his superior skill or knowledge of a certain branch of that trade. Such is the case with Charles Marvin, the veteran trotting horse trainer, who was for so many years head-trainer at Palo Alto, the farm of the late Hon. Leland Stanford, and who is now with one of the largest farms in the East, that of Miller & Sibley, at Franklin, Pa. It was never conceded that Marvin was a superior race driver. There are drivers who can beat him at that. But Marvin is thought to be the greatest colt handler of them all and the quickest man to get extreme speed out of a horse of any age. His methods of training and conditioning horses more than anything else are responsible for the success and world-wide reputation of Palo Alto farm and the Electioneer family of horses. Not many trainers have published a book. Marvin has published one that is ably edited by a writer on one of the leading turf journals, and is one of the most valuable additions to turf literature. It treats in an interesting way of Marvin's methods of keeping, conditioning, preparing and training horses, and it relates many of his personal experiences that both interest and instruct. An announcement in the columns of that well-known trotting horse breeders' journal, *Kentucky Stock Farm*, published at Lexington, Ky., states that they are furnishing Marvin's book with subscriptions. Horsemen would do well to send for a sample of the *Stock Farm* and read the announcement.

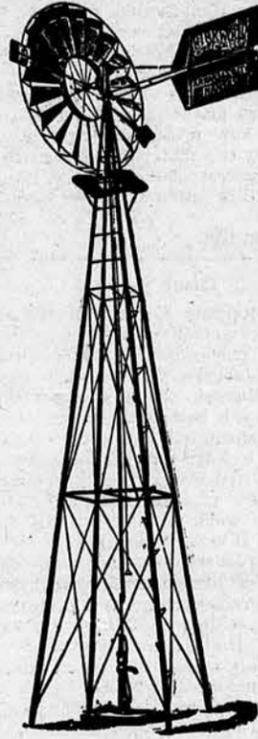
### Noxall Incubator and Brooder.

Geo. W. Murphy, of Quincy, Ill., furnishes us the following concerning the incubator illustrated on our first page:

"The Improved Noxall Incubator and Brooder are both self-regulating when desired. There is no sitting up nights, and no smothered chicks when the Improved Noxall Incubators are used. The Noxall Incubator and Brooder are known in all parts of the world, and are used by the largest poultry raisers in the world, many using a number of the largest sizes with the best of success. Mr. Murphy carefully inspects every piece of lumber used and inspects and tests every incubator before leaving the factory, and every part of the Noxall Incubator and Brooder is manufactured by first-class cabinet-makers. The Noxall Incubator has many superior points, which are described in their catalogue, and their self-regulating brooder is the king brooder of America and the only absolutely self-regulating brooder in the world. Their factory is the largest in the world, and in the busy season over three hundred men are employed and many days they ship from fifty to seventy-five incubators and brooders. The Noxall Incubator has received first premium at every fair at which it was placed on exhibition. The regulator will open and close when the temperature rises or falls a quarter of a degree. All who are thinking of purchasing incubators and brooders write to G. W. Murphy & Co., Quincy, Ill., and they will gladly mail you, free, one of their catalogues if you mention this paper."

### About Wind Engines.

This is an age of push and energy, and if one would make a success in life he must keep abreast of the times. Machinery has done much to change the condition of the working man, as a few years ago the majority of the work done was by hand, but now the most improved machinery has taken the place of the laborer and performs its work with perfection and rapidity before unknown. Possibly there is no indus-



try which has made such a complete and satisfactory advancement as has the windmill during the past few years. Farmers and ranchmen have found that to spend so much time in pumping water by hand for their stock and premises is too laborious and expensive and have rightly concluded to purchase machinery to do this for them. Windmills have not been largely used until the past few years, and the cause of this sudden demand for windmills is that the steel mill has come to light and shown itself of such great utility, and being neater in appearance, easier to handle, longer lived and cheaper than the wood mills, hundreds of thousands have found places on farms and ranches all over the world.

Seeing the need of advancement in the windmill industry, and after giving the matter a great deal of study and experiment, Mr. E. G. Kirkwood produced and patented, in 1882, a steel windmill that has proven to be one of the most successful pieces of machinery of the kind ever invented. He at once began the manufacture of them and thousands are now successfully working in all parts of the country and which bear testimony to their durability, power and perfect automatic governing principles.

We can say from personal experience that the Kirkwood Steel Wind Engine is a machine that is first-class in every particular, and wherever erected has given the best of satisfaction, and if you are in need of a windmill the Kirkwood is certainly worthy of your attention. The company also makes a most excellent steel tower, being neat, strong and simple in construction. For more than five years the Kirkwood has been manufactured in Kansas and the business of the company is run with the usual Kansas grit and push. Their ad. can be seen on page 16, and for further information address the manufacturers, Kirkwood Wind Engine Co., Arkansas City, Kas.

### The Behemoth.

The mammoth, or behemoth, is not yet universally regarded as extinct. According to Siberian and Chinese belief the race is merely banished underground, its "blind life" being instantly terminated by a glimpse of the sun's or even of the moon's rays. The inference might almost be called a logical one from the state of the unearthed remains.

In several cases the great beast has emerged from his millennial retirement as completely arrayed as if death had only just overtaken him, his hide densely clothed with fulvous wool, and that again covered by long black hair, his mane falling over his shaggy shoulders, his antediluvian eyes actually staring from their sockets! Contemporary dogs and wolves find mammoth flesh appetizing in spite of its semi-fossil character. Mammoth bones have been proved to contain a remunerative amount of gelatine, and in Kamchatka to this day mammoth fat is largely used for fuel.

The first mammoth tusk seen in Western Europe was brought to London in 1611 by one James Logan, who had purchased it from the Samoyedes, and Father Avril, a Jesuit, who crossed Siberia in 1685, wrote that "the Russians had discovered a sort of ivory whiter and smoother than that which comes from India."

The substance was prized, too, as a styp-tic, and was said to be derived from a pow-



The beginning and end of the Horse Blanket question is 5/A. That mark has the same significance on a horse blanket that the seal of the government has on a gold certificate—it's an absolute guarantee of value. 5/A Horse Blankets are made with a special view to strength, durability, and comfort for the horse. Once you get a 5/A Blanket you will not need another for many years; perhaps not for a life time—your horse will last longer, too. Ask the dealer for a 5/A and be sure the trade mark is in plain sight.

Made only by  
WM. AYRES & SONS, Philadelphia.



erful amphibious creature "as big and as dangerous as a crocodile," living chiefly at the mouth of the Lena. Fossil ivory toward the close of the eighteenth century became an object of general commerce and incredible quantities were exported from its Arctic repository. Middendorf, about fifty years ago, estimated the annual sale at 110,000 pounds weight, and upward of 1,600 tusks are known to have reached London in 1872. Yet the supply remains unexhausted and may indeed be called inexhaustible. It is the demand which has of late fallen off or failed. In Russia and China, it is true, almost exclusive use is made of the excavated material, but its brittleness and tendency to discoloration practically exclude it from the Western markets.—*The Edinburgh Review*.

### SHANNON HILL STOCK FARM.

G. W. GLICK, ATCHISON, KAS.  
Breeds and has for sale Bates and Bates-topped SHORT-HORNS. Waterloo, Kirklevington, Filbert, Crag, Princess, Gwynne, Lady Jane and other fashionable families. The grand Bates bulls Waterloo Duke of Shannon Hill No. 89879 and Winsome Duke 11th at head of herd. Choice young bulls for sale now. Visitors always welcome.  
Address W. L. CHAFFEE, Manager.

### Brookdale Herd of Red Polled Cattle.

Oldest, largest and the prize-winning herd of the West. Prize-winners at five State fairs in 1892. Sweepstakes bull and cow, Des Moines and Lincoln, 1892. Also sweepstakes herd at Topeka and Peoria. At World's Fair won first and sweepstakes and stood second place in grand sweepstakes all breeds. Herd headed by Iowa Davyson 10th. Young bulls sired by him and young cows and heifers bred to him for sale at bargains. Call or write to  
WM. MILLER'S SONS, Wayne, Neb.

**BEES!** If you keep BEES subscribe for the *Progressive Bee Keeper*, a journal devoted to Bees and Honey, 50 cents per year. Sample copy free. Also illustrated catalogue of Bee Keepers' Supplies. Address LEAHY & CO., Higginsville, Mo. Mention FARMER.

### THE ST. JOE HIVE

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CHEAPEST! BEST!

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MY WIFE CANNOT SEE HOW YOU DO IT AND PAY FREIGHT.  
\$10.50 Buy the Oxford Improved SINGER Sewing Machine, with a complete set of attachments and guaranteed for 10 years. Shipped anywhere on 30 days' trial. No money required on advance. 75,000 now in use. World's Fair Medal awarded. Buy from factory, save dealers' and agents' profit. Write to-day for our LARGE FREE CATALOGUE. Oxford Mfg. Co., 342 Wabash Ave., Chicago, Ill.

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

Office 118 Sixth Ave. West, TOPEKA, KAS.

**AGENTS** Wanted. Liberal Salary Paid. At home or to travel. Team furnished free. P. O. VICKERY, Augusta, Mo.

## 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.

### The Christmas Tree.

For a Christmas Eve Entertainment.

BY PHOEBE PARMELEE.

[Four participants standing around tree. First part, for small child.]

So this is a Christmas tree!  
Now where did it grow?  
It's roots I really can't see—  
They may be below.

But it's a tree, just the same,  
And it bears fruit, too.  
Oh, I'm so glad that I came!  
Are not you—and you?

[Second part, larger boy.]

I should just smile I am glad—  
See, there is a drum  
And a ball for some small "tad,"  
And a top that can hum.

I'll bet there's something for this chap;  
It may be some skates,  
Or a book and a book-strap—  
Don't want books and slates!

Let me see, there's a doll's dress,  
Oh, pshaw! and a doll!  
That's for you, maybe, I guess,  
Or for some "pretty Poll."

[Third part, still larger girl.]

See here, sir! A gentleman don't talk so.  
I've heard gentlemen talk, and I ought to know.  
A gentleman's kind and pleasant, besides  
Never makes fun of us, never derides.

And besides all that, sir, a gentleman, now,  
Can do something else than to make a fine bow.  
If you were a gentleman you would be glad  
There were, on this tree, things for every small  
lad.

Of course I hope somebody has remembered me;  
I hope there's a book or a muff on this tree;  
Or a—what is that up in the very top?  
Nothing but strings upon strings of pop—

[Last and largest speaker, taking up the last part quickly.]

Corn—yes, popcorn, and bags full of candy and  
nuts.  
But there's one thing I think we've forgotten:  
who puts  
All these things on this beautiful Christmas  
tree?

Did you, or you, or you? Who then—can you  
tell me?

Did any one think of some playmate or friend  
Who was likely to go without, time without  
end?

Now, I think while it's nice to get presents to-  
night,  
It's nicer and better to give some delight  
To somebody else who doesn't expect it.  
If we think of this soon enough we'll never neg-  
lect it.

There's a bundle up there—I hope something's  
in it  
For some one I know; I can tell in a minute,  
When Santa Claus comes and takes them all  
down, you know—

But ah, there he comes, now, and away we  
must go!

[Enter Santa Claus, putting to flight the four speak-  
ers.]

### Afternoon Dresses.

It has always been my custom to have a few pretty dresses for afternoon wear at home, no matter what I had to wear while doing the work up. I suppose some of you will think me extravagant, but one look of admiration or approval from my husband or the children will pay me for any extra labor it may cost me, and the expense is very small.

Among the clothing that had been laid aside to make over, I found several pieces of black silk. These I sponged and pressed, and from them I made a gored skirt with three narrow ruffles around the bottom. Some old lining was washed, starched and ironed, and used for the skirt, and there was nothing new about it except the hair-cloth facing around the bottom.

The fashion of wearing waists of different colors and materials from those used in the skirt, is one the economical woman will appreciate. The waists wear out so much faster than the skirts, and new goods may be purchased, or they may be made from material on hand. They have the additional merit of being neat and pretty.

I made three waists to wear with the black skirt. One was made of an old piece of tan-colored cashmere. After a thorough cleaning it was dyed a deep crimson with Diamond dye. It was made with a fitted lining, the cashmere gathered into the neck and shoulder seams, both back and front; the fullness was laid in overlapping pleats at the waist line. The sleeves were close-fitting to the elbow, with full puffs above. Bretelles of cashmere are quite wide and full at the shoulders, and narrowed almost to points at the waist. A wrinkled belt of the cashmere is worn with it.

A blue and black striped China silk skirt, that had been part of last summer's ward-

robe, was cleaned by washing in gasoline, and from it I made the second waist. This is quite plain in the back, and the front is made in surplice style. The sleeves are leg-of-mutton shape, and the neck is finished with a ruffle of the silk.

An old navy blue sateen polonaise furnished the material for the third waist. It was too badly faded to use as it was, so I dyed it a beautiful black with Diamond dye for cotton—fast stocking black it is called. It is made in plain shirt-waist style, and I wear it more than either of the others, because it is so easily washed and, unlike almost any other black cotton goods, it does not fade a particle.

The entire cost of the skirt and three waists was less than a dollar, and I cannot tell you how pretty they are. An almost every lady has material stored away in her closet or garret, that she would like to use, perhaps this letter will be of some benefit to them.

MARY.

Reading, Kas.

### Equal Suffrage.

The Frankfort Equal Suffrage Association is very much pleased with the work done the past few weeks. To know so many are favoring this reform is very gratifying. Kansas people are not slow in seeing what is best for them, and this educational reform will be successful. We are delighted to learn that the ministers of Colorado assisted the suffrage workers in that State. How pleasant it is for the men and women to work together in this good reform, and it is very encouraging for us to know that there are many men who are very anxious to assist us in every possible way. There is a man near Frankfort who is always willing to talk at our suffrage meetings. He is one of those whole-souled people, ready to help a sister or brother in any good undertaking. There are numbers of such men and women, but many are timid about making their thoughts known. We should not wait for any one to speak first, for it is our duty to assist humanity and try to educate them to a higher standard.

"Scatter seeds of kindness." We want more good feeling all over the land. Let us send a bright ray of sunshine to every home we can. It is quite a pleasant thought when one realizes that they have made some one happy. Even the most hardened individuals have a tender spot in their heart, and if one happens to strike the right note you'll see the eye beam with pleasure and the whole frame brighten as though a new world was found. "where all is joy and peace and love." To contribute to some one's happiness is one of the grandest things one can do. You may think it won't be appreciated, but keep on doing good and in the end you will be well satisfied with having done your duty and will be repaid for all the kindness you have bestowed upon the weary traveller. The example you set will be followed by others, and all should try to work for one great end—doing the most good to the greatest number. What a happy people we will be when we are more sisterly and brotherly.

BELLE L. SPROUL.

### Mark-Down Sales the Women Cannot Resist.

"Women is queer, ain't they?" soliloquized the clerk with the sunset beard.

"Queer," repeated the new man. "I should say so. Why, the last job I had I caught six shoplifters in one day."

He of the red beard looked a scornful look.

"That ain't what I mean," he said. "I was talking about their ways."

"So was I," put in the new one.

"Now, look here, I'll bet you never worked in a big store before. You don't know anything about female human nature, 'cause if you did you'd sell more goods, see? This morning a woman comes up to me and says, picking up one of those tablecloths that's all gone now:

"What's this marked down from?"

"Marked down from nuthin', madam," says I, and she threw it down as if it burned her. Three or four did the same thing; so says I to myself, 'Me boy, you're here to sell goods, not to be honest.' So when the next one comes along and asks the same old question, I was ready for her.

"Ninety-eight cents, ma'am," says I, 'and marked down from \$1.98; less than half price.'

"Six women made a jump for them, and they almost pulled them to pieces. There was eight dozen cloths on the table. Where are they now, ha? Gone, every last one. Gone like hot cakes. I'm a student, I am—a student of human nature. Go out in the street and get a cart-load of cobble stones, rub 'em up with a rag, pile 'em on a table, call 'em paper weights, 19 cents, marked down from 91 cents. What'll be the consequence? You'll see the women staggering home with them wrapped up in pink paper."

"You make me tired," said the new man. "How much do you get?" asked the other, leaning over.

"Fourteen dollars. What's that got to do with it?"

"Well, I get \$16. You bet the boss knows a good man when he sees him."



### EXAMINE BEFORE YOU BUY.

WHEN in a grocer's store you stand  
And cakes of IVORY SOAP demand,  
Be careful not to be misled  
And imitations take instead.  
For dealers oft will praise sing  
Of that which may more profit bring.  
Examine well with careful eye

The cake until the name you spy,  
And always thus be well assured  
That IVORY SOAP you have procured;  
And should a lingering doubt remain,  
'Twill vanish like the darkest stain,  
When in the tub on washing day  
That cake of soap is brought in play.

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### Housekeepers Should Know.

That bar soap should be cut into pieces of a convenient size for using, and put into a dry place. If the house mistress does not attend to the cutting her servant won't, but will use a whole bar at once, the consequence being needless waste.

That articles that have been stained with ink or fruit should not be put into soap suds until the stains are removed, as soap has a tendency to "set" the stains.

That iron cooking utensils increase in value with use, as the surface becomes smooth. In buying them, be careful to see that they are of the best quality, and are well finished.

That for long, slow cooking, porcelain stew-pans are more desirable than tin or granite ware, as the article cooking can be kept at a more even temperature.

That Indian meal is best when it is freshly ground, and therefore it is bad economy to buy large quantities of it at a time.

That when bread is baked the loaves should never be set flat on the table or shelf, but should be set on end, one loaf against another, and wrapped closely around with a clean cloth. This makes the crusts tender by keeping in the steam.

That the goodness of all cake depends upon the eggs being perfectly fresh.

That experienced, old-fashioned housekeepers say that the dough for cookies or gingerbread is much more easily handled and rolled and stamped the day after it is made than on the same day. In cold weather it should be set where it will not become hard.

That suet may be kept sweet for some time by pulling the skin or membrane from it while it is fresh, sprinkling salt upon it, tying it up in a bag and hanging in a cool, dry place.

That it is said that sprigs of wormwood scattered in places infested with black ants will drive these pests away.

That if you want to keep your house free from moths never put down your carpets till the floor is thoroughly dry.

That in making up unbleached muslin, allow one inch to the yard for shrinkage.

### The Woman's Opinion.

A Kentucky member of Congress, representing a mountain district in part, got over into one of the very roughest counties during the past summer, and one day he stopped to talk to a man nailing a paling on the fence.

"Stranger in these parts, I reckon?" said the native, after a few questions had been asked.

"Well, no, not exactly," responded the Congressman. "I'm the member of Congress from this district."

"No? Is that so?" exclaimed the mountaineer, dropping his hatchet.

"Yes, but I've never been in this neighborhood."

"Would you mind lettin' my wife an'

children look at you a minute or two?" asked the man.

"Certainly not; I should be glad to see them," and the man hurried into the house and came out with a woman and six half-grown youngsters, who simply gazed at him as they would at a circus.

"So!" said the man, as the others looked on, "you air a Congressman?"

"Yes."

"Been to Washington, I reckon?"

"Of course."

"Stay thar some, don't you?"

"Yes, several months."

"Git paid for it?"

"Yes; the salary is \$5,000 a year."

"What's that?" and the eyes of the father and family fairly popped.

"I said the salary was \$5,000 a year."

"You git that much every year?"

"Yes."

The native took a look along the mountains and the valley.

"Why," he said, "that's five times ez much ez my whole farm's wuth."

The woman looked at the M. C. critically and turned on her heel.

"Huh," she sniffed, "y' ain't wuth hit by a long shot," and she went in the house.—*Detroit Free Press.*

Phoebé Parmelee has favored "Home Circle" this week with a very pretty Christmas eve exercise. We hope it will be used by a good many Sabbath schools and other associations on Christmas eve. We will furnish a dozen copies of this issue free to any school or association in Kansas to be used by its members in preparing for the occasion. Although the intervening time is short, yet ten days will afford sufficient time to prepare it for presentation if begun at once.

### The Cottage Hearth for December.

The Christmas number of *The Cottage Hearth* presents an unusual variety of excellent stories to its readers. The opening story, "Kane of the Southern Star," by Flora Haines Longhead, pictures with vividness the uncertainties as well as the pathos of life in our Western mining camps, and is followed by a poem appropriate to the season from the pen of Sarah King Wiley. Lieut. H. P. Whitmarsh describes a visit to Vesuvius and Kilauea in a very pleasing manner. The article is made still more interesting by several illustrations. "The Vicarious Popularity of Prof. Max Stevens" is an amusing account of mistaken identity. "The Money Club's Christmas-Tide" gives an insight into the lives of the other half, about whose lives we know so little. The regular departments will as usual be of interest to all housewives. Many practical hints may be found on the pages devoted to "Odds and Ends from Everywhere." Published by W. A. Wilde & Co., Boston.

Look over the past season's work, and, if possible, see where mistakes have been made, and plan to avoid in the future.

## The Young Folks.

### The Footsteps of the Year.

Softly falls this Sabbath day  
Upon the field's barren way,  
Where autumn hides the steps of May  
And slugs her own dear roundelay.

How sad the heart in gazing here,  
To know that all that's been so dear,  
And all that's seemed so kindly near,  
Has passed forever with the year.

And ere another Sabbath day,  
Winter will spread her pinions gray,  
And cover every hope and fear  
And every footstep of the year.  
Princeton, Kas. JOHN E. COWGILL.

### The Angel's Song.

Sweet strains of song are wafted to mine ear,  
That soothe the anguish of my grief and fear.  
What though the path of life be dark and long?  
Still I may hear the holy angel's song.

And when all earthly comforts seem to fail;  
As with the eye of faith, we pierce the veil  
O'er the unseen, so now by faith, to-day,  
We hear the angel's song, far, far away.  
—Lutheran Observer.

### Something About Dahomey.

Hardly one person in a hundred can answer the question, "Where is Dahomey?" and the exhibition of natives at the World's Fair has made it such a common query that our woful ignorance of geography is quite apparent.

The kingdom of Dahomey is on the west coast of Africa, a few degrees north of the equator, and skirts the north shore of the gulf of Benin. There is no definite size to the kingdom—it varies with the success or failure of the king in his wars with other sovereigns. The same may be said of the population. It varies all the way from 150,000 to 800,000.

The natives are characteristic for their cruelty and lack of personal beauty. The men are weak, lazy and utterly worthless excepting for the fish they catch and the game they kill. On the other hand, the women are big, barbarous creatures, with a thoroughly masculine character. The armies are composed of women. They do all the fighting and perform all the work, though in extreme cases the men are drafted into service. The king has from 3,000 to 4,000 wives, nearly all of whom form his reserve army. They are armed with bows and arrows, swords and clubs. Taken altogether, the Dahoman character is not one to emulate. As a race they are cowardly, cruel and blood-thirsty, noisy and conceited, and given to lying, cheating and drunkenness. They are extremely superstitious and human sacrifice is a common custom. Every year from sixty to eighty persons are sacrificed in order that news from the country may be carried to the dead, and when a king dies, five hundred are slaughtered that they may attend him in heaven. The executions are attended by crowds of both sexes, frenzied with rum and excitement, and they display their loyalty to the king by drinking the blood of the slain. The skulls of the victims are cleaned and used as ornaments for buildings and public places.

Dahomey has practically no commercial interests. A small amount of palm oil and ivory is exported, but the only other trade is within the confines of the kingdom. A rough cotton cloth and pottery are the principal manufactures. The natives have no idea of even the ordinary principles of mechanics, and all of their machines are of the crudest order. Their agriculture is primitive and no more crops are raised than is necessary for their own consumption. The land is extremely fertile and were the country populated by intelligent people would be exceedingly prosperous.

ELWOOD S. PEPPER.

### Good Advice to Young People.

I have one disagreeable thing to say—I will get it over and done with. The writing of your invitation and of your signatures was not good enough. Do not underrate the importance of good handwriting. Every learner should systematically practice good, readable handwriting. He should be able to read his own notes and commonplace books as easily as print. The lines should be the proper distance apart, and the margin wide enough to allow the insertion of notes and references. Good writing is most important. It is useful whatever your future career—whether law, physics or divinity, army, navy or diplomacy, Oxford, Cambridge or the civil service. I learned this a great many years ago from an order or instruction made by Lord Palmerston when he was at the Foreign office. Examinations have to be gone through. It is no good for answers to be complete, terse and accurate unless they are also readable. There is no need for a teacher to preach to a learner on the evils of ignorance—how the ignorant are at the mercy of the learned, how dull and sordid and groveling are the lives of the ignorant. You ask me to come among you as a teacher; let me teach you

## To write Successful Sea Novels



W. Clark Russell.

The Programme next year is brighter than ever. "SWEET CHARITY," a beautiful picture of Colonial times, in colors, 14½ x 21 inches in size, presented to all New (or Renewing) Subscribers. All New Subscribers sending \$1.75 now, get THE COMPANION FREE to Jan. 1, and a full year from that date. Sample copies free. Boston, Mass.

one must be as familiar as a sailor with the moods of the ocean and all the rig and ways of a ship. W. Clark Russell knew the sea thus before he began to tell its tales. This greatest of sea-novelists will contribute three Romances next year to

## The Youth's Companion.

what I can in the time allotted me.—From "A Talk to Young Men on Education," by Walter Wrenn, in the December Review of Reviews.

### The King's Horses.

A good story is told of a purse-proud old nobleman who was traveling through the rural districts of Sweden. In that country the people do not have quite as much respect for the titled aristocracy as in some other localities on the continent.

One day the nobleman came rolling up to a country tavern, and as he stopped his carriage he called out in an imperious tone: "Horses, landlord—horses at once!"

"I am very much pained to inform you that you will have to wait over an hour before fresh horses can be brought up," replied the landlord calmly.

"How," violently exclaimed the nobleman. "This to me! My man, I demand horses immediately."

Then observing the fresh, sleek-looking ones which were being led up to another carriage, he continued:

"For whom are those horses?"

"They are ordered for this gentleman," replied the landlord, pointing to a tall, slim individual a few paces distant.

"I say, my man," called out the nobleman, "will you let me have those horses if I pay you a liberal bonus?"

"No," answered the slim man, "I intend to use them myself."

"Perhaps you are not aware who I am," roared the now thoroughly agitated and irate nobleman. "I am, sir, Field Marshal Baron George Sparre, the last and only one of my race."

"I am glad to hear that," said the slim man, stepping into his carriage. "It would be a terrible thing to think that there might be more of you coming. I am inclined to think that your race will be a foot race."

The slim man was the King of Sweden.—London World.

### The Wasp's Domestic Virtues.

Like many disagreeable people, the wasp, though intolerable in society, is a paragon of domestic virtue—of the fussy, hard-working, grate-and-window-cleaning kind. Moreover, the wasp invented papier mache, and the swarm slave at the production of this patent material with all the energy and conscientious merit of a South Yorkshire manufacturing community. The nests, if less beautiful than some enthusiasts assert, are extremely curious and interesting, and in the early stages of their construction they gain much in elegance from the nature of the building material used. The first few cells are built by the queen wasp herself, who, unlike the queen bee, is the actual founder, builder, mother and nurse of the infant colony. The nest, begun early in the spring, is often destroyed, together with the queen wasp herself, by the rains of April and May, and the extraordinary drought of these months is the key to the wasp plague of the past summer. Roughly speaking, of the six hardly distinguishable kinds of English social wasps, the three least common make an elegant pendent nest in the branches of trees, the others preferring either a hole in the bank or some natural hollow. In the nests of the tree wasp the first few cells are hung under an elegant umbrella roof to shelter them from the rain; this is then surrounded with successive layers of thin papier mache, opening at

the bottom, so light, flaky and filmy that the whole resembles the gray and uncrumbled ashes of a rose, supposing that the flower could, when burnt, retain, as paper does, its form, while losing weight and color. The cells are hexagonal, like those of the hive bee, but being meant as nurseries, and not as honey stores, are built in single layers, each story being supported by rows of pillars of cellular papier mache.

The swarm are as busy as ants, each wasp having its own set portion of the walls to complete. But, unlike most ants, though their camp is organized, their commissariat depends on individual exertion, and it is to the independent zeal of the foraging insects that the great wasp nuisance is due. One-third of the colony is busy all day long in bringing food to the rest, each wasp getting what it can where it can, with an aggressive, noisy, headlong industry which will take no denial, and having just one idea in its head, it usually succeeds in carrying it out. Thirty or even forty visits was not an uncommon day's work for one of Sir John Lubbock's wasps when the honey which he provided had been discovered. Sweet-stuffs seem a necessary part of their food, but hardly anything comes amiss to them; meat from the butcher's and even garbage of all sorts is carried to the nest. It is perhaps fortunate that wasps do not bite as well as sting, for the blood poisoning that might follow would probably be serious. It has been urged on behalf of the wasp that it kills flies and thus plays a useful part in nature. The plea can hardly be successful, for the wasp kills spiders, as well.—London Spectator.

## The County Fair

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The fourth annual meeting of the Missouri Dairymen's Association will be held at Carrollton, Mo., on Thursday and Friday, January 11 and 12.

The Missouri State Roads Improvement Association will hold its annual session at Carrollton during the second week in January, beginning Tuesday, January 9.

The twenty-fifth annual meeting of Nebraska State Horticultural Society will be held at Nebraska hall, State University, Lincoln, January 9, 10 and 11. The program gives promise of an interesting meeting of great value to those who attend.

If there were no more of this year's wheat crop exported there would be left in the country, on July 1, 1894, 19,000,000 bushels less than on the 1st of last July—provided the people of this country find any way to earn the wherewith to buy their usual allowance of bread.

**Cincinnati Price Current:** The exports of wheat (including flour) from the United States from July 1 to December 1 aggregate about 86,000,000 bushels, against 90,000,000 last year. For the subsequent seven months the exports last year were 101,000,000, a quantity which apparently cannot possibly be spared this season, while there was a considerable surplus remaining at the close of last year.

The sixth annual meeting of the Kansas Dairy Association was held at Representative hall, Topeka, commencing December 5 and continuing three days. The meeting was a large and enthusiastic one, and its success was to a great extent owing to the lively interest taken by the private dairymen. This addition to the concentrated interest now as heretofore taken by the creamery people made this the most representative gathering of the kind ever held in Kansas. Our dairy department will, during the winter, present the most valuable of the proceedings.

The annual meeting of the Kansas State Horticultural Society was held at Holton, commencing December 5. The leading horticulturists of the State were ably represented, as will be readily seen when it is stated that Judge F. Wellhouse, of Topeka, the largest apple-grower in the United States, Mr. B. F. Smith, of Lawrence, the strawberry king, Senator Edwin Taylor, of Edwardsville, the potato prince, and others representative of success in horticultural pursuits in a large way were present. The reports of standing committees and the papers by specialists were of the high order which has heretofore characterized the transactions of this society. These will be published in book form for the use of the members of the society and the cream of them will appear in the KANSAS FARMER for the benefit of its thousands of readers not members.

## THE BEET SUGAR INDUSTRY.

A few years ago experiments in the cultivation of sugar beets were inaugurated in Kansas, and roots of surprising richness in sugar were obtained as the result of some of the efforts. In a great many cases, however, the quality of the beets was disappointing. It has been almost impossible, from the information furnished, to so analyze the conditions under which these varying results were obtained as to determine whether the vast differences arose from differences in the adaptation of the soil and climate to beet culture, or to differences of treatment.

That the addition of this industry to Kansas' agriculture is greatly to be desired, if practicable, is evident from the results attained where it has been successfully inaugurated.

That somebody is willing to venture considerable expense on the determination of the question of the adaptation of various localities to this industry, is evident from the liberal offer contained in a circular recently sent to Secretary Mohler, and by him passed to the editor of the FARMER. It is as follows:

Half a century ago less than 50,000 tons of beet sugar was made. In 1890 the sugar product of the world amounted to 5,000,000 tons, 2,800,000 tons of which was manufactured from sugar beets. Three years ago our country was not represented. France and Germany led the world—1900 should see the United States making 1,000,000 tons of sugar from this valuable root—two years ago our scientists mastered the last secret of the culture of the beet. Last year five sugar factories were in successful operation and 27,000,000 pounds of beet sugar was made in California and Nebraska.

The dawn of a new industrial day has come, and when the farmers of Illinois, Indiana, Ohio and Iowa awake to the fact that great profits are to be made through growing sugar, then the importation of that article will cease and the \$100,000,000 now annually paid to other nations will be distributed among our own people. New employment will be given to 250,000 men, women and children; 2,000,000 tons of new coal will be mined, and every avenue of trade will feel the beneficial effects. The farmer's profits will be twenty dollars per acre where he to-day has a hard time to make six dollars in growing grain.

Organized capital will bring this beneficial condition—the advance of any industry is slow when left to the efforts of a few individuals, but when capital is shown a chance for gain, co-operation of money causes progress to be accelerated, and the failure of the individual becomes the experience that leads combined capital to success.

Capitalists stand ready to erect large factories and thus give you a market for sugar beets. All they ask of the farmer is to show a disposition to cultivate this valuable product. Farmers should commence to give investors confidence by planting at least one acre of beets in every township. The second year you will cultivate more, then the factories will come. The product of your first acre, feed to your cattle; the increase in their weight will astonish you.

We will send to every farmer who desires to plant one acre of beets the latest publications on the subject of beet sugar; also send them seventeen pounds of the best seed for planting. Both books and seed will be sent free of charge. Write to us describing the nature of your farm and the kind of crops you have been growing, distance from railroad, etc.

**HENRY B. CLIFFORD,**  
Chairman United Sugar Syndicate,  
159 West 48th St., New York.

The above offer to furnish seed free enables every farmer who desires to make the experiment on a practical scale without trouble or expense in selecting and procuring seed. The product will well repay careful preparation of the land, planting and cultivation of the crop, for there is no better material with which to make a change of feed for the cows in winter than sugar beets.

Whatever may be the standing or the design of those who are managing this syndicate, the farmer takes no risk in obtaining the seeds and the book.

## PRICES OF GRAIN.

The statistical returns of the Department of Agriculture for the month of December are principally devoted to the indication of average prices of the various productions in the nearest local markets.

**Corn.**—As thus indicated, the value of corn is 37 cents per bushel, which is 2.4 cents lower than the corresponding price last year, which was 39.4 per bushel, a figure which corresponds nearly with the price for the decade, 1880 to 1890, inclusive, which was 39.3, and is 6.1 lower than the average for the years 1890 to 1892.

**Potatoes.**—On the farm December 1 potatoes were selling at an average of 60 cents per bushel, seven and a fraction cents less than at the same time

last year. The low price is sufficiently warranted by the difference in the yield between the two years.

**Wheat.**—The average prices of wheat is 52.1 cents per bushel. The next lowest price in the twenty-three years from 1870 to 1893, inclusive, was 64.5 in 1884. The average for the ten years, 1880 to 1890, was 83.7, while for the three years, 1890 to 1892, it was 76.6. The decline from the average of the three preceding years, in two of which, viz., 1891 and 1892, occurred the largest yields in the history of the country, is 24.5, or 37 per cent.

**Rye.**—The returns make the general price per bushel 51.8, which is 3 cents lower than that of last year and 5.2 lower than the average during the past decade.

**Oats.**—The average farm price of oats as returned for December 2, 1893, is 28.8 cents per bushel, which is 2.9 cents lower than last year, and 1.4 cents less than the average price during the past decade.

**Barley.**—The average farm price for barley as returned is the lowest on record, the price reported being 40.6, as against 47.2 a year ago, 54 cents in 1891, 64.8 in 1890 and 42.7 in 1889.

The condition of winter wheat on December 1 averaged 90.15, against 87.5 last year. In the Middle and Southern States it ranged from 75 to 99. In the principal winter wheat States the condition is as follows: Michigan 99, Ohio 92, Indiana 90, Illinois 88, Missouri 82, Kansas 89, California 100.

The condition of winter rye as reported is 94.6, as against 89.4 last year.

## IRRIGATION EXPERIMENTS IN OHIO.

The subject of irrigation becomes continually more important as our lands are more fully occupied, and its consideration and at least limited adoption is claiming attention, even in the central regions of the rain belt. In Ohio the need of irrigation for gardens is felt almost every year, and a "dry spell" at the critical period in the development of corn not infrequently causes a drop of 10, 20 or even 30 per cent. in the farmer's estimate of his prospect. It is not surprising, therefore, that we find the experiment station at the State University giving attention to the development of economical methods of applying water artificially. Readers of the KANSAS FARMER cannot but have been interested in the very able paper by Secretary Mohler, given in the numbers of November 29 and December 6, in which the subject of sub-irrigation, by means of drain-tiles, was considered. It is interesting to note that the experiments at the Ohio station were with the method commended by the Kansas Secretary of Agriculture. In his second paper on the subject the Ohio experimenter says:

"A fuller and more detailed explanation of this system, which promises to revolutionize the arrangement and management of vegetable gardens everywhere, may be of interest and we hope of benefit to many.

"Its first use at the Ohio State University was in the greenhouse, where three-inch tiles were laid lengthwise in water benches, the rows of tile being about three feet apart. The water was run in at the ends of the tile and allowed to pass out at the joints and into the soil.

"Last year the houses devoted to the growing of lettuce and radishes were entirely watered in this way, except so much as was required for comparison, which was watered in the usual manner. An average of three crops showed a gain in weight of 37 per cent. in favor of sub-irrigation.

"Advantages of sub-irrigation are:

(1) The water is applied at the bottom, coming directly to the roots of the plants; the bottom soil, therefore, is always kept moist, while on top it is always dry. (2) Owing to the soil being dry on top we secure absolute freedom from rot and all such diseases. (3) The surface or soil evaporation of moisture is not so great, hence less watering is required; the watering need only be done every ten to twenty days. This is governed, however, by the number of windy and sunny days. (4) The atmosphere in the house is kept comparatively dry and the de-

cay of woodwork in our houses is very much lessened.

"In watering, the hose may be started, then changed from one tile to another every half hour or so; this may be done by any one working near by, and in this way very little time is consumed in watering.

"The smaller the tile the better, as they take up less room in the benches, and are less liable to breakage; two and one-half inch is perhaps the best size.

"Sub-irrigation has also been proven profitable when used in the open ground for growing general garden crops. The tiles are laid about ten inches deep and in rows four to eight feet apart; the distance, however, depends upon porosity of soil. The row of tile must be level, or nearly so, in order that the water may be evenly distributed. One end of the tile is brought to the surface to receive the water, while, if desired, the other ends may be collected into a main cross tile in which there is a stop-cock at the lower corner or side of the irrigated plot. This stop may be left open during a wet season and thereby the sub-irrigation system is made to serve as a drainage system also. If laid in this manner the tile are not disturbed by plowing and may remain in place from year to year. By this system of watering, the soil does not bake or harden on top, and is always mellow.

"The following is the gain on outdoor crops due to sub-irrigation over the ordinary method of watering, at Ohio State University, during the season of 1893, on alternate sub-irrigated and top-watered plots:

ONIONS—"PRIZE TAKER."  
Sub-Irrigated. Top-Watered.  
Weight of 200 largest onions ... 89 lbs. 5 oz. | Weight of 200 largest onions ... 46 lbs. 3 oz.  
93.3 per cent. gain.

BEANS—GOLDEN WAX.  
One picking of pods. Green or snap beans.  
Sub-Irrigated. Top-Watered.  
30 hills ... 18 lbs | 30 hills ... 9 lbs.  
100 per cent. gain.

"It has become necessary to apply water artificially in order to secure good garden crops, especially in such seasons as the past in central Ohio; and if we must irrigate, why not approach as nearly as is possible to the ideal methods and thereby secure the best possible results?"

It is a remarkable fact but almost always observable that when the intelligent modern first turns his attention to kinds of industry which have been practiced from time immemorial, as, for example, cultivation by the aid of artificial application of water, his first thought is of improving the methods which have grown mossy with age and almost sacred from use. History does not know where the artificial application of water, by means of open ditches and trenches, began. Very many if not most of the ancient nations were fed from irrigated fields. By this method the now desert plains of the ancient Babylonia were made to feed and clothe the immense populations of that famed country during the reign of Nebuchadnezzar. It is also recorded of this ruler that he developed in great perfection the system of storage reservoirs, which have been commended by the best modern scientific authority for use on the arid lands of America. Among the brilliant plans which he related to his young wife between the dates of his father's death and that of his own coronation, he is quoted as declaring: "And I will build great reservoirs closed with gates of brass strong enough to restrain the floods when they have been filled by the overflowing rivers." Possibly further reading of the inscriptions in which the history of those times have lain buried in ruins for so many centuries may disclose the methods by which the water was applied. But the method by ditches was probably used by a people whose "beasts of burden" and "draft animals" were human beings, and to this day in the ancient irrigating countries this method is still in use.

It is creditable to the Ohio University experimenters that they are varying as little as possible from processes formerly used while determining scientifically the comparative utility of the old and the proposed new method.

The element of greatest interest in this new method has heretofore been supposed to be the greater economy in the use of water. The Ohio experiments

indicate immense increase in resulting production, and so far as reported have not determined the economy of water. It is known that crops produced under the usual methods of irrigation, properly applied, greatly exceed those which depend entirely upon rainfall.

The experiments reported are too few to be a basis for general conclusions, but they at least point to a great increase in product by sub-irrigation over the old method of surface irrigation, and, of course, still greater increase over any culture which depends entirely upon natural application of water to the soil. It is to be hoped that the Ohio experimenters will pursue their well begun investigations until full answers are obtained to the many practical questions presented.

#### To Protect Wheat in the Bin.

EDITOR KANSAS FARMER:—Can you tell us what will drive weevil out of wheat in the bin? A number of years ago I heard a man tell about spreading blankets or wagon sheets over the wheat and putting in some kind of a drug, but I was not interested and forgot the name of the drug.

SUBSCRIBER.

Oxford, Kas., December 5, 1893.

Take a broom-handle or some other stick long enough to reach to the bottom of the wheat in the bin; drive a small wire nail into the end of the stick and file the head of the nail away, leaving a point. Next, cut cotton batting into small pieces. Place the pieces one at a time on the stick, letting the sharp nail penetrate it. Saturate the cotton with bisulphide of carbon and with the stick force it to the bottom of the bin of wheat. Repeat the operation until a ball of cotton to each four square feet of floor of the bin has been placed. If the wheat be now covered with a wagon sheet the vapor of the bisulphide of carbon will be prevented from escaping as rapidly as it would otherwise.

Keep the bisulphide of carbon away from fire for it is very inflammable.

#### Windmill Irrigation.

EDITOR KANSAS FARMER:—Please let me know the date when my subscription expires.

I read your paper with a great deal of satisfaction and consider it far in advance of what it was four years ago.

I find nothing in your convention proceedings giving horse-power of any windmill for a given wind velocity. If any windmill advertises its horse-power, for say a twenty-mile wind, please publish it. Bring the windmill men down to facts and guaranty. There is too much general reading matter on windmills and too few data as to duty.

LEWIS WILLIAMS.

Bloomsburg, N. Y., December 5, 1893.

P. S.—I want several mills for my land in Wallace county, Kansas, but have no money to throw away on poor mills. I want the best.

[Referred to H. V. Hinckley for reply.—EDITOR.]

EDITOR KANSAS FARMER:—Regarding Mr. Williams' inquiry, I know of no windmill makers who give any reliable statement of effective work of a specified size of mill under a given wind velocity. I notified two of the leading makers last week that if they wanted any business in Kansas they must prepare circulars showing what each size of mill will do under different velocities of wind, in gallons per hour for various lifts, and be prepared to insert guarantee in bill of sale. The published statements that a mill will do the work of so many horses or raise so many gallons a day (regardless of wind) are worse than useless. As soon as I can get anything reliable from the windmill companies I will publish it in the KANSAS FARMER and the *Irrigation Age*, together with tables of average wind velocities in Kansas, reservoir capacities and acreage duties. In the meantime all Mr. Williams can do is to ask the makers for a guarantee, and no mill should be put up without one.

He might write to Currie Windmill Co., Manhattan, Kas.; Kirkwood Wind Engine Co., Arkansas City, Kas., and Challenge Windmill Co., Batavia, Ill.

H. V. HINCKLEY,  
Consulting Engineer, Kansas Irrigation Association, Topeka, Kas.

Get up a Club for KANSAS FARMER.

#### Protect the Stock—Prospects.

EDITOR KANSAS FARMER:—Well, old winter has sent his advance guard in the shape of about four inches of snow. Did he find you ready, with sheds well roofed and sides made tight? If not, you should lose no time in putting things in order, for protection is undoubtedly cheaper and affords a good deal more satisfaction and profit to the stock-grower than to leave stock out to take the storms in lee of some fence or grove. If we can't make such shelter as we would like (and most of us can't), let us at least provide something.

A good deal of the corn in this section is put in shock; most of the standing corn is already gathered and is of good quality, yielding from twenty-five to sixty bushels per acre, and selling at 25 cents.

Hogs to be marketed in the near future in light supply. Not as many small feeders feeding cattle as usual. I think the signs for better prices are good, judging from the interest manifested in the breeding of better cattle, by the large increase in inquiries I am receiving for Short-horn bulls. My neighbor, I. G. D., became tired of waiting for better times and fattened his Short-horns and sent them to market. I have been in the business for about twenty-five years and have seen ups and downs (seems like mostly downs), yet I have no idea of letting go my hold. I am trying to raise better stock and raise them cheaper by providing shelter and saving feed. Let us study economy. Yee, and political economy, as well, Secretary of Agriculture Morton to the contrary, notwithstanding. L. A. KNAPP.

Maple Hill, Kas., December 4.

The government's expenditures during the month of November amounted to \$6,716,496 more than its income. The gold reserve, which was at one time regarded as so sacred that it must not be touched but must remain at \$100,000,000, has been drawn upon and paid out until it amounts to only \$82,955,049. If it should all be used for the legitimate purpose of paying Uncle Sam's debts, and the finances of the country so managed that income should equal expenditure, we should doubtless be taught a valuable lesson in monetary science, and at the same time be no worse off than if we had \$100,000,000 or any other amount of gold piled in the treasury.

The bank clearings in the United States for the week ending December 1, showed a decrease of 42.8 per cent., as compared with the corresponding week last year. Railroad earnings for the week show a larger decrease than was shown by either of the earlier weeks in November. The commercial reports note that "money is everywhere abundant with rates comparatively lower and the commercial demand remarkably smaller." Who can afford to borrow money at any rate of interest, or even without interest, to invest in trade on a falling market, or to invest in any kind of productive industry when prices are likely to be such that the returns will not be worth the cost?

#### Weather Report for November, 1893.

Prepared by Prof. F. H. Snow, of the University of Kansas, from observations taken at Lawrence.

The temperature was slightly below the mean and the usual number of winter days (with mean below 32°) occurred. The rainfall was but half the average, and this is the third consecutive November with light precipitation. A few snow flurries occurred but no snow fall of sufficient depth to measure. The mean cloudiness was perceptibly below the average, the barometer about the average and the wind velocity slightly below.

Mean temperature, 39.325°, which is 0.625° below the November average. The highest temperature was 77°, on the 1st; the lowest was 15°, on the 23d, giving a range of 62°. Mean temperature at 7 a. m., 31.85°; at 2 p. m., 50.08°; at 9 p. m., 37.68°.

Rainfall, 0.97 inch, which is 0.97 inch below the November average. Rain or snow in measurable quantities fell on four days. There was snow (trace) on the 12th, 25th and 30th. There were no thunder showers. The entire rainfall for the eleven months of 1893 now completed has been 34.18 inches, which is 0.22 inch below the average for the

same months in the preceding twenty-five years.

Mean cloudiness, 31 per cent. of the sky, the month being 13.96 per cent. clearer than usual. Number of clear days (less than one-third cloudy), sixteen; half clear (from one to two-thirds cloudy), nine; cloudy (more than two-thirds), five. There were eight entirely clear days and one entirely cloudy. Mean cloudiness at 7 a. m., 43 per cent.; at 2 p. m., 30 per cent.; at 9 p. m., 21 per cent.

Wind, southwest, twenty-three times; north, sixteen times; south sixteen times; northwest, 13 times; west, ten times; southeast, six times; east, five times; northeast, once. The total run of the wind was 10,990 miles, which is 467 miles below the November average. This gives a mean daily velocity of 366 miles, and a mean hourly velocity of 15.26 miles. The highest velocity was fifty-two miles an hour, on the 16th, at 12:50 p. m.

Barometer, mean for the month, 29.145 inches; at 7 a. m., 29.158 inches; at 2 p. m., 29.119 inches; at 9 p. m., 29.158 inches; maximum, 29.481 inches, on the 24th; minimum, 28.585 inches, on the 21st; monthly range, 0.896 inch.

#### November Weather at Topeka.

The following summary of November weather at Topeka is furnished by Sergeant Jennings, of the Weather Bureau:

Mean temperature, 42.6; highest temperature, 80, on the 1st; lowest temperature, 15, on the 24th; greatest daily range of temperature, 41, on the 4th; least daily range of temperature, 8, on the 26th; mean temperature for this month for seven years, 40.5; total excess in temperature during month, 2.1; prevailing direction of wind, south. Total precipitation, 1.3 inches; number of days on which .01 inch or more of precipitation fell, six; total precipitation for this month, 1.3 inch; average precipitation for this month for seven years, 1.48; total deficiency in precipitation during month, 18. Number of clear days, fifteen; partly cloudy days, eleven; cloudy days, four. Dates of frost, frequent.

#### Publishers' Paragraphs.

At this season everything, either by word or in aspect, dons its holiday attire, and *Table Talk* is among the rest. The December number is full of suggestions for Christmas—dainty dinners, decorations, appropriate gifts—in fact, almost any help you need in your preparations for "A Merrie Christmas" you will find between its covers. It is published by *Table Talk Publishing Co.*, Philadelphia, at \$1 per year or 10 cents a copy.

The most important medical article in the December number of *Babyhood* is one on "Diphtheria," by Dr. G. C. Stout. It describes the exact nature of that dreaded scourge, its causes, symptoms and treatment, and ought to be read by every mother of young children. There are many practical suggestions concerning Christmas toys, baby's wardrobe, novelties for the sick room, etc., and the usual number of entertaining letters in "The Mother's Parliament." *Babyhood* enters upon its tenth year with the present number. The subscription price has been reduced to \$1, while the quality of this mother's guide, which counts more than 100 physicians among its contributors, remains unimpaired. Address for sample copy, *Babyhood Publishing Co.*, New York.

HOG CHOLERA FUN.—G. G. Steketee, of Grand Rapids, Mich., who advertises his famous medicine for swine, sends us the following anecdote:

The old subscriber had just laid a bushel of fall apples on the editor's desk and the editor was asking him about crops, stock and the farm, and then he came around to the paper.

"How do your neighbors like the *Vindicator*?" he asked.

"Fust rate, ez fer ez I've heard," responded the visitor sincerely.

"Did you read my editorial in the last issue on the tariff?" inquired the editor with pride.

"No, I haven't got to that yet."

"How about the one on the silver question?"

"Hain't read that un neither."

The editor looked disappointed.

"Did you read the one on the relation of plenty to poverty, from a Socialistic point of view?"

"I seen the headin', that's all."

"You don't seem to be particularly interested in the important issues of the day," ventured the editor, more in pity than in anger.

"Oh, yes, I do," protested the visitor. "I read that remedy you give fer hog cholera, and its the best thing I ever tried," and the editor felt better.

For 2 cents (a stamp) any reader of KANSAS FARMER can have a sample copy of the *New England Magazine* by dropping a card to its publisher at 5 Park Square, Boston, and can obtain a club rate on the magazine and this paper by addressing the publishers of KANSAS FARMER, Topeka, Kas.

#### The Vienna International Food Exposition.

The principal object of the international exposition to be held in Vienna next year, lasting from April 30 to June 10, is to present a complete exhibition of all sorts of food products, whether fresh or preserved—chiefly all kinds of meats, vegetables, dairy and bakers' products, as well as different methods of salting and pickling. Rational methods of bread-making and preparing food in large quantities will be in actual operation. Popular lectures will be given, accompanied by experiments with a view to comparing the relative merits of the food preparations.

In the Department of Army Maintenance the exhibits will show all particulars connected with the sustenance of troops in compliance with the requirements of military life, such as easy transportation, quick production and extent of nutritive power.

Secretary Morton has advised the special representative of the Department of Agriculture in central Europe to proceed to Vienna in ample time to receive and superintend the installation of exhibits of food products which may be sent from this country. In the absence of a special appropriation for the purpose he cannot undertake representation on an extensive scale involving special commissions and large expenses, but the representative now in central Europe, Hon. John Mattes, Jr., will receive all goods that American manufacturers may desire to exhibit and will endeavor to insure their installation in the best manner possible. Mr. Mattes has already advised the department that the inquiries made by him lead him to anticipate a very successful exhibition, and he is of the opinion that it would be of great advantage to our food manufacturers to be well represented thereat. Many of these large manufacturers would doubtless find it profitable not only to exhibit their wares at such an exhibition, but to send a representative. Under any circumstances Mr. Mattes, who is perfectly familiar with the German language, will do his best to serve the interests of all intending exhibitors. A cablegram forwarded by him to the department November 27 announces that the date up to which entries may be made by American exhibitors has been extended to February 1, 1894.

The Department of State has just communicated to the Secretary of Agriculture the earnest invitation of the Austro-Hungarian government to the government of the United States to participate in the aforesaid exposition, and expressing the hope that the United States authorities will take occasion to inform the people in general, and especially persons likely to be interested in the forthcoming exhibition.

#### Publications of United States Department of Agriculture for November.

Report of the Secretary of Agriculture, 1893. Pp. 48. A brief review of the operations of the several bureaus and divisions of the Department of Agriculture during the calendar year, and recommendations of the Secretary of Agriculture relative to departmental matters requiring executive or legislative action.

Report of the Statistician—November, 1893. (Report No. 110, Division of Statistics.) Contents: November crop report; notes from reports of State agents; imports of American wheat flour into Europe; the hop crop of England for 1893; the beet sugar production of Europe for the year 1893-94; agriculture in Great Britain and Ireland; notes from the consular officers relating to crops in Ontario, Spain, Cochinchina, Korea, Scotland and Egypt; domestic and trans-Atlantic freight rates.

Synopsis of Report No. 110, Division of Statistics. Pp. 8. A summarized crop report for November, showing the estimated yield per acre of corn, potatoes, hay, buckwheat, tobacco, sorghum and cotton.

Contributions from the United States national herbarium. Vol. IV. Pp. 363, pls. 21, 1 map. Contents: Botany of the Death valley expedition: a report on the botany of the expedition sent out in 1891 by the United States Department of Agriculture to make a biological survey of the region of Death valley, California.

Insect Life. Vol. VI, No. 1. Pp. 58, fig. 1. Principal contents: An Important Predatory Insect (*Erastria scitula*); Notes on Tasmanian Coccinellidae; Experiments with the Hop Louse in Oregon and Washington; Report of Outbreaks of the Western Cricket and of Certain Locusts in Idaho; The Present Status of the Recent Australian Importations; Notes on the Injurious and Other Locusts of New Mexico and Arizona.

Miscellaneous Investigations Concerning Infectious and Parasitic Diseases of Domesticated Animals. Pp. 88, pls. 3. (Bulletin No. 3, Bureau of Animal Industry.) Observations on the morphology, biology and pathogenic properties of twenty-eight streptococci found in the investigation of animal diseases; a non-motile pathogenic bacillus, closely resembling the bacillus of hog cholera, found in the lung and spleen of a pig; pathogenic and toxicogenic bacteria in the upper air passages of domesticated animals; an outbreak of abortion in mares; on a pathogenic bacillus from the vagina of a mare after abortion; some experimental observations on the presence of tubercle bacilli in the milk of tuberculous cows when the udder is not visibly diseased; additional observations on Texas cattle fever; preliminary notes on a sporozoon in the intestinal villi of cattle; notes on the presence of sarcosporidia in birds.

Monthly Weather Review—September, 1893. Pp. 241-267, charts 6. A summary of weather conditions observed throughout the United States in the month of September, compiled from the reports of many observers. Intended chiefly for meteorologists.

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## Horticulture.

### THE CULTIVATION OF CELERY.

E. F. Walter, of Wakefield, Kansas, read before the State Horticultural Society, at Holton, December 7, 1893.

Having had a number of years experience growing celery successfully in Kansas, I have chosen the "Cultivation of Celery" for my subject.

The methods of growing and bleaching celery, have been revolutionized within the past few years. We no longer plant in a trench, filled with manure and prepared with so much labor, but upon the level ground the same as any other vegetable. The recent introduction of so-called self-bleaching varieties has also very much reduced the work and cost of bleaching, high banking with the spade and shovel now being unnecessary with these varieties. The long-keeping kinds, however, require somewhat different treatment. The greatest saving of labor in bleaching of celery has been in the introduction of bleaching-houses, or cellars, specially constructed for the purpose, where the celery is stored to bleach. I will explain these points more fully in their order. I must say here, that it is almost impossible to grow celery successfully and profitably in Kansas, without water. It must have water and plenty of it, during our dry hot spells. If its growth is seriously checked, rust, or blight, will quickly appear and the crop be ruined in a few days. We have experienced this loss, but having profited by experience have not been seriously troubled for several years.

In growing plants for setting out, the land must be rich, and moist if possible, and reliable fresh seed must be sown. Celery seed two years old is absolutely worthless. There are many excellent varieties of celery, but the introduction of White Plume, with its natural white foliage, makes it so attractive and has so simplified the bleaching process that the great celery district around Kalamazoo, grows White Plume to the exclusion of nearly all others. California, also, is now putting it upon our markets. It is an excellent variety for early market and will grow to good size in Kansas, but, owing to our hot, dry atmosphere, the delicate white foliage cannot be produced until cool weather. During the hot weather the leaves turn green as fast as they develop. It can only be bleached successfully here during September, in a cool, dark cellar. When nicely grown it is very showy, though not of the best quality, and while it is on the market it sells more readily than any other variety. Golden Self-bleaching, a sport of White Plume, is also a fine, handsome celery, hardier, of better quality, and a better keeper than White Plume, but more of a dwarf and more branching in habit. It is difficult to keep either of these varieties after Christmas. We have tested most varieties of recent introduction, but have returned to our old love, viz., Golden Heart, for the main stand-by, as best adapted to our climate. It grows larger, is hardier, keeps better, is more solid, and when well bleached is of better quality than any celery we have grown during the past fourteen years. We shipped this variety last week for Thanksgiving, weighing fifteen pounds per dozen, and it netted us 90 cents per dozen at wholesale. I found during my visit to England, the past summer, that these self-bleaching varieties meet with little favor upon the London market.

The land, for sowing the seed, must be reduced to the finest condition possible, by smearing or rolling and the seed sown about the middle of April, in rows one foot apart, using one ounce of seed to about fifty yards in length of row, covered not more than a quarter of an inch in depth, and well firmed with the feet if the surface is at all dry. The seed is very slow germinating, and after being once well wetted, by rain or otherwise, must not be allowed to dry out, or a large percentage will fail. If the surface is allowed to bake, total failure will be the result. As soon as the young plants are one or two inches in height, they should be thinned to stand one inch

apart, and, if they make a strong, vigorous growth through the month of June, they should be sheared off and make more stocky plants. The plants should be set out between the first of July and first of August, and may follow any early crop, as potatoes, cabbage, etc., the land having been heavily manured previously for the purpose. It cannot be made too rich. One hundred loads per acre of good manure is not any too much. A top dressing of nitrate of soda at the rate of 300 to 400 pounds per acre, should also be harrowed in, just before setting. It will give the young plants a good vigorous start. If the plants are large and strong, trim off about one-half the top and reduce the tap-root to four or five inches in length before planting. Plant with a dibber and firm them well. Plant if possible immediately after a soaking rain. The rows may be from three to five feet apart, according to variety, and the plants five or six inches apart in the row, requiring about 25,000 plants per acre. If dry, hot weather prevails and it is necessary to set out the celery, stretch the line where they are to be planted, open a small furrow with a hand-plow or hoe, and turn the water into the furrow. Let it run until it reaches the lower end; in a few hours set the plants in the middle of the furrow and scarcely a plant will fail to grow. The plants in the seed row must also be thoroughly soaked before digging, or the fibrous roots will be broken off in transplanting and many plants will be lost. After setting they must be stirred, kept well cultivated and not a weed allowed to grow. Water must be applied during dry, hot weather by opening a furrow about six inches from the plants, on each side, and running water until the ground is soaked. Next day cultivate the ground level with a harrow-tooth cultivator to check evaporation as much as possible. This must be repeated every week or ten days during severe dry spells.

If the crop has made good growth it should be one foot or more in height by the middle of September, and the White Plume may then be handled for bleaching. Various methods are recommended to accomplish it. Some advise setting boards edgewise on either side of the row and thus bleaching it. Others advise tying cardboard around each stalk, etc. We have found that while all these processes can be successfully employed to bleach a small quantity, they all fail in the one essential—of giving crispness and quality. In our climate these methods are liable to cause rusty, hollow, fibry celery; at least that has been our experience. The simplest and cheapest method we have found, is to take a ball of grocery twine in one hand, gather the leaves together into an upright position and pass the twine around the plant to hold it up, then treat the next plant the same, and so on down the whole length of the row, without cutting the twine. We then take a one-horse plow and throw a furrow as high as possible on each side of the row. There is a celery-hiller now manufactured for this work, but we have not yet had any experience in the use of it. In this banking process no substitute for mother earth will give the fine nutty flavor, or make celery so sweet and crisp. In two or three weeks after banking it will be ready to remove to the bleaching cellar to finish. The plants must be dug carefully, with all the soil adhering to the roots and set upright, closely packed in a cool, dark well-ventilated, frost-proof cellar. In three or four weeks it will be in fine condition for market. In the absence of a cellar for the purpose, celery may be stored in a trench as deep as the celery is high, about one foot in width and covered securely from frost with boards and straw, and as the season advances a covering of earth. The whole crop should be stored in this latitude by the 10th of November. Celery thus stored can be kept until February, if good keeping varieties are grown for late sales. Prices always rule high after Christmas.

We experimented the past season upon a small scale with the new method called the "New Celery Cul-

ture." We set 1,000 plants, seven inches apart each way, and kept them liberally watered. They grew luxuriantly and apparently bleached fairly well, but not more than one-fourth was fit for market. The rest were hollow, fibry or stringy and worthless. The part that was marketed was pronounced inferior in quality and flavor. We shall experiment again next year using a liberal dressing of nitrate in addition to heavy manuring, and will report results to this society in due season, but we have at present little confidence in the method for our climate.

### Horticulturists' Thanksgiving.

EDITOR KANSAS FARMER:—The good old Puritan November feast day, which is still held in such warm esteem by the people of our country, was joyfully celebrated by a goodly company assembled at Oak Grange hall, for the double purpose of good cheer, the renewal of friendly acquaintance, and to carry out the program of the Shawnee County Horticultural Society, as formulated at the October meeting.

The brothers and sisters of Oak Grange were early on hand to welcome, with kindly words and a hearty handshake, the friends from a distance.

The astonishing array of baskets, all packed to the brim with Thanksgiving dainties, would have furnished a text for a sermon on the sins about to be committed against our internal economy.

"Now, good digestion wait on appetite,  
And health on both!"

might be an appropriate motto for each one to remember at such a feast. Nevertheless, upon the contents of said baskets depended the "good cheer," and upon that hinged the success of the afternoon's program. Willing hands made the task easy, and ere long the cans of steaming coffee diffused a delicious fragrance, mingled with the appetizing odors of numerous viands in process of dishing. A subdued hilarity prevailed until the announcement of dinner, which was served at the good old-fashioned hour of 12. A "merrie companie" it was, which gathered around that festal board, spread with the traditional fare of a real Thanksgiving dinner. Turkey and cranberry sauce, New England baked beans, condiments, pickles, salads, fruits, jellies, cakes, mince pie and sweets galore. Dishes of crisp celery furnished by Mr. Jackson, Secretary of the society, radishes fresh from the garden of Mark Holloway. Think of it! In blustering Kansas in November! The heroic efforts of the company were successful and the tables were speedily relieved of their tempting burdens. As they filed upstairs in response to the call of the President, the little folks remained below in the gleeful enjoyment of games and romps. Blessings on them! They will remember that Thanksgiving for many a day, as will all those who participated in its pleasures.

After the preliminary exercises, Mr. W. A. Coultis presented a paper, of which the subject was, "Is There Money in the Orchard for the Average Farmer?" Mr. Coultis took the affirmative and argued from that standpoint. Was told when he came to this State, in 1869, that "Kansas must depend on Missouri, as fruit could not be raised on these prairies." He had found material at hand, and conditions favorable for successful fruit-growing. But one must be alert to catch the best methods. Mr. Coultis emphasized the importance and the benefit to the fruit-grower of belonging to a horticultural society. The experience of others might lead him to success.

In discussion, Mr. Smith thought that this might not be a fruit-growing country under primitive conditions, but the difficulties being so great, if overcome, made so much more bountiful the victory of success.

Mr. Cecil thought that horticulturists would have reached success sooner, had they organized societies earlier, and thus been able to compare experience, carry on experiments and note results.

At the society's meeting, one year ago, the subject of spraying was very thoroughly discussed. A committee of three was appointed to experiment

with the Bordeaux mixture, in different localities, and report methods and results. Mr. Thomas Buckman, being one of that committee, reported, from a diary kept for that purpose, the process he employed and the results of his labors in that line. Mr. Buckman seemed very enthusiastic on the benefits of spraying. Thought it an unailing remedy for the numerous enemies of the orchardist. Was certain it had come to stay. A magnificent crop of apples had crowned his efforts this season, while many of his neighbors who had not sprayed their trees reported failures, and though many expressed a lack of faith in its general effectiveness, he stoutly maintained his position.

Mr. Coultis thought too much stress was placed on spraying. Knew of an orchard sixteen years old, on land gently sloping to the southeast, which had been constant in bearing, and receiving no cultivation after first year or two. Hogs were pastured in it at first. It was then sowed to clover, after which it was simply mowed as necessary. No spraying had been attempted. Smith's Cider, Missouri Pippin, Jonathan and Willow Twig were the varieties grown. Peaches were also a sure crop there.

Mr. Buckman thought altitude in its favor. Orchards on same level show influence of spraying.

Mr. Cecil thought cause of failure the present year, no leaf buds stored last season. Noticed that grapes which were sprayed had better foliage in the fall, which would tell favorably on next season's crop.

Mr. Wellhouse was quoted as an authority on spraying for leaf-roller or crimpler.

Mr. Thomas Buckman picked off rollers and crimplers—a task, but the surest way to dispose of them.

Mr. Burson asked the surest remedy for the borer.

A. H. Buckman thought a wash of soapsuds, kerosene and carbolic acid answered the purpose. Applied in July. Better way to plant healthy trees and then keep them so.

Mr. Jackson thought the knife the only sure remedy. Use in April and August, to insure destruction of early and late broods.

Mr. Spreng asked for a solution of the following: Trees in his orchard, this season, bloomed profusely. Fruit set, but six weeks before maturing rotted on the tree, or fell off. Cause? This was discussed at some length but no definite answer given.

"Cultivating Apple Trees After Ten Years Planted," was the subject of a paper read by A. H. Buckman. The same general principles or reasons for the cultivation of corn are applicable to the orchard. Thought clover a good substitute for cultivation if the crop was sufficiently heavy for a mulch. Should not remain more than three years without cultivation, as the roots incline to surface when mulched. Though not having experience, would suggest cultivating with a disc harrow, followed by heavy roller. Not wise to trim after trees were well in bearing, except to remove water-sprouts. Would not cultivate trees late in season.

As the short afternoon was drawing to a close, the discussion was necessarily brief.

An invitation was extended, by Mrs. William Sims, to meet with Capital Grange, at their room in Lincoln Post hall, in Topeka, during the winter, which was accepted by the society.

A. H. Buckman and W. A. Coultis were elected delegates to State Horticultural meeting, at Holton, December 5. Messrs. Priddy and Jackson, alternates.

The following program was announced for the January meeting: "Small Fruits," by I. N. Witt; "Management of Nursery Stock," P. J. Spreng; "Spraying and its Results," Bradford Miller.

The following varieties of apples were exhibited as doing well this season: Missouri Pippin, Ben Davis, Kansas Keeper, Roman Stem, Winesap, Minkler, Gilpin, Willow Twig and Bently Sweet.

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## In the Dairy.

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

### Taming a Badly-Raised Jersey Cow.

[Prize essay, by Mrs. Carrie Balsley.]

As our lot is not a very large one, and most of it is set to fruit of different kinds, we decided, when we first began housekeeping, to buy our milk and butter. We soon discovered, however, that this was the largest bill we had to meet, while the butter was often of third-rate quality and the milk was very thin and blue. After considering the matter some time, we came to the conclusion that we could better ourselves by keeping a cow of our own; so we bought one, a great big creature that was said to give a river of milk and make lots of butter.

We found that she did give lots of milk, but very little butter in it, so, after keeping her a few weeks, we sold her and tried another, and then another, all large cows; but a little figuring satisfied us that their feed cost more than all the cream and butter we obtained from them was worth. My husband sold the last one and declared he would have nothing more to do with cows. But I was very anxious to try a genuine Jersey, and after a good deal of coaxing finally persuaded him to buy one.

When our neighbors heard of it they poked all sorts of fun at us. "Why don't you buy a wild deer?" asked one. "Buy a Jersey and a jack-rabbit," said another. "and you'll have a team!"

The idea that Jerseys are naturally wild I find prevails quite extensively among people who have but little knowledge of this breed of cattle. Nothing could be further from the truth, as I shall show.

After looking about some time, my husband purchased one from a man who kept a herd. She was 2 years old, a wee bit of a thing, and had been raised in a large pasture where no person had touched her. She had dropped a calf about a week before we bought her.

When they brought her to us a man was walking on each side of her with a rope fastened to her head, while another followed with a big whip. They tied her in the stable and I went to see her. She looked at me with her great dark eyes as though she thought I was going to kill her on the spot, then sprang into the manger. My husband was obliged to tie her so she could scarcely move in order to milk her. The following morning I went to the stable and offered her an ear of corn, holding it in my hand. At first she tried to break away, but finding herself fast, turned her great eyes on me and uttered a plaintive moan. Actually I could scarcely keep from crying for the poor little thing. Presently, however, she smelled of the corn and then took it.

In the afternoon I brought down a light rocker and some sewing and sat in an adjoining stall a couple of hours. I then fed her and she allowed me to rub her neck. Three days afterward I could go into the stall with her, brush her down and milk her, and in two weeks she was following me about the yard like a pet lamb. She is still a little afraid of strangers, and moves away when they attempt to approach her, but this timidity is wholly due, I am satisfied, to the wild, rough manner in which she was raised, for her calves are as gentle and tame as any one could wish. In fact, they are a little too tame and familiar. We have been obliged to keep every one of them tied or yarded to keep them out of the house, and to prevent them from annoying visitors. Handling makes the disposition. A properly handled Jersey cow is the gentlest animal in the world.

We use large quantities of fresh fruits and graham gems in our family, and these require lots of both cream and butter, and I also use butter in my pie-crust, cakes and cookies, and our little Jersey is the only cow we ever owned, or that I know of, that could nearly supply us.

For coffee and tea, and also for fruit, I find her cream is too rich and stiff, but by adding an equal quantity of milk and stirring it well it is just right and delicious.

One of the best characteristics of the

Jerseys is that for each pound of good food we give them we get full value in return. They are simply living machines for converting food into cream and butter.

I feed our little cow oats, bran, coarsely-ground corn, hay and sweet corn stalks, surplus beets, etc., from the garden. I also use her for a lawnmower, and instead of wasting the grass she converts it into cream. I tie one end of a one-quarter inch rope about her horns, slip the leg of my chair through a loop on the other, and she eats the grass around me while I read or sew.

To sum up the practical part of this matter, I find that, if we were to sell one-half of her production at regular market prices, the amount received would pay the whole cost of her keeping. That is good enough for anybody.

### Dairy Association Notes.

A fair attendance greeted the opening of the Kansas State Dairy Association on Tuesday, December 5, at 2:30 p. m. The annual address of President Nissley was a valuable paper, well calculated to arouse a new interest in the dairy business, and was greeted with a good deal of applause at the close. Some able papers were offered, which brought out much valuable discussion, and a general interest was manifested on the subject of feeding and managing dairy cows.

The following committees were appointed by the President:

On Resolutions—J. L. Hoffman, R. T. Stokes, A. D. Campbell. On Legislation—A. E. Jones, H. M. Brandt, G. E. Burnham. On Nominations—Ed. F. Davis, A. D. Campbell, C. F. Armstrong. Superintendent of Exhibits, J. L. Hoffman.

An interesting feature of the evening's program was a musical entertainment given by the Ladies' Music club, of Topeka, at the close of which each lady was presented with a print of fine butter, put up in a neat box, and the spokesman of that club made the remark that the Dairy Association had extended to them more courtesies than they had ever received from any other source.

Following are the entries:

- CREAMERY BUTTER.
- Brandt & Esley, Mound Ridge, Kas.
  - Ira T. Stradling, Sedgwick, Kas.
  - Sedgwick Butter & Creamery Co., Sedgwick, Kas.
  - Minneapolis Butter & Cheese Co., Minneapolis, Kas.
  - G. E. Burnham, Minneapolis, Kas.
  - W. H. Montague, Minneapolis, Kas.
  - A. S. Brubaker, Abilene, Kas.
  - Edgerton Creamery Co., Edgerton, Kas.
  - Hesston Creamery Co., Hesston, Kas.
  - W. W. Shelley, Hesston, Kas.
  - E. C. Llewelling, Newton, Kas.
  - Carbondale Creamery Co., Carbondale, Kas.
  - Meriden Creamery Co., Meriden, Kas.
  - Centerdale Creamery Co., Centerdale, Kas.
  - Enterprise Creamery Co., Enterprise, Kas.
  - Solomon Creamery Co., Solomon, Kas.
  - Woodbine Creamery Co., Woodbine, Kas.
  - Ellinwood Creamery Co., Ellinwood, Kas.
  - A. D. Campbell, Hanover, Kas.
  - Winchester Creamery, Winchester, Kas.
  - Golden Belt Creamery Co., Beverley, Kas.
  - Whiting Creamery, Whiting, Kas.
  - Geo. Hanna, Clay Center, Kas.
  - B. F. Engle, Bell Springs, Kas.
  - H. W. Dayhuff, Dillon, Kas.
  - Ira Eisenhower, Abilene, Kas.
- DAIRY BUTTER.
- J. E. George, Burlingame, Kas.
  - Mrs. D. Hall, Ellinwood, Kas.
- CHEESE.
- Geo. Brichenburg, Enterprise, Kas.
- Awards will be announced hereafter.

### Successful Sea Stories.

To write successful sea stories one has to be a sailor by experience. W. Clark Russell thus knew all the moods of the ocean and the rig and ways of a ship before he began to write. In this region he is unrivalled. For next year he contributes three sea romances to the *Youth's Companion*.

### Pond's Business College,

601 Topeka avenue, Topeka, Kansas, has turned out the best business writers, the best book-keepers, the most successful business men. On these three points their past record stands 25 per cent. above any other business college now running in Kansas. Any farmer's son can get a full business course here for only \$80, or three months \$15.

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## The Poultry Yard.

### Farmer's Poultry House.

EDITOR KANSAS FARMER:—I have been looking at the vast income from the poultry trade, not only in Kansas or the United States, but the world over. In fact the poultry business is the only resource the farmers have that the boards of trade or Wall street cannot more or less control. I said, through the columns of this journal, not many months ago—and I have evidence, not on paper, coming in every day—that there was not a farmer in Kansas but what can make his poultry yard so productive as to feed and clothe the family.

Not long ago I was talking to a farmer about fowls, and he called one of his neighbors by name, and said that there was not a farmer in Neosho county that lived as easy, that set any better table, that wore any better clothes, and everything is bought by their poultry products. And more than that, they have built an addition to their house this fall, and their poultry paid the bill.

And to make our poultry a success, we must have a house to keep them in. I have just finished what I call a farmer's poultry house. It is cheap, warm and convenient. The cost, without counting my time in putting it up, was \$20. Where lumber is cheap, the cost can be cut down. I could have cut the figures down by going to a sawmill and getting native lumber for all the inside work. In size it is ten by forty feet; shed roof; the south side is eight feet high, the north four feet. I dug down in the ground and laid a solid foundation with stone, so no intruders could come along at night when I was slumbering and dig under and play havoc among my chicks. I divided into three rooms. The room for the roosts is ten by sixteen feet; the room for nests eight by ten feet, and a brooder for chicks ten by sixteen feet. The room for the nests is between the two others. An outside door goes into each room. I used lath for partitions, and made a door to go from one room to the other without going outdoors, and have windows on the south side. It is lined all inside with building paper. The roof is a prepared roofing we see advertised in poultry journals. I took particular pains to see that the lining laps over the sheeting at the edges, so that no air should come in. I have the windows so arranged that the ventilation is good. One mistake in building a great many poultry houses is to let the roosts touch the side of the building, so if the fowls get lice on them they can go from the roosts to the sides of the house. This I guarded against. I set two rows of posts, setting them far enough from the wall on the south side so as to give me a passageway. I nailed a plank to the posts running lengthways of the building. I cut notches in this plank

and laid poles across for roosts, so as not to touch the walls. I first put 1x2 scantling across for roosts, but my fowls would crowd to get to the edge to roost on the plank I had nailed to the posts. I would have to go out at night and move them over, so I put in poles, and I have not had any trouble with them crowding.

The brooder I will use this winter in cold, stormy weather to feed in. When spring comes and I get my incubator started, I will then use it for chicks. I have the ends of the house so I can take them out when I want to build more to it, as this coming year I will have to add 100 feet to it.

If any reader has any better plan for a poultry house, I would like to read a description of it. J. R. COTTON. Stark, Kas.

### Bad Habits.

EDITOR KANSAS FARMER:—During the winter, when the poultry are confined more or less, they are more liable to get into bad habits than if they can have a good range. A thrifty, vigorous fowl is naturally industrious, and if given something to do it will aid materially to keep them out of mischief and also of acquiring bad habits.

One habit that hens often get into is that of feather-pulling. Whenever this gets a start the hens should be separated, and in many cases the best remedy is to kill or market the worst fowls as soon as possible and feed the others meat every day for a week and hang up cabbage heads, sorghum seed or a bunch of unthreshed oats, so as to keep the fowls busy.

Hens often get into the habit of eating eggs by carelessness in leaving eggs in the nests over night. They get frozen and burst open, and the hens being confined and looking for something, get to eating them and will in a short time get to breaking the shell of fresh-laid eggs. It is only at the start that a cure is possible, and the worst trouble with both egg-eating and feather-pulling is that the habit seems contagious, and one or two fowls will soon teach all the rest, so that in nearly all cases heroic measures must be adopted or the whole flock will get into the habit. There is really no cure for a hen that once gets into the habit of breaking the shells and eating the eggs. Having the nests dark and taking care during the winter to see that no eggs are allowed to freeze in the nests is the best way of preventing. Feeding well and affording a means of exercise, so as to keep busy, will help materially in keeping from getting into bad habits. Keeping plenty of coarse litter on the floor and scattering grain among it is another good way of affording exercise and giving the fowls something to do. Generally so long as the fowls can be allowed to run out there is but little danger.

N. J. SHEPHERD.



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#### Answers to Correspondents.

**FAMILY DOCTOR:**—Will you please tell, through the KANSAS FARMER, for the benefit of its readers, what is the cause of oily skin, pimples and blackheads on the face and back, and please give a cure and preventive, if possible, and oblige an old subscriber of the KANSAS FARMER. M. M. Dentonia, Kas.

Oily skin is, in many cases, an over-secretion of that oil which nature provides for lubricating the skin and keeping it from drying up and cracking open like an old shoe that never knew grease. There are a great number of secreting glands in the body and on it, and each set of glands has some special thing to secrete or abstract from the food we eat and the blood we make. Saliva is secreted to moisten the mouth and the dry food we eat, such as crackers, etc. The gastric glands secrete gastric juice to dissolve food with in the stomach. The sebaceous glands in the skin are very numerous and collect from the blood countless little cans or tanklets of oil which they constantly pour out all over the body to keep the skin soft and pliable. If they are over-stimulated by too rich or too much food they secrete more than is needed to keep the skin soft and the surplus oozes out on the surface and shows in the "greasy face" we sometimes see. The cure for it is too eat less of fatty and starchy food, and to palliate it the face should be often washed in hot soft water with very mild soap. That will take up the surplus. Blackheads originate in the same way. Each little well of oil in the skin has what is called sebum in it, a kind of white, spongy stuff that holds the oil from flowing too freely, just as your lamp wick draws up from the lamp below and gives off evenly and slowly to the flame the oil you burn. These little sebaceous glands have open mouths on the surface, and the fine dust in the air and particles of smoke, etc., stick and cling to these little plugs of sebum until they look black. You can squeeze out of the skin the larger of these plugs of sebum and they look like little white worms with black heads. They are called "blackheads," or "comedones," "whelks," "maggot pimples," and other fanciful names. They are cured in the same way as "oil face."

In some cases these little oil wells clog up and inflame. Then we have "pimples," "stonepock," "rosy-drop," etc. It is a very old infirmity of the race. Shakespeare, in giving the portrait of Falstaff, tells us, "His face is all-bubuckles and whelks and knobs and flames of fire." And

"Where the pimple plague assails There some gluttony prevails," is the way another writer puts it.

Another phase of the disease is what is called "rum blossom," a red, lumpy condition of the nose in drunkards and some others who have piles.

Drugs alone will seldom cure any of these disorders. Diet, exercise, massage or much gentle rubbing of the skin, frequent bathing with alternate hot and cold water, are among the most successful hygienic methods of treatment. In a word, prevention is the grand remedy, and that is accomplished by living just right. Some of the phases of right living will be discussed in future numbers of the FARMER.

#### Electrocution vs. Chloroform.

Stricken by lightning brings one to a very, very easy and painless death, and if the machinery and current could always be depended upon, no method would be more desirable or serviceable for the execution of criminals than electrocution. But in the infancy of the method it would be very unusual if no slips or hitches occurred. Nearly all the mechanical efforts in the world that have proved themselves finally splendid successes, have been attended with some degrees of failure in their incipency. Human effort and mechanical ingenuity are not infallible. No mechanical invention is perfect *ab initio*. Take all our great range of steam appliances and devices, or all our electrical inventions and devices for accomplishing mechanical results, and how many of them does any man know to have been perfect at their primary trials? Some latitude for experimentation much be allowed all mechanical contrivances before we can fairly condemn them as impractical or worthless. So it must be in criticising electrocution. One or two failures or partial successes should by no means serve to condemn that system or plan of execution. The halter has shown many inglorious failures and yet it is an exceedingly simple bit of mechanism and does not have to deal with or depend upon such an intense subtlety as electricity for success. The guillotine, the headsman's axe, the snickersnee, the hara-kiri, and all other mechanical devices have failed of

their perfect work at times, just as the soldier's bullet has in military executions. If we are looking for a never-failing agency for removing criminals from our midst and one that shall be as humane as any death-dealing device can be (none of them conform to the injunction "Thou shalt not kill"), we shall find it in the chloroform bottle. It is sure and merciful.

Twice has the writer been stricken by lightning and laid out unconscious by the stroke. In neither instance was there any pain. The only sensations remembered were those of intense light—so intense that no language can give any conception of it, an then, after consciousness returned, a feeling of intense lassitude and weakness—the paralytic effect of the stroke. In neither case was there any physical pain. How it would be if the bolt had torn through our tissues, instead of striking very close by and just missing us, we cannot say. In at least fifty or more instances of experimentation we have been laid out unconscious with chloroform or ether, or both combined, and we have no hesitation in saying that when it comes our turn to be "executed" we shall pray for chloroform in lieu of any other deadly device. In a very extensive surgical practice running through many years, we have yet to see any evidence of chloroform narcosis being at all painful or any more uncomfortable than anything else that in anywise interferes with the functions of life. Nothing that can take life away can do it without interference with the working machinery of life. A brake of some kind must be applied to the silver wheels of existence to stop them, and anaesthesia is as merciful as anything.

From personal experience one other method may be commended, and that is by drowning. It is difficult to understand why this has not been adopted by the law-making body long since. It can be made as absolutely sure as chloroform or any other known method of death. It simply requires to pinion and enclose the criminal in a sack or cage, properly weighted, and drop him into water deep enough to cover him. It need never be a failure, and three or four minutes time will suffice to end all struggle, and often much less. If he take water at the first contact a minute will about shut off consciousness. It was once our misfortune to be caught and tangled in a seine while fishing and dragged down into deep water. Our friends on the bank of the river, in their fright at our disappearance, forgot for a time to drag the seine out of the water, and the load of lead at the bottom overcame our swimming capacity, and so a drowned boy was in prospect. But finally, before it was "eternally too late," some one waded in and dragged seine and boy both to land.

#### LA GRIPPE BOOK FREE.

Sent Postpaid During December—Be Quick and Get One.

Nearly everybody is having la grippe now days, but what is still more unfortunate, a large per cent. of those who are afflicted with this epidemic, instead of getting well, as they ought to, will have chronic catarrh as the result. This is almost invariably the case unless Pe-ru-na is taken as soon as possible after the grippe begins. Every one who has observed the effect of Pe-ru-na during the last three epidemics of la grippe positively knows that this remedy will cure it permanently. The fact is, however, that a great multitude of people will not take Pe-ru-na, and the foundation for chronic catarrh will be laid. Here, again, Pe-ru-na is the only reliable remedy. Even in cases that the chronic catarrh has affected the lungs and the early stages of catarrhal consumption have been developed Pe-ru-na can be relied upon as a prompt and lasting cure. La grippe and catarrh are at present the two greatest enemies of life in the land. Pe-ru-na is a cure for either.

Send for a copy of the latest book on these diseases. Sent free by the Pe-ru-na Drug Manufacturing Co., of Columbus, O.

#### Handsome Plymouth Rocks

Perhaps there are no handsomer chickens in the West than the pure-bred Plymouth Rocks raised this year by Thos. D. Hubbard, on his splendid farm at Kimball, Kas. Mr. Hubbard is a retired wholesale merchant from Columbus, O., who has come to Kansas for his health; he spares no expense or pains to have the best. Breeders or farmers desiring choice Plymouth Rock stock should write to Mr. Hubbard.

#### State Forestry Notice.

Those wishing to avail themselves of the free distribution of seedling forest trees can make application any time before the 1st of March, 1894. Results prove that there are varieties of trees that thrive on the upland in central and western Kansas, even in the driest years, while there are others that will not; some of these promise well, yet finally bring disappointment. Any county that wishes the Commissioner to deliver an address on trees and tree culture will find him ready to help in arranging a date, and to give the results of experiments in the State experimental parks and elsewhere in the State. Also, if desired, will include the subject of practical irrigation in Kansas. County papers please copy. Address E. D. Wheeler, or Commissioner of Forestry, Ogallah, Kas.

## \$2,500 in Prizes FOR TELLING THESE WORDS. C-R-S---SH-L-D-A-S

The above letters and dashes represent words of very pleasant associations at Christmas seasons. What are they? Each dash stands for an omitted letter. When the omitted letters are supplied the words are complete.

We will pay the following rewards for correct answers received before February 15th, viz:

For the first correct answer, . . . \$100.00	For subsequent correct answers aggregating in value to over \$2,500 will be awarded, as set forth in our regular prize and premium list in our paper. THE EASY CONDITION on which you may secure one of these liberal prizes is that you shall at once forward us a year's subscription to HOMES AND HEARTHS, which will be one of the most attractive household monthlies ever issued, and the price of which for a year is only 50 cents.
For the second correct answer, . . . 75.00	
For the third correct answer, . . . 50.00	
For the fourth correct answer, . . . 25.00	
For the next ten correct answers, each, 10.00	
For the next twenty, each, . . . 5.00	

The price of subscription (50 cents in stamps, or postal note), must be sent with each answer. Besides the large prizes mentioned above each subscriber will receive a prize whether his answer is correct or not, and the paper will be forwarded for an entire year. We make our offer on the urgent advice of experienced publishers, to aid us in introducing our paper, and we will carry out our offers faithfully in every particular. Names of winners will be printed in our paper. Do not send answers without subscriptions enclosing 50 cents. They cannot win a prize. Send both at once.

**HOMES AND HEARTHS PUBLISHING Co., NEW YORK CITY.**

#### Chicago Produce Market Review.

Summers, Morrison & Co., of Chicago, write the KANSAS FARMER under date December 9:

**Butter.**—There is no special change to note in the butter market. A moderately active demand exists for fancy makes of creamery and also for the best makes of dairy. Medium creameries lacking in flavor and freshness is dull. Roll butter is in good demand. Choice creamery, 27 to 28 cents; fair to good, 24 to 25 cents; best dairies, 24 to 25 cents; fair to good, 20 to 22 cents; roll, 18 to 20 cents.

**Eggs.**—There was another advance in the egg market during the past week and fresh eggs sold at 25 cents, but the market has reacted a little and they range at present from 24 to 25 cents for strictly fresh. The demand is good and receipts are light. Cold storage eggs are coming forward more freely on account of the advance in prices. They take the place of fresh eggs to a large extent. Best brands of cold storage, 20 cents; fair to good brands, 18 to 19 cents.

**Veal.**—There is a scarcity of large, well-fatted veal and such sells very readily at 7½ to 8 cents. The market is fairly well supplied with medium and small veal; such ranges in price from 5 to 7 cents.

**Poultry.**—The receipts have been light ever since Thanksgiving and in consequence the market is doing better. Choice fresh chickens are in good demand at 9 to 10 cents; capons, 12 to 13 cents; choice turkeys, 10 to 11 cents; ducks, 10 to 12 cents; geese, 9 to 10 cents. It is generally expected by the dealers here that the market will sell 2 to 3 cents per pound higher for Christmas. Already some large orders have been received for Christmas poultry. Shippers of poultry desiring to reach this market in time for the Christmas trade should have their shipments arrive here from the 20th to the 23d.

**Dressed Hogs.**—Still in very good demand at \$6.50 to \$6.75 for choice bright stock.

**Beans.**—The demand is steady. Choice hand-picked navy and pea beans, \$1.65 to \$1.70; medium, \$1.50 to \$1.55.

**Game.**—The demand for all kinds of game still continues good and the near approach of the holiday trade will have a tendency to stiffen prices still more. Prairie chickens, dark birds, \$4.50 to \$4.75; white birds, \$4.00 to \$4.25; partridges, \$4.50 to \$4.75; quail, \$1.50 to \$1.75; mallard ducks, \$2.75 to 3.00; teal, \$1.75 to \$2.00; small rabbits, \$1.00 to \$1.25; jack rabbits, \$3.00 to \$5.00.

**Potatoes.**—The market is steady—no particular change to note. Best well-assorted varieties in car-load lots, 62 to 63 cents per bushel; fair to good, 58 to 60 cents; mixed stock, 55 to 56 cents.

#### World's Fair Highest Awards

Medal and Diploma on our INCUBATOR and BROODER Combined.

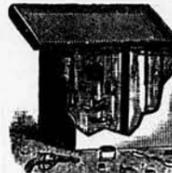
"Old Reliable" Leads them all.

If you are interested in Poultry, it will pay you to send 4 cents in stamps for our 32 page catalogue, giving valuable points on Poultry Culture. Address Reliable Incubator and Brooder Co., Quincy, Ill.



#### \$5 to \$15 per day, at home, selling LIGHTNING PLATER

and plating jewelry, watches, tableware, &c. Plates the finest of jewelry good as new, on all kinds of metal with gold, silver or nickel. No experience. No capital. Every house has goods needing plating. Wholesale to agents \$5. Write for circulars. H. E. DELNO & Co., Columbus, O.



#### Supplies at 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; Tanned Sheathing Paper for lining poultry houses and wrapping young apple trees, and all other requisites for breeders and farmers, free on board cars at St. Louis and Kansas City, Mo. For fuller information, address with stamp, THOS. D. HUBBARD, Kimball, Kansas.

#### The High Speed Family Knitter

Will knit a stocking heel and toe in ten minutes. Will knit everything required in the household from homespun or factory, wool or cotton yarns. The most practical knitter on the market. A child can operate it. Strong, Durable, Simple, Rapid. Satisfaction guaranteed or no pay. Agents wanted. For particulars and sample work, address, J. E. GEARHART, Clearfield, Pa.



#### CONSUMPTION SURELY CURED.

To THE EDITOR—Please inform your readers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy free to any of your readers who have consumption if they will send me their express and post office address. Respectfully, T. A. Slocum, M. C., No. 183 Pearl Street, New York.

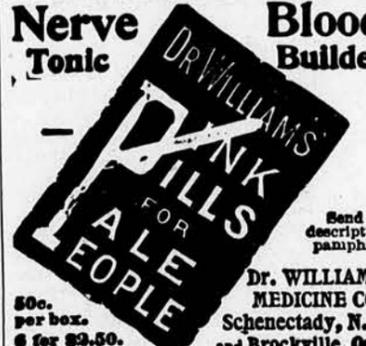
#### Nerve Tonic Blood Builder

DR. WILLIAMS' PINK PILLS FOR PALE PEOPLE

Send for descriptive pamphlet.

Dr. WILLIAMS' MEDICINE CO., Schenectady, N.Y. and Brockville, Ont.

50c. per box. 6 for \$2.50.



#### MEN OF ALL AGES

may be cured. We eat all sexual disorders of men. Four out of five who suffer nervousness, mental worry, attacks of "the blues," are but paying the penalty of early excesses. The dread alarm of Impotency, the exhaustion of Spermatorrhea, may be in strict confidence at moderate expense. Send for our free sealed book, "PERFECT MANKHOOD."

ERIE MEDICAL CO., BUFFALO, N. Y.

"Like a grand electric light over fitting Jack O'Lanterns THE ERIE MEDICAL COMPANY glows above the host of advertising quacks that come and go."—People's Medical Monthly, Buffalo, N. Y.



#### New Catalogue for 1894

Ready for distribution; the finest and best Poultry Book ever published, fully illustrates and describes all the leading varieties of Poultry, gives plans for Poultry Houses, Remedies for all Diseases. If you breed poultry you can not afford to be without it. Sent for 10c. silver or stamps. Address THE J. W. MILLER CO. FREEPORT, ILL.



#### INCUBATORS

We manufacture the Improved Hot Water Incubator in four sizes. No. 1, 320 eggs, \$25; No. 2, 250 eggs \$20; No. 3, 100 eggs, \$15. Also for fanciers and children, No. 4, 50 eggs, \$7.

**BROODERS.**—We also manufacture an Outdoor Brooder in two sizes. 200 chick, \$20; 75, \$15.

**COMBINATION COOK TABLE.**—A useful piece of furniture. The cook's delight. Price \$10, freight prepaid.

**DAISY IRONING-BOARD.**—Very handy and durable. It is made of Poplar. Price \$2.

JACOB YOST, Box 196, Arkansas City, Kansas. References: Farmers' Nat'l Bank, Elzina Lumber Co.

#### THE "WESTERN SETTLER" IS A NEW PAPER.

TELLS ALL ABOUT THE WEST. Will be sent free to you and your friends. Address JOHN SEBASTIAN, Gen. Ticket and Passenger Agent, Chicago, Rock Island and Pacific Railroad, Chicago, Ill.



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.

HEIFER AILING—GRUBS.—(1) I have a yearling heifer that, when walking rapidly, acts just like a horse with the heaves.

SWELLED JAW.—I have a cow that began about a month ago to swell under the left ear and down along the curve of the jaw; it remained swollen for about ten days and then went away, but a few days ago it began to swell again.

LUMPS ON KNEE.—I have a horse that was cut on the knee with a barbed wire. He was stabled and neglected in regard to exercise.

POLL-EVIL.—About two months ago a mare, 6 years old, lagged at work and I noticed a swelling high up on the throat, close to the jaw bone.

Answer.—Considering the length of time the mare has been complaining, it is very doubtful whether or not the poll-evil can be treated successfully without opening, but it will do no harm to try it.

Answer.—The iodide of potassium treatment for "lumpy-jaw" in cattle is as follows: One and a half drachms of iodide of potassium dissolved in a pint of water and given twice a day as a drench.

Answer.—Take of biniodide of mercury, 1 drachm; lard, 1 ounce; mix. Apply enough to grease the part and rub in for twenty minutes; tie the horse's head up for twenty-four hours then grease the knee and turn him loose.

Answer.—Repeat the blister in one month.

Answer.—Repeat this application in

STEKETEE'S Pin Worm Destroyer. Never failing to destroy the worst case of WORMS IN HORSES. A SURE REMEDY FOR Worms in Horses, Hogs, Dogs, Cats, and a splen did remedy for Sick Fowls, or Roup, and is better known as Steketee's Hog Cholera Cure.

WE GUARANTEE That one tablespoonful of GOMBAULT'S CAUSTIC BALSAM will produce more actual results than a whole bottle of any liniment or spavin cure mixture ever made.

four days and then just often enough afterward to keep the part sore for a month or more if necessary.

"LUMPY-JAW."—In this week's issue of the KANSAS FARMER "W. M. G." reports results of the iodide of potassium treatment for "lumpy-jaw" in cattle which appeared in the issue of October 4.

Answer.—The iodide of potassium treatment for "lumpy-jaw" in cattle is as follows: One and a half drachms of iodide of potassium dissolved in a pint of water and given twice a day as a drench.

Answer.—Repeat the blister in one month.

Answer.—Repeat this application in

Answer.—Repeat this application in

Answer.—Repeat this application in

MARKET REPORTS.

LIVE STOCK MARKETS, Kansas City.

December 11, 1893. CATTLE—Receipts, 3,841 cattle; 112 calves. Corn-fed scarce. Top prices better than Saturday, but lower than a week ago.

Table with columns: No., Wt., Pr., No., Wt., Pr. DRESSED BEEF AND SHIPPING STEERS.

Table with columns: No., Wt., Pr., No., Wt., Pr. TEXAS STEERS.

Table with columns: No., Wt., Pr., No., Wt., Pr. TEXAS COWS.

Table with columns: No., Wt., Pr., No., Wt., Pr. TEXAS CALVES.

Table with columns: No., Wt., Pr., No., Wt., Pr. COLORADO STEERS.

Table with columns: No., Wt., Pr., No., Wt., Pr. ARIZONA STEERS.

Table with columns: No., Wt., Pr., No., Wt., Pr. WESTERN STEERS.

Table with columns: No., Wt., Pr., No., Wt., Pr. COWS.

Table with columns: No., Wt., Pr., No., Wt., Pr. BULLS.

Table with columns: No., Wt., Pr., No., Wt., Pr. HELPFERS.

Table with columns: No., Wt., Pr., No., Wt., Pr. CALVES.

Table with columns: No., Wt., Pr., No., Wt., Pr. STOCKS AND FEEDERS.

Table with columns: No., Wt., Pr., No., Wt., Pr. FIGS AND LIGHTS.

Table with columns: No., Wt., Pr., No., Wt., Pr. REPRESENTATIVE SALES.

SHEEP—Receipts, 3,222. Market slow and prices lower than last week.

Chicago. December 11, 1893. CATTLE—Receipts, 15,000. Slow but steady.

poor at 52 1/2c; rejected, 1 car at 53 1/2c, 1 car at 49c and 1 car at 55c; No. 2 red, 3 cars 59 to 61 pounds at 61 1/2c, 1 car choice 60 pounds at 62c; No. 3 red, 2 cars thin at 58 1/2c; No. 4 red, 1 car at 56c, 1 car at 57c, and 2 cars at 56 1/2c.

COBN—Receipts for forty-eight hours, 139,750 bushels. A good, quick demand was had yesterday for mixed, both on order and export account, but the liberal offerings checked all effort at an advance.

OATS—Receipts for forty-eight hours, 33,000 bushels. There was a fair inquiry for mixed yesterday and old prices were fairly sustained.

FLAXSEED—Active and higher. We quote at \$1 13 per bushel upon the basis of pure.

HAY—Receipts for forty-eight hours, 300 tons. Quiet, but steady. Fancy barn, prairie, \$6 50@7 00; choice, \$5 25@5 75; low grades, \$3 50@4 50; timothy, fancy, \$3 50@4 00; choice, \$2 00@2 50.

BUTTER—Choice table goods selling fairly at steady prices, but low grades draggy and go to packers. Creamery, highest grade separator, 23@24c per pound; finest gathered cream, 21c; fine fresh, good flavor, 19c; fair to good, 18c.

DRESSED POULTRY—The offerings were good and movement slow, due in a measure to the summer-like weather.

GAME—The market is rather sick on everything if values are no lower they are very weak, on account of the weather.

POTATOES—Offerings good and movement fair at steady prices. Colorado red, per bushel, 75@85c; Colorado white, 75@83c; Northern, choice, 75@80c; Northern, fair, 70c; Idaho, 75@80c; native, choice, 60@65c; native, good, 50@65c; native, common, 40@45c; fair to good, 50@60c.

VEGETABLES—Beans, navy, California, per bushel, \$1 75@2 00; country, \$1 60@1 75; best, per bushel, 50@60c; cabbage, per 100 pounds, \$1 50; celery, per bunch, 50@60c; cranberries per barrel, \$6; onions, per bushel, Northern, 40c.

FRUITS—Apples, fancy stand, per barrel, \$4 75 @5 00; choice, \$3 50@4 75; common, \$2 50@3 00. BROCCOLI—Harlem, green, 3 1/2@4c per pound; green, self-working, 2 1/2@3c; red-tipped, do., 2 1/2@3c; common, do., 1 1/2@2c; crooked, half price. Dwarf, 2 1/2@3 1/2c.

Wool—Demand fair and prices unchanged. Missouri, unwashed, per pound, heavy fine, 9@10c; light fine, 10@13c; combing, 13@15c; low and carpet, 12@14c. Tub-washed, per pound, choice, 25@27c; medium, 23@25c; dingy and low, 19@22c.

Table with columns: High est., Low est., Closed Dec. 4., Closed Dec. 11. WHEAT—Dec, Jan, May. CORN—Dec, Jan, May. OATS—Dec, Jan, May. PORK—Dec, Jan, May. LARD—Dec, Jan, May. S. RIBS—Dec, Jan, May.

St. Louis. December 11, 1893. WHEAT—Receipts, 42,000 bushels; shipments, 3,000 bushels. The market dropped 1/4c early, then advanced 1/4c, later it became very weak and declined 1c, with buyers at close at 3/4c under Saturday. Cash 59 1/2@60c; December, 59 1/2c bid; January, 60 1/2c; May, 65 1/2c.

FREE TO INVALID LADIES. A safe simple home treatment that cured me after years of suffering with uterine troubles, displacements, leucorrhoea, etc., sent free to ladies with full instructions how to use it. Address Mrs. D. L. Orme, South Bend, Ind.

COMBINATION PRICES BROKEN!

An Offer to Kansas Farmer Readers That No Other Paper Can Duplicate.

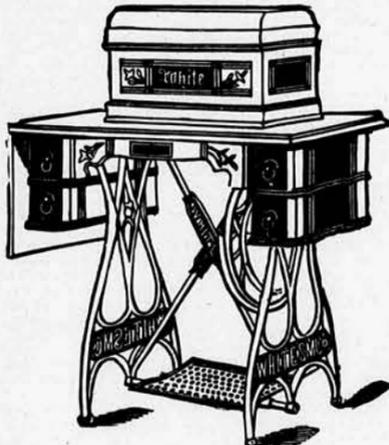
It is an acknowledged fact that the White Sewing Machine, after twenty years trial, is a leader as one of the very best family machines in the world.

Prices at which these machines are listed to be sold through agents: On account of agents' commissions and the expense of team, office and other expenses, it is estimated to cost for every machine sold through agents \$15 to be added to the factory price.

- No. 2 1/2—Three drawers, oak, listed.....\$50
No. 8—Five drawers, oak, listed..... 55
No. 10—Seven drawers, oak, listed..... 60

These machines are all warranted by the company and the warrant delivered to the purchaser for every machine sold. Every machine is nicely adjusted in every part, supplied with the best attachments manufactured, so as to enable the agent to show superior work and compete with any machine manufactured through a contest or left out on trial.

Every machine is adjusted to take up all slack or lost motion, so that when it has been in use ten years it can be made to run same as new by taking up all the slack motion caused by the wear, with a screw-driver. The instruction book explains all this by cut and diagram, also how to thread and operate the machine, with the use of every attachment illustrated and explained.



NOTICE—The slaughter we make on these old-line prices: We will furnish these machines, express charges prepaid, at any express office in Kansas, including one year's subscription to the KANSAS FARMER, at these very low figures:

- No. 2 1/2—Three drawers, oak, White machine, \$22.
No. 8—Five drawers, oak, White machine, \$23.
No. 10—Seven drawers, oak, White machine, \$24.

We challenge proof from any one to show where any paper, periodical or advertising agency can offer the White machine for sale at prices below those established for agents.

How can the KANSAS FARMER do this? We will explain:

We have secured a large stock of White Sewing Machines from a large dealer who runs several branch houses for the sale of White Sewing Machines. These machines were bought very low on account of buying in large quantities and for cash. A 6 per cent. discount was allowed to wholesale dealer. The financial stringency and demand for money compelled the sale of these machines for money in hand, which will enable us for the present, and so long as this announcement appears in our paper, to offer to our patrons the White machine at prices never before heard of.

We warrant every machine perfect and new, same as received from factory.

KANSAS FARMER CO., Topeka.

OKLAHOMA, INDIAN TERRITORY AND THE CHEROKEE STRIP

Constitute the future great Agricultural State of the Union and a prosperous country. The last chance for free homes for the farmer. For reliable information concerning this favored region, subscribe for the only farm journal published there, the HOME, FIELD AND FORUM, a sixteen page Monthly, price 50 cents a year. Sample copy free. Address HOME, FIELD & FORUM, Guthrie, Oklahoma.

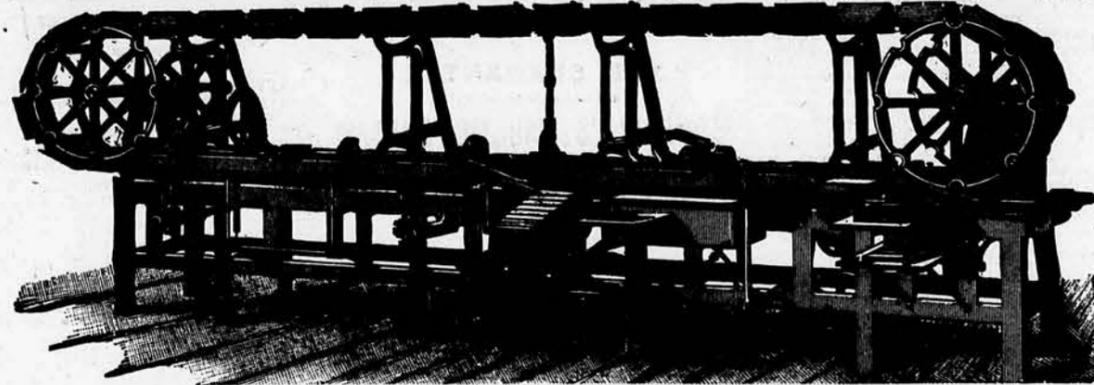
YOU CAN GAIT YOUR HORSE!

In Running Walk, Fox or Dog Trot or Single-Foot, either gait by using Prof. Whitse's Saddle Gait Methods. No hobbling or anything to injure a horse in the slightest manner. \$50 in case of failure if properly applied. Any one can handle the methods. Not necessarily any expense after you have purchased the method. Methods cheap. Write for particulars and testimonials.

WHITSEL SADDLE GAIT CO., 919 Walnut Street, Kansas City, Mo.

DOUBLE Breech-loader \$6.00. RIFLES \$2.00. WATCHES. GUNS BICYCLES \$15. All kinds cheaper than elsewhere. Before you buy, send stamp for catalogue to POWELL & CLEMENT CO., 106 Main St., Cincinnati, O.

An investment that will yield from FIFTY to ONE HUNDRED per cent. per annum in CASH and DISCOUNT DIVIDENDS. An invention as marvellous as the Printing Press. The Art of Bookmaking Revolutionized. Books Made by Machinery.



AUTO BOOK-BINDING AND AUTO BOOK-TRIMMING MACHINES.

Machines now running, turning out thousands of strongly and flexibly bound books daily, neither sewed nor wired. Machines that will do for the literature of the ages what the perfected printing presses do for the news of the day. Standard books, books for the library and popular works so cheapened that the choicest volumes shall be within easy reach of everyone. Stockholders entitled to the additional advantage of large fixed and continuous discounts, and thus, at small expense, acquire handsome libraries of the best standard and popular authors.

The Auto Book Concern

ORGANIZED UNDER THE LAWS OF NEW JERSEY. CAPITAL STOCK, \$1,000,000. Divided into 100,000 Shares of \$10 Each, Full Paid and Non-Assessable.

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REGISTRARS OF STOCK:

FARMER'S LOAN AND TRUST COMPANY, New York.

Prospectus.

THE AUTO BOOK CONCERN has been organized. First. To acquire and control the American and European patents of the AUTO BOOK BINDER, and the AUTO BOOK TRIMMER MACHINES, that, to the book-making art, mark an advance as important as the Steam Printing Press was to the Washington Hand Press fifty years ago; and to manufacture and operate said machines, in this and in foreign countries. Second. To acquire the most complete set of stereotype and electrotype plates, in this country, of the standard popular authors. These are stored in fire proof vaults in the City of New York. They are perfect and cost over \$1,000,000. Third. To manufacture with the use of these Automatic Machines, all grades of books, including school and music books, and sell the same at greatly reduced prices, to its Stockholders and the trade.

The Company will not sell or lease any of its machines within the United States, but to the European book-making craft only. THE AUTO BOOK BINDER and the AUTO BOOK TRIMMER are run at little expense. They are marvels of simplicity. The binder, with the assistance of two girls, picks up printed sheets and covers, and converts them into solidly and flexibly bound volumes, neither sewed nor wired. These machines perfectly perform their tasks, and are henceforth as indispensable in producing books, as the perfected presses are to the newspapers. It is proposed to provide families, students and school teachers with libraries at trifling expense and the best current literature at prices heretofore unknown and school books for the children of the million, neater and cheaper than ever has been done.

Statement of Earnings.

The profits on the publication of the standard and popular works from the plates which the Company acquires have exceeded \$100,000 yearly under the old processes of manufacture, assuring to the stockholders a profit of at least 10 per cent. per annum from this source alone. With the use of the Auto Machines these profits must necessarily be largely increased. It is impossible to estimate the returns from the ownership of the patents and the sale of the Machines in Foreign Countries, but it is a well known fact that patents covering machinery that create a revolution in any important trade have proved enormously remunerative to the original owners, and soon repay the full amount of capital invested. Additional dividends will be declared from time to time as such profits are realized.

Stockholders' Postal Supply Bureau.

An important feature of the sale department of the Company is the STOCKHOLDERS' POSTAL SUPPLY BUREAU. The Company acts as agent for each stockholder in the purchase of all books published, and secures for stockholders the greatest possible discount, varying from 25 to 50 per cent. Stockholders will also be supplied with catalogues containing the list of the Company's publications, with a confidential price list, giving the wholesale prices and a special additional discount, which will be given to stockholders alone. Such discounts to stockholders will amount to an immense sum on the yearly purchase of books, thus yielding large DISCOUNT DIVIDENDS, in addition to the Cash Dividends, on the investment.

The price to be paid by the Company for the American and Foreign patents of the Auto Book Binder, the Auto Book Trimmer and the stereotype and electrotype plates of the Standard Works is \$1,000,000; \$350,000 in cash and \$650,000 in the stock of the Company; the vendors agreeing, however, to donate to the treasury of said Company \$150,000 of the stock they receive in part consideration of the conveyance of the above property. To meet said cash payment of \$350,000 to said vendors and to supply the necessary working capital, 50,000 shares of the capital stock of this Company are now offered for public subscription at par

(\$10 per share). This stock is full paid and non-assessable. Purchasers incur no personal liability. The remaining stock is retained by the vendors, as it is expected to command a large premium when the machines are in universal use.

Subscriptions to stock can be paid for in full on application, or 20 per cent. can be paid on application, the balance in one and two months. Should the stock offered be over-subscribed, preference will be given to subscriptions accompanied by full payment. Early application is, therefore, recommended.

Applications for stock with remittances must be made to WINTHROP POND, Treasurer, THE AUTO BOOK CONCERN at the Company's office, 208 Broadway, New York.



The Most Successful Remedy ever discovered as it is certain in its effects and does not blister. Read proof below.

KENDALL'S SPAVIN CURE.

SMITH'S FORD, N. C., Nov. 29th, 1892. DR. B. J. KENDALL CO.,

Gentlemen—I have the pleasure of writing you again in regard to my mare, about whom I wrote you about two years ago, she being afflicted with Blood Spavin. After following the directions you gave me for using "Kendall's Spavin Cure" I obtained perfectly satisfactory results after using six bottles. The Spavin Cure was not known in my part of the country until I purchased the first bottle, now all my neighbors use no other liniment but "Kendall's Spavin Cure." It is all you claim. You may publish this if desired. Very respectfully, ADAM BRITTAIN.

Price \$1.00 per bottle.

DR. B. J. KENDALL CO., Enosburgh Falls, Vermont.

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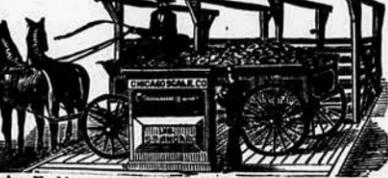
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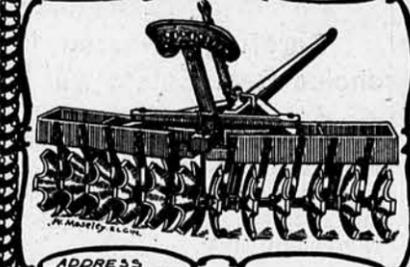
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Are the most complete and commodious in the West and the second largest in the world. Higher prices are realized here than further east. This is due to the fact that stock marketed here is in better condition and has less shrinkage, having been shipped a shorter distance; and also to there being located at these yards eight packing houses, with an aggregate daily capacity of 9,000 cattle, 40,000 hogs and 4,000 sheep. There are in regular attendance sharp, competitive buyers for the packing houses of Chicago, Omaha, St. Louis, Indianapolis, Cincinnati, New York and Boston. All of the eighteen railroads running into Kansas City have direct connection with the yards.

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts, 1892.....	1,571,155	2,397,477	438,268	32,505	97,462
Slaughtered in Kansas City.....	727,981	1,805,114	218,909		
Sold to feeders.....	213,923	4,269	29,978		
Sold to shippers.....	446,501	586,563	48,260		
Total sold in Kansas City.....	1,388,405	2,395,937	296,246	15,974	

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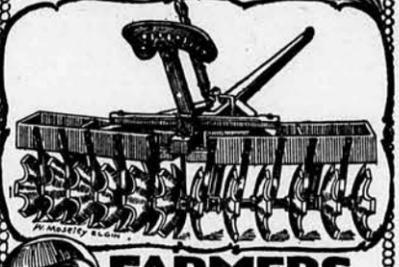
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THIS IS JUST WHAT I SHALL DO AFTER THIS. (ANY FRIEND YOU SHOULD USE WALSH GREASE.) TRADE MARK. SOLD EVERYWHERE. WILL WEAR TWICE AS LONG AS ANY OTHER. TRY IT! USE THE BEST. MAKE NO OTHERS.

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"For Sale," "Wanted," "For Exchange," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order. Special:—All orders received for this column from subscribers, for a limited time, will be accepted at one-half the above rates, cash with order. It will pay. Try it!

FOR SALE OR EXCHANGE—Livery barn and stock. Want good farm. Geo. H. Heller, Beatle, Kas.

WISH TO BUY A FEW CASHMERE GOATS.—Also want to exchange a residence and business building for a farm. T. T. Perry, Girard, Kas.

ALFALFA SEED.

Crop of 1893. Pure and fresh. Address McBeth & Kinnison, Garden City, Kas.

SEVEN LARGE FINELY-MARKED POLAND-China males. Prices out in two Gold Coin 7412, or will trade him for two first class gilts. First sale first choice. John Ziller, Hiawatha, Kas.

WANTED—Pure Red Texas Oats and Barley. McBeth & Kinnison, Garden City, Kas.

FOR SALE—A few choice Bronze toms. Weighed twenty-one pounds at six months. Wm B. Parker, Lakin, Kas.

CHOICE BARRED PLYMOUTH COCKERELS.—At \$1.50 apiece. Also White Holland turkeys. Young toms \$3 each, \$5 a pair. Mrs. E. P. Mason, Belle Plaire, Kas.

FOR TRADE—Improved Gove county farm. Unincumbered. M. P. Ditzler, Goodwater Kas.

JOHN G. HOWARD & CO., dealers in farms, ranches and city property. Live stock as per city. Florida and Texas land for sale cheap. For trades see us or write. 423 Kansas Ave., Topeka, Kas.

LIGHT BRAHMAN Young stock for sale now. Correspondence solicited. Mrs. W. D. Gard, Thayer Kas.

MAMMOTH ROZE TURKEYS—Young toms, \$3 each; hens, \$2 each; pair \$5; trio \$7. No better turkeys in the West. Have a good flock to select from. Can mate pairs or trios not alike. No inferior birds shipped on mail orders. A. P. Williamson, Mulvane, Kas.

WHITE-FACED BLACK SPANISH PULLETS and cockrels for sale. \$1 each. Only good ones sent. John Black Barnard Kas.

FOR SALE—A few choice Bronze toms. Weighed eighteen pounds at five months. Wm B. Parker, Lakin, Kas.

WANTED—Purchasers for pure-bred Berkshire boars at \$5 and gilts at \$12—ready to breed. Riverside Stock Farm, Topeka.

LEGHORNS, LANGSHANS AND BRAHMAS—Hands, meat, hardest and heaviest on earth. Also Yorkshire hogs, bees, honey, and alfalfa seed. James Burton, Jamestown, Kas.

FOR SALE—Mammoth Bronze turkeys, S.S. Hamburgs. J. A. McCreary, Emporia, Kas.

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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. Hunkton, Snokomo, Wabaussee Co., Kas.

PRESERVE YOUR EGGS—How to keep eggs fresh the year round. Formula mailed for 50 cents. John B. Campbell, Lock Box 305, Topeka, Kas.

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THE STRAY LIST.

FOR WEEK ENDING NOV. 29, 1893.

Cherokee county—P. M. Humphrey, clerk. HORSE—Taken up by B. V. Thomas, in Sheridan tp., November 3, 1893, one three-year-old bay horse, about fifteen hands high, white stripe in forehead, both hind feet white; valued at \$25.

Montgomery county—G. H. Evans Jr., clerk. MARE—Taken up by J. M. Thompson, in Cherokee tp., four miles east of Coffeyville, October 10, 1893, one bay mare, 11 years old, branded J. H. on right shoulder.

MARE—By same, one bay mare, 8 years old, branded J. H. on right shoulder. MARE—By same, one light roan mare, 4 years old, branded J. H. on right shoulder.

Pottawatomie county—T. J. Ryan, clerk. 2 STEERS—Taken up by Michael Ward, in Belvue tp., November 3, 1893, two three-year-old steers—one red head and white hips and one red spotted, indistinct brands.

Chase county—M. K. Harman, clerk. STEER—Taken up by R. S. Morris, in Bazaar tp., P. O. Morgan, November 14, 1893, one red yearling steer, a few little white spots on sides and blanket, bush of tail white, spike horns; valued at \$14.

FOR WEEK ENDING DECEMBER 6, 1893

Johnson county—John J. Lyons, clerk. STEER—Taken up by Herman Volgs, in Mission tp., October 25, 1893, one red steer, 2 years old, branded H. D. on both sides, no other marks or brands; valued at \$18.

Lyon county—C. W. Wilhite, clerk. 6 STEERS—Taken up by W. S. Smith, in Fremont tp., P. O. Emporia, November 6, 1893, six two-year-old steers—one white, two red and white, one light red, one black, one black and white; five of said steers dehorned, all marked with salt in right ear; valued at \$25 each.

Linn county—Jno. J. Hawkins, clerk. 2 MULES—Taken up by Mitchell Ross, in Blue Mound tp., P. O. Blue Mound, November 28, 1893, two brown mare mules, 2 years old past, one has salt in left ear.

Greenwood county—J. M. Smyth, clerk. MARE—Taken up by J. W. Shultz, in Pleasant Grove tp., one brown face mare, 2 years old, no marks or brands; valued at \$25.

COW—Taken up by Samuel Croft, in Fall River tp., eight miles southeast of Climax, one two-year-old dark red cow, with some white spots on her no marks or brands; light red heifer calf, 2 or 3 months old, with her; valued at \$15.

STEER—Taken up by A. P. Loveland, in Quincy tp., P. O. Neal, one three-year-old muley or dehorned blue steer, dim brand on left side, quite large; valued at \$23.

Labette county—D. H. Martin, clerk. HORSE—Taken up by J. M. Lowellen, in Hackberry tp., P. O. Bartlett, November 11, 1893, one sorrel horse, 14 1/2 hands high, white spot in forehead and on tip of nose; valued at \$20.

HORSE—By same, one sorrel horse, right hind foot white; valued at \$20. HORSE—Taken up by W. C. Wright, in Hackberry tp., P. O. Bartlett, November 17, 1893, one black horse 2 years old, fourteen hands high, left hind foot white, white spot on forehead and tip of nose; valued at \$15.

HORSE—By same, one sorrel horse, 2 years old, fourteen hands high, white spot on forehead and stripe down face; valued at \$15.

MARE—By same, one sorrel mare, 3 years old, fourteen hands high, white spot on forehead; valued at \$15.

Montgomery county—G. H. Evans, Jr., clerk. PONY—Taken up by M. L. Emenhiser, in Louisville tp., P. O. Elk City, November 3, 1893, one bay-roan horse pony, about 2 years old, brand somewhat similar to S on left shoulder and W on left hip; valued at \$7.

PONY—By same, one iron-gray mare pony, about 4 years old, brand somewhat similar to S on left shoulder and W on left hip; valued at \$11.

FOR WEEK ENDING DEC. 13, 1893.

Lyon county—C. W. Wilhite, clerk. COW—Taken up by D. W. Stouder, in Center tp., P. O. Olpe, one red and white pided cow, 12 years old, dehorned, branded O on right hip, smooth crop off left ear; valued at \$15.

STEER—Taken up by J. Harvey Wells, in Emporia tp., one two-year-old steer, red with a few white spots, marked with cut in left ear; valued at \$14.

Anderson county—J. T. Studebaker, clerk. MARE—Taken up by Hans Jensen, three miles northeast of Wells, one dun mare, about 4 years old, no marks or brands visible.

STEER—Taken up, one red steer, 2 years old, white spot on left hip, some white in face; valued at \$12.

Greenwood county—J. M. Smyth, clerk. MARE—Taken up by John Eop, in Quincy tp., one three-year-old bay mare, branded W on left shoulder; valued at \$12.

STEER—Taken up by G. W. Holman, in Janesville tp., near Utopia P. O., one black muley yearling steer, half under-crop off left ear; valued at \$15.

Russell county—Ira S. Fleck, clerk. 2 PONIES—Taken up by Geo. M. Morton, in Center tp., P. O. Bunker Hill, November 13, 1893, two mare ponies, one roan and one dark bay, marks and brand cannot be ascertained; valued at \$25.

Osborne county—Harry Gray, clerk. STEER—Taken up by Benjamin Brown, in Natona tp., November 23, 1893, one dehorned red and white steer end of left ear off; valued at \$14.

Riley county—Chas. G. Wood, clerk. FILLY—Taken up by M. L. Clark, in Manhattan tp., P. O. Manhattan, November 3, 1893, one gray filly 2 years old, left hind foot white, white spot on right hind leg; valued at \$25.

THE KIRKWOOD Steel Wind Engine

Has been in use since 1882. It is the Pioneer Steel Mill. It has beauty, strength, durability, power; it is the best, hence the mill for you to buy.

Thousands have them! OUR STEEL TOWERS Have four angle steel corner posts, substantial steel girts and braces; not fence wire. They are light, strong, simple in construction, much cheaper than wood and will last a lifetime. Our mills and towers are ALL STEEL and FULLY GUARANTEED.

Write for prices and circulars. Address, mentioning this paper, KIRKWOOD WIND ENGINE CO. Arkansas City, Kas.

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Easy, durable and cheap. A radical cure effected. Send or sealed catalogue. Eggleston Truss Co., 69 Dearborn St. Chicago.

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