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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeder's Directory for \$15 per year or \$3.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

HORSES.

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

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D. TROTT ABILENE, KAS., headquarters for POLAND-CHINAS and the famous Duroc-Jerseys. Mated to produce the best in all particulars. Choice breeders cheap. Write.

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CATTLE AND SWINE.

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. 23351, full brother to second-prize yearling at World's Fair. Individual merit and gilt-edged pedigree my motto. Inspection of herd and correspondence solicited. M. C. Vansell, Muscatine, Atchison Co., Kas.

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

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THE WOOD DALE BERKSHIRES Champions of Two World's Fairs. New Orleans, 1885, best herd, largest hog any breed. At Columbian, Chicago, won ten out of eighteen first prizes, the other eight being bred at or by descendants of Wood Dale. New blood by an 1894 importation of 21 head from England. For catalogue Address N. H. GENTRY, SEDALIA, MO.

GEORGE TOPPING, Cedar Point, Kas. (CHASE CO.) Importer, breeder and shipper of LARGE ENGLISH BERKSHIRE SWINE of best families and breeding. Choice pigs for sale at low prices. Also Single-combed Brown Leghorns and Mammoth Bronze turkeys. Eggs in season. Farm 6 miles south of Cedar Point. Mention K. F.

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SWINE.

J. T. LAWTON, North Topeka, Kas., breeder of Improved Chester White swine. Stock for sale. Pairs or tris not akin shipped. Correspondence invited.

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MARTIN MEISENHEIMER, Registered Poland-China Swine. Hiawatha, Brown Co., Kas. 20 brood sows, headed by Tecumseh Free Trade 10783 S., assisted by a son of Benton's Last 8897 S. Some of best females bred to Butler's Darkness, Black U. S. Nemo (Vol. 9) and Victor M. Jr. (Vol. 9) Annual Clearance Sale, September 18, 1895.

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STANDARD POLAND-CHINA HERD. CHAS. A. CANNON, Proprietor, HARRISONVILLE, CASS COUNTY, MISSOURI. Breeder and shipper of registered Poland-China swine of the best strains. Herd headed by Chow Chow 9903 S., assisted by a Black U. S. son of Imitation 27185 O., also a son of Tecumseh Jr. 10207 O. 220 head in herd. Young boars and glits yet on farm. Write or come and visit me.

Quality Herd Poland-Chinas. For first choice pigs from stock producing winners of seven prizes World's Fair. Darkness Quality 2d and Ideal U. S. by Ideal Black U. S. head the herd. Both first-prize winners Kansas State fair 1894. Come or write your wants. Willis E. Gresham, Burrton, Kas. Secretary Kansas Swine Breeders' Association

BROWN COUNTY HERD, PEDIGREED POLAND-CHINAS. ELI ZIMMERMAN, Hiawatha, Kas. 46 brood sows in herd, headed by Black U. S. Nemo (Vol. 9), Model Wilkes (Vol. 9), Sunset Chip (Vol. 9) and Billy Bundy (Vol. 9). Female lines: All Right, Short Stop, King I. X. L. Wilkes, Free Trade, Wamaker. Aged sows, bred glits and fall pigs for sale.

Evergreen Herd Poland-Chinas. Winterscheidt Bros., Prop'r, Horton, Kas. Headquarters for Admiral Chip pigs. The great \$250 boar, Admiral Chip 7919, heads the herd, assisted by Kansas Chief 13676, Winterscheidt Victor 13204, Geo. Wilkes Jr. 11893. Also pigs from Orient's Success 27289 and Banner Chief 12714. Sows of following strains: Tecumseh, Nemo, Such, Wilkes, Admiral Chip, etc. Prices reasonable. Write or come.

CLOVER HILL HERD Registered Poland-China Swine. Eighty head, headed by Royal Perfection 13159 S., a son of King Perfection 1315 S., that won sweepstakes St. Louis fair, 1894. Twenty-one April pigs, thirteen May farrow and twenty-five later, all by Royal Perfection. Write or come. T. E. Martin & Bro., Fort Scott, Kansas.

ROCK QUARRY HERD. N. E. MOSHER & SON, SALISBURY, MO. Breeders and shippers of the choicest strains of Poland-China hogs, Hereford cattle and Mammoth Bronze turkeys. Top Black U. S. and Wilkes pigs for sale. None better. Mention KANSAS FARMER.

PLEASANT VALLEY HERD REGISTERED POLAND-CHINA SWINE. Westphalia, Anderson Co., Kas. Breeder of high-class pedigree Poland-China swine. Headed by Tecumseh Grand 9178 S., assisted by Guy Wilkes 3d 12131 C. Tecumseh Grand 9178 S. is now for sale, also fifty choice April pigs. Write. E. A. BRICKER.

HILLHURST STOCK FARM GARNETT, KAS., (Anderson Co.) Walter Latimer, Prop'r. POLAND-CHINA SWINE of the Tom Corwin and I. X. L. strain. Choice animals for sale, either sex—none better. Stock grown by Latimer are sure winners. Inquiries promptly answered. Mention KANSAS FARMER.

CATTLE.

SUNNY SLOPE FARM

C. S. CROSS, Emporia, Kas. We have one of the largest herds of registered HEREFORD CATTLE in the United States. Write for anything you want.

SHANNON HILL STOCK FARM.

G. W. GLICK, ATCHISON, KAS. Breeds and has for sale Bates and Bates-topped SEOT-HORNS. Waterloo, Kirklevington, Filbert, Crapp, Princess, Gwynne, Lady Jane and other fashionable families. The grand Bates bull Winsome Duke 11th 115137 and Grand Duke of North Oaks 11th 115735 at head of the herd. Choice young bulls for sale now. Visitors welcome. Address W. L. CHAFFEE, Manager.

SWINE.

Poland-China Hogs, Holstein Cattle

and B. P. Rock chickens of the choicest strains. Butler's Darkness No. 6846 S. and Ideal U. S. Nemo at head of swine herd. Only choice stock shipped on order. Sows bred and a few extra good young boars for sale. Write your wants. Satisfaction guaranteed. Sixth Annual Clearance Sale, Sept. 17, 1895. BERT WISE, Reserve, Brown Co., Kas.

R. SCOTT FISHER, HOLDEN, Johnson Co., MO.

POLAND-CHINAS of the leading strains—Tecumseh, Wilkes, Sunsets. Good ones, strictly first-class. Good bone, broad back, fine head. Prices reasonable. Visit me.

MAINS' HERD OF POLAND-CHINAS. JAS. MAINS, Oskaloosa, Kas. (Jefferson County.)

A grand lot of sows bred to Monroe's Model, Excel, McWilkes Jr. and Storm Cloud 2d. Also all other classes and ages of stock for sale. I guarantee safe arrival and stock as represented or money refunded. Breeding stock recorded in Ohio P. C. R.

I Did Want \$1,000, BUT I HAVE \$1.00 NOW, MYSELF, and lack \$999. In order to get this I am offering POLAND-CHINA pigs sired by Graceful F. Sanders 13085 S., sire and dam prize-winners at World's Fair, and Early Sisson 11993, also U. S. Wise 13138. Write or come. A. W. Themanson, Wathena, Kas.

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

TOWER HILL HERD PEDIGREED POLAND-CHINAS. B. R. ADAMSON, Prop., Ft. Scott, Kas. 25 highly-bred brood sows of best strains, headed by Black Dandy 8809 S., Black Stop 10550 S. and Joker Wilkes 12682 S. About 100 selected individuals sold this season. 25 youngsters coming on now for choice. Write or come and visit my herd.

ROYAL HERD POLAND-CHINAS and Plymouth Rocks. Herd headed by Cunningham's Choice 13731, from the herd awarded grand sweepstakes at World's Fair on boar and sow; Royal King 11874. My sows are royal-bred. Ward A. Bailey, Callista, Kingman Co., Kas.

E. E. AXLINE, OAK GROVE, Jackson Co., MO.

Breeder of pure-bred POLAND-CHINAS of best families. Herd headed by Roy U. S. 24195 A., assisted by Western Wilkes 12847 S. Spring pigs at reasonable prices. A few choice fall glits for sale cheap. Also breeds Plymouth Rocks of best strains. When writing mention KANSAS FARMER.

SUNNY SLOPE FARM, EMPORIA, KANSAS.

200 head of Poland-China hogs, headed by Long-fellow 29985 O. (who has the best Columbian record west of the Mississippi), J. H. Sanders Jr., Hadley Jr. 27505, Sir Charles Corwin. We also combine the blood of Black U. S., Ideal U. S. and Wilkes. 100 head of brood sows. Also 100 head of Berkshires, headed by the well-known boar, Major Lee 31139. We have 25 glits bred by him to General Lee of Gentry breeding and Royal Peerless the Great. We have one of the largest herds of hogs in the United States. Why not come to the fountain head for brood sows? 200 head of fashionably bred Herefords. H. L. LEIBFRIED, Manager.

(Breeder's Directory continued on page 16.)

The Stock Interest.

THOROUGH-BRED STOCK SALES.

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

SEPTEMBER 6—Walter Latimer, Garnett, Kas., Poland-China swine.
 SEPTEMBER 11—W. H. Wren, Marion, Kas., Poland-China swine.
 SEPTEMBER 18—Martin Melsenheimer, Hiawatha, Kas., Poland-China swine.
 OCTOBER 1—M. S. Babcock, Nortonville, Kas., Holstein-Friesian cattle and Poland-China swine.
 OCTOBER 4—Winterscheidt Bros., Horton, Kas., Poland-China swine.
 OCTOBER 9—Geo. W. Null, Odessa, Mo., Poland-China swine.
 OCTOBER 10—M. Waltmire & Son, Fountain, Kas., Short-horn cattle and Poland-China swine.
 OCTOBER 10—J. R. Killough & Sons, Richmond, Kas., Poland-China swine.
 OCTOBER 23—J. H. Pegram, Virgil, Kas., Poland-China swine.
 OCTOBER 1—C. G. Sparks, Mt. Leonard, Mo., and G. L. Davis, Elmwood, Mo., Poland-China swine.
 OCTOBER 29—Chas. Cannon, Harrisonville, Mo., Poland-China swine.
 OCTOBER 30—L. N. Kennedy, Nevada, Mo., Poland-China swine.

STEER-FEEDING EXPERIMENTS.

A Comparison Between Pure-bred Short-horns and Scrubs.

The following account of the carefully and impartially conducted experiments of Prof. Georgeson is taken from the latest bulletin of our Agricultural College Experiment Station:

In the spring of 1893 it was decided to begin a comparative test between pure-bred stock and scrubs in order to ascertain their relative merits under the same conditions as to feed and care. We accordingly set about finding two lots of ten head each. After some search for pure-bred beef steers, it became apparent that none could be found that were at all desirable for the test and which could be bought at anything like reasonable figures, of either Herefords, Aberdeen-Angus or Galloways. For this reason, and for none other, these three breeds were eliminated from the start. The Short-horns, on the contrary, are quite numerous in Kansas, and there was, therefore, some hope of finding a suitable lot of that breed. Yet it was surprising to find how few of them could be obtained. It was desirable to secure a uniform lot as to age and weight. After much searching and correspondence, Mr. T. H. Mastin, of Kansas City, consented to sell the station six head of yearling pure-bred Short-horn steers at the rather high price of \$40 per head. The other four Short-horns were obtained from the herd of Mr. T. P. Babst, of Dover, Kas., in exchange for heifer calves from the college herd. The calves from Mr. Babst were from six to eight months younger than the steers from Mr. Mastin's herd. Moreover, they had not been castrated, and were operated upon after they reached the station, which set them back considerably in their growth during the summer of 1893. For this reason as well as for the reason of their being younger, they were not large enough to put into the feed lot together with the six steers from Mr. Mastin's herd, when the feeding period here detailed began, November 1, 1894, and the account here given deals, therefore, only with the six older steers, and with six of the largest scrubs from the lot of ten, which were bought at the same time.

BREEDING OF THE SHORT-HORNS.

As shown by the pedigrees, the Short-horns are of excellent breeding, but it would be too much to say that they were superior types of the breed. The fact that their breeder had castrated them while calves would rather indicate that he did not consider them of sufficient merit individually to warrant his rearing them for breeding purposes. However, at the time they were purchased they were fairly good-looking steers and had, for their ages, made a fair average growth, as shown by the following table:

TABLE I.—Showing Age, Weight and Gain of Short-horns up to Their Arrival at the Station.

Number of steer.	Date of birth, 1892.	Number of days old on May 25, 1893.	Assumed weight at birth, Pounds.	Weight on May 25, 1893, Pounds.	Gain, Pounds.	Ave. age daily gain, Pounds.
Steer No. 1.....	March 19	432	60	807	747	1.73
Steer No. 2.....	March 18	433	60	703	643	1.48
Steer No. 3.....	February 26	453	60	835	775	1.71
Steer No. 4.....	February 25	454	60	831	771	1.70
Steer No. 5.....	March 17	434	60	746	686	1.53
Steer No. 6.....	March 19	432	60	760	700	1.62
Total.....		2,638	360	4,682	4,323	9.82
Average.....		439	60	780	720	1.63

The pedigrees furnished by the breeder show that they belong to families of high reputation. They are evidence that the steers were backed by blood which many breeders will class with the best in the breed.

The price, \$40 per head, which we were obliged to pay in order to get them, was too high for stock cattle of that age, and in the expense account of the two lots which follows later the purchase price has, therefore, been omitted in both cases. They were dehorned soon after they were purchased.

HISTORY OF THE SCRUBS.

The term "scrubs" is here used for the want of a more suitable name. It is not used as a derisive epithet, but rather to denote wholly unimproved stock as far as it was possible to obtain them. The term "natives" might have been adopted instead, but to the average reader it is apt to imply more or less improved blood, since one or another of the various improved breeds usually show their impress on the so-called "natives" to a greater or less extent. But the term "scrubs" implies as near as it can be expressed in one word the absence of improvement.

The ten scrub steers which we purchased for the trial were raised in the region about Manhattan. They were bought from Mr. Hiram Kearns, a farmer and ranchman in the neighborhood of the college. They were picked from a bunch of about fifty which he had collected in the surrounding country with a view of rearing them for the feed lot. Mr. Kearns could not tell the exact age of any of them, but they were about a year old, having been dropped in the spring of 1892, and he had collected them in the fall of that year. They did not show any particular breeding, nor did they at the time of purchase give evidence of having any improved blood in their veins. As they matured, however, one of them, No. 14, bore some resemblance to a red Short-horn in that he was more level and less angular than most of the others, and No. 16, by his appearance about the head, gave rise to the suspicion that he might carry a slight trace of Jersey blood; but nothing could be learned in regard to their breeding. They represented a fair average of the lot from which they were picked. In comparison with the Short-horns they were small for their age and not calculated to inspire one with enthusiasm over their merits as beef cattle. Grade steers of much better quality with various degrees of pure blood could have been found, but as the test was to be between pure-breds and steers of no breeding it was considered that the object aimed at would have been defeated by selecting grades, and we, therefore, chose scrubs, pure and simple. They cost \$16 a head. Like the Short-horns they were dehorned soon after they were purchased.

TREATMENT FROM THEIR ARRIVAL AT THE STATION UNTIL PUT IN THE FEED LOT.

On their arrival at the station, May 25, 1893, the two lots were at once put on pasture together. It was a hilly prairie pasture which furnished only a moderate amount of feed. The scrubs were used to this and did not feel the change; but it was greatly to the disadvantage of the Short-horns, as they were taken off the rich clover and tame grass pastures where they had been bred on the extreme eastern border of the State, and for the first time in their lives were put on a diet of rather scanty and dry prairie grass. The result of this is shown in table No. II. of the bulletin. By November 1, 1893, when they were taken from the pasture the Short-horns had made an average gain of 110 pounds, whereas the scrubs had made an average gain of 179 pounds per head

in the same time and on the same pasture.

During the winter of 1893-94 the two lots were fed exactly alike in the open yard with sheds for shelter. To enable us to weigh their feed separately they were kept in separate yards, only divided, however, by a wire fence. The feed consisted of corn and corn stalks with a little sorghum hay and similar roughness. They were fed sufficiently to be kept in a good growing condition.

On May 1, 1894, the two lots were again put together on the same pasture they occupied the year before. The first few days they were fed a little corn so as not to make the change too abrupt. They remained on pasture until October 29 when they were taken up and preparations made to put them in the feed lot for fattening.

During the first summer on pasture the Short-horns made an average gain of but .68 of a pound per day while the scrubs, under the same conditions, gained 1.12 pounds per day per head. During the six months of yard feeding, from November 1 to May 1, when the two lots were fed alike on corn and corn stalks, the Short-horns gained a trifle more than the scrubs, and the figures show that they also ate a little more. From this we may infer that there was either a lack of feed on the pasture or that the Short-horns did not "rustle" sufficiently to get all they wanted, or all they ought to have had.

The next summer the difference is still more marked. They again ran together in the same pasture, but owing to the dry summer of 1894 it furnished even less feed than the year before, and at the close of the second season on pasture the Short-horns show a daily gain for the summer of only .41 of a pound per head, while the scrubs show a gain of 1.03 pounds per head, which is just two and a half times as much. Here again this difference can be accounted for only on the theory that the Short-horns lacked rustling qualities in the sense that they were not active enough in their search for food.

The results, as a whole, show that from May 25, 1893, to November 1, 1894, a total of 525 days, during which time they had spent two summers on prairie pasture without grain and in the intervening winter wintered in an open yard on corn and rough fodder, chiefly corn stalks, the usual winter feed of farmers, the Short-horns made an average gain of 412 pounds per head while the scrubs gained 588 pounds per head.

An impartial judge must not overlook the point already noted, that the Short-horns were brought from a richer section of the State and put on a hilly prairie pasture with scanty feed to which they were wholly unaccustomed, while the scrubs, so to speak, "were to the manner born;" to them there was no detrimental change in their condition. The effect of this change on the Short-horns is especially noticeable in the fact that while they made an average daily gain of 1.63 pounds from birth until their arrival at the station, the average daily gain per head during the 525 days they were kept here, previous to being put in the feed lot, was but little over .75 of a pound, and there can be no doubt whatever that had they been kept on their native clover pastures and been stabled in winter, they would have made better gains and attained a much greater weight than they did under the conditions we could offer them here. In these particulars the experiment was decidedly in favor of the scrubs. We call attention to these facts because they should not be lost sight of by fair-minded judges of the result. It confirms, however, what is already well known, that under conditions of comparative hardship the Short-horns are not as good rustlers as native cattle which are accustomed to shift for themselves. The former have through a long line of ancestry been bred under artificial conditions, and to do their best these conditions must be maintained. The result in this case brings the fact forcibly to the front that farmers who invest in pure-bred stock must also provide the conditions as to feed and care to which they have been accustomed through generations of breeding. If these conditions are

A Sufferer Cured

"Every season, from the time I was two years old, I suffered dreadfully from erysipelas, which kept growing worse until my hands were almost useless. The bones softened so that they would bend, and several of my fingers are now crooked from this cause. On my hand I carry large scars, which, but for



AYER'S

Sarsaparilla, would be sores, provided I was alive and able to carry anything. Eight bottles of

Ayer's Sarsaparilla cured me, so that I have had no return of the disease for more than twenty years. The first bottle seemed to reach the spot and a persistent use of it has perfected the cure."—O. C. DAVIS, Wautoma, Wis.

AYER'S

THE ONLY WORLD'S FAIR
Sarsaparilla

AYER'S PILLS Promote Good Digestion.

not provided it is an inexorable law of nature that they must retrograde till they reach a level suited to their surroundings.

(To be continued.)

Hog Cholera—Responsibility of Owners of Diseased Animals.

Speaking of a situation which is becoming serious, Hon. F. D. Coburn, Secretary Kansas State Board of Agriculture, says:

"There are reports of more or less 'hog cholera' in various parts of the State and it is not improbable that many well-meaning citizens, through ignorance of the law and the ease with which the disease is spread, are unwittingly aiding in the destruction of thousands of swine which, with strong prices, her present shortage and tremendous corn crop, Kansas at this time can ill afford to lose. It is conceded that the contagion from 'cholera' hogs and their dead carcasses is carried from place to place by dogs, wolves, crows, buzzards, running water and various other agencies, including the clothing of those who come in contact with them, and this fact emphasizes the necessity of promptly isolating ailing animals and deeply burying or burning the dead, even though there was no law making it mandatory.

"Section 1, chapter 157, session laws of 1886, makes it the duty of every person who owns or controls any hog dead of any disease to burn or bury it within twenty-four hours after death, and failure to do so is a misdemeanor, subject to a fine not exceeding \$100. A like penalty applies to selling or bartering any diseased hog without giving full information of it; also to bartering or selling any hog which has died of disease. The same punishment is provided too for persons depositing any dead hog in any river, stream, creek or ravine.

"Section 1 of chapter 158 is ignored by or unknown to many, but is important. It says:

"SECTION 1. Any person being the owner of any domestic animal or animals, or having the same in charge, who shall turn out or suffer any such domestic animal or animals having any contagious or infectious disease, knowing the same to be so diseased, to run at large upon any uninclosed land, common or highway, or shall let the same approach within one hundred feet of any highway, or shall sell or dispose of any domestic animal or animals, knowing the same to be so diseased, without fully disclosing the fact to the purchaser, shall be deemed guilty of a misdemeanor, and shall be punished by a fine in any amount not exceeding five

hundred dollars, or imprisonment in the county jail not more than six months.

"The practice of throwing dead animals into ravines, creeks and rivers, from which freshets may carry them long distances to spread poison and pollution, is especially common and can not be too severely deprecated. Burial at once not less than three feet deep is the safest and most practicable way to dispose of them."

Agricultural Matters.

ALFALFA, OR LUCERN.

(*Medicago sativa* L.)

[From Farmers' Bulletin No. 31, United States Department of Agriculture.]

Alfalfa has been grown with more or less success in every State and Territory in the Union, from Maine to Washington, and from California to Florida. There is not a State from which the report has not gone out that alfalfa will, when properly treated, become one of the best fodder plants. It is the best hay and soiling crop in the West. In the South it has been widely recommended as a very valuable addition to the list of forage grasses and clovers. In the Middle and Eastern States it promises to become a rival of the better known and more widely grown red clover.

NAME.

The early Greeks and Romans called lucern *medicai*, or, in Latin, *medica* or *herba medica*, because it was brought from Media. The name lucern, by which this plant is known in Europe and in the eastern portions of the United States, is a corruption of the old Cataline name "userdas," whence comes the common name "laouzerdo" used in the south of France. From this, by easy transition, the name luzerne or lucern has been derived. It has been supposed by some authors that the name was derived from Lucerne, one of the Swiss cantons; but the plant has been introduced into that portion of Switzerland only within comparatively recent times, so that it is highly improbable that the name was derived from this source. Other authors have thought that the name might have been derived from the Luzerne in Piedmont, but De Candolle, in his "Origin of Cultivated Plants," inclines to the belief that the name comes from the Spanish or Provençal names before quoted. The name alfalfa, on the contrary, is of Arabic origin—alfafa or alfalfa. The Arabic name was at one time more commonly used in Spain, and when the plant was carried into Mexico by the Spaniards, and later to the western coast of South America, the Arabic name went with it. In ordinary use lucern is the name applied to the plant in the Eastern and Southern States, as well as in the European and in nearly all other foreign countries in which the plant is cultivated.

HISTORY.

Alfalfa, or lucern (*Medicago sativa*), has been cultivated as a forage plant for more than twenty centuries. It is a native of the valleys of the central district of western Asia, having been found in an apparently wild condition in the region to the south of the Caucasus, in several parts of Beloochistan and Afghanistan, and in Cashmere. It was introduced into Greece at the time of the Persian war, about 470 B. C. The Romans often cultivated it as forage for the horses of their armies. It was in especial favor with them as a forage crop during the first and second centuries, and its cultivation has been maintained in Italy down to the present time. From Italy it was introduced into Spain and the south of France. It was carried from Spain into Mexico at the time of the Spanish invasion, and thence to the west coast of South America. It was brought from Chile to California in 1854, and from there it rapidly spread over the arid regions of the Pacific coast and Rocky mountains, where it is now cultivated almost to the exclusion of other forage plants.

Lucern was introduced into the State of New York at least as early as 1820, or more than thirty years before it was

brought to California; but it has never been so extensively cultivated there as on the Pacific coast.

DESCRIPTION.

Alfalfa, or lucern, is an upright, branching, smooth perennial, one foot to three feet high. Its leaves are three-parted, each piece being broadest above the middle, rounded in outline and slightly toothed toward the apex. The purple, pea-like flowers, instead of being in a head, as in red clover, are in long, loose clusters, or racemes. These racemes are scattered all over the plant, instead of being borne, as in red clover, on the upper branches. The ripe pods are spirally twisted through two or three complete curves, and each pod contains several seeds. The seeds are kidney-shaped, yellowish brown, and average about one-twelfth of an inch long by half as thick. They are about one-half larger than red clover seed, and are of a bright egg yellow, instead of a reddish or mustard yellow. The ends of the seeds are slightly compressed where they are crowded together in the pod.

VARIETIES.

Besides the cultivated form there are two others which by some are considered as simply forms or varieties of alfalfa, while others regard them as distinct species. They are the intermediate lucern (*Medicago media*) and the yellow, or sand, lucern (*Medicago falcata*). Neither of them has much agricultural value, though the yellow lucern is sometimes recommended for planting on very light and sandy calcareous soils. It is more easily killed by excess of water, but is said to endure cold better than alfalfa. It is probably less valuable than many other species of clover and forage plants. Alfalfa seed is sometimes adulterated with the seeds of one or the other of these less valuable forms. These plants, however, are so rarely cultivated in the United States that there is little danger of this method of adulteration being largely practiced here.

The Western alfalfa grows taller than the Eastern lucern, and is said to withstand drought and freezing better. This is probably because it has been so long subject to the peculiar soil and climatic conditions of the arid regions of Chile, California and Colorado that it has become thoroughly acclimated. Alfalfa in the West very rarely kills out by winter freezing, although the temperature in certain regions in which it is largely grown is as low in winter as in the Eastern and New England States. In this latter section the plant frequently fails to go through the second season on account of the freezing of the roots.

HABITS OF GROWTH.

Alfalfa is a deep feeder. The tap-roots descend to great depths wherever the soil is loose and permeable, often averaging ten or twelve feet. It has been recorded as sending its roots to the depth of fifty and sixty-six feet, and it is believed that under especially favorable circumstances they may go even deeper. "The young plant consists of a number of low branches springing from a simple basal stalk at the crown of the root. These branches ascend directly above ground and form a compact tuft. On the old plant, however, certain of the more robust stems elongate underground and become new branch-producing stocks. In this way the simple stock, or rhizome, becomes two or many headed." When the stems are cut or grazed off the stalk dies down to the very base and new buds spring up on the upper part or crown of the new root and grow, forming new stems. This method of growth explains why so many farmers have reported that alfalfa is injured or destroyed by continuous close grazing. The stems of many other forage plants, when cut or broken, branch out above ground, forming lateral shoots that immediately grow up and take the place of the old stem. If alfalfa is closely grazed, and if every young stem is eaten off as rapidly as it appears, the vitality of the root will be impaired and the plants may die, because the new growth comes directly from the root itself, and not from the bases of the old stems. There is more danger of killing out the alfalfa fields when sheep are pas-

tured on them than by the pasturing of cattle, horses, or hogs, as the latter do not graze the plants so closely as do sheep, except at times when there is insufficient forage.

SOILS AND CONDITIONS OF GROWTH.

Alfalfa will grow in favorable soil anywhere from about sea level to 7,000 feet elevation. The limit of altitude is attained in the foothills and mountain valleys of California and Colorado. Alfalfa does not seem to be influenced so much by altitude as by such conditions as the depth and warmth of the soil, the depth of the ground water below the surface, and the physical character of the subsoil. It grows best in a light and sandy rich loam underlain by a loose and permeable subsoil. The best conditions for the growth of this plant seem to be attained in the arid regions of the West and Southwest, where there is a light rainfall, and the water supply can accordingly be artificially controlled. The plant grows best under irrigation. Good drainage is necessary, as the plants are quickly killed by excess of water in the soil or on the surface. Water must never be allowed to stand on a field of alfalfa more than forty-eight hours at a time, for, if the ground becomes saturated with water and is allowed to remain so for any considerable length of time, the plants will be drowned out and the roots will decay. Alfalfa will not thrive on fields where there is any excess of iron in the soil. It feeds most heavily on lime, potash, magnesium and phosphoric acid, and succeeds best where the soil is rich in these elements. Of these soil constituents, lime seems to be the most essential to rapid growth, and there will not be a large or paying crop on soils lacking this fertilizer. The prime condition for success is that the land be well drained. If the subsoil is heavy and stiff and impervious to water, alfalfa will not be a permanent success, no matter how well the surface soil has been prepared. Under these conditions there can be no certainty of the plant living beyond a year or two.

Kaffir Corn Flour.

EDITOR KANSAS FARMER:—The millers at this place—Messrs. C. W. Wilson and W. E. Stout—have made some flour from Kaffir corn, and Mrs. Stout has baked bread from it. The bread is not so white as from first grade patent flour, but the loaves very much resemble bread baked from wheat flour, and as an evidence of its quality your correspondent distributed some of the bread in town the other day, and our bread experts claimed it was made from wheat flour.

I would like a published analysis of the grain of the Kaffir corn. If Kaffir corn will make a healthy food, then the problem of existence in southwestern Kansas has been solved.

I. W. STOUT.

Medicine Lodge, Kas.

—[We have seen no record of analysis of Kaffir corn, either as grain or meal.—EDITOR.]

The Web-Worms.

EDITOR KANSAS FARMER:—In a recent issue appeared a question, from C. Myers, of Windom, "Whence came the weeds and the worms?" As I live within twenty miles of Windom, I believe I can answer the query. The first brood of web-worms were in the state of a small butterfly, or bluish-white miller moth. As the earlier pig-weed was too hard at the beginning of July, this moth hunted a younger weed to deposit its eggs on to nourish its younger worms. Had the ground been clean the moth would not have deposited the eggs, and no worm would bother the corn, but after the weeds were killed the worms were obliged to feed on the corn. Let us learn a lesson, here, to keep all our late crops clean from the start, so the moths won't deposit their eggs, and we won't need to feed the worms.

W. F. R.

Sterling, Kas., August 19.

Ayer's Hair Vigor tones up the weak hair roots, stimulates the vessels and tissues which supply the hair with nutrition, strengthens the hair itself, and adds the oil which keeps the shafts soft, lustrous and silky. The most popular and valuable toilet preparation in the world.

Heart Disease Cured

By Dr. Miles' Heart Cure.

Fainting, Weak or Hungry Spells, Irregular or Intermittent Pulse, Fluttering or Palpitation, Choking Sensation, Shortness of Breath, Swelling of Feet and Ankles, are symptoms of a diseased or Weak Heart.



MRS. N. C. MILLER.

Of Fort Wayne, Ind., writes on Nov. 29, 1894: "I was afflicted for forty years with heart trouble and suffered untold agony. I had weak, hungry spells, and my heart would palpitate so hard, the pain would be so acute and torturing, that I became so weak and nervous I could not sleep. I was treated by several physicians without relief and gave up ever being well again. About two years ago I commenced using Dr. Miles' Remedies. One bottle of the Heart Cure stopped all heart troubles and the Restorative Nervine did the rest, and now I sleep soundly and attend to my household and social duties without any trouble.

Sold by druggists. Book sent free. Address Dr. Miles Medical Co., Elkhart, Ind.

Dr. Miles' Remedies Restore Health.

World's Wheat Crop.

That the world's wheat crop for 1895 is, in the aggregate, a short one, seems to be the opinion of the most trusted statisticians. *Dornbusch's* (London, Eng.) *List*, of August 9, says: "There is unquestionably an undercurrent of strength which only requires reasonable encouragement to develop, but British merchants and millers, warned by the experience of recent years, are slow to move, and prefer to have the world's crop situation more clearly defined before entering on autumn maneuvers preparatory to the winter campaign. The panorama of the harvest is slowly unfolding, and no single country is in a position to be jubilant as to the results of the crops—nay, the evidence is all the other way, and from present appearances it looks as if the world would not produce sufficient for its needs, but will have to draw heavily upon the reserves of former crops. It must not be assumed that anything approaching to scarcity is to be apprehended—there will be enough bread to go round, but in the altered circumstances there should be no desire to export wheat at unremunerative prices, and Russia more than America will probably be the dominant factor in the situation."

Broomhall's Corn Trade News of August 6, says: "The tone of the wheat market continues firm on this side, in spite of pronounced weakness in America and continued heavy arrivals in western Europe. Millers are meeting with a better sale for their flour; in fact, in some cases we learn of large sales being made, which is not surprising considering the length of time during which they were without orders, and also the falling off in the supplies of foreign flour, the weekly imports of which have fallen from 150,000 sacks to less than 100,000 sacks per week. Shipments from abroad of wheat and flour continue to be made sparingly, no country seeming to be capable of putting any quantity of stuff afloat at present currencies."

There is nothing to prevent any one concocting a mixture and calling it "sarsaparilla," and there is nothing to prevent any one spending good money testing the stuff; but prudent people, who wish to be sure of their remedy, take only Ayer's Sarsaparilla, and so get cured.

Three months \$12. O'Connor's College of Business and Shorthand, Kansas City, Kas.

Irrigation.

IRRIGATION MEETINGS.
National Irrigation Congress, Albuquerque, N. M., September 16-20.
Kansas State Irrigation Association, meets at Garden City, Kas., October 1-2.

ATMOSPHERIC IRRIGATION.

Atmosphere pure and simple is composed of four atoms of nitrogen to one of oxygen. Air, however, is seldom if ever pure. In its meshes are carried great quantities of other gases, including water gas or vapor. The capacity of the air for moisture increases with the temperature, hence the same air that is withering and destructive in the daytime, is a cool, refreshing breeze at night. The air that passes over the plains of western Nebraska and Kansas is not a poisonous simoon but a pure and wholesome atmosphere. Air in the tropical regions becomes rarefied, takes up great volumes of water, and when it is drawn by the force of gravity to seek its equilibrium, it does not follow the meridians towards the north, but having acquired, while in the tropical regions, a more rapid eastward motion, it takes in the northern hemisphere a northeasterly direction. For this reason our semi-arid region receives but little moisture from the Gulf of Mexico, except what is carried in by the cyclonic currents that sometimes blow steadily from the southeast for several days.

There are places and times on the plains where the drying effects of this hot air is so great that it is necessary for a man to drink fully nine quarts of water a day to prevent his blood from thickening. If a mule be given twenty quarts of water daily it will keep in healthy condition.

Where this condition exists the moisture is soon taken out of all vegetation, and it is thoroughly dried unless the supply of water to the roots equals the requirements of the atmosphere. The conditions have not been well understood. Before our government offered homes and invited the brave defenders of our nation to accept the gratitude of this great nation in the form of 160 acres out of these semi-arid plains, it should have sent scores of practical men to experiment with farming and have then honestly published to these brave and loyal home seekers the true conditions in this country.

While we regret that so many noble men, women and children have toiled in vain upon the sandy plain, yet we have not had for ten years the shadow of a doubt but that these windy plains are destined to be the homes for millions and that this entire belt west to the Rocky mountains will, within thirty years, be the finest agricultural and horticultural region on the globe. Not simply 30 per cent., but all of these States can be supplied with moisture. Some farmers have windmill pumps that throw a stream of water not more than one and one-half inches in diameter. When the ground and air are both thoroughly dry the pumps are started but the water never gets far from the pump. Thousands, however, are learning to irrigate, and all that doubting Thomases need do is to go and see the results of irrigation. To make this country the happy home of millions of intelligent and prosperous citizens will require no super-human effort, no unusual amount of intelligence, but simply an application of the means called for by natural conditions. These plains seem to have been reserved for the grandest triumphs of perseverance, art and science, where the advantages of both city and country will be enjoyed alike by all. The buffalo and other wild grasses must be plowed under and alfalfa grown instead. Buffalo sod is almost impervious to water and a good reflector of heat. Prairie fires must be prevented for they heat and dry the air and bake and render insoluble the best elements in the soil. Burning of grass and weeds is a lazy man's method of farming. The results are always bad and often result in loss of property and life. A strong public sentiment against it will soon make prairie fires a thing of the past. They belong to the savage age and not to the age of civilization. The average rainfall is

about twenty inches. Twenty-five inches will produce a good crop. Heretofore the water has rushed through the draws and rivers, leaving the country about as dry as before. If the ground be all cultivated most of the water will sink into the earth. The waste water can be stopped by retaining-walls built across the narrow necks of draws. Neighbors can unite and in a few days with plows, scrapers and shovels, without outlay of money construct reservoirs on every quarter section. If the water soaks away collect the cattle and hogs of the neighborhood and they will puddle the bottom and make it like the buffalo wallows that hold water so well. If the reservoir bed be very gravelly, haul in weeds, grass or gumbo before the cattle or hogs puddle it. These reservoirs should be stocked with fish and trees planted around the margin. If a reservoir be constructed near the high bank of a stream trees should not be planted so that the roots can extend into the reservoir and also down into stream. Reservoirs may be built on high ground and filled by pumps, or the flood waters of streams can be led down several miles to them. Lower reservoirs can be constructed to catch the snow, rain and convenient flood water. As the river banks are always higher than the surrounding country, it is quite easy to lead the water away when the banks are full. Large pits can also be dug on divides and filled by means of pumps, or in lower places to retain the flood waters. Townships, counties, States and our general government should supplement the work of individuals and communities by constructing larger reservoirs throughout this semi-arid belt from the Concho valley in Texas to North Dakota. The storing of much of the flood waters of the Wichita, Pease, Red, Canadian, Arkansas, Smoky, Solomon, Republican, Platte, Niobrara and Missouri rivers will save the general government many millions of dollars annually by preventing the great overflow of the lower Mississippi.

A farmer on forty acres well farmed and irrigated can have all the live stock he needs and some to sell. He can live independent and happy, have convenient neighbors, schools, churches, etc., and realize more from the surplus products of his forty acres than he does now from 640 acres. If any man doubt this, I will ask him to visit the farm of Mr. Crowell, near Rocky Ford, Colo. There are hundreds of places where this is forcibly illustrated. It will take too much space to name them here, but they can easily be found.

The more we irrigate the less we need to irrigate. The water will accumulate each year; orchards and groves, subsoiling, thorough cultivation, the plowing under of vegetable mold instead of burning it, the water supply from pumps, from catch basins, etc., will increase the moisture of the soil, the humidity of the atmosphere, and consequently increase the amount and cause a better distribution of summer rainfall. In its wild condition the air that comes from the Gulf of Mexico or from the Pacific ocean remains for days over several hundred thousand square miles of dry, hard, reflecting buffalo sod. Its temperature is raised, but no moisture is added, and it becomes a feverish fiend, sucking the life-giving moisture from every living thing. If reservoirs are constructed the air that rests upon the water will rapidly lick up hundreds of tons of water; the heat that vaporizes the water becomes latent and the temperature of the air is lowered. Every drop of water taken up by the hot air lowers the temperature of the air, diminishes its capacity for taking moisture from vegetation and diminishes the velocity of the air by causing local conflicting currents, by increasing the weight of the atmosphere and by supporting foliage and tree growth, which aid in checking the strong currents of wind.

Let us picture the country dotted with thousands of small lakes, each stocked with fish for food, and surrounded by large and beautiful orchards and groves. Hundreds of these lakes are now seen upon the plains and are more beautiful and inviting than

any pen, pencil or brush can describe. The air that rests upon the water becomes cooler and heavier than the portion of air that rests upon the ground between the reservoirs. This causes diminutive land and sea breezes. This change of air may easily be noticed when upon a still hot day we stand on the bank of a large body of water. It is also frequently noticed after local summer showers. The general current of wind may be from the south or southeast. A small shower occurs a few miles north of us and, what is the result? A strong cool wind comes from the neighborhood where the rain fell, and, continues until the sun dries the ground, when the general southerly current again holds sway. 'Tis true the influence of each pond is very small, but we must not be discouraged by the magnitude of the undertaking and the insignificance of what one individual can do. Suppose that each drop of water in the Pacific ocean should conclude that it was too small to be of any practical value and would dry up. The ocean bed would be dry.

Selfishness has done much to retard irrigation, each farmer thinking that his ponds will do his neighbors more good than they will him. Our plan is rational, scientific and practical. It is simply this: Cultivate and subsoil the earth (not every place should be subsoiled), retain the snow and rainfall, retain much of the river flood waters, pump the under strata of water into surface basins, use pumps with six-inch plungers, keep the pumps well oiled and let them run day and night, winter and summer. Never allow a prairie fire. Own not more than eighty acres, keep it entirely free from weeds and wild grasses, keep two or three horses, four or five cows, from twenty to thirty hogs, as many sheep, and as many chickens, turkeys, ducks, geese and guineas as you can take care of; grow your own fuel (after seven years you can have all the wood you need, and until the wood has time to grow you can buy a little coal and use with it corn cobs and heavy cornstalks sawed into short pieces); grow apples, peaches, pears, plums, cherries, quinces, all kinds of currants, berries and vegetables.

After reserving plenty of ground for house, barn, yards, stock lots, orchard, garden, reservoirs, groves and pasture, enough land will be left to produce under intensive cultivation, 1,000 bushels of corn, 500 bushels of wheat, 150 bushels of rye, and an equal quantity of oats, flax and barley, and have ten acres left for broomcorn, sorghum, sugar beets, chicory, melons, etc.

As soon as the crops are removed in the fall, the ground should be thoroughly soaked. In the winter it should have another good soaking. With the system of reservoirs to prevent the hot winds, the crops will not need irrigating the next season, but in severe seasons, before sufficient surface water has been collected to satisfy the atmosphere, water can be run from the reservoirs through ditches to keep your crops in good condition.

It will take about half as much water the second year as it does the first. By keeping the ground in good condition a much smaller quantity of water will be needed, and as there will be but little to give the winds excessive thirst, ditches for direct watering of the ground will not be needed. We can never make this country a farming region by leading the water direct from the rivers to the crops, because when the crops need water most the rivers are dry. For nearly ten years I have been urging the people to turn their attention to the ATMOSPHERE. To supply it with water and save the crops.

But, says one, we have plenty of rain this year, why bother about irrigation? Now is the time to act. Water is plentiful and can easily be stored for future use. The water is rapidly flowing toward the ocean, and, while the ground is in excellent condition for fall seeding, yet no farmer in western Kansas and Nebraska can afford to depend upon having sufficient rainfall each year. It is time that all delusions should be dissipated, the climatic con-

ditions and capabilities of our country thoroughly understood, that the time, labor and money employed in the future may not be wasted but be advantageously utilized in laying a sure foundation for highest culture of soil, hand, head and heart.

WILLIAM REECE.

ATTENTION.

Should be given at once to any symptom or signs of disease as soon as they manifest themselves. By so doing you may save much suffering and expense. DR. HATHAWAY & CO., the experienced and established specialists, have devoted years to the exclusive treatment of those delicate and private diseases of men and women.

Blood and skin diseases, red spots, pains in bones, sore throat and mouth, blotches and eruptions of skin and ulcers, painful swellings, etc., kidney and bladder disease, frequent micturition, scalding inflammation, gravel, etc., organic weakness, undeveloped organs, nervous debility, impaired memory, mental anxiety, absence of all will power, weak back, lost vitality, melancholy and all diseases, excesses, indiscretion or over-work, recent or old, speedily, thoroughly and permanently cured. How many suffer from the above diseases for many weary months without being able to get cured, and yet how easily curable under DR. HATHAWAY & CO.'S treatment. "Where shall I go to get cured?" many a sufferer asks, not knowing whom to trust. Go where thousands of others have gone and be restored to perfect health, the comforts of home and the enjoyments of society—to DR. HATHAWAY & CO. Many chronic diseases that have been neglected or have failed to yield to the treatment of less skillful hands, soon get well under DR. HATHAWAY & CO.'S superior treatment. When suffering from diseases patients should seek advice from an expert whose experience and practice have taught him to apply promptly the proper remedy and quickly remove the disease. As experts DR. HATHAWAY & CO. acknowledge no superiors. An uncommonly successful practice during many years, with the enormous experience derived from it, enables them to apply the proper treatment at once, without useless experiments, thus saving the patient much time, anxiety and expense.

Call on or address DR. HATHAWAY & CO., 68 Dearborn St., Chicago, Ill.
Mail treatment given by sending for symptom blanks. No. 1 for men, No. 2 for women, No. 3 for skin diseases, No. 4 for catarrh.

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IRRIGATION.

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The Veterinarian.

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

CALF LOSING HAIR.—We have a calf, two months old, that is losing both the skin and hair in spots all over it. What is the cause and remedy?
Anthony, Kas. J. B. F.

Answer.—The trouble is very likely caused by improper diet, probably sour milk and irregular feeding, causing a derangement of the stomach. As a remedy, give the calf better care.

WORMS.—I have a horse that has been troubled for four years with pinworms. I have tried your copperas treatment but could not get him to eat it. Please tell me how to give it to him.
A. T. E.

Answer.—If the horse will not take medicine in feed, put it in a spoon and throw it well back on his tongue. At the same time inject one ounce of turpentine and five ounces of oil, or lard, well mixed, into the rectum every other day for a week.

DISTEMPER.—I have a three-year-old colt that had the distemper, and a tumor came on his throat. I had it cut out and it is healing, but he has another one on his nose. I am doctoring with a "veterinary" and using compound tincture of iodine, but it does no good. What shall I do?
Windsor, Ill. B. F. M.

Answer.—If you have a good veterinarian follow his instructions. The enlargement would require a personal examination to determine what is best to do.

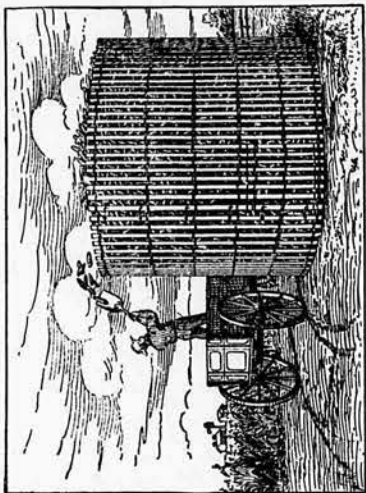
MARE DEAD—FISTULA.—(1) Can you tell me the probable cause of the death of my mare? (2) I have a mare that swelled up on one side of the withers and I opened it and let out a lot of pus but there was no sign of pipes. This side healed and the other side gathered. What can I do?
H. I. N.
Tonganoxie, Kas.

Answer.—(1) Your description is too long for publication. I cannot give an opinion. Have the carcass burned or deeply buried. (2) Saturate the parts with kerosene once or twice a day (to keep it moderately sore) for a month or two.

Adam's Portable Corn Crib

are made of heavy staves, one inch thick, dressed on both sides and beveled to an edge so as to allow the wires to fit closely around them and not be injured by the twist. These staves are woven between six sets of No. 10 galvanized steel wires at distances of about one and one-third inches apart, thus allowing ample ventilation.

A gate is provided at the bottom to empty the crib. On the inside, below and above the gate, and at the top of the crib, are iron stay rods to prevent the crib from spreading.



ing while the door is open, and also allows an opening to be made the entire length of the crib large enough to set a sheller.

The crib is shipped all rolled up in a bundle, and requires no tools nor mechanic to erect it. The fastening attachments are all properly secured, and all that is necessary is to stand it in a circular form, latch it together and fill it. Ten or fifteen minutes is all the time it should take to erect a crib. The cribs being portable, may be taken down and removed as often as desired. A good cheap roof may be made by taking a piece of canvas or heavy sheeting, drawing it tightly over the top of the crib and giving it a coat of paint. A thatch of hay or straw will also make a good roof.

MARKET REPORTS.

Kansas City Live Stock.

KANSAS CITY, Sept. 9.—Cattle—Receipts since Saturday, 5,719; calves, 587; shipped Saturday, 1,835 cattle, 180 calves. The market was steady to strong. The following are representative sales:

DRESSED BEEF AND SHIPPING STEERS.					
35.....	1,345	\$5.20	22.....	1,217	\$4.80
82.....	1,270	4.65	20.....	1,348	4.60
41.....	1,439	4.40	60.....	1,332	4.30
23.....	1,204	4.30	44.....	1,136	3.80
210 Tex.....	1,010	3.30			

TEXAS AND INDIAN STEERS.

75.....	1,016	\$3.25	72.....	1,005	\$3.20
142.....	1,039	3.15	73.....	1,004	3.15
55.....	938	2.93	51.....	950	2.93
2.....	1,000	2.65	2.....	1,180	2.50

COWS AND HEIFERS.

1 hf.....	1,000	\$3.50	2.....	900	\$3.10
1.....	1,250	3.00	1.....	1,010	3.00
1.....	1,230	2.65	3.....	943	2.60
4.....	1,127	2.50	2.....	430	2.50
15.....	692	2.50	14.....	1,230	2.45
1.....	1,070	2.40	16.....	971	2.35
18.....	1,042	2.25	1.....	1,080	2.25
4.....	835	2.15	2.....	1,085	2.00
1.....	750	1.01	1.....	510	1.50
6.....	885	1.25	1.....	880	1.70

STOCKERS AND FEEDERS.

31.....	1,015	\$3.60	29 N. M.....	937	\$3.60
19.....	931	3.31	42.....	557	3.35
27.....	708	3.25	26.....	1,089	3.20
33.....	594	3.00	40.....	1,000	3.00

Hogs—Receipts since Saturday, 1,465; shipped Saturday, 388. The market opened generally steady, but closed weak. The following are representative sales:

80.....	177	\$4.37½	74.....	239	\$4.37½	61.....	280	\$4.35
76.....	184	4.35	70.....	201	4.35	42.....	197	4.30
68.....	281	4.30	66.....	286	4.30	42.....	217	4.30
33.....	230	4.25	45.....	212	4.25	41.....	193	4.20
72.....	168	4.12½	10.....	84	3.25			

Sheep—Receipts since Saturday, 2,287; shipped Saturday, 1,562. The market was generally steady. The following are representative sales:

1046 Utah.....	108	\$2.80			
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Horses—Receipts since Saturday, 151; shipped Saturday, 153. The conditions are very favorable to a good market to-morrow. The receipts are growing larger and the quality better and a number of buyers from foreign points have arrived and will attend the sale.

Chicago Live Stock.

CHICAGO, Sept. 9.—Cattle—Receipts, 23,000; market steady to weaker; fair to best beefs, \$3.50@5.75; stockers and feeders, \$2.25@5.00; mixed cows and bulls, \$1.40@3.60; Texas, \$2.75@3.50; western, \$3.10@4.50.

Hogs—Receipts, 22,000; market active and generally 5c lower; light, \$3.90@4.55; rough packing, \$3.85@4.05; mixed and butchers, \$4.00@4.55; heavy packing and shipping, \$4.10@4.55; pigs, \$2.25@4.40.

Sheep—Receipts, 18,000; market strong; native, \$1.50@3.50; western, \$2.00@3.25; Texas, \$1.50@2.60; lambs, \$3.00@4.80.

Chicago Grain and Provisions.

	Sept. 9.	Opened	High'st	Low'st	Closing
Wht—Sept....	57½	58½	58½	57½	57½
Dec.....	59½	59½	59½	58½	58½
May.....	62½	63½	63½	62½	62½
Corn—Sept....	32½	32½	32½	32½	32½
Dec.....	28½	28½	28½	27½	27½
May.....	29½	29½	29½	29½	29½
Oats—Sept....	19½	19½	19½	19½	19½
Oct.....	18½	18½	18½	18½	18½
May.....	21	21½	21½	20½	21½
Pork—Sept....	8 25	8 25	8 25	8 25	8 25
Oct.....	8 37½	8 40	8 40	8 22½	8 30
Jan.....	9 50	9 62½	9 62½	9 50	9 52½
Lard—Sept....	5 82½	5 82½	5 82½	5 82½	5 82½
Oct.....	5 90	5 93	5 93	5 82½	5 85
Jan.....	5 82½	5 83	5 82½	5 82½	5 82½
Ribs—Sept....	5 35	5 35	5 35	5 35	5 35
Oct.....	5 55	5 55	5 55	5 30	5 37½
Jan.....	4 95	5 00	4 92½	4 92½	4 92½

Kansas City Grain.

KANSAS CITY, Sept. 9.—The receipts of wheat were 130 cars to-day, and there were not a dozen cars of good soft wheat in the lot. The hard and spring wheat sold slowly and was a cent lower, with some low grades 2c lower.

Receipts of wheat for to-day, 130 cars; a year ago, 212 cars.

Sales of car lots by sample on track, Kansas City: No. 2 hard wheat, 3 cars choice 57½c, 12 cars 57c, 4 cars 56½c; No. 3 hard, 3 cars choice 55c, 3 cars 54½c, 5 cars 54c, 2 cars 53½c, 1 car 51½c; No. 4 hard, 2 cars choice 52c, 6 cars 50c, 1 car 49c, 1 car 48c, 2 cars 45c; rejected, 1 car 43c, 2 cars 40c; soft wheat, No. 2 red, 1 car 61c, 1 car 60c, 1 car out of store 58c; No. 3 red, 3 cars 58c, 1 car 56c; No. 4 red, 5 cars 50c, 1 car 49c, 1 car 48c, 1 car 45c; rejected, 7 cars 45c, 1 car 41½c, 1 car 40c, 1 car 37½c, 1 car 36½c, 1 car 35c; no grade, nominally 30@35c; spring wheat, No. 2, 10 cars 55½c, 6 cars 55c; No. 3, 10 cars 53½c, 2 cars 52½c, 5 cars 52c.

Corn was in fair demand but was ¼ to 1c lower, following Chicago's decline. Offerings were very light.

Receipts of corn for to-day, 22 cars; a year ago, 21 cars.

Sales by sample on track, Kansas City: No. 2 mixed corn, 8 cars 28½c, 7 cars 28c; No. 3 mixed, 1 car 27c, 1 car 26c; No. 4 mixed, nominally 24@25c; no grade, nominally 23@25c; No. 2 white, 4 cars 28½c, 2 cars 18c; No. 3 white, 1 car 27c.

Oats sold rather slowly at about the prices ruling Saturday.

Receipts of oats for to-day, 32 cars; a year ago, 16 cars.

Sales by sample on track, Kansas City: No. 2 mixed oats, 2 cars color 18½c, 2 cars color 18c, 1 car color 17½c, 2 cars 17½c, 1 car 17c; No. 3 oats, 1 car 15c; No. 4, nominally 14c; no grade, nominally 10@12c; No. 2 white oats, 4 cars 19½c, 2 cars 19c; No. 3 white oats, 2 cars 18½c, 1 car 18c.

Hay—Receipts, 107 cars; market weak. Timothy, choice, \$10.50@11.00; No. 1, \$9.00@10.00; No. 2, \$8.00@8.50; fancy prairie, \$8.00@8.50; choice, \$5.50@6.00; No. 1, \$4.50@5.00; No. 2, \$3.50@4.00; packing hay, \$3.00@3.50.

St. Louis Grain.

ST. LOUIS, Sept. 9.—Receipts, wheat, 47,026 bu.; last year, 62,623 bu.; corn, 29,496 bu.; last year, 14,075 bu.; oats, 75,215 bu.; last year, 1,700 bu.; shipments, wheat, 45,699 bu.; corn, 29,831 bu.; oats, 22,100 bu. Closing prices:

Wheat—Cash, 60½c; September, 60½c nominal; December, 61½c@61½c; May, 63c. Corn—Cash, 30½c; September, 30½c; December, 24½c. Oats—Cash, 18½c; September, 18½c; December, 19½c sellers; May, 21½c.

Kansas City Produce.

KANSAS CITY, Sept. 9.—Butter—Market firm on good grades; choice dairies scarce; considerable poor stock coming in; extra fancy separator, 17c; fair, 14½@15½c; dairy, fancy, firm, 14c; fair, 12c; store packed, fresh, 9@11c; off grade, 8c.

Eggs—Receipts were light; candled stock, 11½c per doz.

Poultry—Fresh supply limited; market firm. Hens, 6c; springs, 7½c; roosters, 15c. Turkeys, wanted at 7c, except springs, which are worthless. Ducks, 5½c; springs, 8c. Geese, not wanted, 3½@4c; springs, 7c. Pigeons, 75c@1.00 per doz.

Fruits—Apples, good supply on sale and tradeslow; 15@30c per bu., according to quality, 75c@1.00 per bbl.; home grown stock sells a little higher in a small way; shipping stock, 20@25c per bu., \$1.00@1.25 per bbl.; crabapples, 60@75c per bu.; common grades, prices uneven; fancy packed stand apples, 25@45c per bu. box. Peaches, good to choice stock scarce, as no shipped stock is on the market; freestones, 35@60c per peck, 50c@1.00 per ¼ bu., \$1.25@2.00 per bu.; shipped stock, freestones, fancy, 60c per ¼ bu. box, 75@85c per 4-basket crate, \$1.25@1.50 per 6-basket crate; clingstones, 40c per ¼ bu. box. Damson plums, 40@50c per peck, \$1.75@2.00 per bu.; wild plums, 60c per bu.; yellow Chickasaw plums, 20c per peck. Pears, home grown, 40c per peck, 50@75c per ¼ bu.; shipped, 40@50c per ¼ bu. box, \$1.00 per bu.; small sugar pears, \$1.00 per bu., 40c per ¼ bu. box.

Vegetables—Potatoes, easier, 20c per bu. in car lots; fancy, 22c per bu., 25c in small way; sweet potatoes, 25@35c per bu. in small way. Cabbage, slightly firmer, 15@20c per doz.; medium to common, 10@15c. Onions, new, 30c per bu.

The Western Trail

Is published quarterly by the Chicago, Rock Island & Pacific Railway.

It tells how to get a farm in the West, and it will be sent to you gratis for one year. Send name and address to "Editor Western Trail, Chicago," and receive it one year free.

JOHN SEBASTIAN, G. P. A.

THE STRAY LIST.

FOR WEEK ENDING AUGUST 28, 1895.

Cloud county—Thos. Lomay, clerk.

STEER—Taken up by Joseph Jantzen, in Lawrence tp. (P. O. Hollis), August 5, 1895, one red steer, coming 2, dehorned; valued at \$14.

Woodson county—H. H. McCormick, clerk.

MARE—Taken up by J. A. Hale, in Eminence tp., (P. O. Rose), August 20, 1895, one brown mare, no marks or brands; valued at \$15.

Greeley county—Robt. Eadie, clerk.

HORSE—Taken up by Lewis Chapman, in Tribune tp., (P. O. Tribune), August 9, 1895, one bay mare, weight 1,000 pounds, bar on left shoulder; valued at \$20.

MARE—By same, one bay mare, weight 800 pounds, bar brand on left shoulder; valued at \$20.

HORSE—By same, one brown horse, weight 1,000 pounds, bar brand on left shoulder; valued at \$25.

Cherokee county—P. M. Humphrey, clerk.

MARE—Taken up by Joseph Culp, in Lowell tp., August 12, 1895, one roan mare, 12 years old, blaze face, left hind foot white, blemish on left knee.

Hodgeman county—John L. Wyatt, clerk.

MULE—Taken up by D. C. Smith, in Hallet tp., (P. O. Laurel), August 5, 1895, one sorrel mare mule, 4 years old, no marks or brands; valued at \$25.

FOR WEEK ENDING SEPT. 4, 1895.

Stevens county—Daniel Forker, clerk.

HORSE—Taken up by J. A. Ridpath, of Moscow, one spotted horse, 12 years old, Spanish brand; valued at \$25.

HORSE—By same, one bay horse, fifteen hands high, 7 years old, branded D. H. H.; valued at \$12.50.

HORSE—By same, one bay horse, fifteen hands high, 4 years old, branded 7; valued at \$14.

Wallace county—Hugh Graham, clerk.

COW—Taken up by J. W. Bously, in Sharon Springs tp. (P. O. Sharon Springs), July 25, 1895, one red and white spotted cow, 7 years old, branded J-N with line underneath on left side; valued at \$12.50.

COW—By same, one strawberry-roan cow with a few white spots, 8 years old, branded J-N with line underneath on left side; valued at \$12.50.

Cherokee county—P. M. Humphrey, clerk.

PONY—Taken up by G. W. Lichtenthaler, in Garden tp., July 16, 1895, one black horse pony, fourteen hands high, three-link brand on left shoulder; valued at \$12.50.

FILLY—By same, one bay filly, white snip on nose, fourteen and a half hands high; valued at \$12.50.

FOR WEEK ENDING SEPT. 11, 1895.

Labette county—J. F. Thompson, clerk.

MARE—Taken up by F. A. Peiley, in Liberty tp., August 10, 1895, one light iron-gray mare, twelve hands high, left ear split at point, shod all around; valued at \$12.

Montgomery county—J. W. Glass, clerk.

MARE—Taken up by J. Dabney, in Fawn Creek tp., August 9, 1895, one brown mare, 11 years old, fifteen and a half hands high, left hind foot white.

MARE—By same, one bay mare, 7 years old, left hind foot white, fifteen and a half hands high.

HORSE—Taken up by Martha S. Wheeler, in Fawn Creek tp., August 1, 1895, one dark brown horse, 5 years old, sixteen hands high, branded Y on left shoulder.

HORSE—By same, one light brown horse, 4 years old, fifteen and a half hands high, star in forehead, split in left ear.

Hodgeman county—John L. Wyatt, clerk.

COLT—Taken up by Daniel Gleason, Jr., in Sterling tp., August 15, 1895, one dark brown mare, no marks or brands; valued at \$25.

MARE—Taken up by C. H. Hertel, in Marensa tp., (P. O. Houston), August 26, 1895, one dark bay mare, about 5 years old, weight about 1,000 pounds, left hind foot white, no brands; valued at \$15.

Wallace county—Hugh Graham, clerk.

FILLY—Taken up by Ben E. Hayes, in Sharon Springs tp. (P. O. Sharon Springs), August 3, 1895, one two-year-old female colt, black, star in forehead, branded L-Q on left shoulder; valued at \$15.

FILLY—By same, one two-year-old female colt, light gray, branded L-Q on left shoulder; valued at \$15.

Strange

waste of harness and shoe-leather! Vacuum Leather Oil is best. Get a can at a harness- or shoe-store, 25c a half-pint to \$1.25 a gallon; book "How to Take Care of Leather," and swob, both free; use enough to find out; if you don't like it, take the can back and get the whole of your money.

Sold only in cans, to make sure of fair dealing everywhere—handy cans. Best oil for farm machinery also. If you can't find it, write to

VACUUM OIL COMPANY, Rochester, N. Y.

Washburn College,

TOPEKA, KANSAS.

Collegiate, Academic, Musical departments. Classical, Scientific and Literary courses. Seven beautiful buildings. 160-acre campus. Large endowment. Faculty unexcelled. Highest standard of admission in the State. Expenses very low. Splendid facilities for science and classics. Fall term opens September 11, 1895. Catalogue on application.

WIND MILLS AND PUMPS

Gem and Halladay Mills

FOR IRRIGATION OR ANY OTHER USE.



Wooden and Steel Tanks, Iron and Wooden Pumps, Engines and Boilers, Gasoline Engines, Belting, Hose and Packing, Pipe, Fittings, Drive Points.

WRITE FOR CATALOGUE.

U. S. WATER & STEAM SUPPLY COMPANY, KANSAS CITY, MO.

Irrigation Supplies



"Crane" Irrigator Windmills, "Frizell" Irrigation Cylinders, "Lone Star" Irrigation Cylinders, Centrifugal Pumps, Gasoline Engines, Pipe, Points, Fittings, etc. Rubber and Gandy Belting, Thresher Tank Pumps.

WRITE FOR CATALOGUE.

CRANE COMPANY, Kansas City, 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 DEAD.

When the clear red sun goes down,
Passing in glory away;
And Night is spreading her twilight frown
On the open brow of Day;
When the faintest glimmering trace is gone
And all of light is fled;
Then, then does Memory, sad and lone,
Call back the dear ones dead.

When the harp's soul-touching chord
Is roughly frayed and torn;
When of all tones the string that poured
The fullest, is outworn;
When it is heard to breathe and break,
Its latest magic shed;
Then, then will my warm heart bleed and ache,
And weep for the kind ones dead.

When the elm's rich leaf is seen
Losing its freshness fast;
And paleness steals on its vivid green,
As the autumn wind means part;
When it eddies to the cold damp ground,
All crushed beneath the tread;
Then, then may the sigh on my lip be found,
For I muse on the fair ones dead.

For, like the orb of light,
That orb, and shining leaf;
Forms were once near, as rare and bright;
And, oh! their stay as brief.
I watched them fading—I saw them sink,
Light, beauty, sweetness fled;
And a type of their beings made me think
Too fondly of the dead.

The sun will rise again,
The string may be replaced,
The tree will bloom—but the loved in the tomb
Leaves the world forever waste.
Let earth yield all the joys it may,
Still should I bow my head;
Still would my lonely breathing say,
Give, give me back the dead!

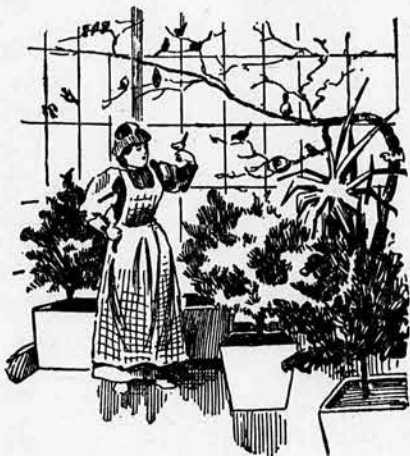
As the thickest verdure springs
From the ashes of decay,
And the living ivy closest clings
To the ruins cold and gray;
So my feelings most intense and deep
By the shrouded and lost are fed;
So my thoughts will yearn, and my spirit turn,
To be nurtured by the dead.

—Eltza Cook, in New York Weekly.

HOW TO KEEP BIRDS.

A Clever Woman's Way of Sheltering Twenty-Five Songsters.

French and German women keep their bullfinches and canaries in cages that are roomy, decorative little bird houses, built of thin ground glass, wood and wire, provided with siphon water cups, self-cleaning seed boxes and spacious enough to keep the small prisoners content and healthy. Such cages, however, must be specially imported, and whoever may wish to keep a half dozen birds happy, hearty and



A CHARMING CAGE.

sweet of voice, can as easily as not build for them an aviary at small outlay.

A person who proved how easily and inexpensively this might be done devoted to this purpose the space of one very small balcony, jutting outside one of her long drawing-room windows. It extended to the south side of the house, and for a few dollars a carpenter inclosed it in a wooden skeleton frame and he fastened into this a roof and three walls, made of common window glass, set in cheap sash frames and bought from a house about to be pulled down.

Its building was the work of two days, and when the woodwork was painted a nice sober green the neighbors concluded that the unoffending addition was to be filled with plants. Instead the proprietor of the glass house had the floor of the one-time balcony covered with zinc and strewn with sand and pebbles. Then she moved in two wooden tubs, containing flourishing little dwarf fir trees, here and there tacked fir boughs against the house wall, swung a couple of big

doorless cages from the ceiling, and in one corner hung a wire sponge rack, filled with a mixture of threads, cotton, paper and dried grass. Into this glass inclosed space she turned her three caged canaries, that for two days cowered in fear of the strange freedom allowed them.

Within a week mother nature reasserted herself, and they deserted their cages, first to spend the nights, and then to begin nesting in one of the fir trees. After a bit was added a couple more of these birds to the aviary; then introduced to the canaries were a pair of bullfinches and a pretty chaffinch, a pair of tiny Java parakeets and, lastly, a mocking bird. But this sweetest singer of them all brought discord into the otherwise happy community, and had to be removed. There in the fir trees and boughs nests are regularly built from the bundle of materials in the sponge rack, the gravel is scratched and picked over for tasty seeds, of which a handful is strewed every morning, liberal bathing is enjoyed in an old china jardiniere standing in one corner, juicy worms are uprooted from a long box filled with fresh sods every week, and from the dozen birds turned into this twelve dollar aviary two years ago, there are now some twenty-five vigorous warblers.—N. Y. Advertiser.

CLEANING CLOTHES.

How a Coat and Trousers Can Be Renewed Time and Again.

The chemistry of cleaning clothes is set forth in a scientific magazine, and, while women will care little for the technical part of the operation, the story of the actual process suggests a useful modus operandi. Take, for instance, says the American Analyst, a shiny old coat, vest or pair of trousers of black broadcloth, cassimere or diagonal. The scourer makes a strong, warm soapsuds and plunges the garment into it, soaks it up and down, rubs the dirty places, and, if necessary, puts it through a second time, then rinses it through several waters, and hangs it up to dry on the line. When nearly dry he takes it in, rolls it up for an hour or two, and then presses it. An old cotton cloth is laid on the outside of the coat, and the iron is pressed over that until the wrinkles are out, but the iron is removed before the steam ceases to rise from the goods, else they would be shiny.

Wrinkles that are obstinate are removed by laying a wet cloth over them and pressing the iron over that. If any shiny places are seen, they are treated as the wrinkles are—the iron is lifted while the full cloud of steam rises up, and brings the nap with it. Cloths should always have a suds made especially for them, as in that which has been used for white cotton or woolen cloths lint will be left in the water, and will cling to the cloth.

In this manner the same coat and trousers can be renewed time and time again, and have all the look and feel of new garments. Good broadcloth and its fellow cloths will bear many washings, and look better every time because of them.

Dainty Relish for Luncheon.

Delicious cheese sandwiches may be made by cooking in a double boiler half a pound of grated cheese with half a cup of cream or milk, a tiny pinch of mustard, and a little salt; thicken with a teaspoonful of flour; when thoroughly cooked, and just before removing from the fire, add a well-beaten egg. Have ready some thinly-toasted bread or some crackers, and spread while hot. The crackers should be of a sort that will split. These sandwiches must be eaten while hot; they make a very dainty relish for luncheon or tea.

Dainty Delicacy for Luncheon.

A delicious savory for luncheon or tea is made by cutting some hard-boiled eggs in two lengthwise; the yolk is then removed and pounded up with some grated cheese—allow half an ounce for each egg—a little whipped cream or butter and a small quantity of tomato sauce, the seasoning being cayenne pepper and celery salt. The halves of the eggs are then lined with the mixture. This dish should be accompanied by toast and butter.

Baldness is often preceded or accompanied by grayness of the hair. To prevent both baldness and grayness, use Hall's Hair Renewer, an honest remedy.

Highest of all in Leavening Power.—Latest U. S. Gov't Report

Royal Baking Powder

ABSOLUTELY PURE

FORGET-ME-NOT DOILY.

Unquestionably One of the Most Attractive Patterns of the Hour.

To work this dainty little doily you will need a piece of linen about nine inches square. The fine pillow case linen—which comes fifty-four inches wide and one dollar per yard—you will find the most satisfactory for this; and a quarter of a yard will make you a set of six doilies, eight inches in diameter, the size for finger bowls and bread and butter plates.

To transfer the design to the linen: If the design is the desired size, place the linen over it, taking care to have the center of the design and the linen exactly together; pin them so they will not slip, place on a pane of glass which can be leaned against the window, when the design will show through the linen and can be drawn very quickly and easily with a sharp pencil.

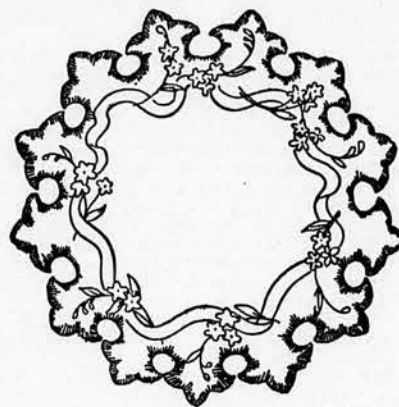
Do not try to reproduce the design with impression paper; it is almost sure to soil your work, is difficult to cover, and a false line will not rub out—and in needle work, perfect neatness is one of the first essentials of success.

Should it be necessary to enlarge the pattern, the simplest way will be to draw a circle on your linen about eight inches in diameter. For this purpose take a narrow strip of cardboard and passing a pin through the end, pass it through the center of the linen firmly into a table or lap-board. Measure four inches along the cardboard; pass the point and, holding the pencil erect, describe a circle on the linen. In this way you will easily and correctly draw circles of any size for any purpose.

Having gotten the outside dimensions of your doily, cut from a bit of cardboard a scallop the size and shape of this; place this on the linen with the point touching the circle. A little experimenting will teach you how far apart to place them, and in this way the design may be adapted to any size of doily, from the tiny butter plate to a center piece.

For the forget-me-nots and ribbon you will have to depend more on your knowledge of drawing, though their form is so simple I am sure you will have no trouble with them.

To embroider them use either pure white or the natural colors, executing



FORGET-ME-NOT DESIGN FOR DOILY.

them in the pointed buttonhole stitch for the edge and outline stitch for the flowers and ribbon. If the natural colors are preferred, work the edge and ribbon with the white filo floss, the flowers with blue, a French knot of yellow for the center.

The forget-me-nots can also be worked in satin stitch, which is an over-and-over stitch from one side of flower or petal to the other; or in long and short buttonhole, which leaves the edge heavier and is very good. The ribbon after being outlined may be further enriched by a row of feather stitch through the center. After working the edge, cut out carefully with sharp scissors, and go over it once more with the filo floss, taking the stitches just into the edge of the preceding ones. This gives a smoother, more substantial edge.

HOLDING BABY'S HAND.

How Many Thoughtless Mothers Injure Their Little Ones.



HOW many mothers realize the injury they are doing their children by holding their hand as they walk. You see a little tot of eighteen months or two years with its little hand and arm lifted high above its head as it holds the hand of some grown person, sometimes one at either hand, and the poor little creature in this unnatural position with a strain on the heart muscles, to say nothing of the arms, is dragged along the street, and as if that were not enough the child is obliged with its tiny feet and legs to keep up with the pace of the parent or nurse, who never realizes how many steps the little feet have to take to their one. Let any grown person see how long they could walk with their arms raised higher than their heads without hurrying, and let them try being dragged along at full speed by some giant, four times their own size. I am afraid few could endure the strain for more than a few minutes. And yet I daily see mothers scolding their little children for crying at being dragged long distances in this barbarous manner. Children who can walk at all should be allowed to walk alone or holding the hand of some other child near their own size. It is better for them in every way and will save many a crying fit caused by overstrain of the nerves and muscles.

DIRECTIONS for using ELY'S CREAM BALM:

Apply a particle of the Balm well up into the nostrils. After a moment draw strong breath through the nose. Use three times a day, after meals preferred, and before retiring.



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The Young Folks.

BROTHER AND SISTER.

Brother and sister!
What a golden chain
Binds these two hearts together,
In weal or woe,
In joy or pain,
In bright or cloudy weather—
A blessed twain,
Held by a silken tether.

Tender and faithful
Is the calm, deep love
Of sister and brother;
The same child life,
The same dear home,
Nursed by the same sweet mother—
Where'er they roam,
Such love can bless no other.

Brother and sister,
Ye who know this tie,
Are blessed beyond all measure
Compared with him,
Or her, who hugs
In selfishness their treasure,
With no twin soul
To share the bright home pleasure.
—Mrs. M. A. Kilder.

DOLLY'S A, B, C'S.

Come here, you niggardus!
I'm shamed to have to 'fess
You don't know any letter
'Cept just your cookid S.

Now, listen, and I'll tell you—
This round hole's name is O,
And when you put a tail in
It makes it Q, you know.

And if it has a front door
To walk in at, it's C;
Then make a seat right here
To sit on, and it's G.

And this taller letter, Dolly,
Is I, and stands for me;
And when it puts a hat on,
It makes a cup of T.

And curly I is J, dear,
And half of B is P;
And E without his slippers on,
Is only F, you see.

You turn A upside downwards,
And people call it V,
And if it's twins like this one,
A W will be.

Now, Dolly, when you learn 'em,
You'll know a great big heap—
Most much's I—Oh, Dolly!
I b'lieve you've gone asleep!
—The New Orleans Picayune.

THE ARCTIC MUSK-OX.

One Big Animal Which Is Not Likely to Become Extinct.

There is one large bovine animal on our continent which is not destined to be snuffed out of existence like the unfortunate bison, and that is the musk-ox. He is under the protection of the Frost King, whose game pastures are seldom penetrated by white poachers. On the map of Arctic America you can put your finger down almost anywhere, so that it be on land north of the Great Slave lake and east of the Mackenzie river, and say: "There lives the musk-ox," without fear of successful contradiction.

Just beyond the limit of trees and bushes, even the smallest and scantiest, on the silent, desolate and awful Barren Grounds northeast of Great Slave



HEAD OF A MUSK-OX.

lake, at 64 degrees north latitude, the musk-ox draws the line marking his farthest south.

A man who can endure cold like an Eskimo, travel like a caribou, live for weeks on frozen caribou meat, starve as cheerfully as a Yellow Knife Indian, and endure the companionship of vermin-covered natives, can reach the southern borderland of the musk-ox, and possibly get back alive with two or three skins. Mr. Warburton Pike, Englishman, can do and did do all those things no longer ago than 1890; and his book on "The Barren Grounds of Northern Canada" is a most interesting and

valuable contribution to our knowledge of that very desolate country.

The musk-ox is perhaps the rarest, and to white men the most difficult to secure, of all our land quadrupeds. Robes are by no means uncommon, and often sell for as little as fifteen dollars each; but of mounted skins there are in our country exactly seven. Three of these constitute a group in the National museum; two are at the American Museum of Natural History in New York; and the museums of Philadelphia and Cambridge have one each. Although during their long sojourns in high latitudes Gen. Greely and the members of his expedition party killed many musk-oxen, you will notice that they were unable to bring back even so much as a single horn.

The appearance of the musk-ox is so odd and striking that when once seen it is seldom forgotten. You see an oblong mass of tremendously long brown hair, four and a half feet high by six and a half long, supported upon wide hoofs and very short, thick legs, almost hidden by the body hair. There is also a blunt and hairy muzzle, a pair of eyes, a pair of broad, flattened horns that part like a woman's hair and drop far downward before they curve upward—and that is all. The mass of hair is so thick that as the robe lies on the floor it is about as easy to walk over as a feather bed. Over the loins you will find, if you look closely, a broad "saddle-mark" of dirty-white hair, shorter than the rest of the coat.

Next to the body is a matted mass of very fine and soft hair, like clean wool, so dense that to snow and fog it is quite impenetrable. Over this lies a thick coat of very long, straight hair, often twelve inches in length and sometimes twenty, like the grass raincoat of a Japanese soldier. Sometimes it actually touches the snow as the animal walks.—W. T. Hornaday, in St. Nicholas.

CONQUESTS OF SILENCE.

Washington, Jefferson and Napoleon Were Very Poor Speakers.

Washington never made a speech. In the zenith of his fame he once attempted it, failed and gave it up, confused and abashed. In framing the constitution of the United States the labor was almost wholly performed in committee of the whole, of which George Washington was, day after day, chairman, and he made but two speeches during the convention, of a very few words each, something like one of Grant's speeches. The convention, however, acknowledged the master spirit, and historians affirm that had it not been for his personal popularity and the thirty words of his first speech, pronouncing it the best that could be united upon, the constitution would have been rejected by the people.

Thomas Jefferson never made a speech. He couldn't do it.

Napoleon, whose executive ability is almost without a parallel, said that his difficulty was in finding men of deeds rather than words. When asked how he maintained his influence upon his superiors in age and experience when commander in chief of the army in Italy, he said: "By reserve." The greatness of a man is not measured by the length of his speeches and their numbers.

How a French Bank Is Guarded.

The treasures of the Bank of France are said to be better guarded than those of any other bank in the world. At the close of business hours every day, when the money is put into the vaults in the cellar, masons at once wall up the doors with hydraulic mortar. Water is then turned on and kept running until the cellar is flooded. A burglar would have to work in a diving suit, and break down a cement wall before he could even start to loot the vaults. When the officers arrive the next morning, the water is drawn off, the masonry is torn down, and the vaults opened.

An Old Fire in Persia.

A Parsee sacred fire, which is burning in the temple of Leiguil, Persia, is known not to have been extinguished since the days of Rapereth, who lived twelve centuries ago.

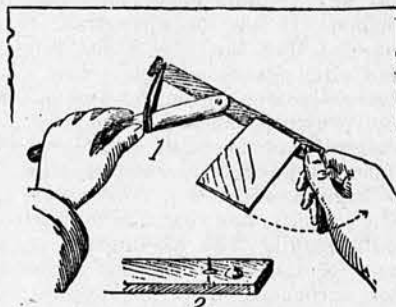
Tale of a Tail.

A little boy once owned a kite,
Which to the clouds did sail;
One day it lodged high in a tree,
And hangs thereby a tail.

THE CARD SKIMMER.

A Simple Toy That Affords Lots of Harmless Amusement.

The simple toy illustrated here can send a card whirling like a boomerang to a height of fifty to a hundred feet. Its construction is simple, but very ingenious. The general make-up is shown in Fig. 1. A slotted handle receives a pivoted slip of wood. Around the handle and notched inner end of the slip a strong rubber band is sprung. If the slip is drawn out of position, as shown in Fig. 1, and released, the rubber band jerks it violently back. On the end of the slip is a short, sharp pin and a slight cone, shown in Fig. 2. In use the card is stuck on the pin point, the pivoted piece is drawn back, as shown in Fig. 1, and released. It springs forward, carrying the card with it. As soon as it is in line with the handle, or just passes such position, its motion is arrested



THE CARD SKIMMER.

by the band. The card then swings around on the pin point, its edge mounts up the side of the cone as it does so and it is lifted off the point and flies whirling through the air to an astonishing distance. For band an umbrella ring may be used. Excellent effects are got by using little boomerangs instead of square cards.

Another Question Altogether.

Children are too often little spendthrifts. They use up an entertainment for which their fathers and mothers would be grateful, and then look about them for something new. It is said that while Rudyard Kipling was in England, during the past summer, he became very fond of Dorothy Drew, Mr. Gladstone's granddaughter. He met her at a country house, and being very fond of children, took her about the grounds and told her stories. After a time Mrs. Drew, fearing that Mr. Kipling must have had enough of the child's society, called her and said: "Now, Dorothy, I hope you have been a good child and have not been wearying Mr. Kipling."

"Oh, not a bit, mother," replied the little girl, "but you've no idea how Mr. Kipling has been wearying me."

The Gospel of Art.

Work thou for pleasure; paint or sing or carve
The thing thou lovest, though the body starve.
Who works for glory misses oft the goal;
Who works for money coins his very soul.
Work for the work's sake, then, and it may be
That these things shall be added unto thee.

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of these famous wheels and of Hartford's, \$30 \$50, free at any Columbia Agency, or mailed for two a-cent stamps.



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Agent for Columbia and Hartford Bicycles
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A Chance to Make Money.

I am delighted with my success selling dish-washers. In the last six weeks I have made \$584, and was sick part of the time. I think this is pretty good for an inexperienced lady. I am surprised there has never been a good dish-washer put on the market before, as every one seems so anxious for one. It certainly is a popular demand that is unsupplied and that means big money for the agents that supply the demand. I believe any woman or man can make \$5 to \$12 a day anywhere in this business, and by addressing the Perfection Manufacturing Co., Drawer A-3, Englewood, Ill., you can get full particulars. It simply requires a little push. You can't expect to make money unless you try. I would like to have the experience of others of your readers in this business. A READER.

GEARHART'S FAMILY KNITTER.



Knits a stocking heel and toe in ten minutes. Knits everything required in the household from homespun or factory, wool or cotton yarns. Most practical knitter on the market. A child can operate it. Strong, Durable, Simple, Rapid. Satisfaction guaranteed. Agents wanted. For particulars and sample work, address

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KANSAS FARMER.

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Special reading notices, 25 cents per line.
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.
Annual cards in the *Breeders' Directory*, consisting of four lines or less, for \$15.00 per year, including a copy of *KANSAS FARMER* free.
Electros must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.
To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.
All advertising intended for the current week should reach this office not later than Monday.
Every advertiser will receive a copy of the paper free during the publication of the advertisement.
Address all orders—
KANSAS FARMER CO., Topeka, Kas.

The committee having the matter in charge, has issued a cordial invitation to the second annual reunion of the G. A. R. of northwest Kansas, which will be held at Concordia, October 1 to 4, inclusive. All old soldiers and their friends are invited. Tents, fuel and straw furnished free. Ample accommodations for all at the "camp" or in the city. Mother Bickerdike, Senator Peffer, Congressman Blue, ex-Senator John J. Ingalls and other prominent speakers will be present. Reduced rates on all the railroads.

The Colorado Agricultural college has recently announced the establishment of a department of Domestic Economy in that institution. The announcement presents, at some length, the advantages of such department. The common sense which has made so phenomenal success of a like department in our Agricultural college could not long fail to be observed by our neighbors on the west, and it is at once a compliment to their good sense and to the excellence of the department of Domestic Economy in the Kansas Agricultural college to say that the addition of this department to the Colorado college makes it that much more like the Kansas college, and the success of this department in Kansas renders unnecessary any argument as to its success in Colorado.

The newest addition to the meritorious publications of the United States is *Modern Mexico*, a paper the same size as *KANSAS FARMER*, and printed in English. The purpose of the paper is to promote neighborly feeling and intercourse between the United States and Mexico, with special reference to the development of Mexican resources through the aid of American enterprise and American capital. *Modern Mexico* is not exactly an official paper, but has the recognition and strong endorsement of the President and other officers of the Republic, and is, in every sense, a reliable and authoritative publication. Its principal office is at Topeka, and it is reputed to be backed with sufficient capital, and its first issue gives evidence of sufficient brains to make it an enviable success and a permanent institution.

The report of the Union Stock Yards & Transit Co., of Chicago, making a comparative report of receipts and shipments of live stock for the months ending August 31, 1894, and August 31, 1895, makes manifest a very considerable decline in the business of the yards. The receipts of cattle, calves, hogs, sheep and horses for the latter year were 5,998 cars less than for the corresponding period in 1894. In cattle there was a decrease of 55,256 head; calves, 4,864 head; hogs, 245,142 head; horses, 294 head; while in sheep alone was there an increase, amounting to 77,103 head. The

decrease in shipments was less than that in receipts, being 16,529 head of cattle, 822 head of calves and 102,288 head of hogs, while the increase in the shipment of sheep was 27,507, and of horses 389 head, and the decrease in the total number of cars shipped was 1,950. But the live stock business of Chicago is still very great, notwithstanding the decrease, being for the month 19,715 cars.

THE WORLD'S WHEAT.

The inhabitants of the entire civilized world have become so much the patrons of one vast market, which market is supplied from all the world, that any partial view of wheat production is likely to be misleading as to the effect of production on prices; so that it is only by considering the crop of the entire world, and the probable demand for bread-stuffs that any reliable conclusions can be reached. It has for some time been conceded that the 1895 wheat crop of the United States is much below that of recent years, and on the assumption that wheat-producing countries in other parts of the world would produce no more than their normal supplies, it has been expected that there would be some scarcity, and that higher prices would result. The assumption as to some foreign countries, has probably been erroneous, and the supplies of wheat which have been pouring out from Russia for several weeks indicate a crop and a reserve there far beyond the estimates, and sufficiently above the crops of the last few years to fully make up the deficiency of the crop of the United States. The latest estimates place the wheat crop of Russia and Poland for 1895 at 400,000,000 bushels, this being the only crop which equals that of the United States, which is placed at the same figure. It is not improbable that the United States have overestimated our importance in these markets on account of the effect of our great crops recently harvested upon the prices of wheat in the world's market. It is well, therefore, that we take a bird's-eye view of the wheat crop of the world for this year. It may be summarized as follows:

For Europe, 1,482,900,000 bushels; Asia, 328,000,000 bushels; Africa, South America and Australasia, 163,000,000 bushels; United States, 400,000,000 bushels; Canada and Mexico, 67,000,000 bushels; or a total for North America of 467,000,000 bushels, being about one-third of the total for Europe. The following table gives the estimates of the world's production of wheat for each of the last twelve years:

	Bushels.
1884.....	2,382,000,000
1885.....	2,158,000,000
1886.....	2,180,000,000
1887.....	2,365,000,000
1888.....	2,229,000,000
1889.....	2,132,000,000
1890.....	2,270,000,000
1891.....	2,370,000,000
1892.....	2,414,000,000
1893.....	2,227,000,000
1894.....	2,589,000,000
1895.....	2,441,000,000

The decrease of this year's supply, as compared with last, amounts to 149,000,000 bushels, or about 5½ per cent. It has been expected that the time must be near at hand when the world's demand for wheat, which increases with considerable rapidity and uniformity, must overtake the supplies; and inasmuch as the wheat areas of North America have passed their maximum of rapidity of increase, it is easily seen that the added areas of the future in this country are not likely to exceed, and probably not likely to equal, the estimates of increase of population. It has been reasonably expected that the era of higher prices is near at hand. But Russia keeps her own counsel. Nobody knows how much she has produced, or how much she is capable of producing, or how much her wheat area is capable of enlargement. Under such circumstances, exaggerated ideas of her importance are not improbable, and yet the supplies which she has for the market this year seem to have been underestimated. The price of wheat is less important to Kansas this year than heretofore, inasmuch as our production has about equalled our demands, and we have little to spare; but we are sowing a large area this fall, and hope to be greatly interested in the price

next season. It now seems reasonably certain that those who have to buy bread during the present harvest year will get it at moderate prices.

Under a call from J. W. Judy, President of the Illinois Live Stock Breeders' Association, there will be a meeting of the officers of that association, together with the officers of the Illinois Horse, Cattle, Sheep and Swine Breeders' Associations, at the assembly room, Administration building, State fair grounds, on Thursday, September 26, at 10 o'clock a. m., for the purpose of arranging a program for the annual meetings of these associations to be held in Springfield on January 9, 1896. Members of these various associations and those interested in the live stock industry are invited to attend these meetings. As now organized, with each of the several kinds of live stock an association, and these associations united in general association, the meetings of these associations will be largely attended, will be interesting and instructive, and the live stock industry of the State greatly benefited.

Publishers' Paragraphs.

In this issue is an advertisement of "California Colony," placed by B. Marks, of Omaha, Neb., who will give personal attention to inquiries about the colony he is interested in, their country, how to get there, costs, etc., and also place you in communication, if you desire, with those who have joined the colony.

Much interest is being taken in the coming State fair, which will be held at Wichita, October 1, 2, 3, 4 and 5. You don't want to miss attending, as the attractions will be enjoyed by everybody; especially will the people want to see and hear Hon. Wm. H. Harvey, author of "Coin's Financial School." One fare for the round trip, on all railroads in the State. If you have not yet received a premium list, why, write a postal card now to the Secretary, W. R. Hewey, Wichita, Kas., and get by return mail a free copy, with other useful information. See advertisement of the State fair in this paper.

The drinking habits of the present day are bad enough, but it is encouraging to know that we are not worse than our fathers. In the September number of the *New England Magazine* is an article by Charles Northend, the Connecticut antiquarian, on "Old-Time Drinking Habits in New England." It is a curious study of the first part of the century, when it would appear that every man drank, from the parson to the farmer, upon every occasion, from the christening to the funeral. Readers of this article will turn with interest to that which stands immediately after it in the magazine, on "License and No-License in Cambridge." This article is by Frank Foxcroft, who has been a leader in the struggle which has made Cambridge such an exemplary temperance town. Warren F. Kellogg, 5 Park Square, Boston, Mass.

Johnson County Fair.

Special correspondence KANSAS FARMER.

The third annual meeting of the Johnson County Fair Association was set for August 27 to 30, inclusive, but the excessive rains greatly interfered with the arrangements, so that the management had to postpone the fair to Friday and Saturday, and bills were distributed everywhere announcing the change. But on Friday night another big rain occurred, which caused increased damage to exhibits in addition to that incurred from Wednesday's storm, so that no fair was had on Saturday. In looking over the grounds the writer found that nearly everything was in a deplorable condition. The exhibits, under tents, had been thoroughly drenched and more or less damaged; not only did the fair association suffer great loss, but every individual who had an exhibit or interest on the grounds. Many people spent a great part of their time wading around on the grounds in mud and water ankle deep, looking after their displays. The heaviest loss suffered was in floral tent—not a solitary article escaped getting wet. The condition of exhibits in the textile department was sufficient to break the heart of every exhibitor of articles displayed. Every stitch of cloth, from the smallest handkerchief to a "crazy" quilt, was soaked and more or less ruined, many pieces being blended with various bright colors from other articles, and when the women in charge commenced to hang them out on lines to dry it was hard to tell whether this department was a laundry or a curiosity shop.

Barring the effects of the drenching rains the writer found the exhibits, in each department, were of the best and proved that Johnson county was occupying a "front seat" in Kansas progress, and that her corn and fruit crop for 1895 would defy the world for better and more productive

yields. The display of apples, pears, quinces, peaches, etc., by J. P. Taylor, of Olathe, was immense. It showed what intelligent farming will do.

In the live stock exhibit, V. R. Ellis, of Gardner, showed Short-horns and got six first, five second and two sweepstakes on beef breeds. He also showed Jerseys and won two first, one second and one sweepstakes on best dairy cow, any age. Wm. Fisher, of Olathe, had Jerseys and secured five first, one second and sweepstakes on best dairy bull of any age. In sheep, E. S. Kirkpatrick & Son, of Wellsville, were in the lead with their superior flock of Shropshires. They captured all the first and five second in the Shropshire class; they also got first on best pen of five ewes, first on best pen of five lambs and sweepstakes on best buck and best ewe, any age or breed.

Dick Weaver, of Olathe, offered twenty pounds of granulated sugar to the man and wife, attending the fair, whose combined ages aggregated the greatest number of years. It was won by Wm. and Sarah Ann Short, of Olathe, he being 87 years, 7 months, 21 days, she 78 years, 3 months, 19 days; total age, 165 years, 11 months and 10 days.

Crawford County Fair.

Special correspondence KANSAS FARMER.

The twenty-third annual fair of the Crawford County Agricultural Society was held at Girard, August 27 to 30, inclusive, and it was pronounced by every one as the best fair ever held in the county, especially in the line of farm, garden and fruit exhibits and live stock.

In the farm product display appeared five wagon-loads of corn, competing for a \$15 cash premium. The writer never hitherto has seen such magnificent specimens of Indian corn as were shown in the above loads. Mr. W. E. Goff, of near Monmouth, exhibited the largest and most perfect load of white corn. It contained fifteen bushels and required only 453 ears to make the fifteen bushels. Three ears, laid across the rear end of wagon box, would not go inside, and ten ears, taken as they came, and laid end to end the length of the wagon box, overreached the length of the box by four and one-half inches. Mr. Goff has a large field of the above corn and says that it will average at least ninety bushels per acre. The best load of yellow corn was exhibited by J. W. Towery, of near McCune. While the ears were not so long nor quite so heavy as the white corn shown by Mr. Goff, the load appeared, and was, more even and better matured, being a trifle earlier. For proportion of cob to size of ear, depth of grain on cob, rounding out of butt and crown and soundness of ears, this load surpassed any other on exhibition, and of course it was, by all odds, the blue ribbon load. He informed the writer that the field of yellow corn from which the above was gathered would yield over eighty bushels per acre, and that his common yellow corn would go over fifty bushels per acre, thus proving that it pays to carefully select and improve upon seed corn as well as it does to select and use the well-bred animal.

The live stock department was better represented than at any previous fair. In the cattle exhibit appeared Short-horns, Herefords, Red Polled, Holsteins and Jerseys. In Short-horns, G. W. Rush, of Erie, got first on bull calf, first on cow 3 years or over, first on heifer 1 year and under 2, second on heifer calf; C. G. Hamblin, of Pittsburg, received first on bull 3 years old or over, second on bull calf and sweepstakes on best herd of beef cattle. In Red Polled, Wilkie Blair, of Beulah, was awarded first on bull calf and first on cow 3 years old or over. In Holsteins, S. E. Veatch, of Girard, secured first on bull 1 year and under 2 and first on cow 3 years or over. In the horse department, G. W. Rush showed Clydesdales and secured first on stallion 4 years old or over, first on stallion 3 years and under 4, first on stallion 2 years and under 3 and sweepstakes on best pair of draft horses. S. E. Veatch got second on best pair of carriage horses and first and second on best mares for light harness.

In the sheep department, J. K. Brant, of Walnut, captured everything on fine-wools, there being no competition. In the Downs lot, Elwood Rush, of Shaw, with his Shropshires, got first on buck 1 year old and over, first on buck lamb, second on three ewes 2 years and over, second on three ewes 1 year and under 2, first on three ewe lambs and sweepstakes on best display of Downs. Mr. Rush's Shropshires are indeed a choice flock. The buck at the head of his flock, Allen's 1704, was sired by Proud Salopian out of Lady Clinker, and bred by George Allen. His leading ewe is Moore's 24, sired by Baxter out of Lady Williams, and bred by I. N. Moore. J. G. Walter, of McCune, made a choice display of Shropshires and secured second on buck 1 year old and over, second on buck lamb, first on three ewes 2 years and over, first on three ewes 1 year and under 2, and second on three ewe lambs.

In the swine department, forty-eight animals were shown, and among the exhibit-

ors I noticed U. N. Beechwood and J. E. Bell, of St. Paul; Wilkie Blair, of Beulah, and S. E. Veatch, of Girard. Mr. Blair, on his Poland-Chinas, got first and second on sow 1 year and over, second on sow 6 months and under 1 year, and first on five pigs with dam; on his Chester Whites he received second on boar 6 months and under 1 year, first on sow 1 year and over, first on pair of male and female pigs under 6 months and second on five pigs with dam. Mr. Blair recently procured two Poland-China pigs from one of our advertisers, A. W. Themanson, of Wathena, Kas., both of which are choice-bred animals of the Corwin U. S. and Tecumseh Girl strains. Of his Chester White herd, Royalty 6893 (Vol. 6) stands at the head. He was sired by Dexter 6473 and he by Young Sweepstakes 6451 out of Sylvia 7452; Royalty's dam was Belle of Kansas 7792 by Missouri Chief 6175 out of Lady Bismarck 6502. Beulah 10322, the foundation of his Chester Whites, was sired by Dr. W. 5067 and out of Wilda 9242; she is a choice animal. Among his other sows, of this breed, the writer noticed two very fine individuals; they were Psyche 10326 by Perfection W. 2d 5969 out of Beulah 10322, and Sunshine, farrowed October 24, 1894, by Dandy 2409 out of Ionia 10377. Mr. Blair expects to devote his entire attention to the breeding of Poland-Chinas, hence offers his Chester Whites for sale. Mr. Veatch was awarded first on Poland-China boar 1 year old and over. He is coming to the front nicely and will soon be ready to announce to our readers, in the way of a card, what he has for the prospective breeder. Mr. Bell showed sixteen Chester Whites and got three first, three second and sweepstakes on the best herd.

In the poultry department, Wilkie Blair, of Beulah; Mrs. E. J. Hamblin, of Pittsburg; J. E. Bell and U. N. Beechwood, of St. Paul, and I. N. Shannon, of Girard, were the leading exhibitors and captured most of the prizes.

Gossip About Stock.

C. G. Sparks and G. L. Davis, of Mt. Leonard, Mo., have changed their sale date from October 23 to October 1. Watch for their advertisement and other announcements.

There will be an important dispersion sale of Holstein-Friesian cattle, on Tuesday, October 1, 1895, at Nortonville, Kas., by that representative breeder, M. S. Babcock. Send for catalogue.

Attention is called to change made in the breeder's card of E. A. Bricker, Westphalia, Kas. Tecumseh Grand 9178 S., which he now offers for sale, is a sure enough grand boar. Having used him as long as it is best upon his herd, the animal is for disposal. Note the address and write him soon.

B. R. Adamson, breeder of Poland-China swine, at Fort Scott, Kas., in remitting, last week, for advertisement, reports good returns from his "ad." from Missouri and Oklahoma, as well as Kansas. He says: "My herd is in fine condition; have about twenty-five choice young boars ready to go, sired by Black Stop 10550, Silver Dick and others; also a few choice gilts, as well as a few one and two-year-old sows bred to Black Stop and U. S. Butler."

By reference to our "Breeder's Directory," you will notice a change in the advertisement of Hillhurst stock farm, located at Garnett, Anderson county, Kansas. This place is owned by Walter Latimer, than whom there is no better posted breeder of pedigreed stock in the West. He has now some fifty or more as fine Poland-China swine as can be found in the State. He has also about two car-loads of thoroughbred horses, which are hard to surpass. They will be offered at public sale some time in October or November. In the meantime write him for whatever you may need, and he will take pleasure in answering you. Well-bred stock pays the investor more than an hundred-fold, and to keep any other kind seems the poorest possible economic measure or course to pursue. Get the best; it will pay you.

The latest circular of the Currie Windmill Co., of Manhattan, Kas., calls attention to the fact that theirs is a Western manufactory, located in the midst of people who use windmills, and asks their patronage. The Currie galvanized steel mill pumps water with great rapidity. The form and position of its sails are especially favorable to the development of power. The mill is very simple and comes as nearly running without oil as any machine on the market, the hard maple boxes constituting a relief from anxiety as to cutting. The company's warranty guarantees it to be a good, durable, self-regulating machine, built in a substantial and workmanlike manner, and not to go down unless the tower goes with it; or against any wind that does not disabie good, substantial buildings in the vicinity; and agrees to furnish such parts as may be necessary to repair, as above warrant, for the term of one year, but the company will not recognize or be responsible unless all bolts and nuts are kept tight and good care taken of the mill. Also warrants the wheel, shaft boxes and pitman not to wear out nor cut the wheel shaft or wrist pins for five years, whether oiled or not.

Weekly Weather-Crop Bulletin.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending September 9, 1895.—T. B. Jennings, Observer Weather Bureau, Director:

CONDITIONS.

A warm week, with light scattered showers in the middle and western divisions and an abundance of rain in the eastern.

RESULTS.

EASTERN DIVISION.

The damp weather has greatly interfered with haying, suspended threshing and plowing, caused fruit to rot on trees and corn to rot on ground, pastures to grow luxuriantly, filled the ponds and creeks with stock water, and soaked the ground better than for past two or three seasons.

Allen county.—Poor hay weather; corn-cutting and fall plowing in progress; fruit fine.

Brown.—Too wet for haying, threshing or plowing; fall pastures better than they have been for seven years; all corn out of danger of frost and corn-cutting begun; apples rotting badly on the trees.

Chautauqua.—Hay is being made between showers; vegetation green and growing.

Cherokee.—Extremely wet week and large quantities of hay spoiled; too wet to plow or do anything but fish; week bad on apples.

Coffey.—Too wet for haying, which is about half over; corn-cutting has commenced; corn now out of danger of frost; apples abundant but being unfavorably affected by the prevailing dampness.

Douglas.—Too wet for plowing, haying or threshing; early corn ready to cut but ground too wet; late corn ripening; potatoes look well.

Elk.—Too wet for haying, threshing or plowing; corn drying up fast, owing to bugs.

Franklin.—Corn maturing well, though some is rotting; prairie generally heavy, but much of it spoiled by wet weather.

quantities of hay have been spoiled in the stack by the late rains.

MIDDLE DIVISION.

The drier conditions prevailing this week have permitted much farm work to be done. Fall plowing has been generally pushed and much wheat sown. Haying has been quite general. Corn has ripened fast, and new corn is being marketed. Threshing continues. Forage crops are abundant.

Barton.—Corn-cutting and hay-making are in full blast; rain has damaged the hay; potato-digging now commenced.

Clay.—Haying in progress, crop heavy; threshing about completed; plowing for wheat and rye about over; pastures are extra good.

Cloud.—Condition of ground excellent for winter wheat, which is being sown extensively; late corn looks well.

Cowley.—Most of the corn is made; second growth of sorghum is fine; wheat nearly all threshed, yield only medium; third crop of alfalfa is the best.

Harvey.—The week has been favorable for threshing and plowing.

McPherson.—Largest corn crop ever raised in the county; heavy crop of sorghum, also, which will make plenty of coarse feed; wet weather is causing potatoes to rot; much plowing being done for wheat, sowing will commence next week; new corn is already being marketed.

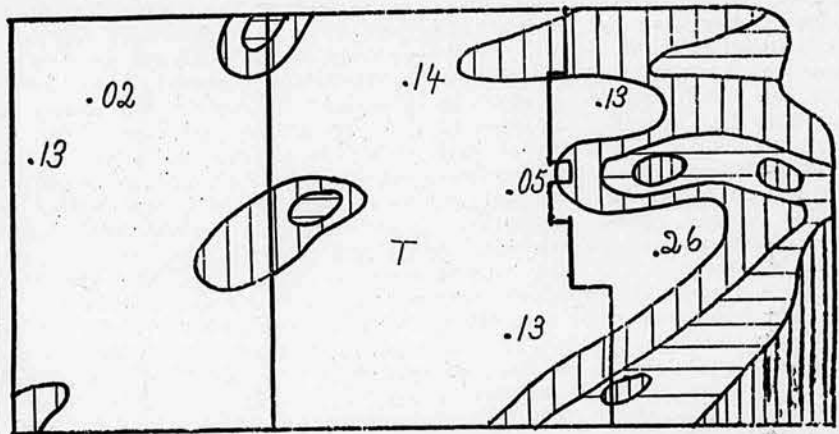
Mitchell.—Early corn drying up; getting most too dry for plowing; prairie hay heavier than usual; watermelons large and very plentiful.

Pawnee.—Late corn gives promise of a good yield; haying is in progress.

Phillips.—Late corn doing well; sorghum and millet fine; hay-making progressing; some new corn is being sold.

Reno.—Fine week for working in hay and corn; weather cool and dry.

Rush.—Threshing about half over; corn is maturing nicely; hay-making is the work of the week, crop heavy; sorghum im-



ACTUAL RAINFALL FOR WEEK ENDING SEPTEMBER 7.

Greenwood.—Flax not stacked considerably damaged by wet weather; Kaffir corn is fine; late hay good; potatoes excellent; corn passing expectations.

Jackson.—Haying and threshing nearly finished; weather very warm and sultry first of week, cool last few days.

Johnson.—Week has been more favorable for fall work, and some threshing is being done.

Labette.—Everything flooded and farming at a standstill; corn lying on the ground is rotting.

Linn.—Corn-cutting in progress, and some wheat sown, but too wet now to work the ground.

Lyon.—Corn-cutting in full force; peaches about gone; haying about done.

Marshall.—Conditions all favorable for growing crops; too wet for haying or plowing; the ground is better soaked than for past three years.

Miami.—In central and northern part weather much more favorable, while in the southern it is too wet for work; much grain in stack being injured by the damp weather.

Montgomery.—Corn-cutting nearly finished; many apples blown off by wind on the 6th, and the ground continues too wet to plow.

Morris.—Fine weather for all farm work.

Osage.—Week has been more favorable for haying; corn-cutting has begun, but ground is still too wet for it.

Pottawatomie.—Weather has been favorable for securing a large hay crop, which is still green; pastures better than they have been this year; peaches and apples abundant; sweet potatoes doing well.

Riley.—Corn-cutting and haying progressing with the very favorable weather.

Wabunsee.—Corn out of danger and in fine condition; fall plowing begun; buckwheat looks well; largest yield of fruit in years; too wet for haying; grass good.

Wilson.—Much complaint of corn that is down rotting; late peaches rotting on the trees; this wet weather is bad, even on forage crops.

Woodson.—Too wet for farm work; large

mense; stock feed abundant; ground in good condition for fall wheat.

Russell.—Late Corn excellent; ground in good shape for fall seeding.

Saline.—Haying and corn-cutting in full blast; heavy thunder storm during the week; grasshoppers are bad.

Smith.—Late corn doing well; prairie hay still growing; pastures are good; potato and corn crop good.

Stafford.—Wild hay good and a great deal being put up; large amount of corn being cut; late corn is safe and will make a good yield; already plowing for wheat.

Washington.—Ground is in fine condition for fall work; grass and other feed in abundance.

WESTERN DIVISION.

[Reports are meager from this division this week.]

The dry weather has permitted harvesting and haying to be successfully completed and threshing to progress. A light frost, the first of the season, occurred in Rawlins, Saturday morning.

Logan.—Harvesting done; dry and hot first of week, drying corn and cane some.

Morton.—Hot days and light winds keep the sorghum, milo maize and Kaffir corn growing magnificently.

Rawlins.—Corn ripening fast; light frost in low places on the morning of the 7th.

Thomas.—The past week has been very dry; hot wind on the afternoon of the 5th; threshing and haying in progress; cutting corn to save the fodder.

Trego.—Favorable week for harvesting millet and hay, and for threshing; corn ripening very fast.

Wallace.—Cutting corn for fodder; corn crop cut short by dry weather; hay crop fine; potatoes, onions and all irrigated crops good.

Old Mexico.

Modern Mexico is a beautifully illustrated monthly journal, published in the English language, and devoted to the interests of Mexico. Send 10 cents for sample copy. Address Modern Mexico Publishing Co., Topeka, Kas. Mention KANSAS FARMER.

CHRONIC MALARIA.

Three Forms of Chronic Malaria, But All Are Equally Difficult of Cure.

There are three kinds of chronic malaria, namely, that form which originally was contracted in a malarial district as simple chills and fever—acute malaria—and when the swamps were improved and the germs became nearly extinct the disease became chronic. The second form is caused by continuing to live in malarial districts, in spite of the malaria, and acquiring the chronic form, although taking quinine all the time. The third is that disease which many people acquire every fall when they are entirely well in other ways. The symptoms of these three forms of chronic malaria are exactly the same; chilly rigors, coated tongue, bad breath, disturbed digestion, constant headache, constipation, biliousness, and many other symptoms which the malarial subject knows all too well.

Now, in nearly all of these cases the patients have tried quinine, expecting to be cured; but in every case have been disappointed. Quinine will not cure chronic malaria. How many failures have demonstrated this fact over and over again. But there is a remedy which rarely fails to cure promptly and permanently. It has cured thousands of cases of chronic malaria and is curing them right along. This remedy is Pe-ru-na. It can be procured at any drug store, and should be given a trial by every one who is suffering from chronic malaria.

A medical book devoted exclusively to the treatment, causes and cure of this disease—chronic malaria—will be sent free to any address by The Pe-ru-na Drug Manufacturing Company, Columbus, Ohio.

Pedigreed Poland-China Sale.

One of the most important public sales of pure-bred swine that has been announced to take place this month is that of Mr. Martin Meisenheimer, whose regular annual reduction sale will take place on his farm Wednesday, September 18. On reference to the sale catalogue one finds that fifty-four head have been listed, consisting of one aged boar, three fall boars, ten brood sows and forty spring pigs. The aged boar, Tecumseh Free Trade 10783 S., was farrowed August 20, 1892, is a grandson of Tecumseh Chip 2169, that sold for \$500. His dam was Lady Free Trade 17189 S., by Free Trade 4420, the \$800 hog. In confirmation he is one of the best individuals in the entire West and pronounced by many competent judges to be the best hog in the State of Kansas. He has the standard regulation boar's face, good head and ear, full, wide, deep chest, a long, broad, arched back, wide, deep hams, well down on hock, even top and bottom lines, very heavy bone, and stands straight up on his feet. He scales remarkably well, measuring heart girth seventy-two inches, flank seventy and length sixty-seven. His front bone measures nine inches and the rear one nine and one-half. If size and form is a thing most desirable in a hog, and prepotency as a breeder is wanted, then this animal has all the necessary qualifications, as the strong array of sons and daughters in the herd will convince any one of the great merit of their sire. The three fall boars that will go in the sale are all three extra good ones. The breeding which is found in the catalogue at once decides that they are grandly bred individuals. The ten brood sows belong to the best families and a major portion of them have been bred to Tecumseh Free Trade 10783 S. or to Bourbon Wilkes and due to farrow in September or October. The youngsters that will go in the sales ring are a good, strong, broad-backed, mellow lot, and by as strong sires in point of individual merit and breeding as may be found in any American Poland-China herd—Tecumseh Free Trade 10783 S., Butler's Darkness 6346 S., L's Tecumseh 13152 S., Young Free Trade 11107 S., Black U. S. Nemo 13345 S. and Young Victor M. 13325 S. The up-to-date Poland-China breeder will at once recognize the wealth of blood and has a right to expect something more than the ordinary. It is perhaps safe to state that no sale announced to take place this fall either in Kansas or Missouri will offer better-bred animals than those that will go to the highest bidder from the Meisenheimer herd. Send for free copy of the sale catalogue and keep in mind the date, Wednesday, September 18, 1895.

WANTED.—Every boy or girl in Kansas to know that Washburn college, at Topeka, offers the best opportunity for collegiate and academic training under Christian influences in the West. See advertisement.

Excursions to South Missouri and Arkansas.

On September 10 and 24 the Kansas City, Fort Scott & Memphis Railroad Company will sell round-trip home-seekers' tickets to points in south Missouri and Arkansas at rate of one fare. Tickets limited to twenty days for return. Good via main line or Clinton division and good to stop off at intermediate stations south of and including Harrisonville and Fort Scott. J. E. Lockwood, G. P. A., Kansas City, Mo.

Horticulture.

SOME SALIENT FEATURES IN HORTICULTURE.

By Senator Edwin Taylor, of Edwardsville, read before the August meeting of the Shawnee County Horticultural Society.

For many years the State of Kansas has recognized the industry of horticulture to the extent of paying the salary of the Secretary and certain other expenses of the State Horticultural Society. Last winter a step further was taken when, by concurrent resolution, the Legislature set apart certain rooms in the capitol for the permanent abode of Horticulture, right alongside of Law, Banking, Agriculture, Insurance and War. In that State house are many mansions, and one of them, brother horticulturists, is ours.

As population becomes denser, the pressure upon the soil for subsistence increases. It is relieved by turning the trend of production from grain and meat to vegetables and fruits. In accordance with that tendency, there is found a zone of gardeners around every large town, and in the neighborhood of our large cities horticulture has, for miles in every direction, practically supplanted broadcast farming. Aside from the real necessities of the case, there has been a further development of horticulture, based upon the universal hanker for garden sass and the recently afforded opportunities for its full gratification, which is one of the features of the age in which we live. The butcher and baker may still be the principal purveyors, but they are losing their importance; the average citizen more and more furnishes his table from the green grocer's and the fruiter's. Fifty years ago the stock in trade of those dealers was of local contributions only; now they draw their supplies from the ends of the earth. The great factors in the growth of their business are the forcing-house and the express car. The forcing-house, in its latest development, successfully sets up the heat and moisture of the Indies in the midst of coldest winter. The last touch in its perfection is the introduction of the electric light to take the place of the sun, when that luminary knocks off at night, thus keeping the plants hard at it twenty-four hours in the day, and, so far as I have seen reported, with a marked accession of growth. The express business is so intimately connected with our modern life that it seems like a venerable institution. On the contrary, it is so modern that the man who invented it died only recently, and the first box of berries carried by express into Chicago was under the charge, as expressman, of that stalwart horticulturist, Mr. B. F. Smith, of Lawrence, the berry king of Kansas.

Nowadays berries go by the train load, both as express and freight, at a cost which seems excessive, but which, nevertheless, puts the gardeners of Kansas in profitable communication with Denver and Chicago. The railroad is as essential to modern horticulture as to war. Without it, our surplus product must rot in the ground; with it, Kansas, holding the strategic position which she does, can throw her reserves of vegetables and fruits, alternately or simultaneously, into the mountains, or the cities by the lakes.

The canning factory puts within reach of the most economical housewife every important delicacy of orchard and garden, every day in the year, and is one of our best customers for those products.

Permit me to call attention to the obligations you, as horticulturists, are under to the mechanic. It was he who produced the transportation equipment, so vital to our interests; who developed the canning process with its multitude of details and ingenious machinery; who made the appliances of the green-house and the great variety and perfection of implements used by us in the various departments of production. These things have only to be named to make apparent how great is the debt we owe him, and comparing his contributions in our behalf with the contri-

butions of science, how unimportant the latter are made to appear.

One other great feature and occasion of our well-being has been that "cityward" tendency so much bewailed by pessimistic editors and economists. The urgency of the human stomach remains in full force and effect, whether people are self-sustaining or not; and the great hosts of people who have let go their hold on the land have done much toward making the prosperity of those who remain. Were the old-time relative percentages of town and country populations still holding good, I should not be so insistent as I now am in urging the boys to stay on the farm. As it is, however, year by year, the country population, compared with the city population, is falling behind. That discrepancy seems likely to continue if not to increase, for one reason, if no other, because the good farm land is said to be all taken up, while there are thousands of acres of town lots yet unoccupied. In my judgment, it is safer for a young man to help feed the dependent multitude in town than to be one of those who must be fed.

I can well recollect with what compassion and pity we used to speak, when I was a boy, of the rare instances where a neighbor lapsed into the business of gardening. All that is changed, and we now regard it as a hopeful sign when a young man announces it as his intention to become a market gardener or a specialist in fruits or vegetables. Then there seemed no possible reach or scope for such a man except in the pent-up "Utica" where he was located. Now that distance is so largely annihilated, and the demands of the cities so greatly increased, the gardener has no limitations to his growth except those which were put upon him by nature, and which may be in store for him from the "monsters" that are beginning to look over our garden wall. Until recently the domain of horticulture had not been invaded by those artificial persons, called corporations, those monsters in size, in efficiency, in rapacity, in immunity from human weaknesses and frailties, which have so nearly appropriated to themselves all industries and business in the towns. They left us till late in the day, but plainly they are not going to pass us by. In my native town, they have a corporation for growing celery; in the little place where I live, we have at least two fictitious persons, who are invisible, exist only on paper, but who can be distinctly felt in the competition of the market. The Wellhouse orchards and the Olden Fruit Co. will each produce in round numbers 30,000 barrels of apples this year, or 400 carloads for the two establishments. When their plantations come into full bearing, those two concerns can safely figure on harvesting 1,000 carloads of apples at one crop. How is the ordinary orchardist going to meet such competition? I propounded that question to the President of the Olden Fruit Co. the other day. His reply was that "the little fellow must die." It may seem hard to say so, but it appears inevitable that, as things are tending, he must indeed die. Horticulture has long offered an asylum to the small operator, but therein, as elsewhere, the pleasures in store for the "little fellow" are mainly those of a future life.

One of the striking features of commercial horticulture is the narrow range within which it is conducted. One man runs on berries, another celery, another apples, another potatoes. That this tendency toward specialization is based on right business principles, is proved by its persistence and its growth. If it pays, it is justified; if it didn't pay it would be dropped. It has always appeared to me that agriculture in all its branches is like other businesses, amenable to the same business laws; and as all the world in other departments is running to specialties, why shouldn't farming and gardening follow suit?

The importance to a State of having horticulture fully developed within its borders is not so much on account of what money it brings into the State as on account of the money it may keep from going out of the State. Few people among us realize what large sums

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RED SEAL,
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SALEM,
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NATIONAL LEAD CO.,

1 Broadway, New York.

in the past have been sent out of Kansas for products which a fuller development of horticulture would have grown at home. Every bushel of potatoes or head of celery or can of tomatoes or sweet corn imported into this State and bought by our people represents, just as far as it could have been grown on ground either unoccupied or making the owner no money, and by labor otherwise unemployed, superintended by men who are not "bossing" up to their full capacity, with horses that idle away half their time in the pasture and plows that rust out faster than they wear out—up to that extent such purchases represent an absolute loss to Kansas as complete as though the money were thrown overboard. Keeping the money at home is a topic not much dwelt on either by Solomon or Adam Smith, but they both discussed matters of less importance. It is a subject that assumes a double interest where, as in the case of horticultural products, the labor employed in supplying the home wants would otherwise very largely go to waste. There isn't a village in Kansas where vegetables and fruits are grown extensively that a large percent. of the pay-roll incident thereto hasn't gone to women, boys and girls, otherwise idle, to whom the wages earned in berry and potato-picking and for canning factory and evaporator work hasn't been, in the main, just the same as so much money found.

The king of the Brobdignags made a great hit by remarking, according to Captain Gulliver's narration, that "he is a benefactor who makes two blades of grass to grow where but one grew before." If his highness had gone on, in the same strain, to speak of the benefits, financial, educational and otherwise, which accrue to a community through having the boys in it who are big enough to work provided with a toilsome and profitable substitute for whittling, he would have earned another encore. Country boys, in the main, don't suffer from the mischief attendant upon idle hands, but the village and town boys who learn how to work and at the same time make money in the gardens near by, form an important part of the tin-bucket brigade.

If ever the good time comes, foretold in the visions of Mr. C. Wood Davis, when wheat will be \$2 a bushel and other products in proportion, it may be that the average farmer will be justified in taking the time which a kitchen garden requires and devoting it to his field crops, and even then on only one condition. That is, if the country is thickly enough settled so that either at the cross-roads store or of the truck peddler he can buy and does buy a full line of horticultural goods sufficient to supply his family table. Let whatever other calendar be lacking that may be, but let the succession of the seasons find full expression and exemplification in the vegetable dish and fruit basket on every farmer's table. The needless monotony of many farm tables is akin to criminality! By "needless monotony" I refer only to that which has its root in indifference and neglect. For that unavoidable and tearful parsimony

practiced by so many of our people in the recent past I have the deepest sympathy and respect. My stricture has no reference to it. The discouragements that attend all efforts at nice culture, or the cultivation of nice things, where the clouds return not after the rain, but stay away all summer, and the grasshopper becomes a burden, I have myself bitterly experienced. I am well aware that there are sections in Kansas where, without irrigation, it is a sort of gambling to garden, but the State is not all so fickle and precarious. In one-third of it, at least, a garden is as certain in its results as in Michigan or Ohio. In the other two-thirds, wherever a windmill and pump are practicable and a connection is made between that combination and the truck-patch, the certainty is greater than in the States I have mentioned and the output far larger. These antidotes for drought are of recent introduction and their general use is probably some years away; but in this end of the State, where, passing the question whether irrigation will pay or not (we can do very well without it), what percentage of the country people begin the spring with spinach and asparagus and young onions and pie-plant, followed by a full succession of small fruits, large fruits and standard vegetables the season through? Is there one in five? I doubt if there is one in ten. The indifference to this subject arises from the fact that so many people are not awake to its importance. They only know of it by rumor as of a far-off country and are deterred from exploring it by difficulties that are in the main the creations of fancy. In the horticultural lay-out I have suggested the great factors are time and—beginning. It is the first step that costs, says the French proverb; but once planted, the asparagus, the pie-plant, the berry plants, the fruit trees, are either constant or renewed at long intervals. You set a pear tree, for instance, and go about your other concerns. Nature takes hold where you left off, and if you have done your part faithfully and well, she will in a few years outdo the thrift of the Scriptural servant who made five talents out of one. Give her time and she will convert the whip-stalk you set in the earth into a shelter from the summer sun and a bearer of food and drink such as would befit the hand of Hebe herself. In all this magical development, the part of the planter is insignificant. The main thing is time and the fostering care of Mother Earth. How many of our poor, deluded fellow-countrymen are there who stand back from horticultural undertakings, appalled at the magnitude of the work involved and supposing that it all falls on them, not knowing that they have only to put their shoulder to the wheel, when Hercules—Nature, Kind Providence—does the rest. It must be your mission as horticulturists to spread the news that our part in production is a small part, and that its rewards are out of all proportion to the outgo up to the point where the family table is fully furnished. Beyond that everything depends.

Horticulture as a business can well

afford comparisons with other businesses in which like capital is invested. But its great importance is as an adjunct to the home. In 1900, five years more, and Kansas will probably have a population of 2,000,000, of which 1,500,000 will live on farms. Here is a population greater than that of Chicago. What a magnificent customer it will be for horticultural products, and we can monopolize the trade. Suppose some fairy should give us the monopoly of supplying Chicago with vegetables and fruits. We would go wild with joy at the prospect. Before we can get ready for it we shall have a bigger than Chicago right here among us. Will we be ready to handle its business in our line of goods? At this moment there are more people within this State than the present population of St. Louis, living on farms, who are not half supplied with the products of your craft. They can be fully furnished in this regard, without a dollar going out of the State, without the loss of a dollar of profit on any business they might otherwise be engaged in, without a single dollar of that immense revenue going into the middleman's profits or for transportation. That consummation will be reached when every delinquent householder sets up on his own premises a horticultural plant, family size. Will they do it, or will they keep on in the old courses, as though the chief end of man was to raise something to sell, regardless of profit? What is the use for a man to wreck himself on 40-cent wheat or 20-cent corn? Let him just make sure that the wife and children, whatever the privations they may have to undergo, do not lack, so far as his efforts may avail, the health-giving luxuries which your gentle art will lay at his door in a perfection and freshness which the townsman rarely tastes.

It is no part of my contention that any large percentage of farmers should undertake horticulture as a business. I merely suggest that they take it up as a side-line, that they put off the old man and his works (some of his works) and put on the new man, who thinks less of what he is going to sell and more of what he is going to eat; less of the market abroad and more of the market at home, and who finds time from his labors to note the beauty of the trees and flowers.

Kansas Fruit-Growing.

By Hon. F. D. Coburn, Secretary State Board of Agriculture, read before the August meeting of Shawnee County Horticultural Society.

Horticulture was the earliest occupation and is the oldest industry told of in the book of books; it was the one business embarked in by the first man of his time after possessing himself of a wife, who, it is not unreasonable to assume was the "new woman," although I doubt if she went to such extremes in the matter of dress as do some of her lovely daughters of to-day. Being myself a descendant of the primeval gardener and fruit-grower, and having been in some degree from the time I acquired a wife (who, God bless her, was not a "new" woman and who will never be old to me) a Kansas horticulturist, I recognize in the wholesome faces before me those of my long-lost cousins—identified in part by their strawberry marks—whom I am glad to be with under such pleasant auspices, where peace and plenty abound, and where nature and grit have worked in happy harmony to such ends that the stranger who observes the results, wherever his roof-tree may be reared, may well say,

"This is the way I long have sought
And mourned because I found it not."

A county that has more than four bearing apple trees, one bearing peach tree, a cherry tree and a row of grapes and blackberries to each woman, man and child within its borders, and as many more coming forward, besides nearly 800 acres devoted to nursery stock, is deserving of an enthusiastic horticultural society such as Shawnee has, assembled in the shadow of our capitol here to-day.

If any are present who may be skeptical as to Kansas, or at least this section of it, being adapted to fruit-raising, I would say that every one can raise it who will, and some varieties, like blackberries, when once established

have almost to be fought to keep them from taking the farm. It may not be sure for peach-production every year, but it is in many years, and probably with as much frequency as is done anywhere we raise them in tremendous quantities, of a quality I have never seen approached. Peaches by long odds finer in quality and larger than ever come here from California or elsewhere were grown on the unprotected high prairie within fifty miles of these grounds. To those who have the will to do so it is as easy and cheaper here to raise cherries than acorns, turnips or pawpaws. And apples. How many persons in this audience fully realize that we have right here with us, in fact one of us, in the kindly, evergenial and unpretentious Judge Wellhouse, the premier of all the world's apple-growers, the excellence of whose products have made Kansas apples famous in foreign lands and whose phenomenal success has been wrought out within a two-hours' journey from this city? The man who never had but two failures, and picked and sold from his Kansas orchard in one year \$52,000 worth of this one fruit and who this year will market 4,000 wagon-loads? I wonder if we fully appreciate such men until it is too late to tell them so. Do we realize our great indebtedness to such pioneer horticulturists as Stayman and Howsley, of Leavenworth; Chas. B. Lines, of Wabaunsee; S. T. Kelsey, of Franklin; W. E. Barnes, of Douglas; Welcome Wells, of Riley, and others I might name, who, by their faith and courage, first demonstrated that such an organization as a horticultural society here would have any excuse for being alive? It is the spirit behind such organizations as this that has prompted the planting and cultivation of the twelve and a half million apple trees, the five and a half million peach trees, nearly two million cherry trees, and vines in such vast numbers that adorn and make pleasant the farms and homes of our people; that has diversified the Kansas bill of fare beyond the narrow limits of "hog and hominy" into a menu such as is unknown and impossible outside of the highest civilization.

The outlook for our horticulture is bright and brightening, and fortunate indeed are we who can meet in this favored spot, beneath such kindly skies as bend over this greatest corn field and garden of an empire, the possessors of a landscape of which one of our great singers has said,

"These are the gardens of the desert, these
The unshorn fields, boundless and beautiful.
Lo! they stretch
In airy undulations, far away,
As if the ocean, in his gentlest swell,
Stood still, with all his rounded billows fixed,
And motionless forever."

In the Dairy.

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

Start With a Good Cow.

Let the milk flow be what it may, feed alone cannot control the quality of the milk, said John Gould recently to the students of the Ohio State University. The cow has an individuality of her own, a born milking habit, and the greater the number of her ancestral grandmas that have possessed this milking trait, the greater the probabilities that this cow will possess like qualities. Remember this, no man ever stimulated a cow into good performance that did not have this born quality of development to start with; but thousands of heifers that were born to make the best of cows, have been utterly ruined by bad feeding, cruel treatment and needless neglect. Success in dairying implies that a dairyman should raise his own cows, as far as he can, and buy if he must, wisely. So he must be a judge of cows, a collector of dairy form and preferences, and a reader of cow character, a cow phrenologist, like Brother Hoard, for example. Better cow feeding and handling of cows, to the average dairyman, would carry with it greater success. All this talk about making cows hardy, tough and constitutionally vigorous beyond what we feed into them by wise selection, should be elim-

inated as quickly as possible from our dairy wisdom. At best our cows are boarders, and profit means that for part of the year, the longer period the better, they shall pay us rates so high that we can, in mid-summer, give them free entertainment for a few weeks. I do not plead for more fussing and pottering with this cow, but a little more rational care, and we should sooner begin the extra care of the milker. The plan of the winter dairy is showing farmers that profitable care of this cow means more than a wide range of summer pasture, and beginning to stable her Thanksgiving night. A really kind-hearted man may, without thought, actually abuse a cow by neglect. I have seen, this last autumn, a dairy of fast freshening winter milkers stand for hours, yes, days in the aggregate, in the chilly, drenching rain, rounding their backs as the deluge of water broke across their spines, and go into camp at night in the muddy fence corners of a long unprotected lane, and these cows, mothers, even if cattle, were contributing as best they could to their owner's living. I don't think he ever thought of the milking habit of these cows, as a maternal function, artificially prolonged—the intended food for offspring turned by the hand of man into the channel of commerce—and so denied them after offices of a mother. No other benevolence of nature would thus have contributed to him, save this unfathomable beneficence of motherhood whose office is forever to give, even if draining the fountains of life-support itself. Success must come nearest to those who recognize to the fullest extent this underlying principle of attaining success in dairying. Whatever will best administer to the comforts of the mother cow—quiet, care, warmth, comfort, succulent and stimulating food, pure air, clean water, and regularity of attention—will succeed, for on this hang the law and the profits, so far as concerns the cow.

During the ten years, 1880-90, the number of milch cows in this country increased from 12,000,000 to 16,000,000, or 33 per cent., according to weekly *American Agriculturist*, while the population during the same decade showed an increase of only 24.8 per cent. Production of butter on farms increased from 770,000,000 to 1,024,000,000 pounds, or 31 per cent., showing that the increase in farm dairying practically kept pace with the total increase in milch cows; while at the same time there was an additional large increase in milk furnished to creameries. The number of milch cows per 100 population, which was 24.8 per cent. in 1880, rose to 26.4 in 1890, and now has fallen to 25.3 in 1895. The article points out conditions suggesting a return to old-time prosperity in the dairying industry, but cautions dairy-men about making the mistake of assuming that another boom period is at hand.

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Soiling vs. Pasture.

In a trial at the Wisconsin Station with six cows for 122 days—June 15 to October 15—an acre of pasture made eighty-two pounds of butter, and an acre of soiling crops, 196 pounds. The soiling crops were oats, clover, sweet corn and mammoth corn; the pasture was blue grass. The difference in yield, 114 pounds, at 20 cents a pound would be \$22.80. That is, the difference in yield, under the conditions stated, would allow \$22.80 an acre for growing and feeding these crops, and paying for the fertilizers, if any were used.

The people of the United States eat on the average about four pounds of butter for each bushel of wheat consumed as food. From this it is easy to see that so far as the home market is concerned butter brings the farmer more money than wheat, and yet there are some folks who think the dairy industry, which includes the sale of milk for food, and the manufacture of cheese as well as of butter, is not of very much importance as compared with wheat-raising.

Catarrh Cannot Be Cured

with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Catarrh is a blood or constitutional disease, and in order to cure it you must take internal remedies. Hall's Catarrh Cure is taken internally, and acts directly on the blood and mucous surfaces. Hall's Catarrh Cure is not a quack medicine. It was prescribed by one of the best physicians in this country for years, and is a regular prescription. It is composed of the best tonics known, combined with the best blood purifiers, acting directly on the mucous surfaces. The perfect combination of the two ingredients is what produces such wonderful results in curing catarrh. Send for testimonials, free.

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HOME-SEEKERS who WEST OR SOUTH contemplate moving..... will do well to confer with us. By joining a FARM, FIELD AND FIRESIDE colony you secure the advantages of good society, schools, churches, such as you are accustomed to, and many helpful conveniences not to be obtained in any other way, and what is equally good,
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French Peas, imported, 14c. per can.
Mushrooms, choice quality, 20c., others get 35c.
California Table Peaches, heavy syrup, 11c.
per can.

Cigars and Tobacco.

Hand-made long fillers, 50 in a box, worth \$3,
for \$1.25.
Good smoking cigars, mild, 50 in a box, 75c.
Smoking tobacco lb. pkg. 15c.
Greenback tobacco 25c. per lb.
Duke's Mixture 25c. per lb.
Old Style 17c. per lb.
Horsehoe tobacco 37c. per lb.
Star tobacco 38c. per lb.
Battle Ax tobacco per lb. plug 15c.
J. T. tobacco, 2 10c. cuts, 15c.

Candies.

4 lbs. mixed candies 25c.
Pure cream candy per lb., 12c., others get 40c.
Hand-made chocolates, 12c. per lb.
Yucatan chewing gum, 2 pkgs. 5c.

Crackers.

25 lb. box, \$1.
Snowflake Wafers, 14c. per lb.
Egg Biscuits, per half box, \$1.75.
Cocoa Wafers, 17c. per lb.
Animal Crackers, 13c. per lb.
Brownies, 14c. per lb.
Cream Crackers, 17c. per lb.
Fruit Drop Crackers, 14c. per lb.
Cocoa Taffy Crackers, 16c. per lb.
Vanilla Wafers, 16c. per lb.

Woodenware Department.

3-hoop Oak Tubs, 35c.
Good Water Pails, 10c.
Washboards, 10c.
Churns, improved, 50c.
Improved Coffee Mills, 35c.
Peck Baskets, per dozen, 80c.
Good Parlor Broom, 10c.
We have everything in the Woodenware line,
but cannot quote all here.

Clothing Department.

Men's Working Pants, 50c.
Men's Black Doeckin Jeans Pants, \$1.35.
Men's Cassimere Pants \$1.50.
Men's Fine All-wool Dress Pants, \$2.25.
Boy's Shirt Waists, 15c.
Men's Unlaundersed White Shirts, good value,
35c.
We have a large line of Men's and Boy's Over-
alls and Jackets.
Men's Half Hose, 5c. a pair.
Men's Fancy Percal Shirts, 50c.
Men's White Laundered Shirts, 50c.
Men's Neglige Shirts, 50c.
We have a large line of neckwear at the lowest
prices.

Boot and Shoe Department.

Infant's Dongola Button Shoes, 85c. per pair
Child's School Shoe, large assortment, 75c. per
pair.
Misses' Dongola Button, patent tips, \$1.25.
Ladies' Dongola Button, patent tips, \$1.25.
Men's Working Shoes, good value, \$1.25.

Men's Dress Shoes, \$1.50.
We have a large line of Ladies' and Gents'
Dress Shoes, \$2 per pair.
Call and examine styles and prices in our Shoe
Department. No trouble to show goods.

Dress Goods Department.

Amoskeag Gingham, 4c.
American Blue Print, 4c.
Silver Gray Prints, 4c.
Cambrie Linen, 3 1/2c.
Toweling Crash, 4c., 6 1/2c. and 8 1/2c.
Amoskeag Shirting, 5c., 7c. and 8 1/2c.
All-wool 46-inch Serge, 50c., worth 77c.
Ladies' and Children's Hose, 5c., 10c. and 15c.
All-wool Henrietta, 35c.
Double-fold Henrietta, 12 1/2c. and 15c.
Clark's Thread, per spool, 8c.

Queensware Department.

Decorated Table Sets, 110 pieces, \$12.50.
We have a large variety of 10-piece Chamber
Sets, \$3.50 to \$4.50.
Banquet Lamps, in brass and nickel, complete,
\$2 to \$2.50.
Also have a large assortment Hanging Lamps,
from 20c. to \$1.
Salt Cellars, Pepper Boxes and Toothpick
Holders, from 2c. to 50c.
Imported Semi-porcelain O. H. Y. Cups and
Saucers, from 50c. to \$1.50 per set.
Water Sets, \$1.50 per set.
Glass Fruit Sets, \$1.75 to \$2 per set.
Glass Tumblers, large assortment, 50c. per
dozen.
Glass Tea Sets, \$1.25 to \$1.50 per set.

Toilet Soap Department.

Cocoanut Oil, 1 1/2c. per cake.
Turkish Bath, 3c. per cake.
Old Glory, 4c. per cake.
Big 5 Cocoanut Toilet, 4c. per cake.
Home Cheer, large cake, different designs, 5c.
Mexican Soap Root, 3 cakes for 15c.
Latherine, a skin food, 3 cakes for 15c.
Benzoin Buttermilk, 3 cakes for 15c.
Lettuce Cream Toilet Soap, 7c. cake.
Trilby Complexion Soap, 8c. per cake.
Pine Tar Soap, very fine, 10c. per cake.
The celebrated Honey Soap, 10c. per cake.
American Beauty, 15c. per cake.
Creme de la Creme Complexion Soap, 20c. per
cake.
Old English Shaving Soap, 20c. box.
Obernes Cream Shaving Soap, 10c.

Enamel Ware Department.

Pudding Pans, 20c.
Large Saucepans, 20c.
Rice Boilers, 65c.
Preserving Kettles, 20c.
Drinking Cups, 10c.
Child's Mug, 18c.
Flaring Dipper, 15c.
Coffee Boiler, \$1.15.
Water Pails, large, 85c.

Granite Ironware Department.

Coffee Pots, 50c.
Saucepans, 20c.
Wash Bowls, 25c.
Pudding Pans, 20c.

Soap Dishes, improved, 20c.
1 1/2-quart Milk Pans, 15c.
Turban Cake Mould, 20c.
Preserving Kettle, 30c.
Coffee Pots, 60c.
Tea Kettle, 85c.

Tinware Department.

12-quart Milk Pails, 25c.
10-quart Milk Pails, 15c.
6-quart Milk Pails, 10c.
Dinner Pails, 20c.
Coffee Pots, 10c.
Tea Pots, 10c.
Stew Pans, 10c.
10-quart Dish Pans, 32c.
Tin Cups, 2c.
Copper Bottom Wash Boilers, 85c.
Coal Hods, 15c.
Covered Slop Pails, 85c.
8-quart Coffee Boiler, copper bottom, 60c.
Cake Pans, 5c.
Colander, 20c.
1/2 quart Cup, 5c.
Water Dippers, 3c.
Caspadors, 10c.
Tea Cans, 10c.
Large Coffee Cans, 5c.
Large Tin Work Boxes, 65c.
Spice Boxes, 40c.
Large Sugar Cans, 35c.
Large Cake Cans, 60c.
Large Bread Cans, 60c.
Flour Bins, 85c.
Galvanized Slop Pails with covers, 40c.
Trays, 35c.
Rice Steamers, 30c.

Hardware Department.

Large assortment of Pocket Knives, 10c. to 25c.
each.
American Table Cutlery, refined cast steel,
40c. per set.
Warwick Shears, 25c.
Razors—Hibbard, Spencer, Bartlett & Co.—
finest quality, \$1.25.
Butcher Knives, fully warranted, 25c.
Curry-combs, 5c.
Sickle's Saws, 26-inch, 50c.
Chest Handles, Japanese, 10c.
Drawer Pulls, 5c.
Hall Tip Buts., 7c.
Hoop and Staples, 10c.
Blind Hinges, 10c.
Rim Knob Locks, 25c.
Villa Door Sets, 50c.
Mortise Knob Lock, 50c.
Kitchen Knives, 10c.
Tack Hammer, 10c.
Coat and Hat Hooks, 18c. per dozen.
Shingling Hatchet, 50c.
Bird Cages, 80c.
Wood Saw, 80c.
Infant's Bath Tub, \$1.
Stove Pots, 30c.
Frying Pans, 10c.
Stove Shovel, 5c.
5-gallon Oil Can, 50c.
Elbows, 12c.
Steel Curry-comb, 15c.
Leather-back Horse Brush, 50c.
Plain Brace, 20c.
Ratchet Brace, 75c.
Disston Saw, \$1.40.
Axe and Handle, 65c.

Cash is the lever that moves the world, and manufacturers know us as the largest cash buyers in Kansas to-day. You can see the sign of it all over the store. Not an article but what is below the usual price, and many so low that they surprise even us. This month, opportunities are marvels. Mail orders will receive prompt attention; boxed and delivered to the depot free. Send us a trial order. Money back if you want it. Don't fail to be on hand. We like to have you come if only to investigate and criticise. The better you are posted on values, the easier for us to sell to you.

We have had our buyers in the Eastern markets selecting our mammoth stock for each department, the past seven months, and now we are in position to sell you goods at what other dealers pay for them. All we ask is, come in and compare prices.

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200, 202, 204, 206, 208, 210, 212 East Sixth St., Topeka.

SPECIAL ATTENTION OF FARMERS is called to the fact that we pay cash for all produce, and do not ask them to trade it out. All produce shipped to us will bring prompt returns, either in cash or merchandise.

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Now ready for distribution. One hundred tops out of my spring crop of 140 pigs. will be sold at PUBLIC SALE, SEPTEMBER 11, 1895. They were sired by my herd boars, Wren's Medium 12387 and Corwin's White Face 9924. The pigs are in fine health and making good growth on alfalfa and light feed of slop. FOR PRIVATE SALE, fall boars and sows bred. Correspondence and inspection invited. Address **W. H. WREN, Marion, Marion Co., Kansas.**

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Are you looking for a place where you can improve your present condition and insure the future of your children? If so, write
The Texas Colonization Co., 315 S. Sixteenth St., Omaha, Nebraska.

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(Consolidated in 1865.) The largest live stock market in the world. The center of the business system from which the food products and manufactures of every department of the live stock industry is distributed.
Accommodating capacity: 50,000 cattle, 300,000 hogs, 30,000 sheep, 5,000 horses.
The entire railway system of Middle and Western America center here, rendering the Union Stock Yards the most accessible point in the country. The capacity of the yards, the facilities for unloading, feeding and reshipping are unlimited. Packing houses located here, together with a large bank capital and some one hundred different commission firms, who have had years of experience in the business also an army of Eastern buyers, insure this to be the best market in the whole country. This is strictly a cash market. Each shipper or owner is furnished with a separate yard or pen for the safe keeping, feeding and watering of his stock, with but one charge of yardage during the entire time his stock remains on the market. Buyers from all parts of the country are continually in this market for the purchase of stock cattle, stock hogs and sheep. Shipper should ask commission firms for direct information concerning Chicago markets.
The Greatest Horse Market in America, the Dexter Park Horse Exchange.
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Commission Dealers in
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CHICAGO.

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We have a Large Eastern
and Canada Trade.
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SOLD DIRECT.
We carry the largest stock of Broom Manufacturers' Supplies in the United States. Corre-
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J. P. GROSS & CO., 249-251 Kinzie St., Chicago, Ill.

The Kansas City Stock Yards

are the most complete and commodious in the West,
and second largest in the world! The entire railroad system of the West and South-
west centering at Kansas City has direct rail connection with these yards, with ample
facilities for receiving and reshipping stock.

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts, 1894.....	1,772,545	2,547,077	589,555	44,237	107,494
Slaughtered in Kansas City.....	959,646	2,060,784	387,570		
Sold to feeders.....	308,181	11,496	69,816		
Sold to shippers.....	409,965	468,616	45,730		
Total sold in Kansas City, 1894.....	1,677,792	2,530,896	503,116	28,903	

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5
cents per head. HAY, \$1 per 100 lbs.; BRAN, \$1 per 100 lbs.; CORN, \$1 per bushel.

NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.

C. F. MORSE, General Manager.
E. E. RICHARDSON, Secretary and Treasurer.
H. P. CHILD, Assistant Gen. Manager.
EUGENE RUST, Gen. Superintendent.

The Poultry Yard.

EXTREMES IN PIGEONS.

Pouters and Fantails Are Two Hobbies of Scotch Fanciers.

It would require a large volume to enumerate all the varieties of pigeons, and a wonderfully interesting work it would be if it could carry us through all the experiments and changes that have been used in producing the variations from the original Blue Rock pigeon. It is difficult to understand how all these changes have been brought about, how even the most thoughtful breeding and selection could produce so many wide differences. We have over one hundred varieties, as different in outward appearances as so many kinds of wild birds, yet all so quick to revert to the original stock if allowed to breed indiscriminately. In the illustration are seen two favorite hobbies of the Scotch pigeon fanciers, each brought to its highest state of perfection in Scotland. Long before the days of poultry and pigeon shows these two extremes were bred to these astonishing forms, and now that the fanciers of Great Britain have the stimulus of keen competition



HIGH-BRED POUTER AND FANTAIL PIGEONS.

and liberal cash premiums at the exhibitions of their country, still further development may be looked for. The stately pouter cock in the engraving was sketched from a winning bird shown in England by the well-known Scotchman and writer on pigeons, Robert Fulton. These birds have in their show cages a pedestal on which to stand that they may pose erect, this being the ideal carriage for pouters, as the length of their tails prevents the bird from standing straight when shown on the floor of the show cage. Length and slenderness of girth are properties quite as much looked for in these birds as is the large, roundly-inflated crop. The fullness in the back of the crop in this pouter was a point to which Mr. Fulton especially called my attention as being much coveted and prized by fanciers. These birds measure from 18 to 20 inches from top of beak to tip of tail. The legs, also, should be long—6 to 7 inches being expected on a good bird—and to stand well up a bird requires good length of limb. It was my good fortune to see the model of the portrait of the fantail, in the lofts of his breeder, not long before the exportation to this country. The precaution which the owner took in handling this specimen while showing it to me was only a sample of the great care taken by British fanciers in rearing the birds and training them for show purposes. The way in which the show fantail is picked up means almost as much for the development of a well-formed and well-carried tail as does the bird's very breeding. Not a feather must be twisted or displaced, not a movement of the head restrained—for the carriage of these birds' heads is a valued point if correct, and very offensive to a judge of them if the bird is deficient in this respect. I have seen these birds so proud and strutting, so high on tiptoe, that their gait, if so it might be called, was but dancing, and apparently as many steps were taken backward as forward, while scarcely a half-dozen in succession were performed either way. Their motion was whirling and turning, backward and forward, all the while sticking the head and neck forward and backward in a nervous, strutting fashion, the

very picture of self-consciousness and pride. Such is the fantail as seen at our best exhibitions of pigeons and poultry. The sight of a group is not unlike that of a bed of large white lilies or tulips shaken by the wind.—Orange Judd Farmer.

Embsden Geese.

EDITOR KANSAS FARMER:—One of your subscribers asks about Embsden geese. I think that I have them, but am not sure. If some one who knows would write a description of the Embsden or Bremen geese, I should be greatly obliged.

MRS. J. H. COFFMAN.

Morantown, Kas.

—The above was referred to one of the very best authorities on pure-bred poultry, Mr. F. G. Tompkins, of North Topeka, who kindly furnishes the following descriptions of several of the less known varieties of geese:

"Embsden geese are pure white in color, large, square, deep bodies, and in pure stock the eyes should be blue, bill flesh color and legs of deep orange. Adult gander should weigh twenty pounds and adult goose eighteen pounds. The geese usually seen in the West are of the Toulouse breed, gray in color, shading from dark gray on the neck to nearly white on the belly and fluff, about the same size as Embsden but look larger on account of color. African geese are gray in color, about the same size as Embsden, but have a large black knob at base of bill and heavy dewlap under the throat. The Chinese geese, both brown and white, are small—twelve to fifteen pounds—and have knobs at base of bill. Egyptian geese are a small breed of fancy colors and bred only by fanciers."

Bed Bugs in Hen-House.

EDITOR KANSAS FARMER:—Can you tell me, through the KANSAS FARMER, what to do with my hen-house to free it from bed bugs, that terrible pest? I took sulphur and put it on coals of fire and tried to get rid of them in that way, but without success.

Canada, Kas.

—Clean the hen-house thoroughly and paint every part and fill every nook and crevice with kerosene emulsion, prepared as follows: Hard soap, 1 pound; boiling water, 1 gallon; kerosene, 2 gallons. Dissolve the soap in the water, add the kerosene, and churn with a spray-pump five or ten minutes. Dilute five or ten times before applying. Application of common kerosene is effective but more expensive than the emulsion. Whitewash is good.

Poultry Product.

Not many farmers are aware of the magnitude of the poultry product of the United States. The cow is so much larger than the hen that she is apt to be looked upon as being more important, but the facts are, the poultry product is more than double that of our dairy product. It behooves farmers, therefore, to look well after the poultry industry, and to do it rightly, a first-class incubator should be used. "The Reliable," manufactured by the Reliable Incubator & Brooder Co., Quincy, Ill., which has made such a grand record at the World's Fair, and which has been victorious in every contest since, offers this year additional improvements. This incubator is now on exhibition, in constant operation, at the International Cotton Exposition at Atlanta, Ga. They publish a book on poultry, giving full description of "The Reliable," also other valuable information for poultrymen, and will send it for the nominal fee of 4 cents in stamps.

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G. W. CLAWSON, Loans. MONEY LOANED
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WE PROVE WHAT WE PREACH



namely, that The "Old Reliable" Self-Regulating INCUBATORS are the most successful hatchery made. Our new, 112 page Poultry Guide and Catalogue for 1895 explains the chance you are looking for. Reliable Incubator & Brooder Co., Quincy, Ill.

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wasting your money on the tobacco habit. You can't afford it. It will keep you poor—poor in purse and poor in health. Stop it with the aid of NO-TO-BAC. Lay the foundation for a fortune and health.

BURNING YOUR MONEY!

The poor men of America burned and chewed up \$600,000,000 worth of tobacco-money last year. You helped. Great tobacco trusts absorb millions at the expense of your nerve-force and manhood. Does it pay? Get cured—the money saved will

START A BANK-ACCOUNT.

NO-TO-BAC, original guaranteed tobacco habit cure, will help you. Sold by all druggists under absolute guarantee to cure. We will give you the guarantee in writing. If you haven't got the ready money, write to us and we will find a way to help you to a quick and easy cure.

DON'T TOBACCO SPIT AND SMOKE YOUR LIFE AWAY.

That's the title of our little booklet sent for the asking with a free sample of NO-TO-BAC and written guarantee of cure. Write a line today.

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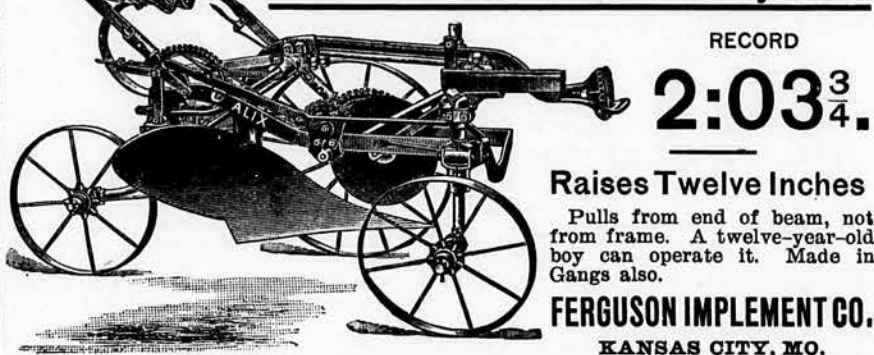


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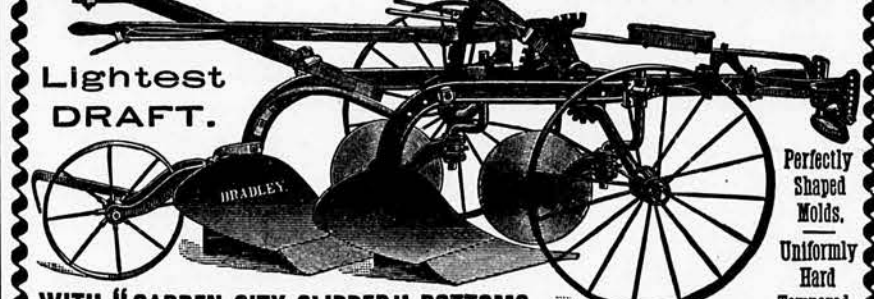


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Pulls from end of beam, not from frame. A twelve-year-old boy can operate it. Made in Gangs also.

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BEST, CHEAPEST and Most Reliable on the market. Catalogue free. WM. STAHL EVAPORATOR CO., QUINCY, ILL.



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ALL STEEL OR WOOD STEEL LINED.

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The Best Cider and Wine Mill made. Will make 20 per cent. more cider than any other. Geared outside. Perfectly Adjustable. Prices as low as any first-class mill. Mfrs. of Hay Presses, Horse Powers, Corn Shellers, Feed Cutters, Feed Mills, etc. Send for circulars. WHITMAN AGR'L CO. St. Louis, Mo.

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A boy can operate and keep in order. "Book on Mills" and sample meal FREE.

All kinds mill machinery. Flour mills built, roller or buhr systems.

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DISSTON'S

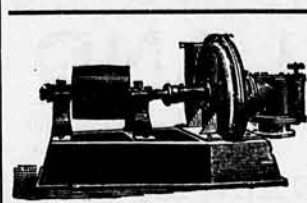


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If you want the most practical, efficient and cheapest irrigation pumping machinery, write for catalogue of Centrifugal and Triplex Pumps, Engines, Boilers, Gasoline Engines, etc., to IRVIN VAN WIE, 717-726 W. Fayette St., SYRACUSE, N. Y.

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A large share of which will be cribbed in

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The only Complete Portable Corn Crib Manufactured. Shipped rolled up in a bundle. Can be taken down and rolled up when empty. No Tools Needed in its erection. Ask your implement or lumber dealer for them or write

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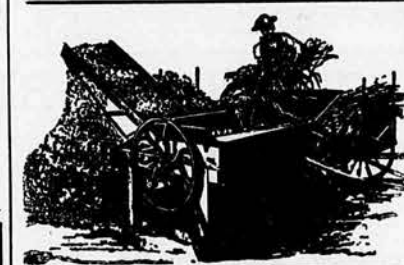


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Horse high, bull strong, pig and chicken tight. A man and boy can make from 40 to 60 rods a day. Over 50 styles. Illustrated Catalogue Free. KITSelman BROTHERS, Ridgeville, : Indiana.



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The best, most rapid, most powerful and most efficient Feed-Cutter, Corn-Crusher, Ensilage-Cutter and Root-Cutter ever invented. Cuts and crushes corn fodder with ears on or off. Crushes ear corn with shuck on or off, hard or soft, wet or dry. Crushes shelled corn and cotton seed—all faster than any machine made. We sell on trial. For free circular and location of nearest shipping place, address

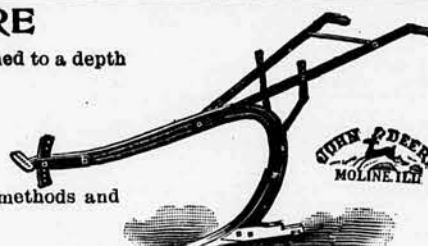
E. A. PORTER & BROS., 930 State St., BOWLING GREEN, KY.

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demands that the subsoil be loosened to a depth of 18 to 24 inches.

MAKE YOUR FARM YOUR FORTUNE

by employing the most approved methods and using the most improved tools.



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Containing in four parts clear and concise descriptions of the diseases of the respective animals, with the exact doses of medicine for each. A book on diseases of domestic animals, which should present a description of each disease and name, the proper medicines for treatment in such condensed form as to be within the means of everybody, has long been recognized as a desideratum. This work covers the ground completely. The book embodies the best practice of the ablest Veterinarians in this country and Europe, and the information is arranged so as to be easily accessible—an important consideration. Each disease is first described, then follows the symptoms by which it may be recognized, and lastly is given the proper remedies. The different medicines employed in all diseases are described and the doses required are given. The book is copiously illustrated, including engravings showing the shapes of horses' teeth at different ages. An elaborate index is a valuable feature. It is printed in clear, good type on fine paper, and is handsomely bound in cloth, with ink side stamp and gold back, and is a book which every person ought to possess, who has anything to do with the care of animals. It will be sent to any address—postpaid—on receipt of the price, One Dollar, or on the remarkably liberal terms stated above.

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Personally - conducted weekly parties leave Chicago every Saturday evening, and Kansas City every Sunday noon, for Pacific Coast, via Santa Fe Route. Special agents and porters in attendance. Pullman tourist sleepers are used, furnished with all conveniences for comfortable traveling. Second-class tickets honored.

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Commencing Sunday, November 18 1894, the MEMPHIS ROUTE, Kansas City, Fort Scott & Memphis Railroad, will inaugurate a through sleeping car line, Kansas City to Jacksonville, via Memphis, Birmingham, Atlanta and Macon, arriving at Jacksonville at 9:45 a. m., making close connections there for all points in South Florida. The cars in this line will be strictly first-class in all their appointments and will run every day in the week, leaving Kansas City at 10:30 a. m.

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Through cars to Chicago, St. Louis, Colorado, Texas and California.

Half Rates to Texas Points!

LOW RATES TO ALL POINTS.

Especially California, Texas and Southeastern Points. If you are going to the Midwinter Fair at San Francisco, if you are going to Texas, if you are going East on business or pleasure—in fact, if you intend to do any traveling, be sure to consult one of the agents of the

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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.

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PEERLESS FEED GRINDERS

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BREEDERS' DIRECTORY.

(Continued from page 1.)

SWINE.

D. W. EVANS' HERD
REGISTERED POLAND-CHINA SWINE
FAIRVIEW, BROWN CO., KAS.

250 head headed by Swi Tecumseh 11929 S., by L's Tecumseh 11413 S., and Billy Wilkes 9309 S., by George Wilkes 5950 S. Inspection invited.

VERNON COUNTY HERD

PEDIGREED

POLAND-CHINAS.

Forty-five spring pigs sired by Silver Dick 14180 S. and out of high-class dams. Write or visit herd.

J. M. TURLEY, Stotesburg, Vernon Co., Mo.

R. S. COOK

Wichita, Kas.,
Breeder of

Poland-Chinas.

Won seven prizes at World's Fair—more than any single breeder west of Ohio.

J. R. KILLOUGH & SONS,
Richmond, Franklin Co., Kansas,

POLAND-CHINA SWINE.

Headed by Upright Wilkes 13246 and assisted by J. H. Sanders Jr. 13759. Our brood sows are all richly bred and high-class individuals. A fine lot of fall pigs, both sexes, ready to go at reasonable prices.

ELM BEACH STOCK FARM

IRWIN & DUNCAN,

Wichita, - Kansas,
Sedgwick Co.

Breed and have for sale Bates and Bates-topped Short-horns—Waterloo, Kirklevington and other fashionable families. Also breed and have for sale the best thoroughbred Poland-Chinas that can be obtained. Write or come and see.

1,309 POLAND-CHINAS

Shipped by express to eighteen States and Canada. Original Wilkes, Corwin, Tecumseh and World's Fair blood. Write for one to Box 218, W. S. HANNA, Ottawa, Kansas.

DOGS.

HIGHLAND KENNELS, TOPEKA, KAS.—Great Danes and Fox Terriers. The first prize and sweepstakes winner, Great Dane King William, in stud. Dogs boarded and treated for all diseases; also, remedies by mail. Correspondence solicited.

VETERINARY SURGEON.

DR. U. B. McCURDY, Veterinary Surgeon. Graduate Ontario Veterinary college, Toronto, Canada. Can be consulted on all diseases of domestic animals at office or by mail. Office: 114 West Fifth Street, Topeka, Kas.

TWO-CENT COLUMN.

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

SHORT-HORN CATTLE FOR SALE.—I offer twenty head, buyer's choice, of my herd for \$500. J. B. Fergus, Lone Elm, Kas.

FOR SALE.—Choice Single-combed White Leghorns, from the celebrated Knapp strain, which scored 93 to 95½ points. Have a few cockerels for sale, at one dollar each. None better. Eggs in season. Elwood Rush, Shaw, Neosho Co., Kas.

FOR EXCHANGE.—Finely located and choice rental and business properties in Kansas City or Topeka to trade for farms, stock ranches or wild lands. Send numbers and full description in first letter. I will make offers. John G. Howard, Topeka, Kas.

FOR SALE.—Well improved eastern Kansas farms at less than they are actually worth. 160 acre Shawnee county farm, all bottom and slope lands, good buildings and orchards, eighteen miles from Topeka; price \$4,250. 160 acre Shawnee county bottom and slope farm, well improved; price \$4,500. 197 acre Douglas county farm, fair improvements, some bottom land; price only \$2,800. I have the bargains. John G. Howard, Topeka, Kas.

Bayfield Herd Pedigreed Poland-Chinas

Ninety spring pigs, twenty-four brood sows. Boars in service, Souvenir 9421 S., Magnet 13537 S. and Duke of Bayfield 14327 S. Write for particulars, or better, come and make selections. J. S. MACHIE, Linwood, Leavenworth Co., Kas.

SECOND ANNUAL CLEARANCE SALE OF CHOICE
POLAND-CHINAS

Hiawatha, Kansas, Wednesday, September 18th, 1895.

From the herd of Martin Meisenheimer, Hiawatha, Brown county, Kansas, when will be offered to the swine-breeding public, without reserve or by bid, at home, on the farm, near Hiawatha, about fifty-four head, including that grand hog, Tecumseh Free Trade 10783, farrowed August 20, 1892, sired by Tecumseh Chip 2d 7609, he by Tecumseh Chip 2169, that sold for \$600; his dam is Lady Free Trade 17189, her sire being Free Trade 4420, the \$800 hog. This is not only a grandly-bred hog, but an extra good individual, a grand breeder and pronounced by competent judges to be the best hog in the State of Kansas. He has the regulation Poland-China boar's face, good head and ears, full, graceful chest, good shoulders and heart girth, a long, arched, broad back, wide, deep hams, well down on hock, even top and bottom lines, very heavy bone, and stands straight upon his feet, has a coat of black with white points. This is his measurement: Heart 72, flank 68, length 67 inches. Will also sell three fall boars and ten brood sows, that I have selected for my own use. Most of these are bred to Tecumseh Free Trade 10783, the rest to Bourbon Wilkes, due to farrow in September and October. Also about forty of the tops of the spring pigs, sired by six grandly-bred boars, Tecumseh Free Trade 10783, Butler's Darkness 6846, L's Tecumseh 13152, Young Free Trade 11107, U. S. Nemo 13345 and Young Victor M. 13325.

TERMS OF SALE.—A credit of one year will be given on all amounts over \$15, with approved notes, bearing 8 per cent. interest from date. Two per cent. discount for cash on all amounts above \$15. Fifteen dollars and less, cash without discount. Parties from a distance will please bring good bank references. Bids sent by mail or telegram, stating extreme limit of price, will receive as careful attention as though bidder were present in person. For catalogues and further information write

COL. S. A. SAWYER, Auctioneer. MARTIN MEISENHEIMER.

TWO-CENT COLUMN—CONTINUED.

A BARGAIN.—Will close out my entire lot of choice Indian game fowls at 50 cents each. Look Box 26, Marion, Kas.

FOR SALE.—I have fifty cows, with calves, in good condition, for sale. H. J. Giles, Dodge City, Kas.

FOR EXCHANGE FOR CATTLE OR SHEEP.—Improved farm, fifty-six acres bottom and slope land, in Pottawatomie county, close to school, four miles to postoffice. Will rent for \$100 cash. Willis Hardick, Louisville, Kas.

FOR TRADE.—Good eighty-acre farm in Allen county, Kansas, for well-improved smaller farm near Topeka, Lawrence or Kansas City. Address G. Israel, Scranton, Kas.

FOR EXCHANGE.—Small ranch or farm; 440 acres fenced. Also horses and cattle to trade for farm in eastern Kansas. Joe S. Williams, Goodland, Kas.

BLACK LANGSHAN COCKERELS.—From high-scoring stock. Pullets will lay in October. Best winter-laying breed. Fifty cents each. T. V. Codding, 1701 Huntoon St., Topeka.

REGISTERED SHROPSHIRE YEARLING RAMS from imported stock, for sale. E. S. Kirkpatrick & Son, Wellsville, Kas.

FOR SALE.—Twenty-four hundred stock sheep—ewes, lambs and wethers—including fourteen thoroughbred Merino rams. Address D. G. Curtis, Spearville, Kas.

FOR RENT.—Photo gallery, Syracuse, Kansas. Country seat, no competition. Address Box 119, Syracuse, Kas.

10 EXTRA FALL GILTS AND FIFTY SPRING pigs, the pigs sired by Tecumseh J. Corwin 10744 S. and the great breeding and show boar Riley Medium 12306 S. E. T. Warner, Princeton, Franklin Co., Kas.

FOR SALE.—One thousand five hundred young stock sheep. Merino-Shropshire cross; large and good shearers. Half are one and two-year-old wethers. Address "F. L.," KANSAS FARMER office, Topeka, Kas.

STEAM CIDER MILL.—Two miles west of Kansas avenue, on Sixth street road, Topeka. Farmers, bring your apples Tuesdays, Thursdays and Saturdays of each week until December. I will make cider for you at 2 cents per gallon. H. W. McAfee.

SHORT-HORN BULLS.—Five yearlings for sale. D. P. Norton, Council Grove, Kas.

WANTED.—Young ladies and gentlemen to learn bookkeeping, stenography and office work. Limited number pay expenses by assisting two hours daily. Address H. Coon, Secretary, Kansas City, Mo.

W. R. TE.—To Alex. Richter, Hollyrood, Kas., for information concerning sub-irrigation. Enclose 2-cent stamp for reply. Manufacturer of galvanized sub-irrigation pipe.

FOR A GOOD HAND-SEWED BUCK, CALF OR kid glove mitten, address Mr. Ed. Warner, Lexington, Clark Co., Kas. Reference: KANSAS FARMER.

HOLSTEIN BULL.—Three years old, of extra quality and breeding, for sale for much less than he is worth. H. B. Cowles, Topeka, Kas.

FOR SALE.—Hereford bulls sired by a son of Mr. Funkhouser's celebrated Heslod. Apply to Peter Sim, Wakarusa, Kas.

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

THE FINEST HONEY.—Is gathered from alfalfa and clover blossoms. You can buy it of the bee-keeper, cheap and in any quantity, by freight, and know it is genuine. Address Oliver Foster, Las Animas, Colo.

WE MAKE A GOOD FARMER'S SPRING WAGON, two lay backs and let-down end-gate, for \$55. Warranted. Kinley & Lannan, 424-426 Jackson street, Topeka.

WANTED.—Buyers for Large English Berkshires. One hundred pure-bred pigs, farrowed in March and April, are offered for sale at from \$10 to \$15 each. Farm two miles west of city. Riverside Stock Farm, North Topeka, Kas.

Salesmen Wanted!

\$100 to \$125 per month and expenses. Staple line; position permanent, pleasant and desirable. Address, with stamp, King Mfg. Co., P. 29, Chicago, Ill.

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GRAND PUBLIC SALE
POLAND-CHINAS!

C. G. SPARKS, Mt. Leonard, Mo. GEO. L. DAVIS, Elmwood, Mo.

—WILL SELL AT—

MARSHALL, MO., TUESDAY, OCTOBER 1, 1895.

ONE HUNDRED HEAD, mostly February, March and April pigs; a few extra good fall sows. Have reserved every good pig raised for this sale, and will say this is the best lot of pigs we have offered. They are sired by twelve extra good boars, such as Standard Black U. S. 13271, Chief 1 Am 14056, Ashland Wilkes 27999 A., Latest Fashion 9318 (litter brother to Hadley), Chief Tecumseh 2d 9115, Pontiac, Square Quality, Roy Wilkes, High Quality, Keystone, etc., and out of a choice lot of mature sows that are sired by such noted boars as J. H. Sanders, Hain's Black U. S., Roy Wilkes, Col. Wilkes, Exactly, Deviation, Hoosier Boy, Admiral Chip, Lail's Victor, Tecumseh 12th's Pontiac, Short Stop, Best Look, Stem's Chip Jr. and others. New blood from leading herds has been added since our last sale. For catalogue address as above. COL. JAS. W. SPARKS, Auctioneer, Marshall, Mo.

FIRST ANNUAL SALE!

Poland-China Swine!

I will disperse at public auction, on my place, two miles east of

Richmond, Franklin County, Kansas, Thursday, October 10, 1895,

at 1 o'clock p. m., sixty-six head of POLAND-CHINA SWINE, consisting of autumn and spring litters, their sire being the noted Upright Wilkes 13246, whose line of breeding and individual merit is second to none. All stock registered or eligible to record. Send for catalogue. They are free.

Terms of Sale.—Cash, or six months time at 6 per cent. interest on approved notes. RICHMOND is on the Atchison, Topeka & Santa Fe railroad, south of Ottawa, Kas. Free conveyance from and to all trains. Address

COL. S. A. SAWYER,
Auctioneer.

J. R. KILLOUGH & SONS, Richmond, Kas.

GRAND PUBLIC SALE OF
POLAND-CHINAS!

At my farm, one and a half miles north of

Muscotah, Atchison Co., Kas., Monday, September 16, 1895.

On Central Branch Missouri Pacific, or six miles south of Horton,
on the C., R. I. & P. railroad.

I will sell, without reserve, Seventy head of Pure-bred Poland-Chinas, consisting of twenty head of two-year-old, yearling and coming yearling sows, one October and three January boars, balance spring pigs, from March 15 to June 10 farrow. These are the get of Admiral Chip 7918 S. (the great \$250 boar); Abbottsford 12951; U. S. Wise 13133, a grand son of A. B. by Black U. S. and out of the \$275 sow, Lister's Nemo, by Black U. S. and Chip's Model, one of Admiral Chip's best sons, out of sows by Parot's Choice 7384 by Business, East Grove, Exchange, and Berry, a son of the \$405 Square Business. This offering contains show-yard material, boars fit to head any herd and all bred to the "top line." A number of the best sows have been bred to Admiral Chip for fall litters. Will also sell THREE RED SHORT-HORN BULLS. You cannot afford to miss this sale. Free hotel accommodations at Kentucky hotel, Muscotah. Free lunch at 11:30. Sale at 12:30 prompt. TERMS.—Six months at 8 per cent. or 2 per cent. off for cash. For catalogues address

COL. F. M. WOODS, Auctioneer. M. C. VANSSELL, Muscotah, Kas.

GRAND DISPERSION SALE.

Holstein-Friesian Cattle
and Poland-China Swine.

At Nortonville, Kas., Tuesday, October 1, 1895, at 10 a. m.

The entire herds of the above-named breeds of cattle and swine, owned by M. S. BABCOCK, Nortonville, Kas., consisting of about 60 head of thoroughbred and 15 grade cattle, and about 60 head of swine, all ages, will be offered for sale to the highest bidder without reserve at the Davis & Babcock farm, adjoining the city of Nortonville. Catalogue on application.

M. S. BABCOCK.

COL. S. A. SAWYER, Auctioneer, Manhattan, Kas.

150—GRAND TWO DAYS' SALE!—150

—OF—

POLAND-CHINA

—AND—

CHESTER WHITE SWINE.

Property of GEO. W. NULL and C. L. GIBSON,

of Odessa, Mo. Sale to be held at our respective farms, three and
a half miles northwest of

Odessa, Mo., October 9 and 10, 1895.

There will be as good blood go in this sale as will be found anywhere, combining good size and quality.

Our POLANDS are sired by such noted boars as the great harem king, Lail's Victor 4298, John L. 9517, Null's King 13517, Holden Header 12289, Corwin King 13894, Onward 13055, Gov. Wilkes 13057, and out of as grand a lot of sows as can be found anywhere. In this sale will go the produce of the 1,000-pound sow, Miss Lord Corwin (28498) and one of her daughters; also of the great brood sow, Elwood Maid 4235 (full sister to the \$500 Free Trade), and the produce of her two daughters, Elwood Beauty (28331) and Lady Elwood (31510); also of Lady A. (23047), and too many other good ones to mention in this space, embracing all the most fashionable strains.

Our CHESTERS are a grandly-bred lot, sired by such noted boars as Chester Pride 6398, King Eclipse (a son of the World's Fair winner) and Pedro 2d, and out of such noted sows as Sunset, Quality Girl, Maul's Beauty and Edna Buncho and others.

Also one richly-bred HOLSTEIN-FRIESIAN bull calf—May Overton's Sir Henry Mechtild 2d. Write for catalogue. COL. JAS. W. SPARKS, Auctioneer, Marshall, Mo.